FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-60.0-20171020 Lab Sample ID: 440-194754-12

Matrix: Solid (Soluble) Lab File ID: 20171023037.d

Analysis Method: 300.1B Date Collected: 10/20/2017 10:35

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 10/24/2017 01:09

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: AS14 ID: 4(mm)

% Moisture: 19.7 GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 107 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023037.d | | | | |
| Lims ID: | 440-194754-A-12-A | | | | |
| Client ID: | VER-01D-60.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 01:09:38 | ALS Bottle#: | 0 | Worklist Smp#: | 37 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-037 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 09:19:24 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 08:50:51 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.263 | 13.557 | -0.294 | 15074532 | 1062.3 | M |
| 2 Chlorate | 17.276 | 17.362 | -0.086 | 99271448 | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

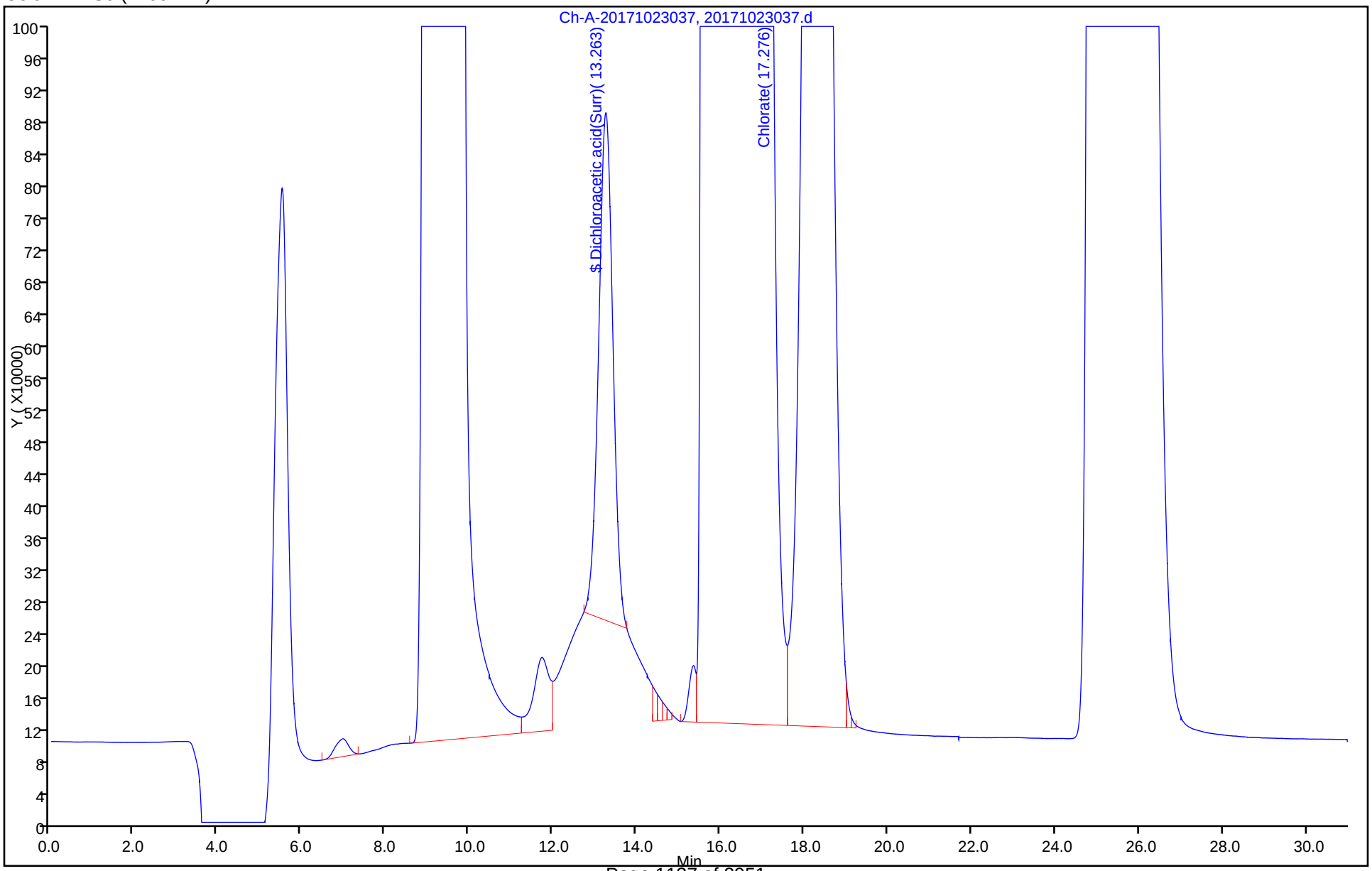
Report Date: 24-Oct-2017 09:19:38 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023037.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 01:09:38 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-12-A | Lab Sample ID: | 440-194754-12 | Worklist Smp#: | 37 |
| Client ID: | VER-01D-60.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023037.d | | | | |
| Lims ID: | 440-194754-A-12-A | | | | |
| Client ID: | VER-01D-60.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 01:09:38 | ALS Bottle#: | 0 | Worklist Smp#: | 37 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-037 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 09:19:24 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 08:50:51 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1062.3 | 106.90 |

Manual Integration/User Assign Peak Report

TestAmerica Irvine

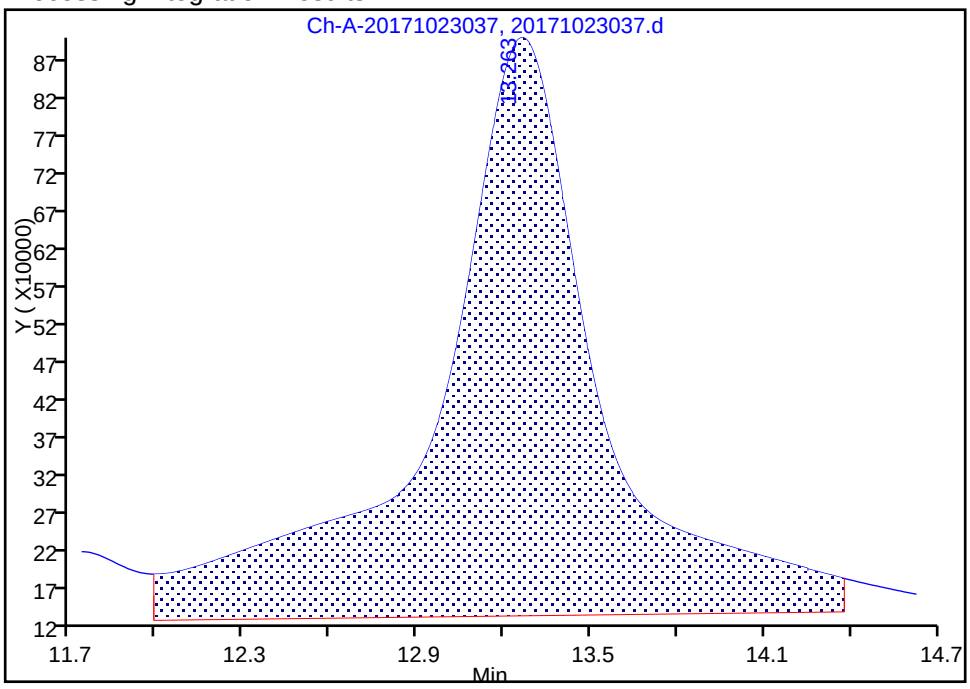
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023037.d | | | | |
| Injection Date: | 24-Oct-2017 01:09:38 | Instrument ID: | IC-11 | | |
| Lims ID: | 440-194754-A-12-A | Lab Sample ID: | 440-194754-12 | | |
| Client ID: | VER-01D-60.0-20171020 | | | | |
| Operator ID: | IRVINSTWET4 | ALS Bottle#: | 0 | Worklist Smp#: | 37 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |
| Column: | AS9 ( 4.00 mm) | Detector | Ch-A-20110816009 | | |

## $ 6 Dichloroacetic acid(Surr), CAS: 79-43-6

Signal: 1

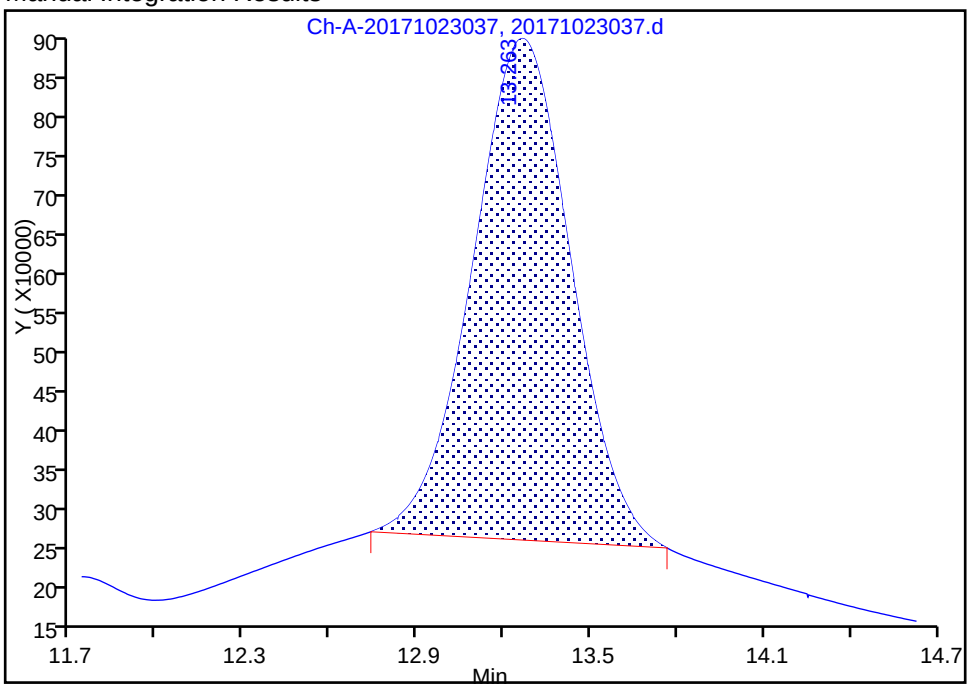
Processing Integration Results

RT: 13.26
Area: 30585829
Amount: 2160.7757
Amount Units: ug/l




Manual Integration Results

RT: 13.26
Area: 15074532
Amount: 1062.2819
Amount Units: ug/l




Reviewer: zakhrabovy, 24-Oct-2017 04:52:51

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-60.0-20171020 | Lab Sample ID: 440-194754-12

Matrix: Solid (Soluble) | Lab File ID: 20171027037.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 10:35

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/28/2017 04:01

Con. Extract Vol.: | Dilution Factor: 1000

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 19.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437778 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 1100000 | | 250000 | 63000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 0 | X | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\20171027037.d | | | | |
| Lims ID: | 440-194754-A-12-A | | | | |
| Client ID: | VER-01D-60.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 28-Oct-2017 04:01:01 | ALS Bottle#: | 0 | Worklist Smp#: | 37 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1000.0000 | | |
| Sample Info: | #: 001A Name: 440-0095341-035 | | | | |
| Misc. Info.: | Study: 95341 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 28-Oct-2017 05:51:05 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK048 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 28-Oct-2017 04:58:07 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 2 Chlorate | 17.739 | 17.362 | 0.377 | 2212858 | 90.8 | |

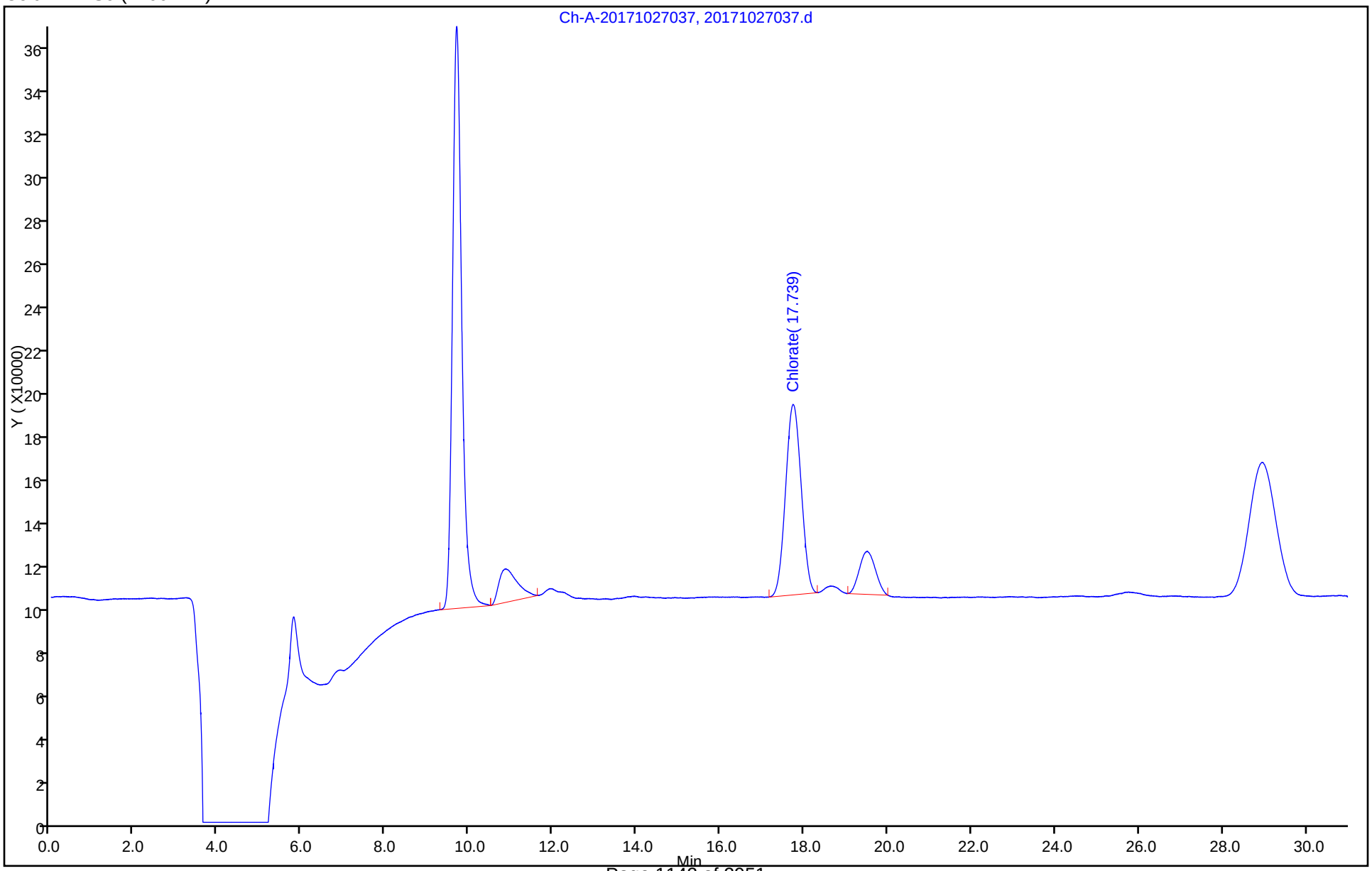
Report Date: 28-Oct-2017 06:40:45 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\20171027037.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 04:01:01 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-12-A | Lab Sample ID: | 440-194754-12 | Worklist Smp#: | 37 |
| Client ID: | VER-01D-60.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1000.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-70.0-20171020 | Lab Sample ID: 440-194754-13

Matrix: Solid (Soluble) | Lab File ID: 20171023038.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 10:55

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 01:42

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 39.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 330 | 66 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-70.0-20171020 Lab Sample ID: 440-194754-13

Matrix: Solid (Soluble) Lab File ID: 20171023038.d

Analysis Method: 300.1B Date Collected: 10/20/2017 10:55

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 10/24/2017 01:42

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: AS14 ID: 4(mm)

% Moisture: 39.5 GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 104 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023038.d | | | | |
| Lims ID: | 440-194754-A-13-A | | | | |
| Client ID: | VER-01D-70.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 01:42:49 | ALS Bottle#: | 0 | Worklist Smp#: | 38 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-038 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 08:49:42 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 04:53:18 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.287 | 13.557 | -0.270 | 14624948 | 1030.6 | M |
| 2 Chlorate | 17.133 | 17.362 | -0.230 | 42061714 | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

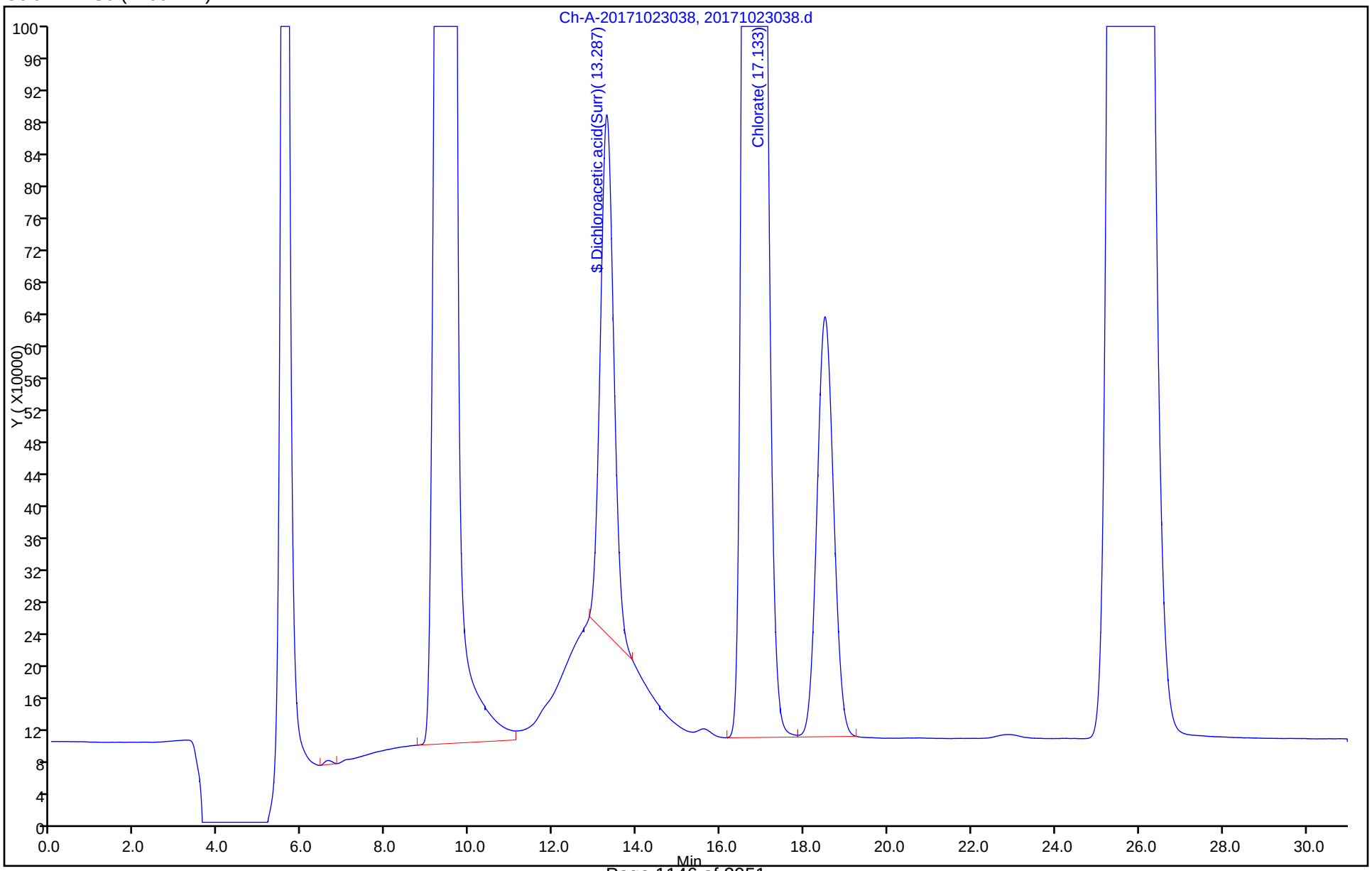
Report Date: 24-Oct-2017 08:50:08 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023038.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 01:42:49 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-13-A | Lab Sample ID: | 440-194754-13 | Worklist Smp#: | 38 |
| Client ID: | VER-01D-70.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023038.d | | | | |
| Lims ID: | 440-194754-A-13-A | | | | |
| Client ID: | VER-01D-70.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 01:42:49 | ALS Bottle#: | 0 | Worklist Smp#: | 38 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-038 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 08:49:42 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 04:53:18 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1030.6 | 103.71 |

Manual Integration/User Assign Peak Report

TestAmerica Irvine

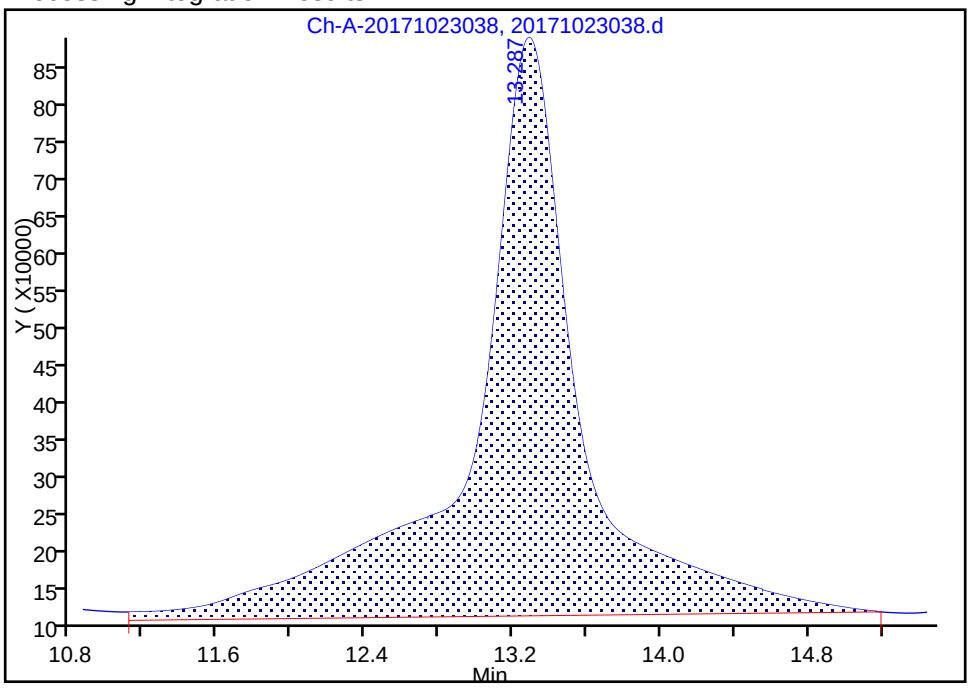
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023038.d | | | | |
| Injection Date: | 24-Oct-2017 01:42:49 | Instrument ID: | IC-11 | | |
| Lims ID: | 440-194754-A-13-A | Lab Sample ID: | 440-194754-13 | | |
| Client ID: | VER-01D-70.0-20171020 | | | | |
| Operator ID: | IRVINSTWET4 | ALS Bottle#: | 0 | Worklist Smp#: | 38 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |
| Column: | AS9 ( 4.00 mm) | Detector | Ch-A-20110816009 | | |

## $ 6 Dichloroacetic acid(Surr), CAS: 79-43-6

Signal: 1

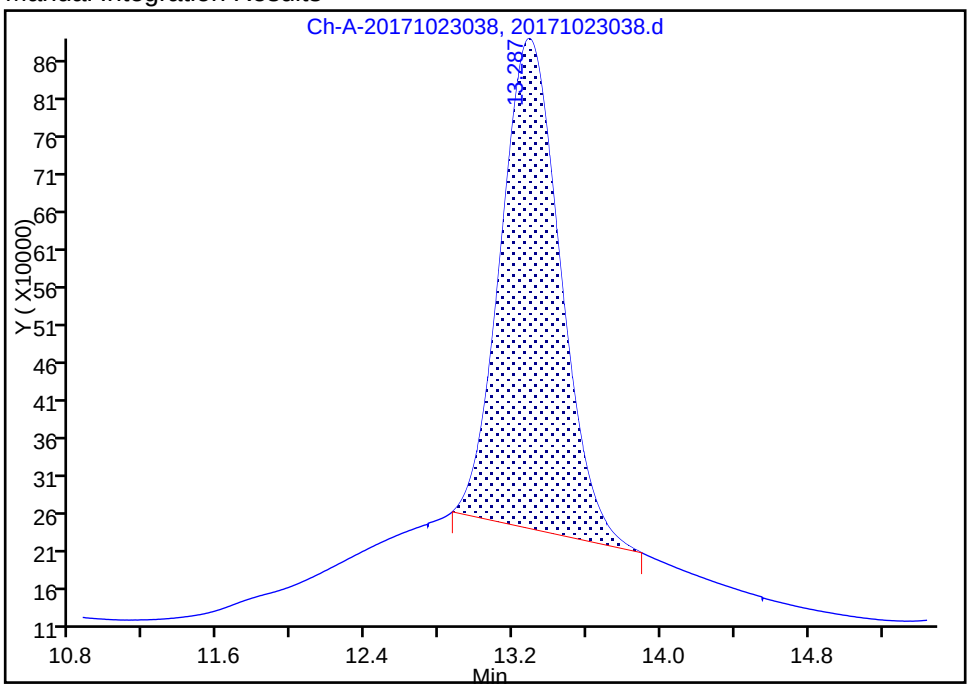
Processing Integration Results

RT: 13.29
Area: 31640000
Amount: 2235.2490
Amount Units: ug/l




Manual Integration Results

RT: 13.29
Area: 14624948
Amount: 1030.6004
Amount Units: ug/l




Reviewer: zakhrabovy, 24-Oct-2017 04:53:13

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-70.0-20171020 | Lab Sample ID: 440-194754-13

Matrix: Solid (Soluble) | Lab File ID: 20171027038.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 10:55

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/28/2017 04:34

Con. Extract Vol.: | Dilution Factor: 100

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 39.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437778 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 130000 | | 33000 | 8300 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 92 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\20171027038.d | | | | |
| Lims ID: | 440-194754-A-13-A | | | | |
| Client ID: | VER-01D-70.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 28-Oct-2017 04:34:12 | ALS Bottle#: | 0 | Worklist Smp#: | 38 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 100.0000 | | |
| Sample Info: | #: 001A Name: 440-0095341-035 | | | | |
| Misc. Info.: | Study: 95341 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 28-Oct-2017 05:50:30 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK048 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 28-Oct-2017 05:50:30 | | |

| | Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ | 6 Dichloroacetic acid(Surr) | 13.811 | 13.557 | 0.254 | 130039 | 9.19 | M |
| | 2 Chlorate | 17.684 | 17.362 | 0.322 | 1925967 | 79.0 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

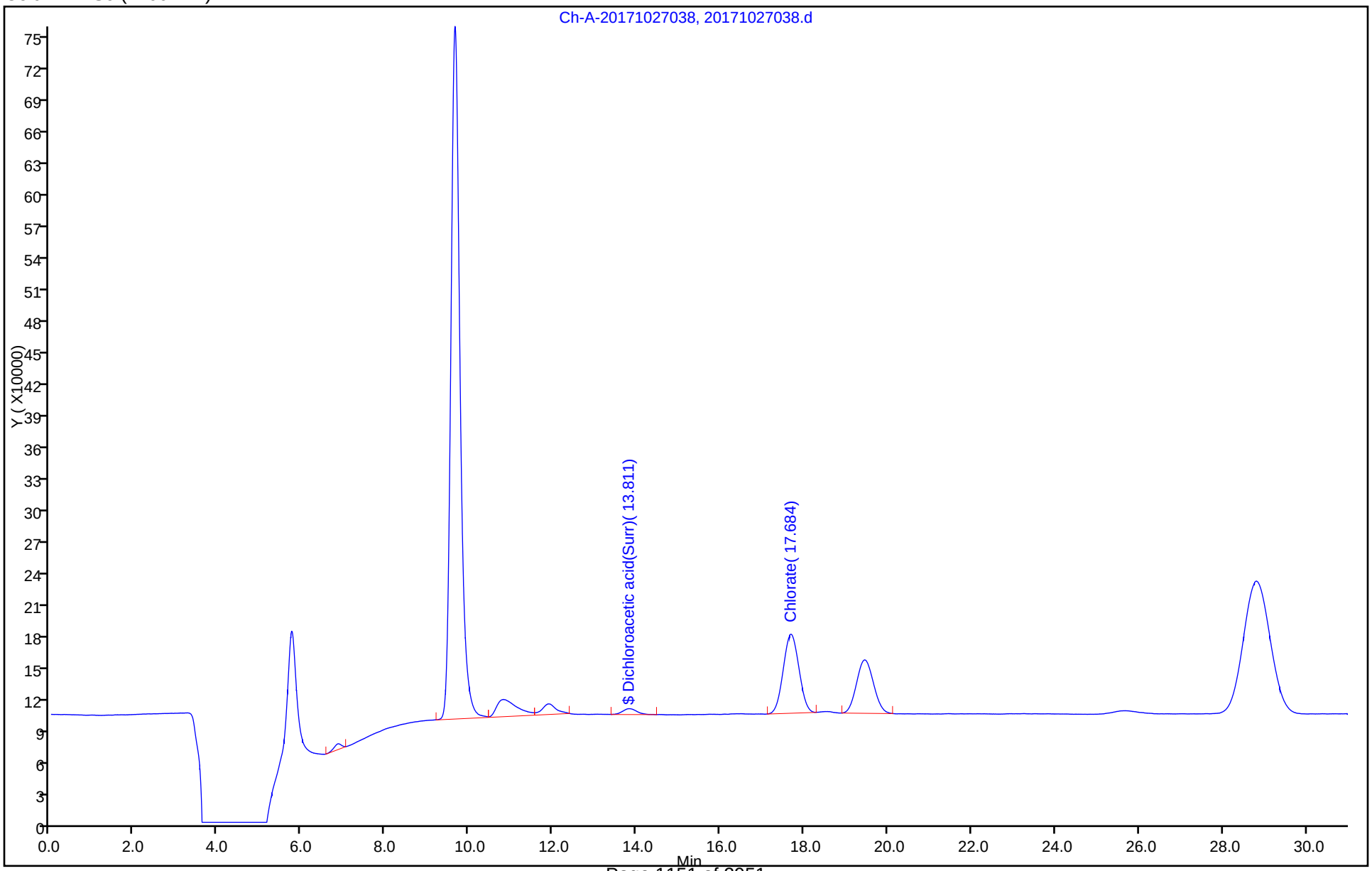
Report Date: 28-Oct-2017 05:50:30 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\20171027038.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 04:34:12 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-13-A | Lab Sample ID: | 440-194754-13 | Worklist Smp#: | 38 |
| Client ID: | VER-01D-70.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 100.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\20171027038.d | | | | |
| Lims ID: | 440-194754-A-13-A | | | | |
| Client ID: | VER-01D-70.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 28-Oct-2017 04:34:12 | ALS Bottle#: | 0 | Worklist Smp#: | 38 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 100.0000 | | |
| Sample Info: | #: 001A Name: 440-0095341-035 | | | | |
| Misc. Info.: | Study: 95341 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 28-Oct-2017 05:50:30 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK048 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 28-Oct-2017 05:50:30 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 9.19 | 92.45 |

Manual Integration/User Assign Peak Report

TestAmerica Irvine

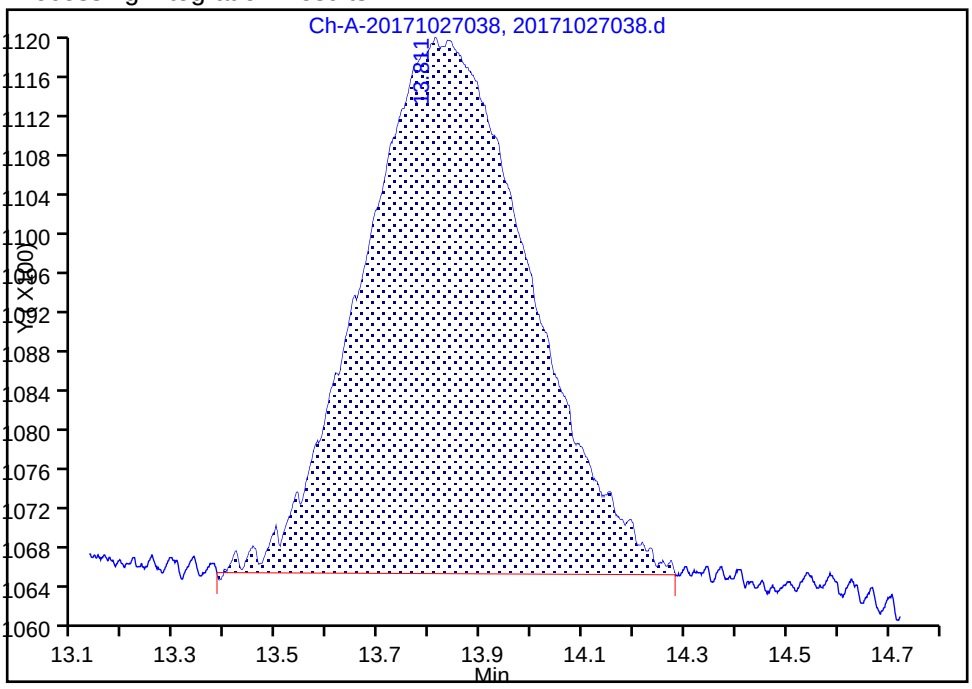
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\20171027038.d | | | | |
| Injection Date: | 28-Oct-2017 04:34:12 | Instrument ID: | IC-11 | | |
| Lims ID: | 440-194754-A-13-A | Lab Sample ID: | 440-194754-13 | | |
| Client ID: | VER-01D-70.0-20171020 | | | | |
| Operator ID: | IRVINSTWET4 | ALS Bottle#: | 0 | Worklist Smp#: | 38 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 100.0000 | | |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |
| Column: | AS9 ( 4.00 mm) | Detector | Ch-A-20110816009 | | |

## $ 6 Dichloroacetic acid(Surr), CAS: 79-43-6

Signal: 1

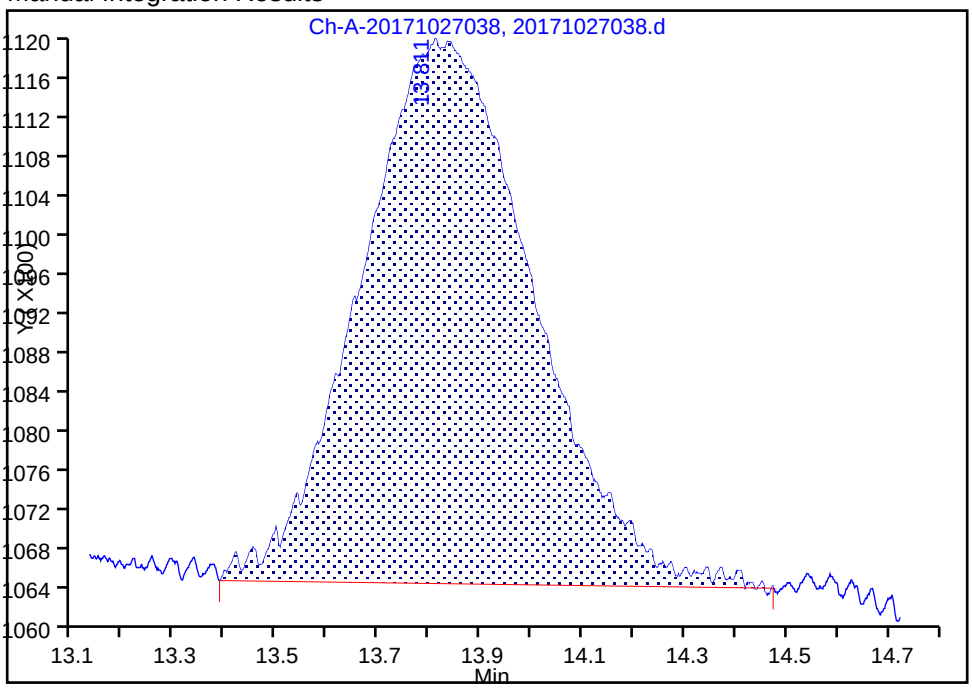
Processing Integration Results

RT: 13.81
Area: 123930
Amount: 8.755196
Amount Units: ug/l




Manual Integration Results

RT: 13.81
Area: 130039
Amount: 9.186775
Amount Units: ug/l




Reviewer: zakhrabovy, 28-Oct-2017 05:50:22

Audit Action: Manually Integrated Audit Reason: Peak not integrated

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-70.0-20171020-EB | Lab Sample ID: 440-194754-14

Matrix: Water | Lab File ID: 440-0095168-020.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 11:05

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 16:26

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437026 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 98 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-020.d | | | | |
| Lims ID: | 440-194754-E-14 | | | | |
| Client ID: | VER-01D-70.0-20171020-EB | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 16:26:00 | ALS Bottle#: | 0 | Worklist Smp#: | 20 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-020 | | | | |
| Misc. Info.: | 20 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 04:05:55 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 04:00:24 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.434 | 13.592 | -0.158 | 78532223 | 975.8 | M |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-020.d | | | | |
| Lims ID: | 440-194754-E-14 | | | | |
| Client ID: | VER-01D-70.0-20171020-EB | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 16:26:00 | ALS Bottle#: | 0 | Worklist Smp#: | 20 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-020 | | | | |
| Misc. Info.: | 20 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 04:05:55 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 04:00:24 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.434 | 13.592 | -0.158 | 78532223 | 975.8 | M |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

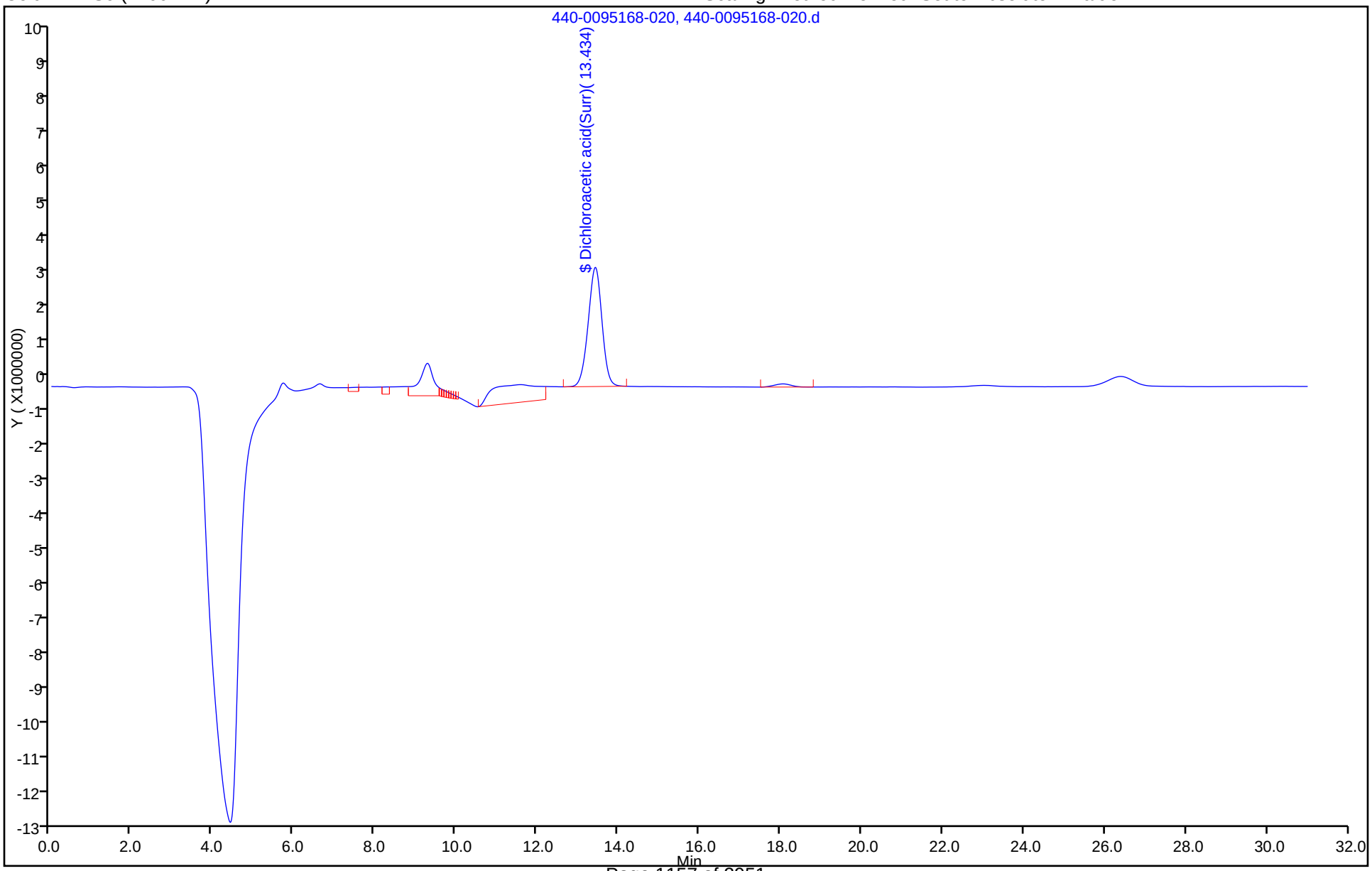
Report Date: 25-Oct-2017 04:06:00 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-020.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 16:26:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | 440-194754-E-14 | Lab Sample ID: | 440-194754-14 | Worklist Smp#: | 20 |
| Client ID: | VER-01D-70.0-20171020-EB | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



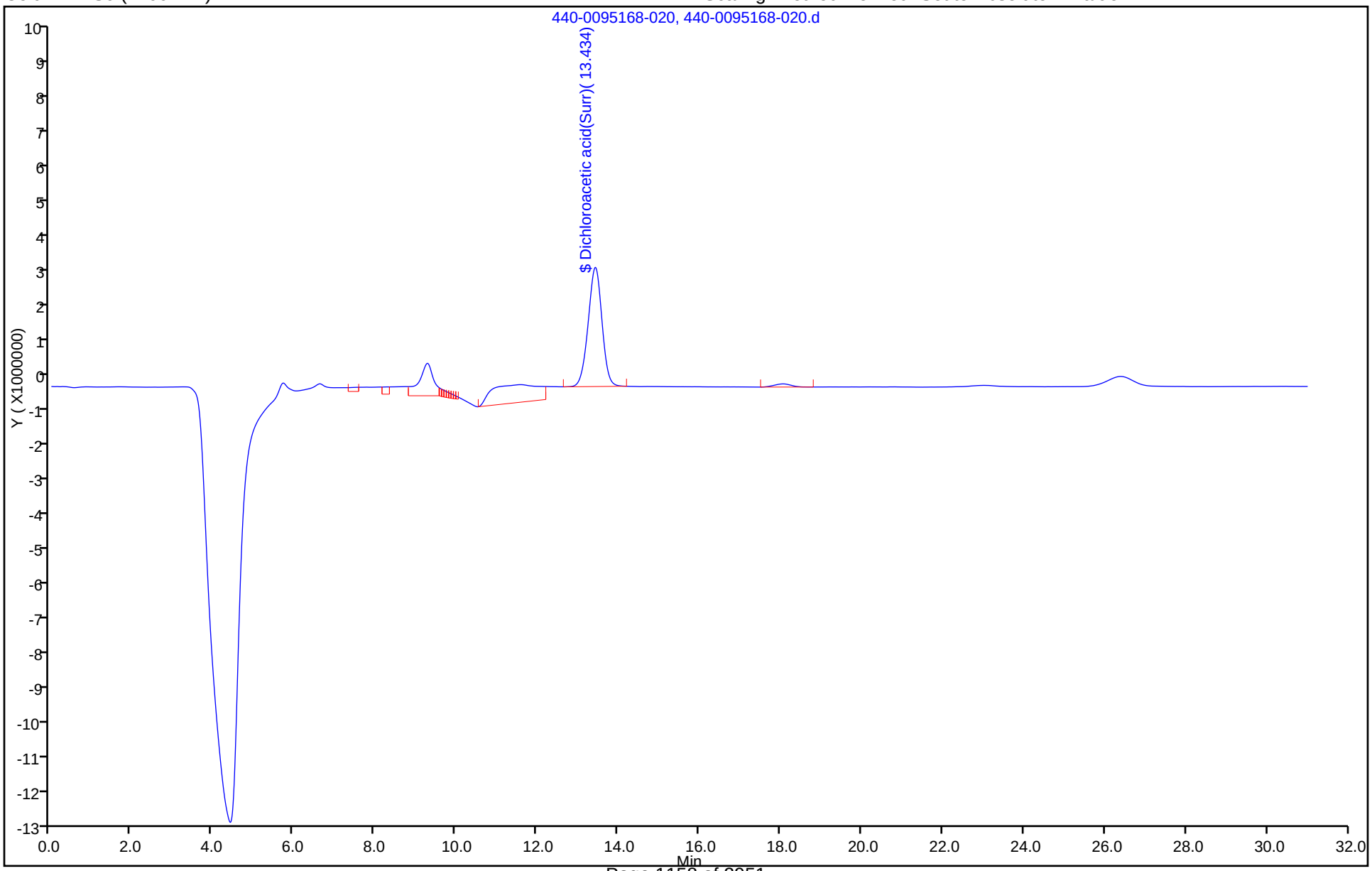
Report Date: 25-Oct-2017 04:06:00 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-020.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 16:26:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | 440-194754-E-14 | Lab Sample ID: | 440-194754-14 | Worklist Smp#: | 20 |
| Client ID: | VER-01D-70.0-20171020-EB | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-020.d | | | | |
| Lims ID: | 440-194754-E-14 | | | | |
| Client ID: | VER-01D-70.0-20171020-EB | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 16:26:00 | ALS Bottle#: | 0 | Worklist Smp#: | 20 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-020 | | | | |
| Misc. Info.: | 20 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 04:05:55 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 04:00:24 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 975.8 | 98.19 |

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-020.d | | | | |
| Lims ID: | 440-194754-E-14 | | | | |
| Client ID: | VER-01D-70.0-20171020-EB | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 16:26:00 | ALS Bottle#: | 0 | Worklist Smp#: | 20 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-020 | | | | |
| Misc. Info.: | 20 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 04:05:55 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 04:00:24 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 975.8 | 98.19 |

Manual Integration/User Assign Peak Report

TestAmerica Irvine

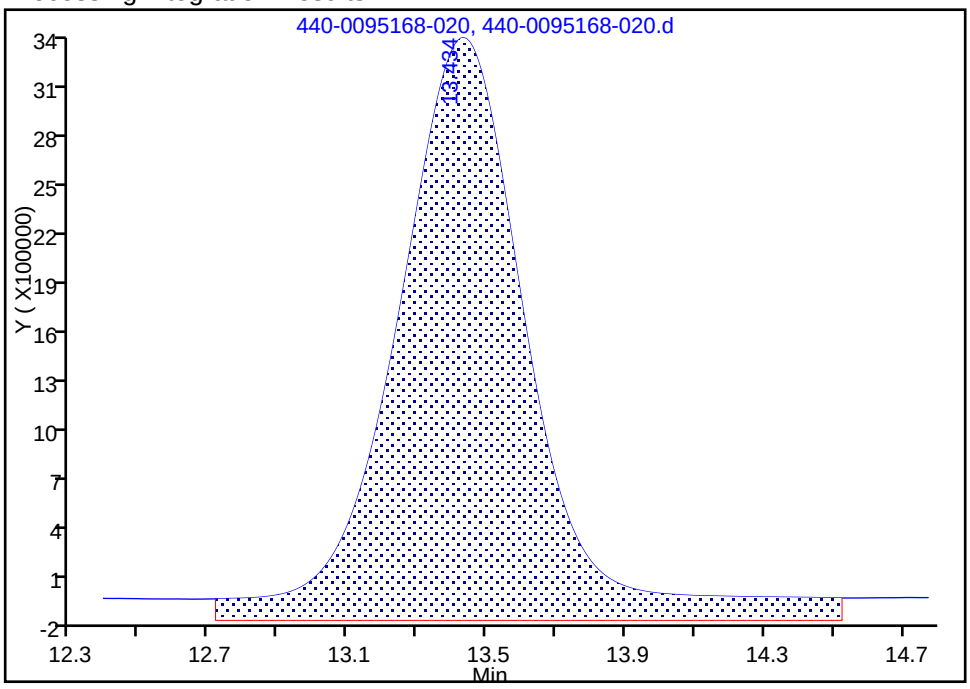
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-020.d | | | | |
| Injection Date: | 24-Oct-2017 16:26:00 | Instrument ID: | IC-8 | | |
| Lims ID: | 440-194754-E-14 | Lab Sample ID: | 440-194754-14 | | |
| Client ID: | VER-01D-70.0-20171020-EB | | | | |
| Operator ID: | | ALS Bottle#: | 0 | Worklist Smp#: | 20 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |
| Column: | AS9 ( 4.00 mm) | Detector | Ch-A-20110816009 | | |

## $ 6 Dichloroacetic acid(Surr), CAS: 79-43-6

Signal: 1

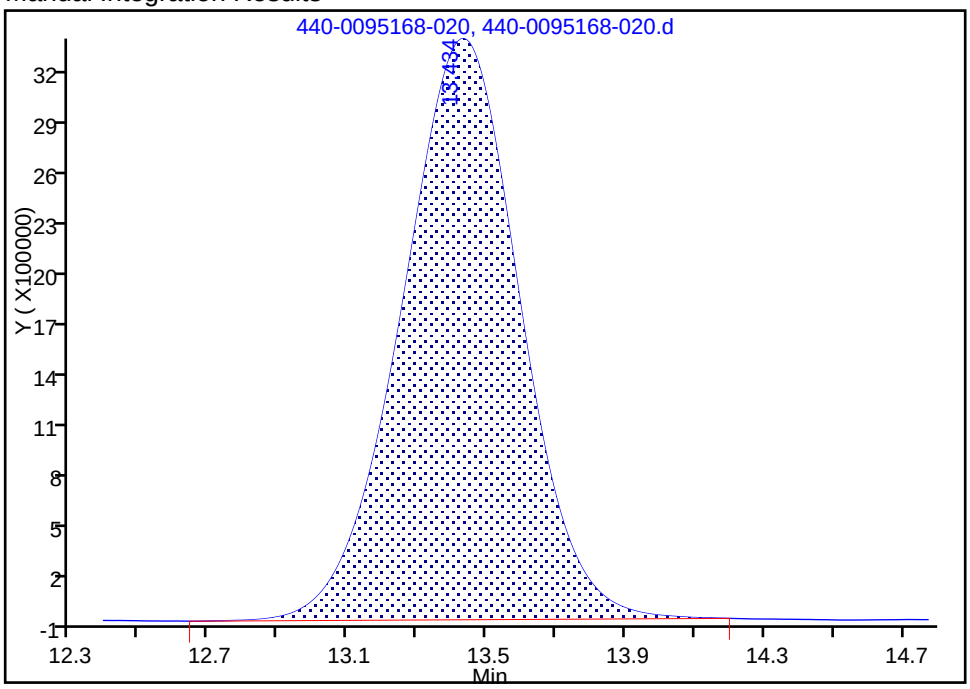
Processing Integration Results

RT: 13.43
Area: 93119855
Amount: 1157.0002
Amount Units: ug/l




Manual Integration Results

RT: 13.43
Area: 78532223
Amount: 975.7511
Amount Units: ug/l




Reviewer: zakhrabovy, 25-Oct-2017 04:00:20

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Irvine

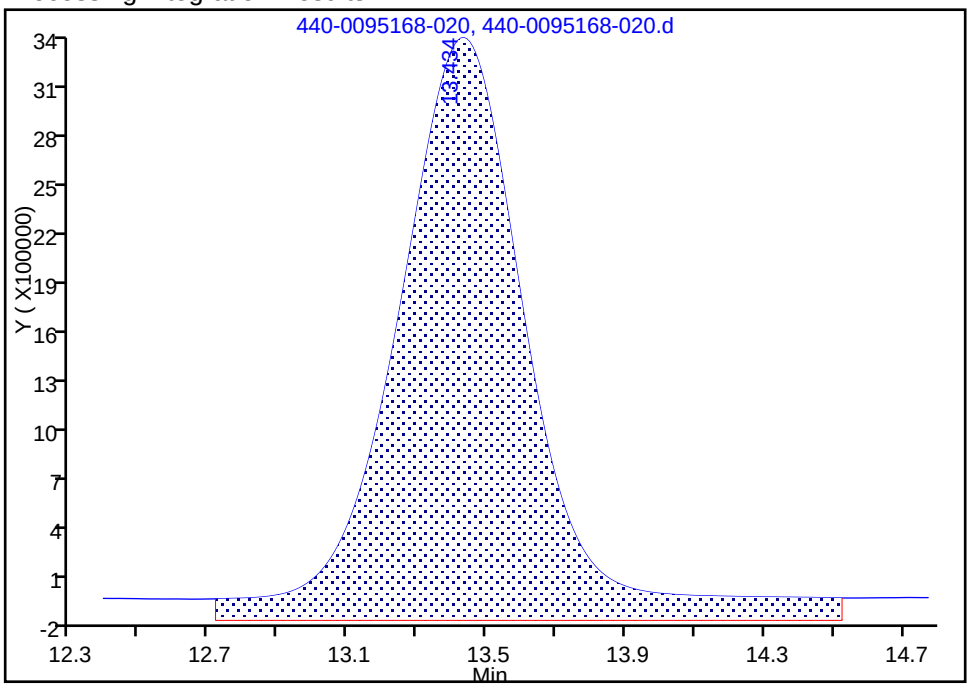
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-020.d | | | | |
| Injection Date: | 24-Oct-2017 16:26:00 | Instrument ID: | IC-8 | | |
| Lims ID: | 440-194754-E-14 | Lab Sample ID: | 440-194754-14 | | |
| Client ID: | VER-01D-70.0-20171020-EB | | | | |
| Operator ID: | | ALS Bottle#: | 0 | Worklist Smp#: | 20 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |
| Column: | AS9 ( 4.00 mm) | Detector | Ch-A-20110816009 | | |

## $ 6 Dichloroacetic acid(Surr), CAS: 79-43-6

Signal: 1

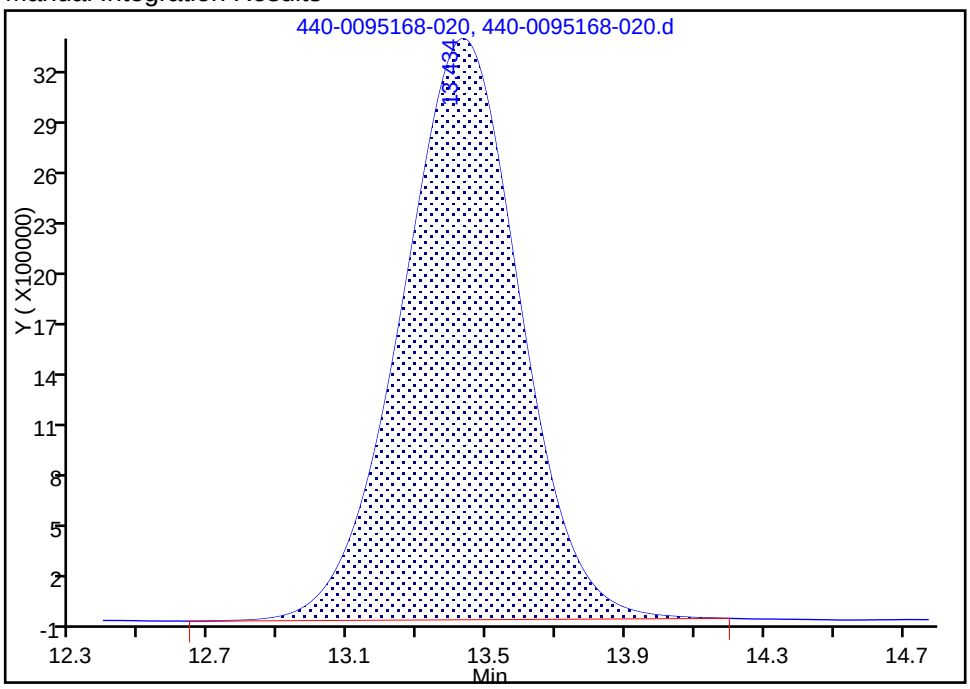
Processing Integration Results

RT: 13.43
Area: 93119855
Amount: 1157.0002
Amount Units: ug/l




Manual Integration Results

RT: 13.43
Area: 78532223
Amount: 975.7511
Amount Units: ug/l




Reviewer: zakhrabovy, 25-Oct-2017 04:00:20

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-70.0-20171020-EB  Lab Sample ID: 440-194754-14

Matrix: Water  Lab File ID: 440-0095168-020.d

Analysis Method: 300.1B  Date Collected: 10/20/2017 11:05

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 10/24/2017 16:26

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 437027  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 98 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-020.d | | | | |
| Lims ID: | 440-194754-E-14 | | | | |
| Client ID: | VER-01D-70.0-20171020-EB | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 16:26:00 | ALS Bottle#: | 0 | Worklist Smp#: | 20 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-020 | | | | |
| Misc. Info.: | 20 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 04:05:55 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 04:00:24 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.434 | 13.592 | -0.158 | 78532223 | 975.8 | M |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-020.d | | | | |
| Lims ID: | 440-194754-E-14 | | | | |
| Client ID: | VER-01D-70.0-20171020-EB | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 16:26:00 | ALS Bottle#: | 0 | Worklist Smp#: | 20 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-020 | | | | |
| Misc. Info.: | 20 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 04:05:55 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 04:00:24 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.434 | 13.592 | -0.158 | 78532223 | 975.8 | M |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

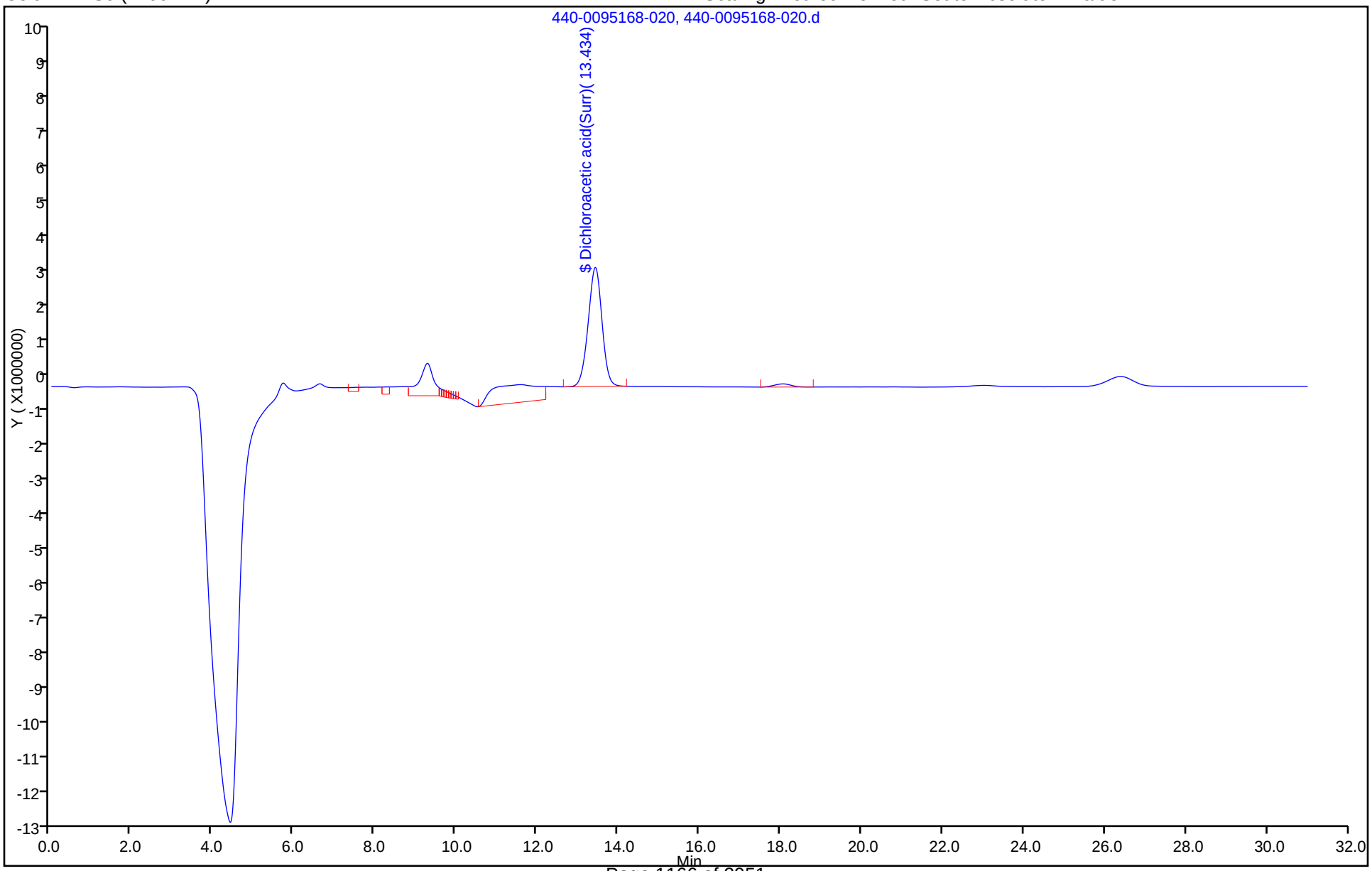
Report Date: 25-Oct-2017 04:06:00 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-020.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 16:26:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | 440-194754-E-14 | Lab Sample ID: | 440-194754-14 | Worklist Smp#: | 20 |
| Client ID: | VER-01D-70.0-20171020-EB | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



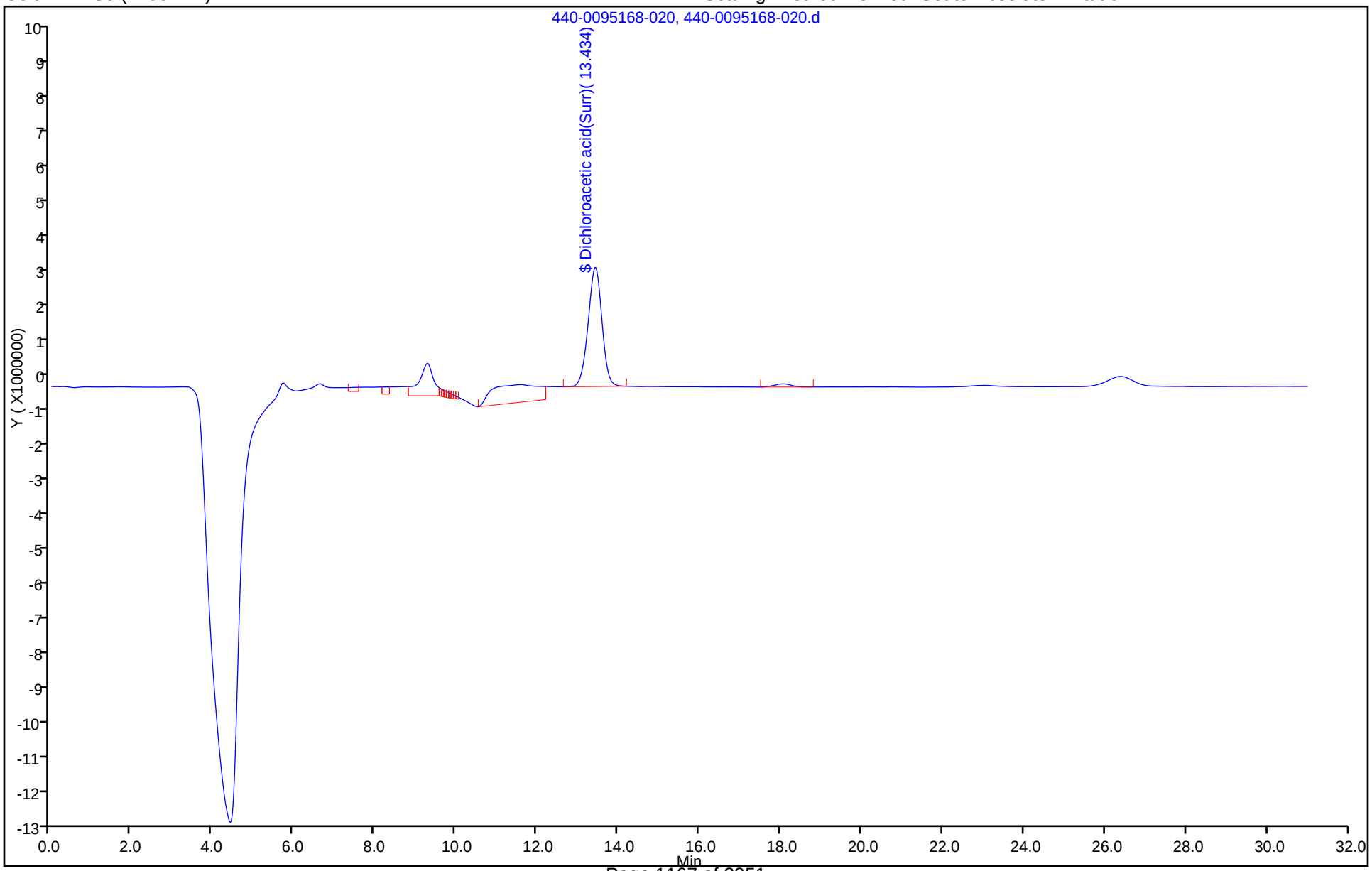
Report Date: 25-Oct-2017 04:06:00 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-020.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 16:26:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | 440-194754-E-14 | Lab Sample ID: | 440-194754-14 | Worklist Smp#: | 20 |
| Client ID: | VER-01D-70.0-20171020-EB | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-020.d | | | | |
| Lims ID: | 440-194754-E-14 | | | | |
| Client ID: | VER-01D-70.0-20171020-EB | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 16:26:00 | ALS Bottle#: | 0 | Worklist Smp#: | 20 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-020 | | | | |
| Misc. Info.: | 20 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 04:05:55 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 04:00:24 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 975.8 | 98.19 |

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-020.d | | | | |
| Lims ID: | 440-194754-E-14 | | | | |
| Client ID: | VER-01D-70.0-20171020-EB | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 16:26:00 | ALS Bottle#: | 0 | Worklist Smp#: | 20 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-020 | | | | |
| Misc. Info.: | 20 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 04:05:55 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 04:00:24 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 975.8 | 98.19 |

Manual Integration/User Assign Peak Report

TestAmerica Irvine

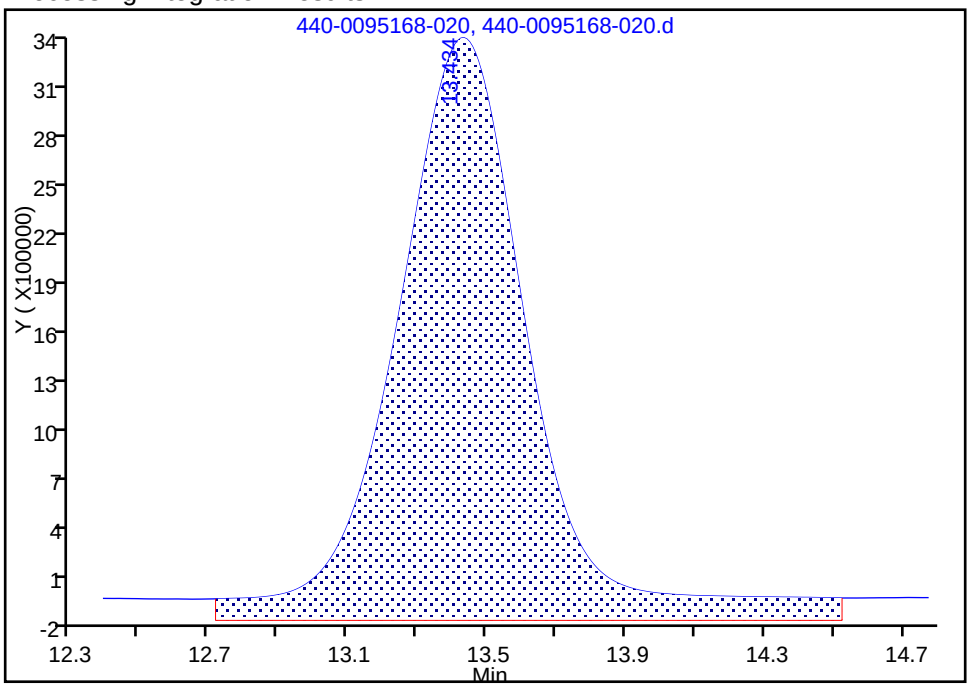
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-020.d | | | | |
| Injection Date: | 24-Oct-2017 16:26:00 | Instrument ID: | IC-8 | | |
| Lims ID: | 440-194754-E-14 | Lab Sample ID: | 440-194754-14 | | |
| Client ID: | VER-01D-70.0-20171020-EB | | | | |
| Operator ID: | | ALS Bottle#: | 0 | Worklist Smp#: | 20 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |
| Column: | AS9 ( 4.00 mm) | Detector | Ch-A-20110816009 | | |

## $ 6 Dichloroacetic acid(Surr), CAS: 79-43-6

Signal: 1

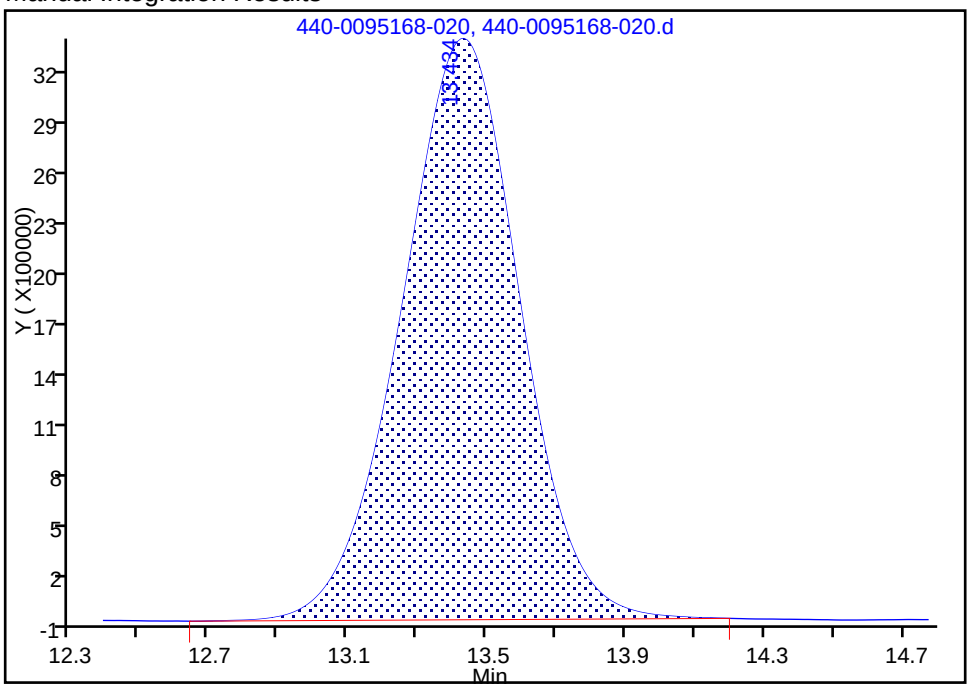
Processing Integration Results

RT: 13.43
Area: 93119855
Amount: 1157.0002
Amount Units: ug/l




Manual Integration Results

RT: 13.43
Area: 78532223
Amount: 975.7511
Amount Units: ug/l




Reviewer: zakhrabovy, 25-Oct-2017 04:00:20

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Irvine

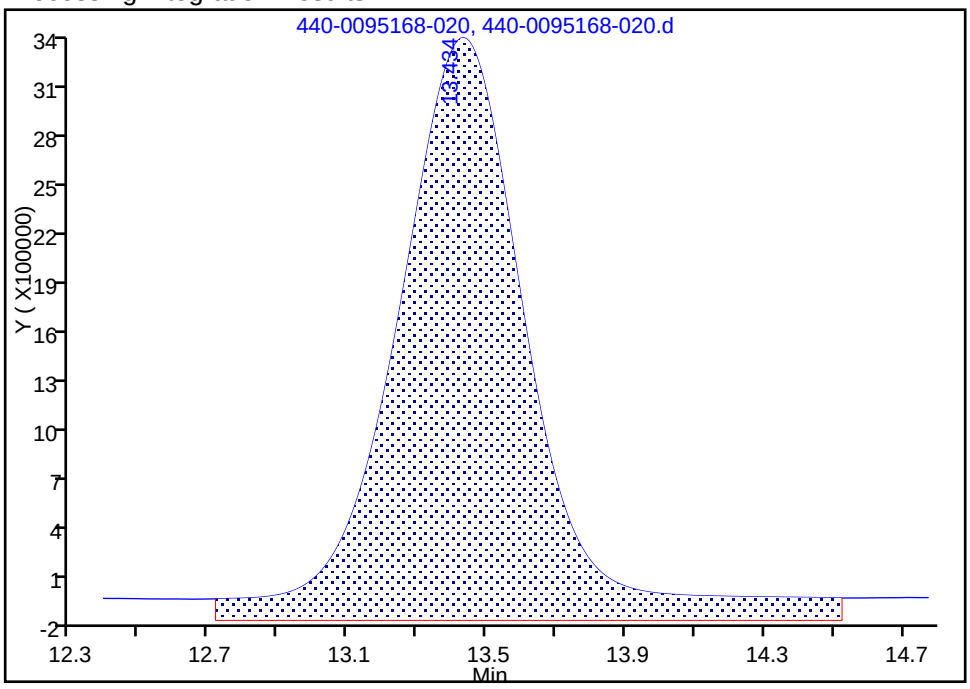
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-020.d | | | | |
| Injection Date: | 24-Oct-2017 16:26:00 | Instrument ID: | IC-8 | | |
| Lims ID: | 440-194754-E-14 | Lab Sample ID: | 440-194754-14 | | |
| Client ID: | VER-01D-70.0-20171020-EB | | | | |
| Operator ID: | | ALS Bottle#: | 0 | Worklist Smp#: | 20 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |
| Column: | AS9 ( 4.00 mm) | Detector | Ch-A-20110816009 | | |

## $ 6 Dichloroacetic acid(Surr), CAS: 79-43-6

Signal: 1

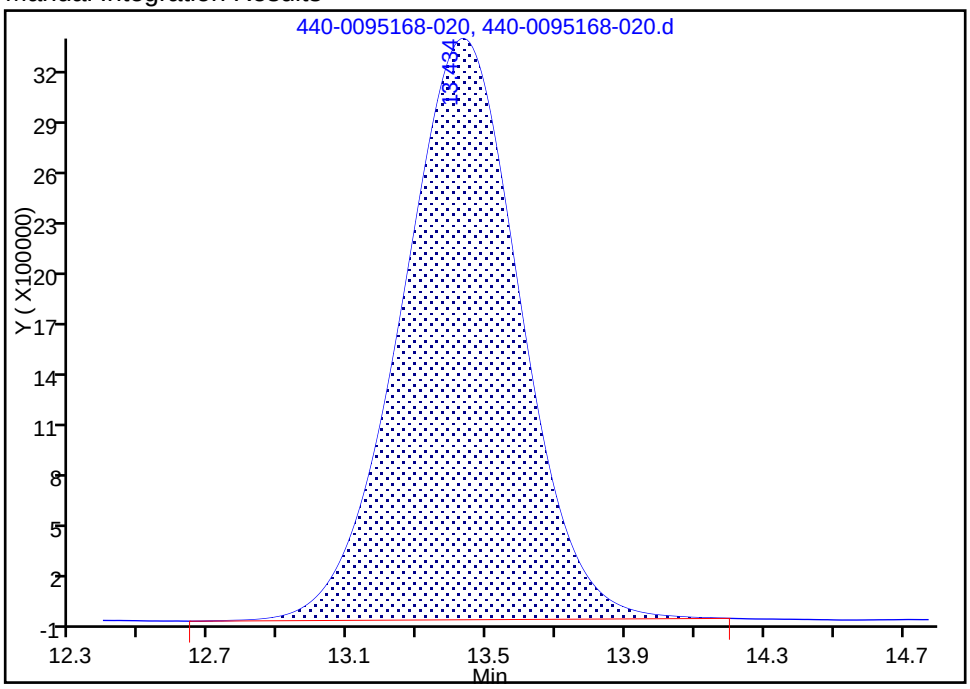
Processing Integration Results

RT: 13.43
Area: 93119855
Amount: 1157.0002
Amount Units: ug/l




Manual Integration Results

RT: 13.43
Area: 78532223
Amount: 975.7511
Amount Units: ug/l




Reviewer: zakhrabovy, 25-Oct-2017 04:00:20

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-80.0-20171020 | Lab Sample ID: 440-194754-15

Matrix: Solid (Soluble) | Lab File ID: 20171025038.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 11:25

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/26/2017 07:20

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 32.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437272 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 300 | 59 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-80.0-20171020 | Lab Sample ID: 440-194754-15

Matrix: Solid (Soluble) | Lab File ID: 20171025038.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 11:25

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/26/2017 07:20

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 32.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437272 | Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025038.d | | | | |
| Lims ID: | 440-194754-A-15-A | | | | |
| Client ID: | VER-01D-80.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 26-Oct-2017 07:20:31 | ALS Bottle#: | 0 | Worklist Smp#: | 38 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-038 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 09:59:10 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 09:06:23 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.529 | 13.557 | -0.028 | 14100624 | 993.7 | |
| 2 Chlorate | 17.312 | 17.362 | -0.050 | 25382771 | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

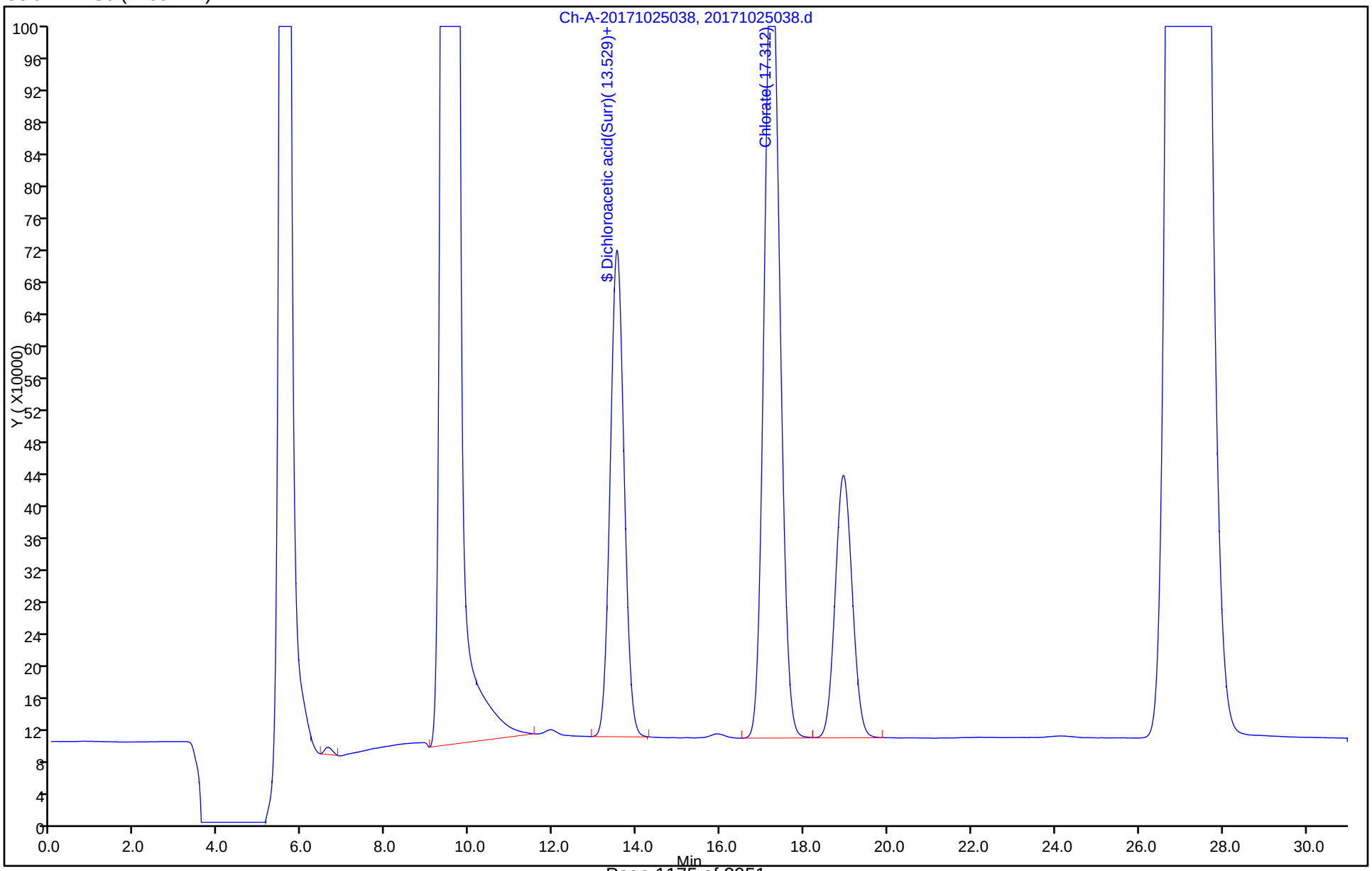
Report Date: 26-Oct-2017 09:06:23 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025038.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 07:20:31 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-15-A | Lab Sample ID: | 440-194754-15 | Worklist Smp#: | 38 |
| Client ID: | VER-01D-80.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025038.d | | | | |
| Lims ID: | 440-194754-A-15-A | | | | |
| Client ID: | VER-01D-80.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 26-Oct-2017 07:20:31 | ALS Bottle#: | 0 | Worklist Smp#: | 38 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-038 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 09:59:10 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 09:06:23 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 993.7 | 99.99 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-80.0-20171020 | Lab Sample ID: 440-194754-15

Matrix: Solid (Soluble) | Lab File ID: 20171023056.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 11:25

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 14:24

Con. Extract Vol.: | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 32.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436780 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 15000 | | 3000 | 740 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 93 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023056.d | | | | |
| Lims ID: | 440-194754-A-15-A | | | | |
| Client ID: | VER-01D-80.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 14:24:04 | ALS Bottle#: | 0 | Worklist Smp#: | 56 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 10.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-056 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:34:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:30:27 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.461 | 13.557 | -0.096 | 1309448 | 92.5 | |
| 2 Chlorate | 16.558 | 17.362 | -0.804 | 2452997 | 100.7 | |

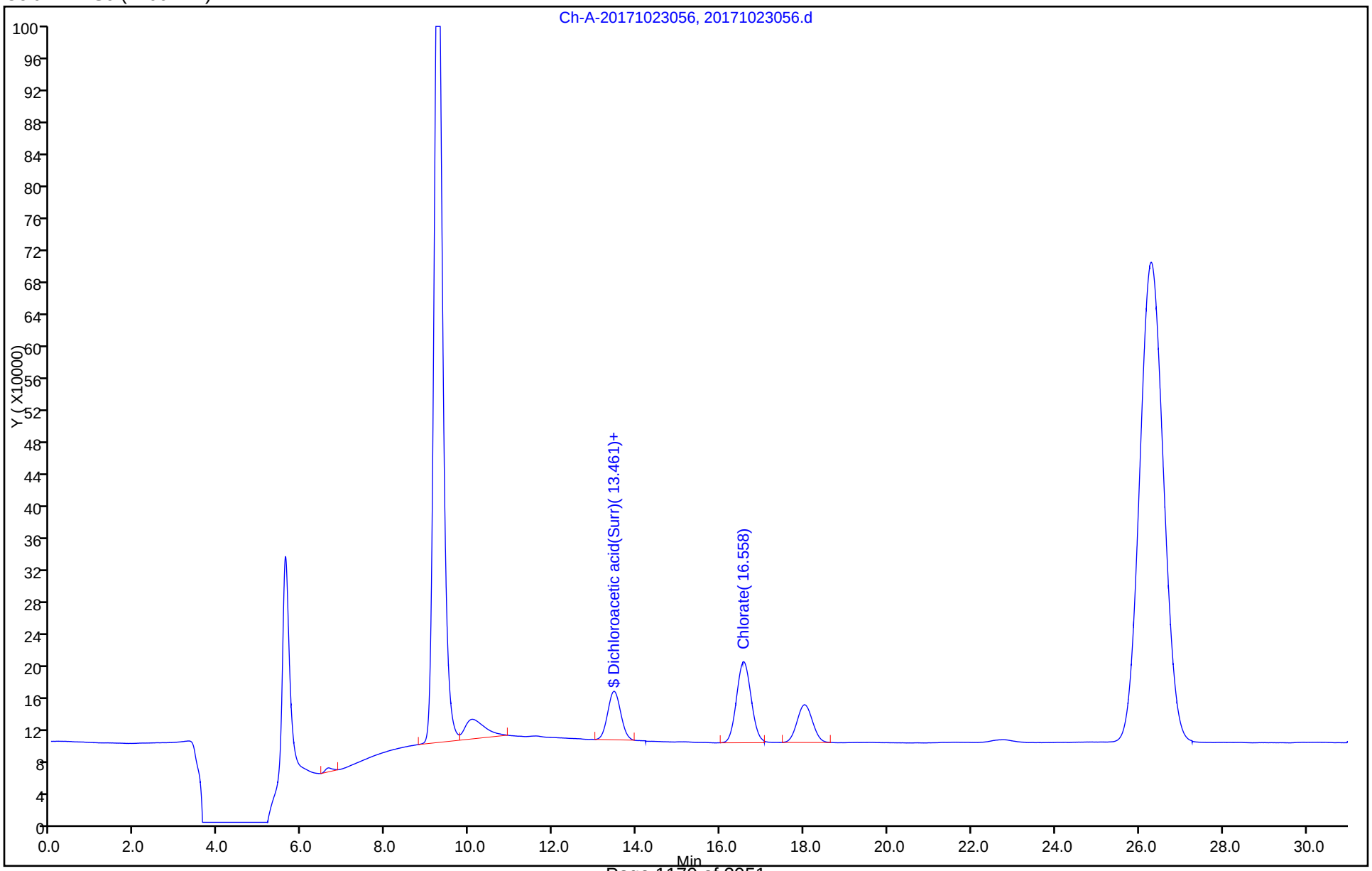
Report Date: 25-Oct-2017 03:35:42 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023056.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 14:24:04 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-15-A | Lab Sample ID: | 440-194754-15 | Worklist Smp#: | 56 |
| Client ID: | VER-01D-80.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 10.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023056.d | | | | |
| Lims ID: | 440-194754-A-15-A | | | | |
| Client ID: | VER-01D-80.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 14:24:04 | ALS Bottle#: | 0 | Worklist Smp#: | 56 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 10.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-056 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:34:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:30:27 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 92.5 | 93.09 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-100.0-20171020 | Lab Sample ID: 440-194754-16

Matrix: Solid (Soluble) | Lab File ID: 20171025039.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 12:20

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/26/2017 07:53

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 21.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437272 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 250 | 51 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-100.0-20171020 Lab Sample ID: 440-194754-16

Matrix: Solid (Soluble) Lab File ID: 20171025039.d

Analysis Method: 300.1B Date Collected: 10/20/2017 12:20

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 10/26/2017 07:53

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: AS14 ID: 4(mm)

% Moisture: 21.7 GPC Cleanup:(Y/N) N

Analysis Batch No.: 437272 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025039.d | | | | |
| Lims ID: | 440-194754-A-16-A | | | | |
| Client ID: | VER-01D-100.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 26-Oct-2017 07:53:42 | ALS Bottle#: | 0 | Worklist Smp#: | 39 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-039 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 08:29:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.568 | 13.557 | 0.011 | 14110350 | 994.3 | |
| 2 Chlorate | 17.274 | 17.362 | -0.088 | 6157515 | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

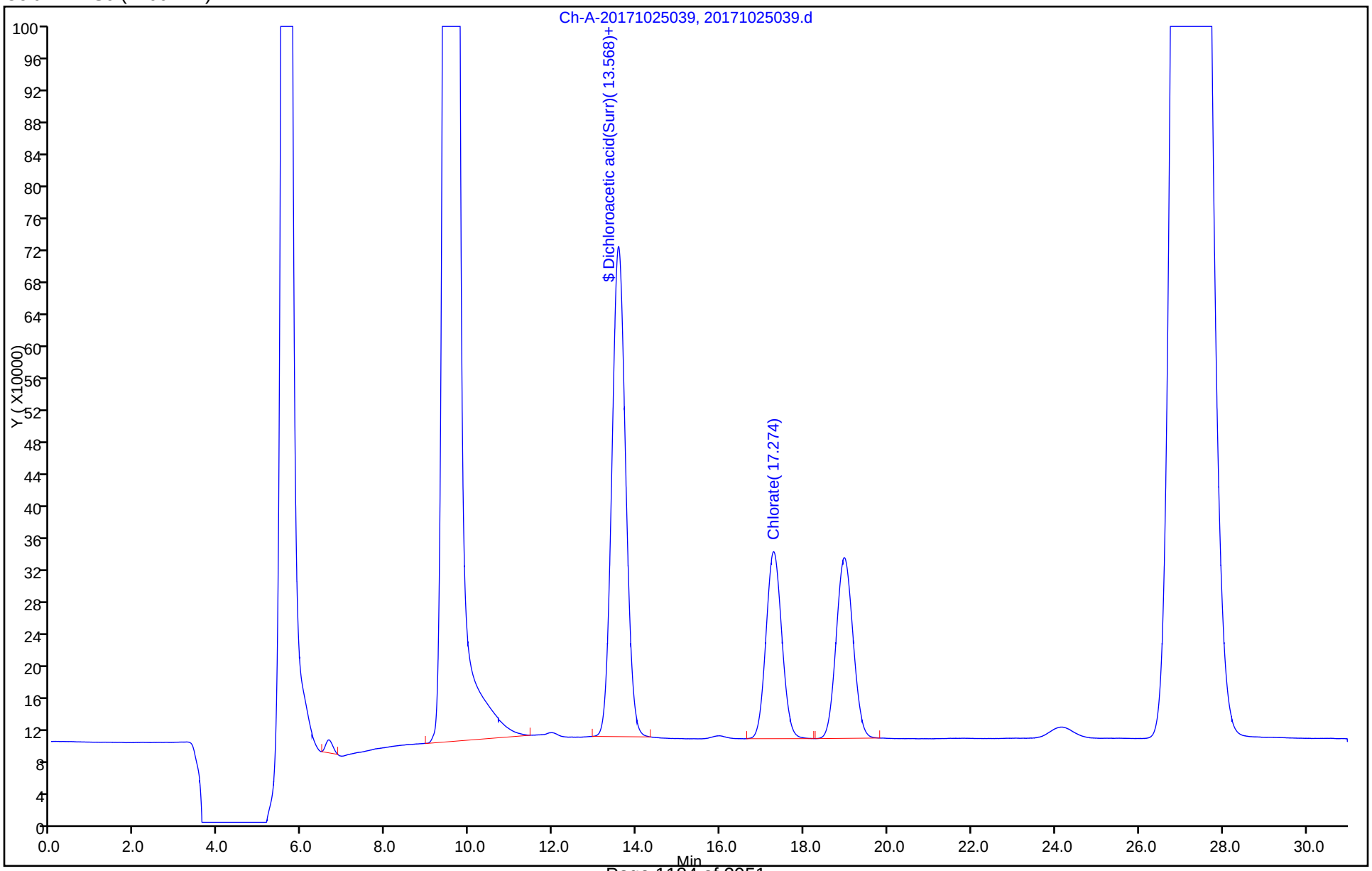
Report Date: 26-Oct-2017 08:29:48 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025039.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 07:53:42 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-16-A | Lab Sample ID: | 440-194754-16 | Worklist Smp#: | 39 |
| Client ID: | VER-01D-100.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025039.d | | | | |
| Lims ID: | 440-194754-A-16-A | | | | |
| Client ID: | VER-01D-100.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 26-Oct-2017 07:53:42 | ALS Bottle#: | 0 | Worklist Smp#: | 39 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-039 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 08:29:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 994.3 | 100.06 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-100.0-20171020 | Lab Sample ID: 440-194754-16

Matrix: Solid (Soluble) | Lab File ID: 20171023057.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 12:20

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 14:57

Con. Extract Vol.: | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 21.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436780 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 3200 | | 2500 | 640 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 95 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023057.d | | | | |
| Lims ID: | 440-194754-A-16-A | | | | |
| Client ID: | VER-01D-100.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 14:57:16 | ALS Bottle#: | 0 | Worklist Smp#: | 57 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 10.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-057 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:34:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:30:53 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.458 | 13.557 | -0.099 | 1339540 | 94.6 | |
| 2 Chlorate | 16.524 | 17.362 | -0.838 | 623517 | 25.2 | |

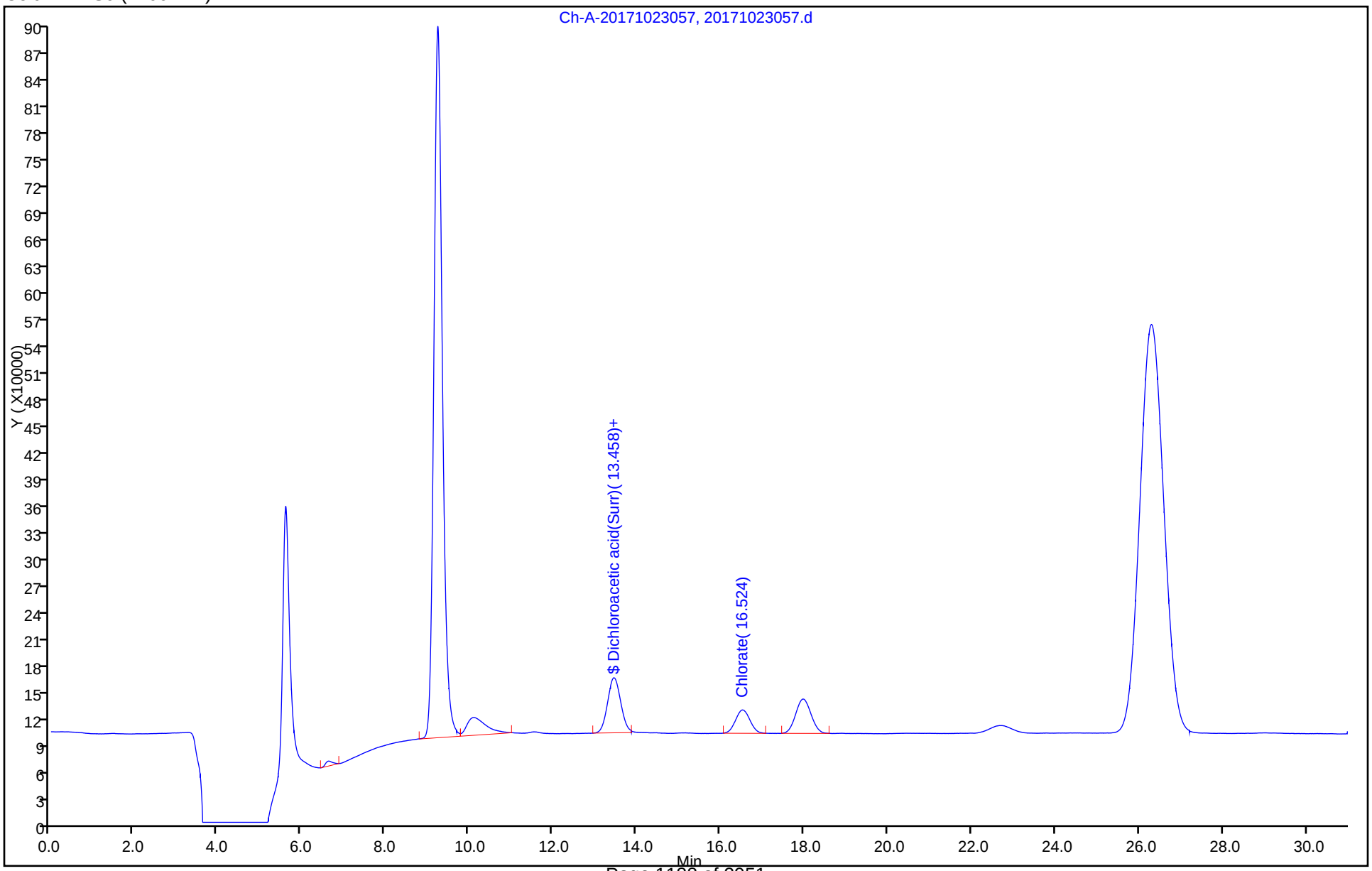
Report Date: 25-Oct-2017 03:35:44 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023057.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 14:57:16 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-16-A | Lab Sample ID: | 440-194754-16 | Worklist Smp#: | 57 |
| Client ID: | VER-01D-100.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 10.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023057.d | | | | |
| Lims ID: | 440-194754-A-16-A | | | | |
| Client ID: | VER-01D-100.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 14:57:16 | ALS Bottle#: | 0 | Worklist Smp#: | 57 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 10.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-057 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:34:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:30:53 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 94.6 | 95.23 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-110.0-20171020 | Lab Sample ID: 440-194754-17

Matrix: Solid (Soluble) | Lab File ID: 20171023058.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 13:00

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 15:30

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 41.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436780 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 1300 | | 340 | 85 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 97 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023058.d | | | | |
| Lims ID: | 440-194754-A-17-A | | | | |
| Client ID: | VER-01D-110.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 15:30:27 | ALS Bottle#: | 0 | Worklist Smp#: | 58 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-058 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:34:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:31:31 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.425 | 13.557 | -0.132 | 13607374 | 958.9 | |
| 2 Chlorate | 16.491 | 17.362 | -0.871 | 1854711 | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023058.d | | | | |
| Lims ID: | 440-194754-A-17-A | | | | |
| Client ID: | VER-01D-110.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 15:30:27 | ALS Bottle#: | 0 | Worklist Smp#: | 58 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-058 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:34:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:31:31 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.425 | 13.557 | -0.132 | 13607374 | 961.3 | |
| 2 Chlorate | 16.491 | 17.362 | -0.871 | 1854711 | 76.0 | |

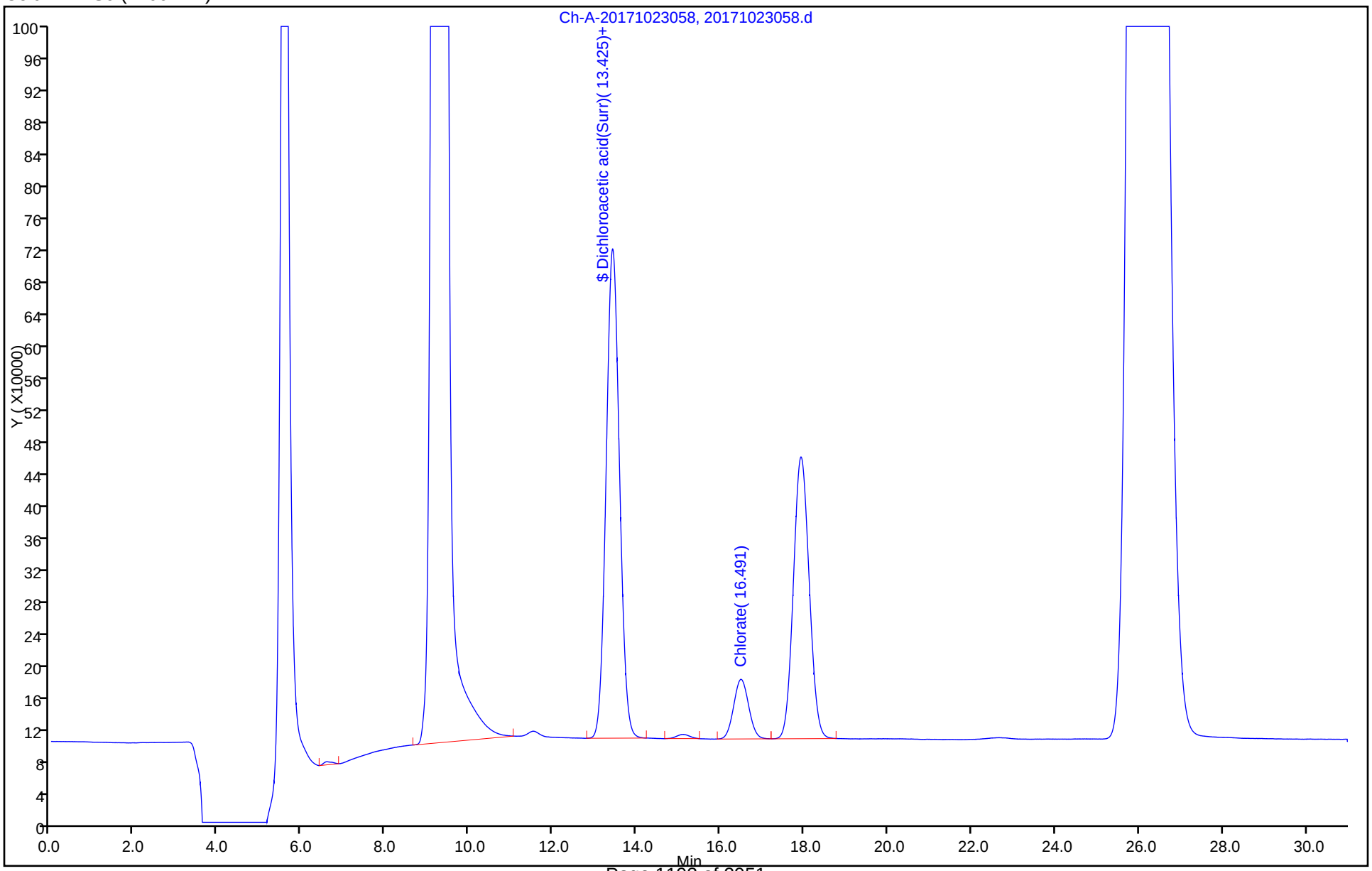
Report Date: 25-Oct-2017 03:35:45 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023058.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 15:30:27 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-17-A | Lab Sample ID: | 440-194754-17 | Worklist Smp#: | 58 |
| Client ID: | VER-01D-110.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



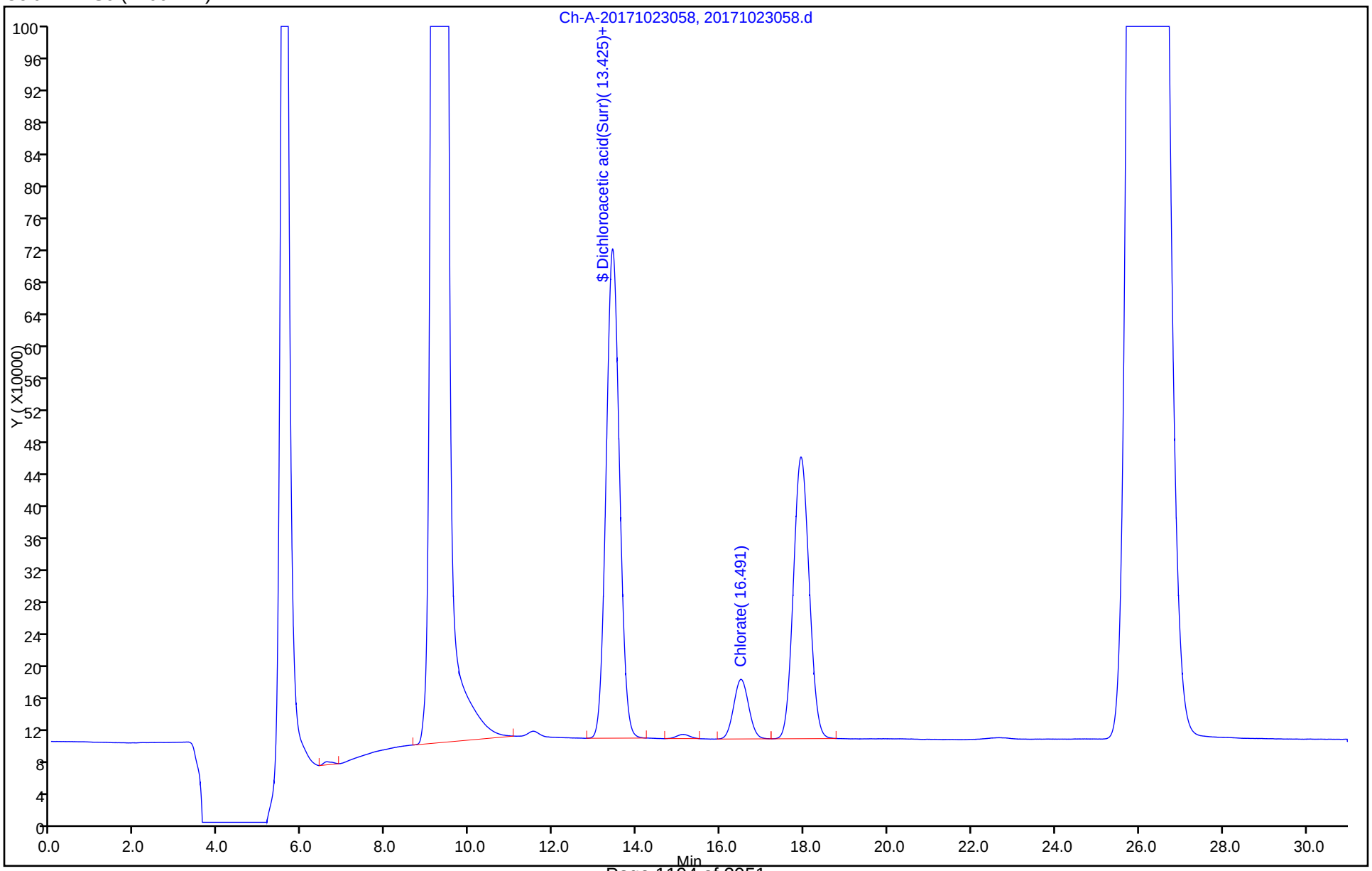
Report Date: 25-Oct-2017 03:35:45 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023058.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 15:30:27 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-17-A | Lab Sample ID: | 440-194754-17 | Worklist Smp#: | 58 |
| Client ID: | VER-01D-110.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023058.d | | | | |
| Lims ID: | 440-194754-A-17-A | | | | |
| Client ID: | VER-01D-110.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 15:30:27 | ALS Bottle#: | 0 | Worklist Smp#: | 58 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-058 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:34:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:31:31 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 961.3 | 96.74 |

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023058.d | | | | |
| Lims ID: | 440-194754-A-17-A | | | | |
| Client ID: | VER-01D-110.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 15:30:27 | ALS Bottle#: | 0 | Worklist Smp#: | 58 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-058 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:34:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:31:31 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 958.9 | 96.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-110.0-20171020 | Lab Sample ID: 440-194754-17

Matrix: Solid (Soluble) | Lab File ID: 20171023058.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 13:00

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 15:30

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 41.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 340 | 68 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-110.0-20171020 Lab Sample ID: 440-194754-17

Matrix: Solid (Soluble) Lab File ID: 20171023058.d

Analysis Method: 300.1B Date Collected: 10/20/2017 13:00

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 10/24/2017 15:30

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: AS14 ID: 4(mm)

% Moisture: 41.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 96 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023058.d | | | | |
| Lims ID: | 440-194754-A-17-A | | | | |
| Client ID: | VER-01D-110.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 15:30:27 | ALS Bottle#: | 0 | Worklist Smp#: | 58 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-058 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:34:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:31:31 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.425 | 13.557 | -0.132 | 13607374 | 958.9 | |
| 2 Chlorate | 16.491 | 17.362 | -0.871 | 1854711 | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023058.d | | | | |
| Lims ID: | 440-194754-A-17-A | | | | |
| Client ID: | VER-01D-110.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 15:30:27 | ALS Bottle#: | 0 | Worklist Smp#: | 58 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-058 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:34:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:31:31 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.425 | 13.557 | -0.132 | 13607374 | 961.3 | |
| 2 Chlorate | 16.491 | 17.362 | -0.871 | 1854711 | 76.0 | |

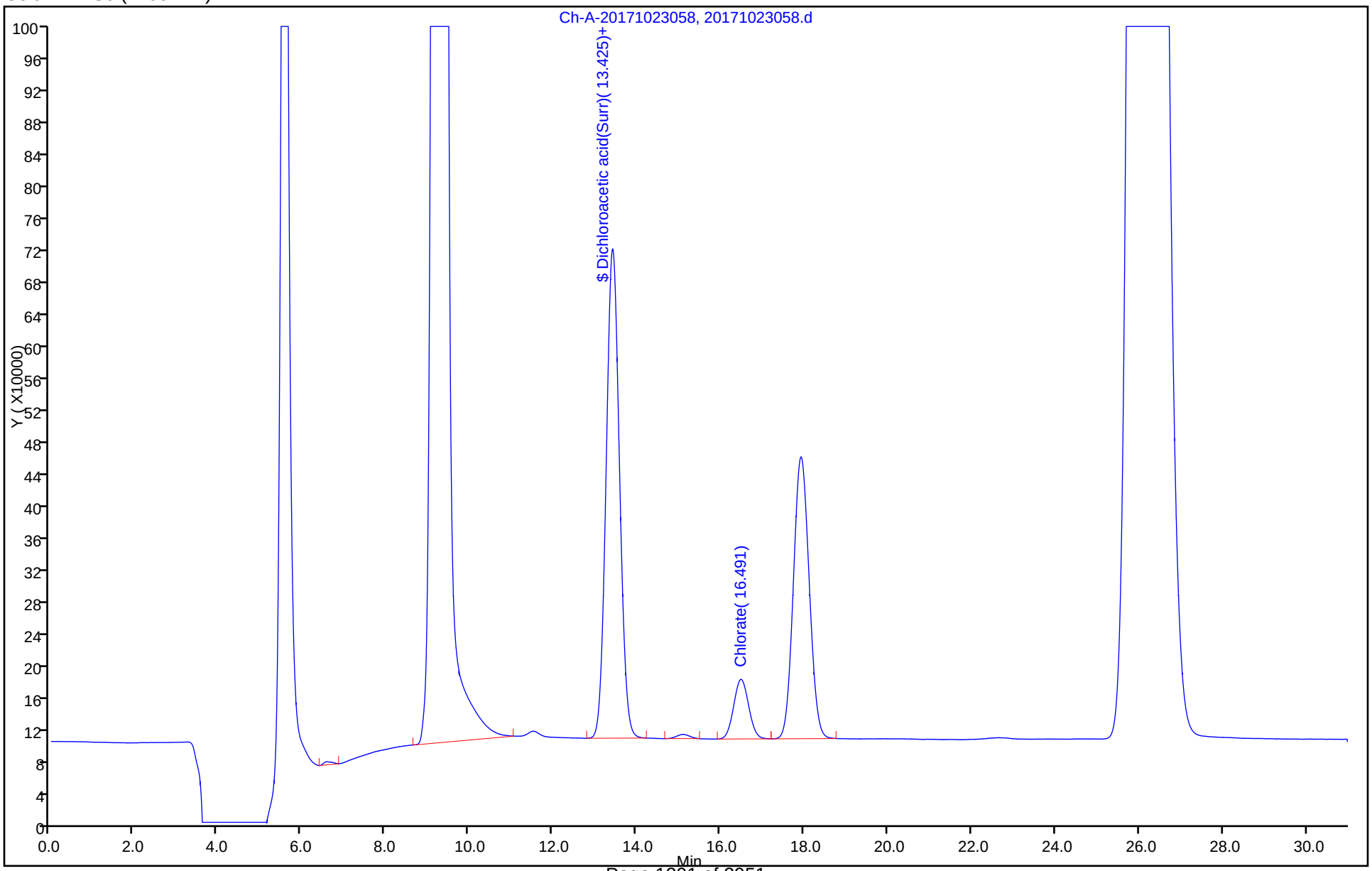
Report Date: 25-Oct-2017 03:35:45 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023058.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 15:30:27 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-17-A | Lab Sample ID: | 440-194754-17 | Worklist Smp#: | 58 |
| Client ID: | VER-01D-110.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



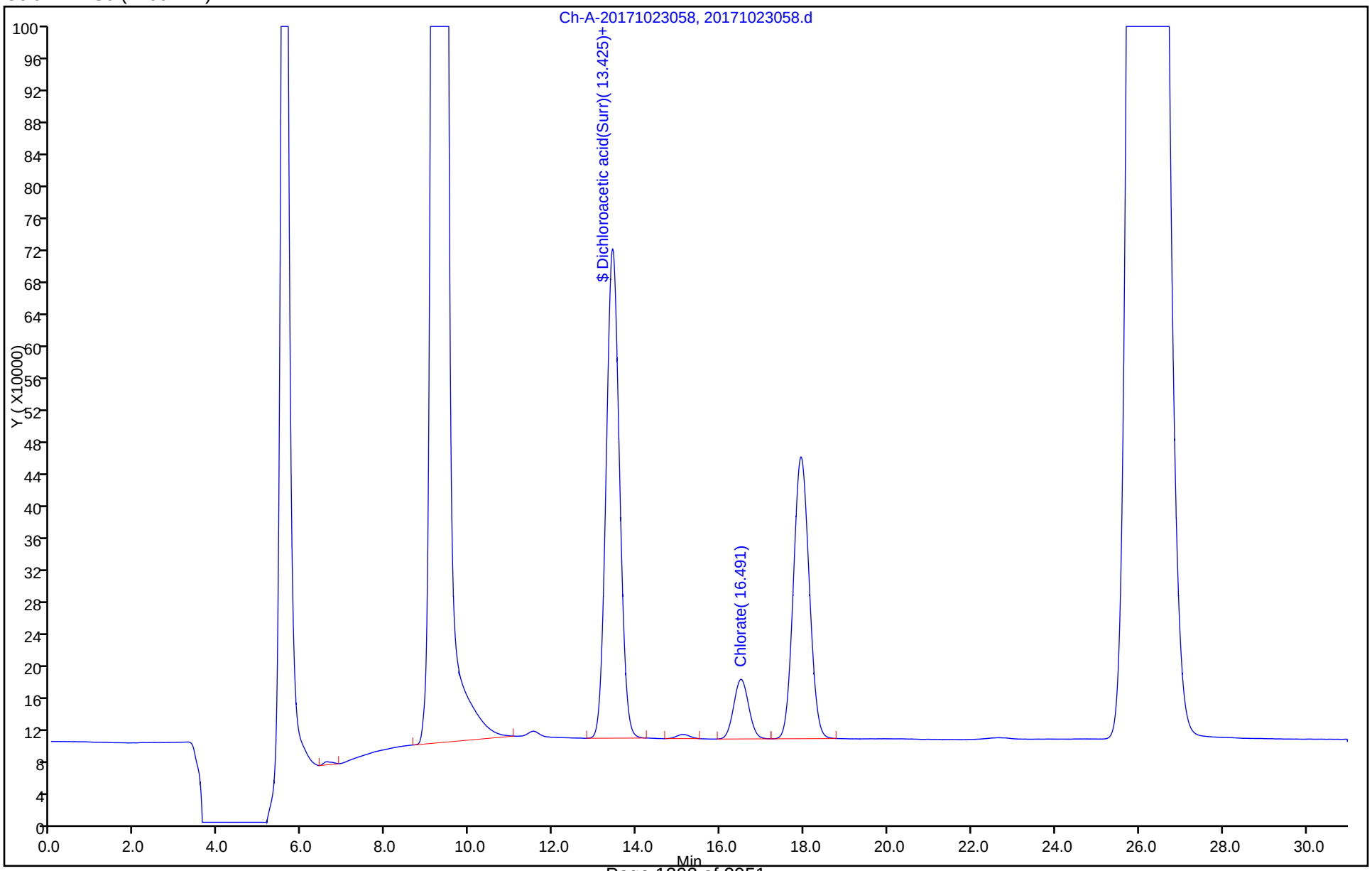
Report Date: 25-Oct-2017 03:35:45 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023058.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 15:30:27 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-17-A | Lab Sample ID: | 440-194754-17 | Worklist Smp#: | 58 |
| Client ID: | VER-01D-110.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023058.d | | | | |
| Lims ID: | 440-194754-A-17-A | | | | |
| Client ID: | VER-01D-110.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 15:30:27 | ALS Bottle#: | 0 | Worklist Smp#: | 58 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-058 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:34:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:31:31 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 961.3 | 96.74 |

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023058.d | | | | |
| Lims ID: | 440-194754-A-17-A | | | | |
| Client ID: | VER-01D-110.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 15:30:27 | ALS Bottle#: | 0 | Worklist Smp#: | 58 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-058 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:34:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:31:31 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 958.9 | 96.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-110.0-20171020-FD  Lab Sample ID: 440-194754-18

Matrix: Solid (Soluble)  Lab File ID: 20171023059.d

Analysis Method: 300.1B  Date Collected: 10/20/2017 13:00

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 10/24/2017 16:03

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture: 46.4  GPC Cleanup:(Y/N) N

Analysis Batch No.: 436780  Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 1400 | | 370 | 93 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 96 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023059.d | | | | |
| Lims ID: | 440-194754-A-18-A | | | | |
| Client ID: | VER-01D-110.0-20171020-FD | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 16:03:38 | ALS Bottle#: | 0 | Worklist Smp#: | 59 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-059 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:34:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:32:00 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.433 | 13.557 | -0.125 | 13569089 | 956.2 | |
| 2 Chlorate | 16.503 | 17.362 | -0.860 | 1843507 | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023059.d | | | | |
| Lims ID: | 440-194754-A-18-A | | | | |
| Client ID: | VER-01D-110.0-20171020-FD | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 16:03:38 | ALS Bottle#: | 0 | Worklist Smp#: | 59 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-059 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:34:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:32:00 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.433 | 13.557 | -0.125 | 13569089 | 958.6 | |
| 2 Chlorate | 16.503 | 17.362 | -0.860 | 1843507 | 75.6 | |

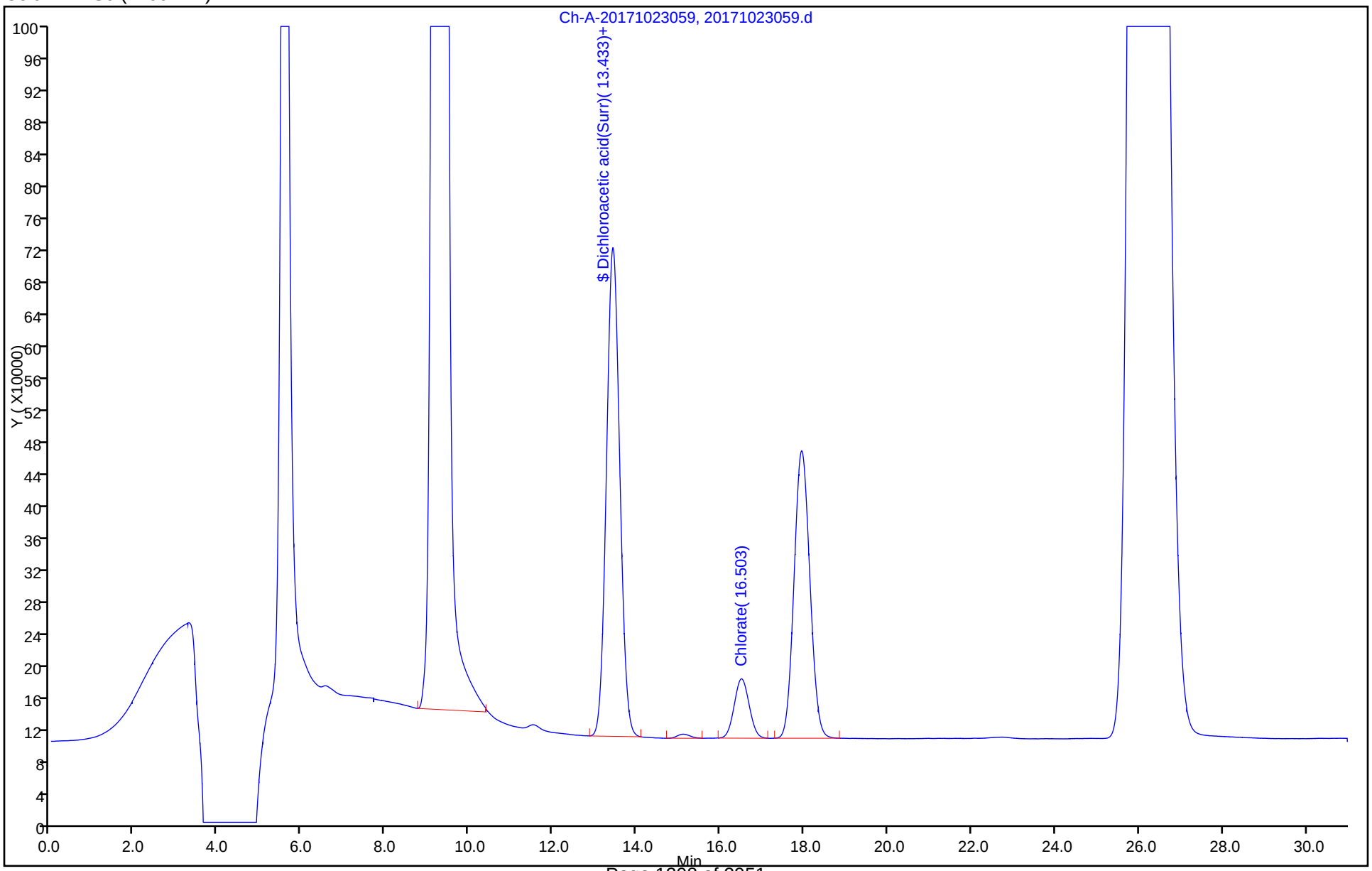
Report Date: 25-Oct-2017 03:35:46 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023059.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 16:03:38 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-18-A | Lab Sample ID: | 440-194754-18 | Worklist Smp#: | 59 |
| Client ID: | VER-01D-110.0-20171020-FD | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



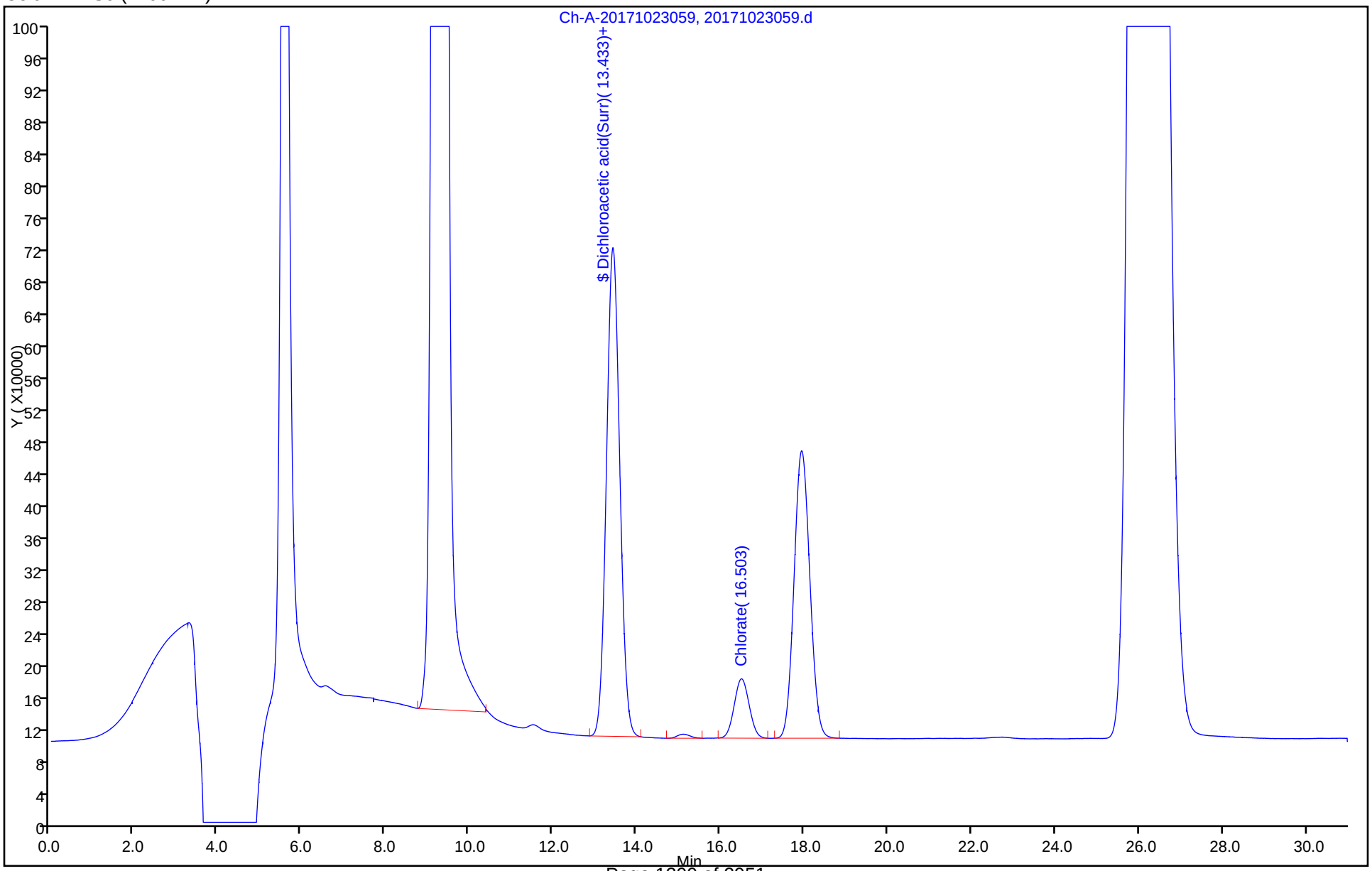
Report Date: 25-Oct-2017 03:35:46 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023059.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 16:03:38 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-18-A | Lab Sample ID: | 440-194754-18 | Worklist Smp#: | 59 |
| Client ID: | VER-01D-110.0-20171020-FD | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023059.d | | | | |
| Lims ID: | 440-194754-A-18-A | | | | |
| Client ID: | VER-01D-110.0-20171020-FD | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 16:03:38 | ALS Bottle#: | 0 | Worklist Smp#: | 59 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-059 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:34:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:32:00 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 958.6 | 96.47 |

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023059.d | | | | |
| Lims ID: | 440-194754-A-18-A | | | | |
| Client ID: | VER-01D-110.0-20171020-FD | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 16:03:38 | ALS Bottle#: | 0 | Worklist Smp#: | 59 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-059 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:34:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:32:00 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 956.2 | 96.22 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-110.0-20171020-FD Lab Sample ID: 440-194754-18

Matrix: Solid (Soluble) Lab File ID: 20171023059.d

Analysis Method: 300.1B Date Collected: 10/20/2017 13:00

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 10/24/2017 16:03

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: AS14 ID: 4(mm)

% Moisture: 46.4 GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 370 | 74 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-110.0-20171020-FD Lab Sample ID: 440-194754-18

Matrix: Solid (Soluble) Lab File ID: 20171023059.d

Analysis Method: 300.1B Date Collected: 10/20/2017 13:00

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 10/24/2017 16:03

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: AS14 ID: 4(mm)

% Moisture: 46.4 GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 96 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023059.d | | | | |
| Lims ID: | 440-194754-A-18-A | | | | |
| Client ID: | VER-01D-110.0-20171020-FD | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 16:03:38 | ALS Bottle#: | 0 | Worklist Smp#: | 59 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-059 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:34:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:32:00 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.433 | 13.557 | -0.125 | 13569089 | 956.2 | |
| 2 Chlorate | 16.503 | 17.362 | -0.860 | 1843507 | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023059.d | | | | |
| Lims ID: | 440-194754-A-18-A | | | | |
| Client ID: | VER-01D-110.0-20171020-FD | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 16:03:38 | ALS Bottle#: | 0 | Worklist Smp#: | 59 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-059 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:34:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:32:00 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.433 | 13.557 | -0.125 | 13569089 | 958.6 | |
| 2 Chlorate | 16.503 | 17.362 | -0.860 | 1843507 | 75.6 | |

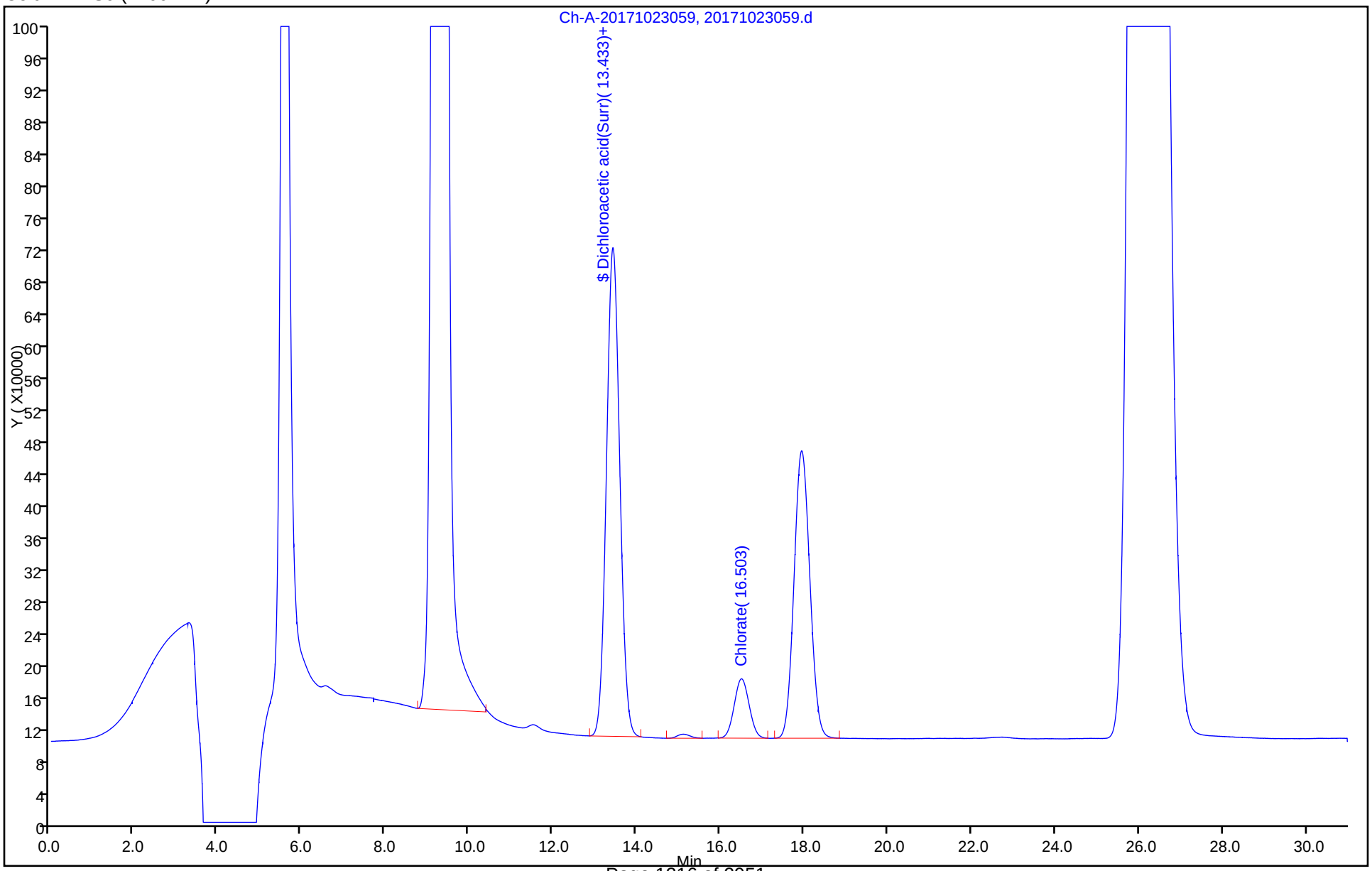
Report Date: 25-Oct-2017 03:35:46 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023059.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 16:03:38 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-18-A | Lab Sample ID: | 440-194754-18 | Worklist Smp#: | 59 |
| Client ID: | VER-01D-110.0-20171020-FD | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



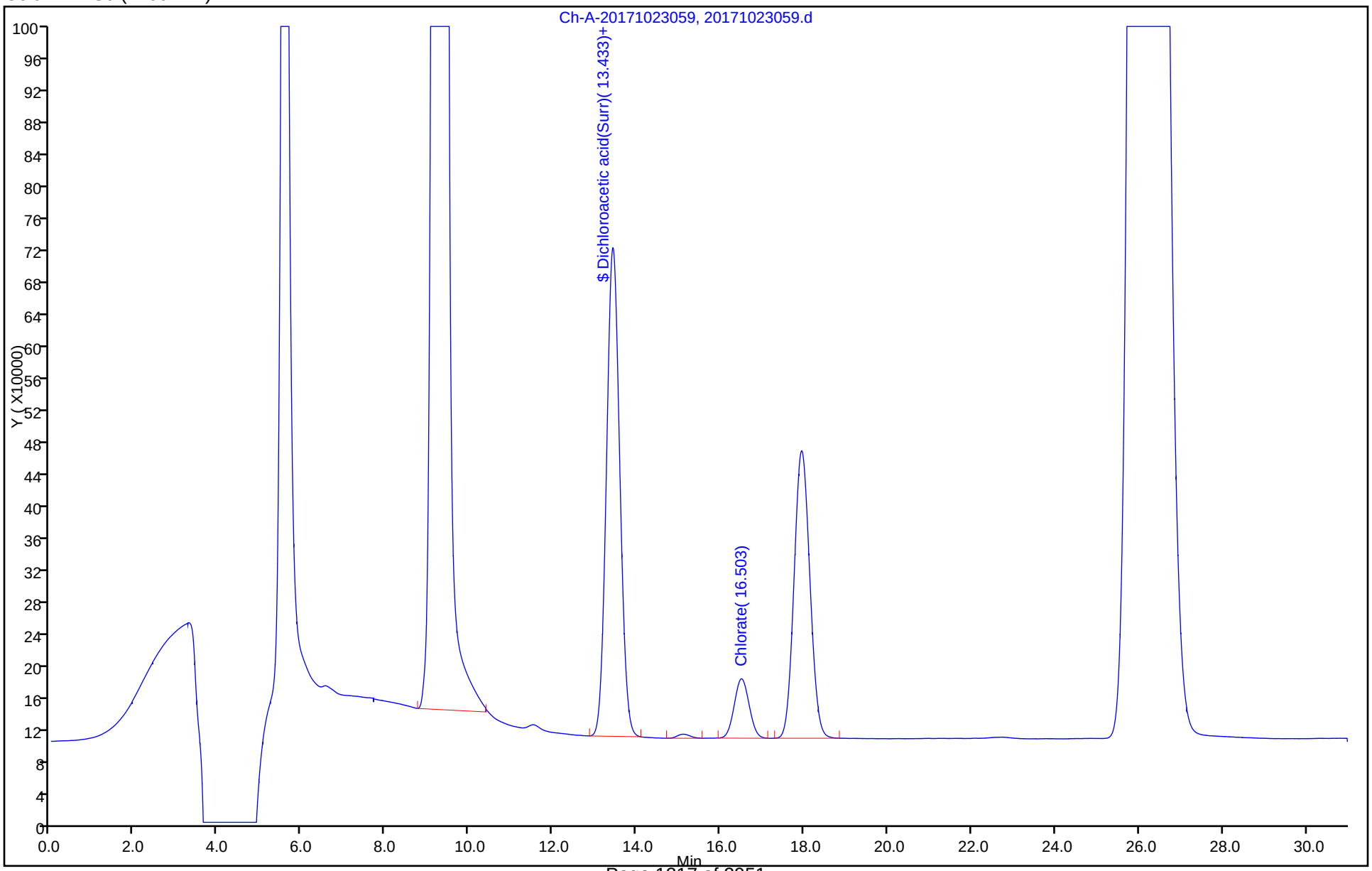
Report Date: 25-Oct-2017 03:35:46 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023059.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 16:03:38 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-18-A | Lab Sample ID: | 440-194754-18 | Worklist Smp#: | 59 |
| Client ID: | VER-01D-110.0-20171020-FD | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023059.d | | | | |
| Lims ID: | 440-194754-A-18-A | | | | |
| Client ID: | VER-01D-110.0-20171020-FD | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 16:03:38 | ALS Bottle#: | 0 | Worklist Smp#: | 59 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-059 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:34:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:32:00 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 958.6 | 96.47 |

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023059.d | | | | |
| Lims ID: | 440-194754-A-18-A | | | | |
| Client ID: | VER-01D-110.0-20171020-FD | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 24-Oct-2017 16:03:38 | ALS Bottle#: | 0 | Worklist Smp#: | 59 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-059 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:34:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:32:00 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 956.2 | 96.22 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1 Analy Batch No.: 431296

SDG No.:

Instrument ID: IC-11 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2017 09:02 Calibration End Date: 09/26/2017 11:48 Calibration ID: 17562

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-431296/2 | 20170926002.d |
| Level 2 | STD1 440-431296/3 | 20170926003.d |
| Level 3 | STD2 440-431296/4 | 20170926004.d |
| Level 4 | STD3 440-431296/5 | 20170926005.d |
| Level 5 | STD4 440-431296/6 | 20170926006.d |
| Level 6 | STD5 440-431296/7 | 20170926007.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromate | | 8.378 | 8.349 | 8.410 | 8.372 | 8.264 | | | | | 0.000 - 0.000 | 8.355 |
| Bromide | | 15.991 | 15.920 | 16.094 | 16.018 | 15.986 | | | | | 0.000 - 0.000 | 16.002 |
| Chlorate | | 17.306 | 17.283 | 17.432 | 17.347 | 17.209 | | | | | 0.000 - 0.000 | 17.315 |
| Dichloroacetic acid(Surr) | +++++ | 13.559 | 13.544 | 13.590 | 13.540 | 13.433 | | | | | 12.610 - 14.508 | 13.533 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-194754-1 Analy Batch No.: 431296

SDG No.:

Instrument ID: IC-11 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2017 09:02 Calibration End Date: 09/26/2017 11:48 Calibration ID: 17562

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-431296/2 | 20170926002.d |
| Level 2 | STD1 440-431296/3 | 20170926003.d |
| Level 3 | STD2 440-431296/4 | 20170926004.d |
| Level 4 | STD3 440-431296/5 | 20170926005.d |
| Level 5 | STD4 440-431296/6 | 20170926006.d |
| Level 6 | STD5 440-431296/7 | 20170926007.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Bromate | 15546 | 15829<br>15193 | 16999 | 15455 | Lin | 9487.40161 | 15156.7771 | | | | | | | 1.0000 | | 0.9950 |
| Bromide | 26980 | 26730<br>24624 | 27995 | 26901 | Lin | 352119.571 | 24707.7556 | | | | | | | 0.9980 | | 0.9950 |
| Chlorate | 24034 | 23681<br>24293 | 25446 | 24610 | Lin | 12986.0371 | 24224.6023 | | | | | | | 1.0000 | | 0.9950 |
| Dichloroacetic acid(Surr) | +++++<br>14171 | 14094<br>14063 | 14268 | 14179 | Ave | | 14155.0224 | | | | 0.6 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1 | Analy Batch No.: 431296

SDG No.:

Instrument ID: IC-11 | GC Column: AS14 | ID: 4(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2017 09:02 | Calibration End Date: 09/26/2017 11:48 | Calibration ID: 17562

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-431296/2 | 20170926002.d |
| Level 2 | STD1 440-431296/3 | 20170926003.d |
| Level 3 | STD2 440-431296/4 | 20170926004.d |
| Level 4 | STD3 440-431296/5 | 20170926005.d |
| Level 5 | STD4 440-431296/6 | 20170926006.d |
| Level 6 | STD5 440-431296/7 | 20170926007.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Bromate | Lin | 1519299 | 79143 | 212482 | 386378 | 777302 | 0.0000000<br>100 | 5.00 | 12.5 | 25.0 | 50.0 |
| Bromide | Lin | 24624099 | 1336520 | 3499404 | 6725300 | 13489824 | 0.0000000<br>1000 | 50.0 | 125 | 250 | 500 |
| Chlorate | Lin | 9717216 | 473629 | 1272302 | 2460996 | 4806717 | 0.0000000<br>400 | 20.0 | 50.0 | 100 | 200 |
| Dichloroacetic acid(Surr) | Ave | +++++<br>13974525 | 14005340 | 14178518 | 14089380 | 14082237 | +++++<br>994 | 994 | 994 | 994 | 994 |

Curve Type Legend:

Ave = Average
Lin = Linear

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926002.d | | | | |
| Lims ID: | STD0 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 0 | | |
| Inject. Date: | 26-Sep-2017 09:02:58 | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0093892-002 | | | | |
| Misc. Info.: | Study: 93892 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 27-Sep-2017 04:35:08 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK050 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.568 | 13.559 | 0.009 | 14278762 | 993.7 | 1007.1 | |

## Reagents:

| | | | |
|---|---|---|---|
| WC3001LCS_00054 | Amount Added: | 0.00 | Units: uL |
| WCDCA_00048 | Amount Added: | 10.00 | Units: uL |

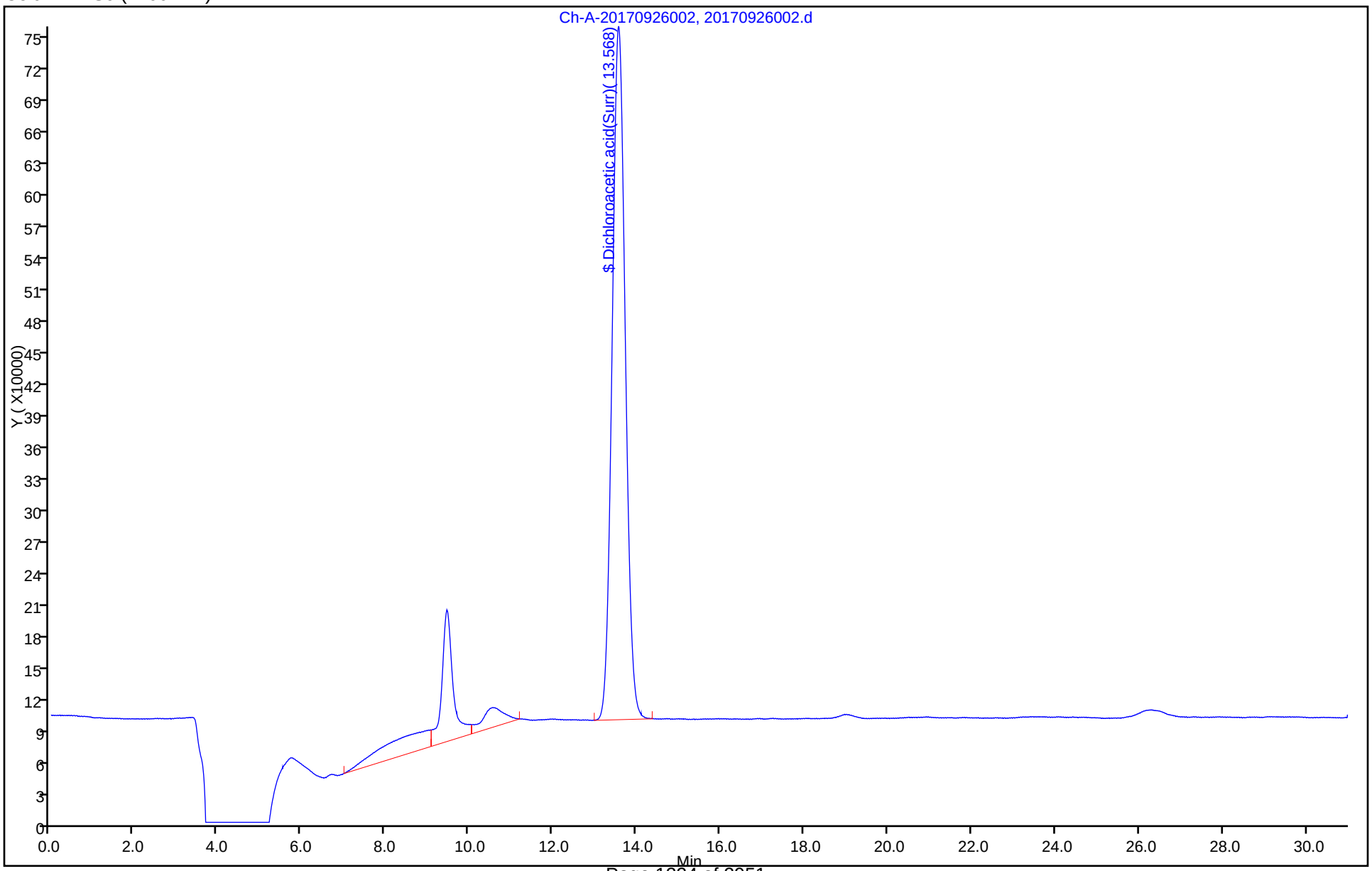
Report Date: 27-Sep-2017 04:35:08 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926002.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 09:02:58 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD0 | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926003.d | | | | |
| Lims ID: | STD1 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 1 | | |
| Inject. Date: | 26-Sep-2017 09:36:10 | ALS Bottle#: | 0 | Worklist Smp#: | 3 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0093892-003 | | | | |
| Misc. Info.: | Study: 93892 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 27-Sep-2017 04:35:09 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK050 | | | | |

| | Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 Chlorite | 7.332 | 7.332 | 0.000 | 480167 | NC | NC | |
| | 3 Bromate | 8.378 | 8.378 | 0.000 | 79143 | 5.00 | 4.60 | |
| $ | 6 Dichloroacetic acid(Surr) | 13.559 | 13.559 | 0.000 | 14005340 | 993.7 | 990.7 | |
| | 4 Bromide | 15.991 | 15.991 | 0.000 | 1336520 | 50.0 | 39.8 | |
| | 2 Chlorate | 17.306 | 17.306 | 0.000 | 473629 | 20.0 | 19.0 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

| | | | |
|---|---|---|---|
| WC3001LCS_00054 | Amount Added: | 25.00 | Units: uL |
| WCDCA_00048 | Amount Added: | 10.00 | Units: uL |

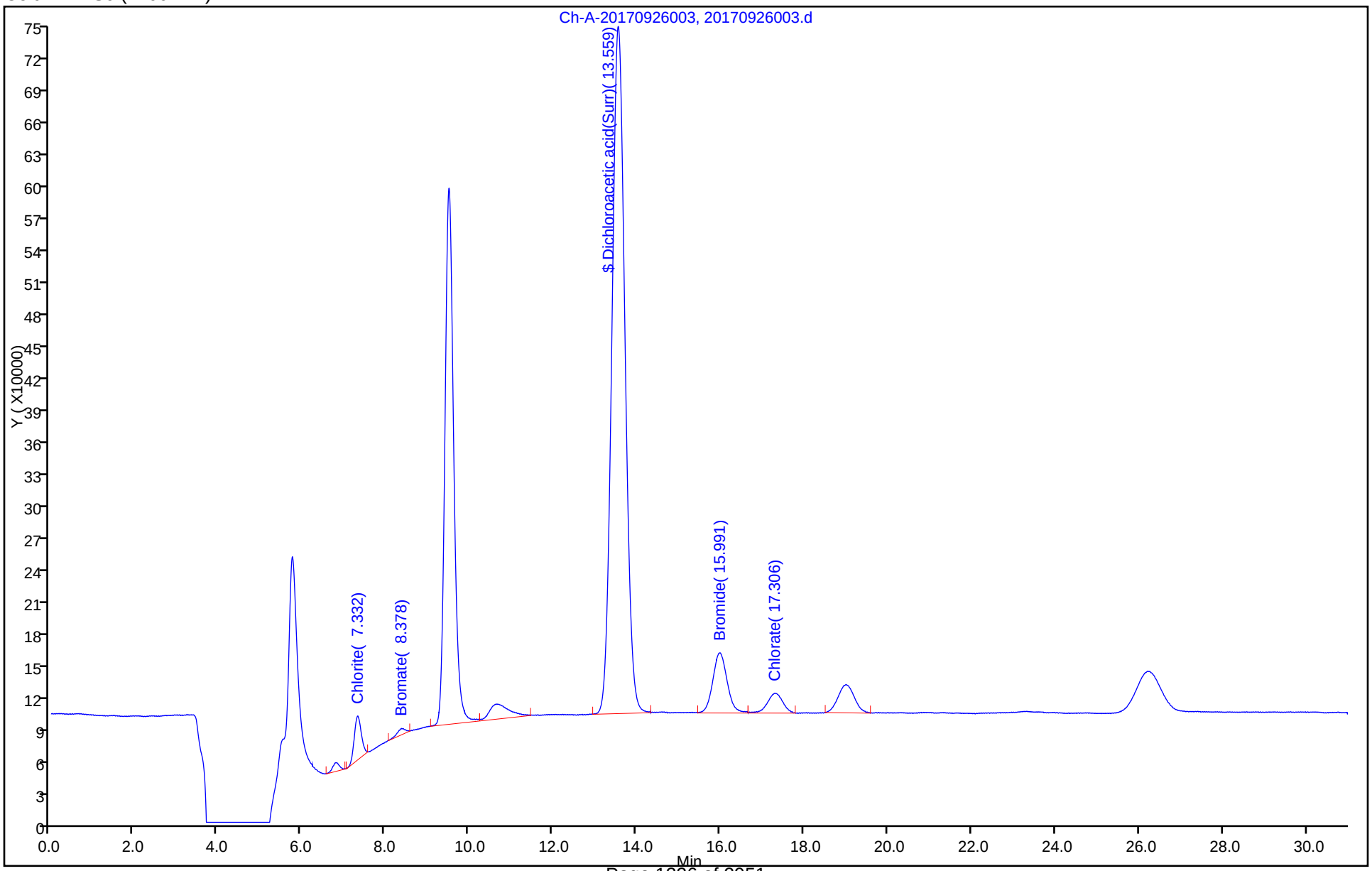
Report Date: 27-Sep-2017 04:35:10 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926003.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 09:36:10 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD1 | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926004.d | | | | |
| Lims ID: | STD2 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 2 | | |
| Inject. Date: | 26-Sep-2017 10:09:21 | ALS Bottle#: | 0 | Worklist Smp#: | 4 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0093892-004 | | | | |
| Misc. Info.: | Study: 93892 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 27-Sep-2017 04:35:11 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK050 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.306 | 7.332 | -0.026 | 1409439 | NC | NC | |
| 3 Bromate | 8.349 | 8.378 | -0.029 | 212482 | 12.5 | 13.4 | |
| $ 6 Dichloroacetic acid(Surr) | 13.544 | 13.559 | -0.015 | 14178518 | 993.7 | 999.9 | |
| 4 Bromide | 15.920 | 15.991 | -0.071 | 3499404 | 125.0 | 127.4 | |
| 2 Chlorate | 17.283 | 17.306 | -0.023 | 1272302 | 50.0 | 52.0 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

| | | | |
|---|---|---|---|
| WC3001LCS_00054 | Amount Added: | 62.50 | Units: uL |
| WCDCA_00048 | Amount Added: | 10.00 | Units: uL |

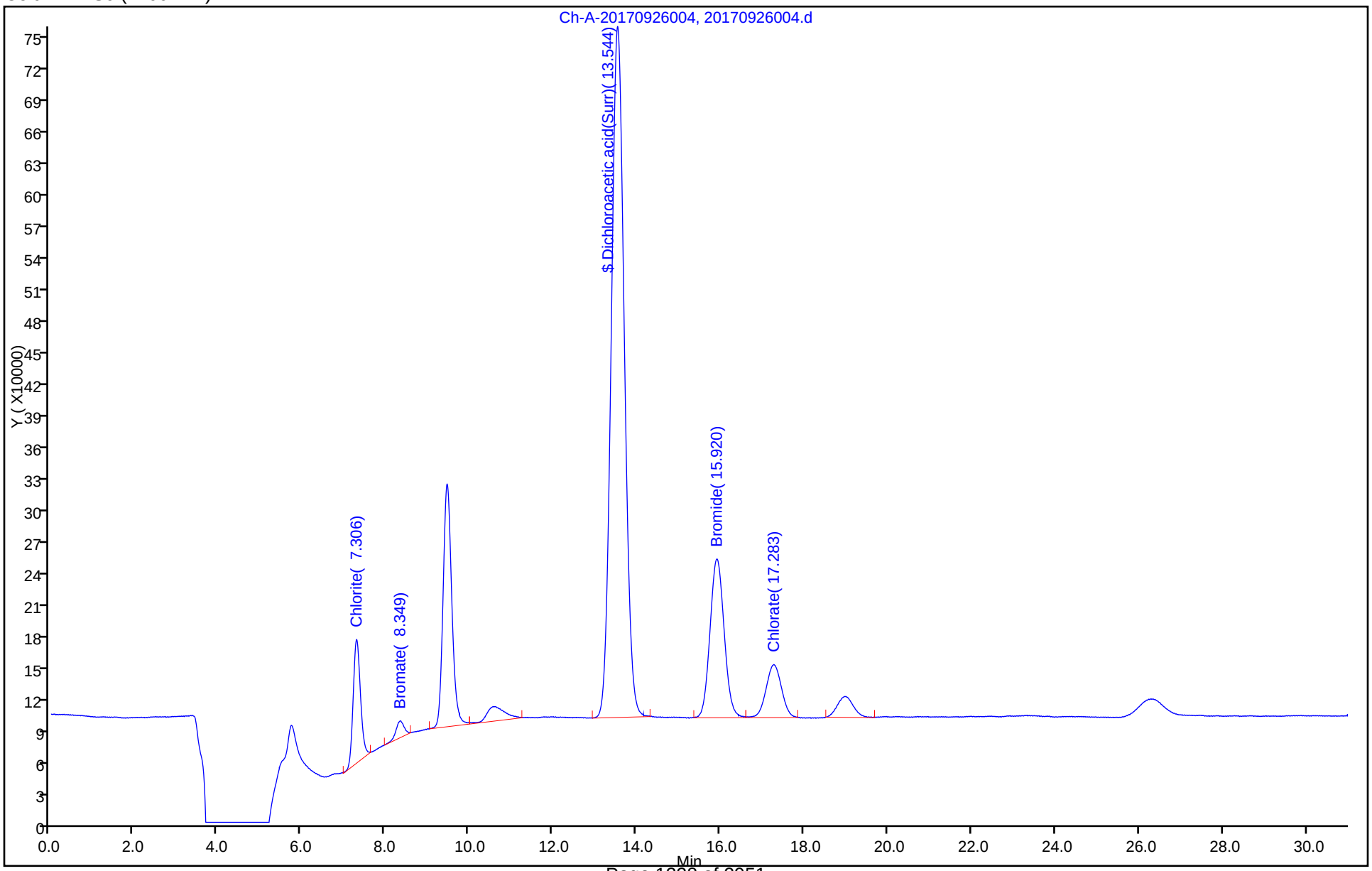
Report Date: 27-Sep-2017 04:35:12 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926004.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 10:09:21 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD2 | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926005.d
Lims ID: STD3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 26-Sep-2017 10:42:32 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0093892-005
Misc. Info.: Study: 93892 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist: chrom-300.1_C11*sub2

Method: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 27-Sep-2017 04:35:04 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK050

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.348 | 7.332 | 0.016 | 2695008 | NC | NC | |
| 3 Bromate | 8.410 | 8.378 | 0.032 | 386378 | 25.0 | 24.9 | |
| $ 6 Dichloroacetic acid(Surr) | 13.590 | 13.559 | 0.031 | 14089380 | 993.7 | 993.7 | |
| 4 Bromide | 16.094 | 15.991 | 0.103 | 6725300 | 250.0 | 257.9 | |
| 2 Chlorate | 17.432 | 17.306 | 0.126 | 2460996 | 100.0 | 101.1 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WC3001LCS_00054 Amount Added: 125.00 Units: uL
WCDCA_00048 Amount Added: 10.00 Units: uL

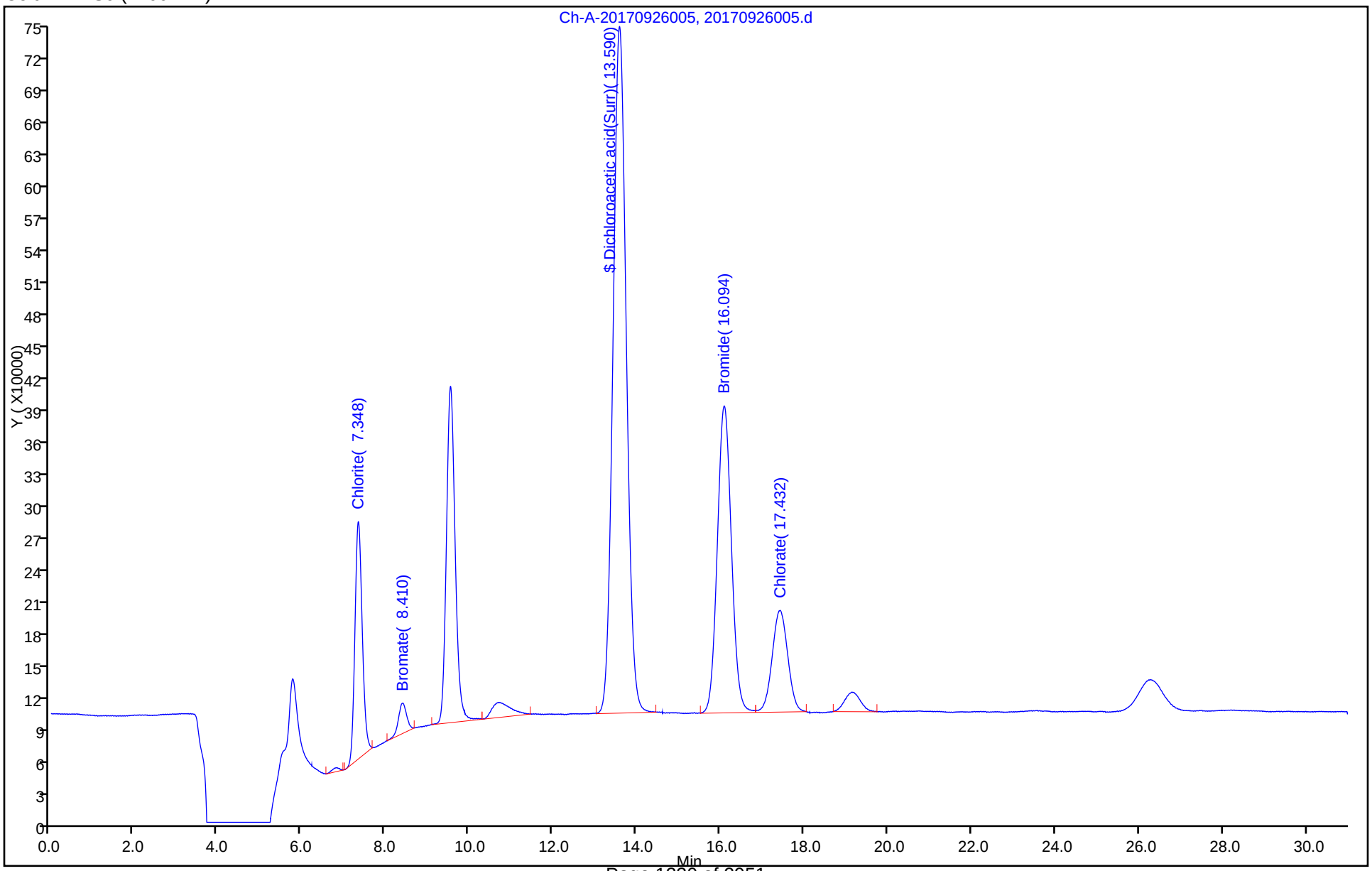
Report Date: 27-Sep-2017 04:35:05 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926005.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 10:42:32 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD3 | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926006.d | | | | |
| Lims ID: | STD4 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 4 | | |
| Inject. Date: | 26-Sep-2017 11:15:44 | ALS Bottle#: | 0 | Worklist Smp#: | 6 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0093892-006 | | | | |
| Misc. Info.: | Study: 93892 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 27-Sep-2017 04:35:13 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK050 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.320 | 7.332 | -0.012 | 5525666 | NC | NC | |
| 3 Bromate | 8.372 | 8.378 | -0.006 | 777302 | 50.0 | 50.7 | |
| $ 6 Dichloroacetic acid(Surr) | 13.540 | 13.559 | -0.019 | 14082237 | 993.7 | 993.2 | |
| 4 Bromide | 16.018 | 15.991 | 0.026 | 13489824 | 500.0 | 531.7 | |
| 2 Chlorate | 17.347 | 17.306 | 0.041 | 4806717 | 200.0 | 197.9 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

| | | |
|---|---|---|
| WC3001LCS_00054 | Amount Added: 250.00 | Units: uL |
| WCDCA_00048 | Amount Added: 10.00 | Units: uL |

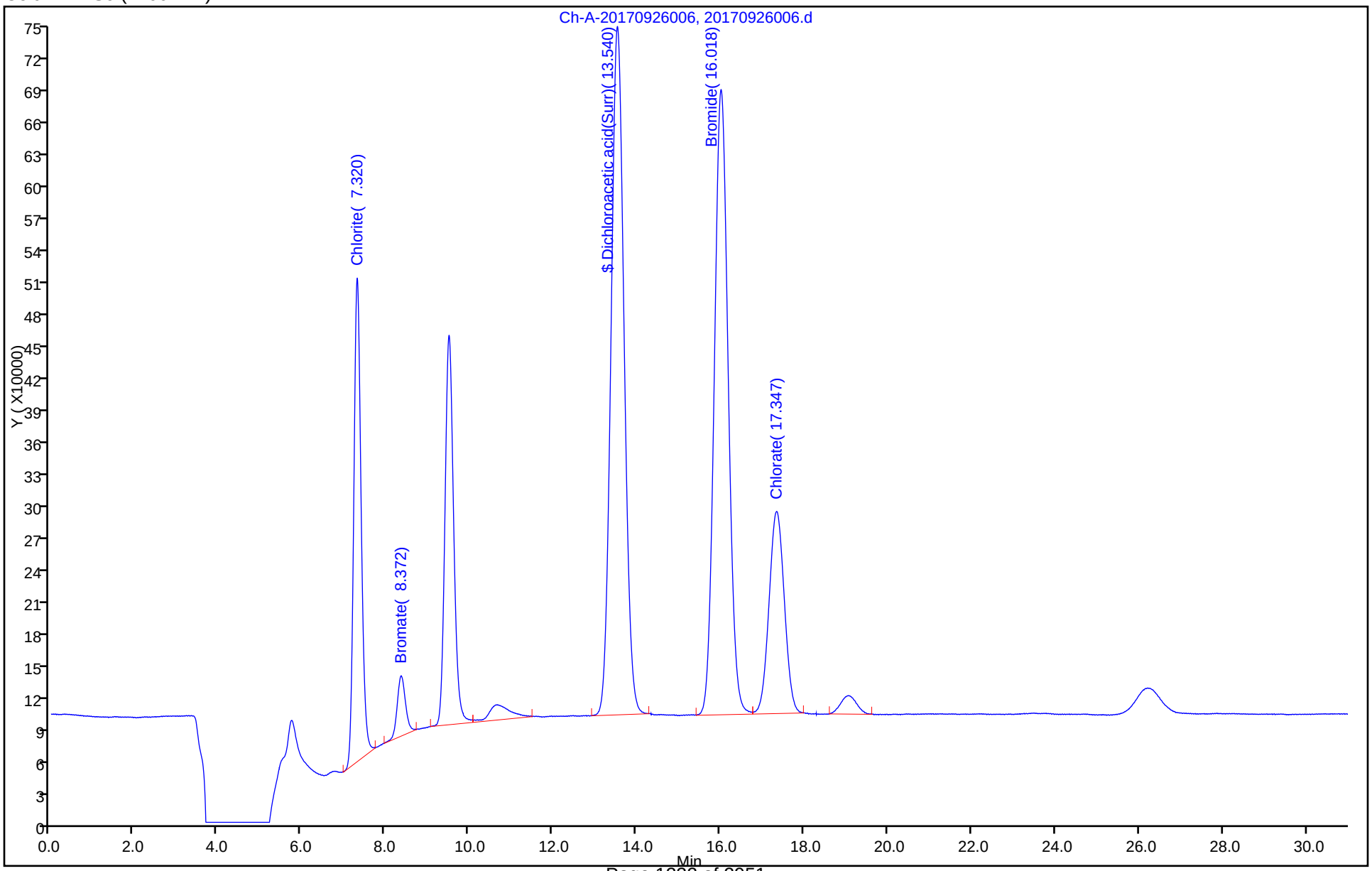
Report Date: 27-Sep-2017 04:35:14 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926006.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 11:15:44 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD4 | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Lims ID: | STD5 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 5 | | |
| Inject. Date: | 26-Sep-2017 11:48:55 | ALS Bottle#: | 0 | Worklist Smp#: | 7 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0093892-007 | | | | |
| Misc. Info.: | Study: 93892 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 27-Sep-2017 04:35:15 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK050 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.225 | 7.332 | -0.107 | 11166724 | NC | NC | |
| 3 Bromate | 8.264 | 8.378 | -0.114 | 1519299 | 100.0 | 99.6 | |
| $ 6 Dichloroacetic acid(Surr) | 13.433 | 13.559 | -0.127 | 13974525 | 993.7 | 987.2 | |
| 4 Bromide | 15.986 | 15.991 | -0.005 | 24624099 | 1000.0 | 982.4 | |
| 2 Chlorate | 17.209 | 17.306 | -0.097 | 9717216 | 400.0 | 400.6 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

| | | |
|---|---|---|
| WC3001LCS_00054 | Amount Added: 500.00 | Units: uL |
| WCDCA_00048 | Amount Added: 10.00 | Units: uL |

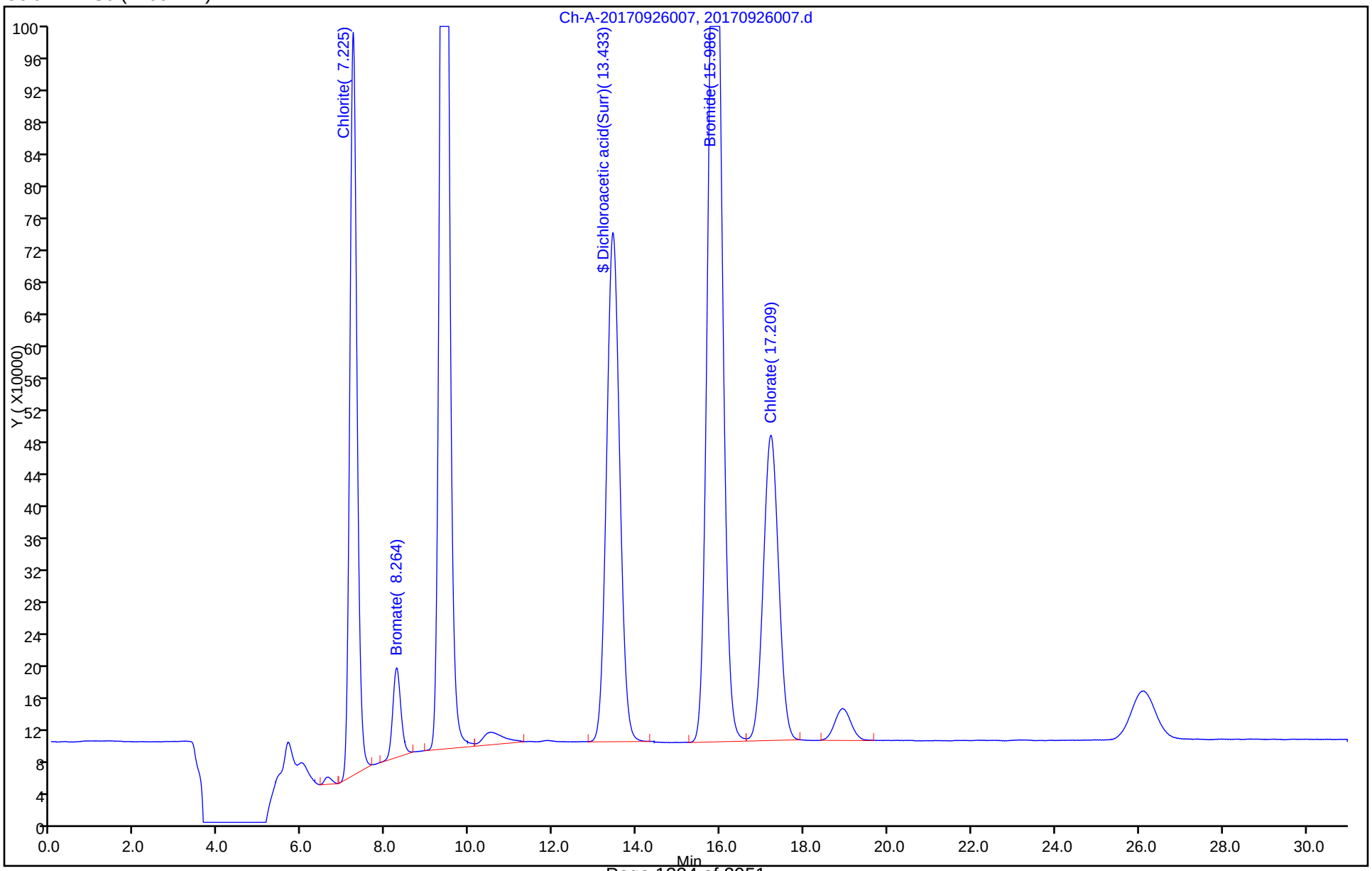
Report Date: 27-Sep-2017 04:35:15 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 11:48:55 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD5 | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1 Analy Batch No.: 431297

SDG No.:

Instrument ID: IC-11 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2017 09:02 Calibration End Date: 09/26/2017 11:48 Calibration ID: 17563

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-431297/2 | 20170926002.d |
| Level 2 | STD1 440-431297/3 | 20170926003.d |
| Level 3 | STD2 440-431297/4 | 20170926004.d |
| Level 4 | STD3 440-431297/5 | 20170926005.d |
| Level 5 | STD4 440-431297/6 | 20170926006.d |
| Level 6 | STD5 440-431297/7 | 20170926007.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | 7.332 | 7.306 | 7.348 | 7.320 | 7.225 | | | | | 0.000 - 0.000 | 7.306 |
| Dichloroacetic acid(Surr) | 13.568 | 13.559 | 13.544 | 13.590 | 13.540 | 13.433 | | | | | 12.610 - 14.508 | 13.539 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-194754-1 Analy Batch No.: 431297

SDG No.:

Instrument ID: IC-11 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2017 09:02 Calibration End Date: 09/26/2017 11:48 Calibration ID: 17563

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-431297/2 | 20170926002.d |
| Level 2 | STD1 440-431297/3 | 20170926003.d |
| Level 3 | STD2 440-431297/4 | 20170926004.d |
| Level 4 | STD3 440-431297/5 | 20170926005.d |
| Level 5 | STD4 440-431297/6 | 20170926006.d |
| Level 6 | STD5 440-431297/7 | 20170926007.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Chlorite | 27628 | 24008<br>27917 | 28189 | 26950 | Lin | -43247.617 | 27969.4671 | | | | | | | 1.0000 | | 0.9950 |
| Dichloroacetic acid(Surr) | 14369<br>14171 | 14094<br>14063 | 14268 | 14179 | Ave | | 14190.7071 | | | | 0.8 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1 | Analy Batch No.: 431297

SDG No.:

Instrument ID: IC-11 | GC Column: AS14 | ID: 4(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2017 09:02 | Calibration End Date: 09/26/2017 11:48 | Calibration ID: 17563

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-431297/2 | 20170926002.d |
| Level 2 | STD1 440-431297/3 | 20170926003.d |
| Level 3 | STD2 440-431297/4 | 20170926004.d |
| Level 4 | STD3 440-431297/5 | 20170926005.d |
| Level 5 | STD4 440-431297/6 | 20170926006.d |
| Level 6 | STD5 440-431297/7 | 20170926007.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Chlorite | Lin | 11166724 | 480167 | 1409439 | 2695008 | 5525666 | 0.000000<br>400 | 20.0 | 50.0 | 100 | 200 |
| Dichloroacetic acid(Surr) | Ave | 14278762<br>13974525 | 14005340 | 14178518 | 14089380 | 14082237 | 994<br>994 | 994 | 994 | 994 | 994 |

Curve Type Legend:

Ave = Average
Lin = Linear

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926002.d | | | | |
| Lims ID: | STD0 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 0 | | |
| Inject. Date: | 26-Sep-2017 09:02:58 | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0093892-002 | | | | |
| Misc. Info.: | Study: 93892 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 27-Sep-2017 04:35:08 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK050 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.568 | 13.559 | 0.009 | 14278762 | 993.7 | 1000.3 | |

## Reagents:

| | | | |
|---|---|---|---|
| WC3001LCS_00054 | Amount Added: | 0.00 | Units: uL |
| WCDCA_00048 | Amount Added: | 10.00 | Units: uL |

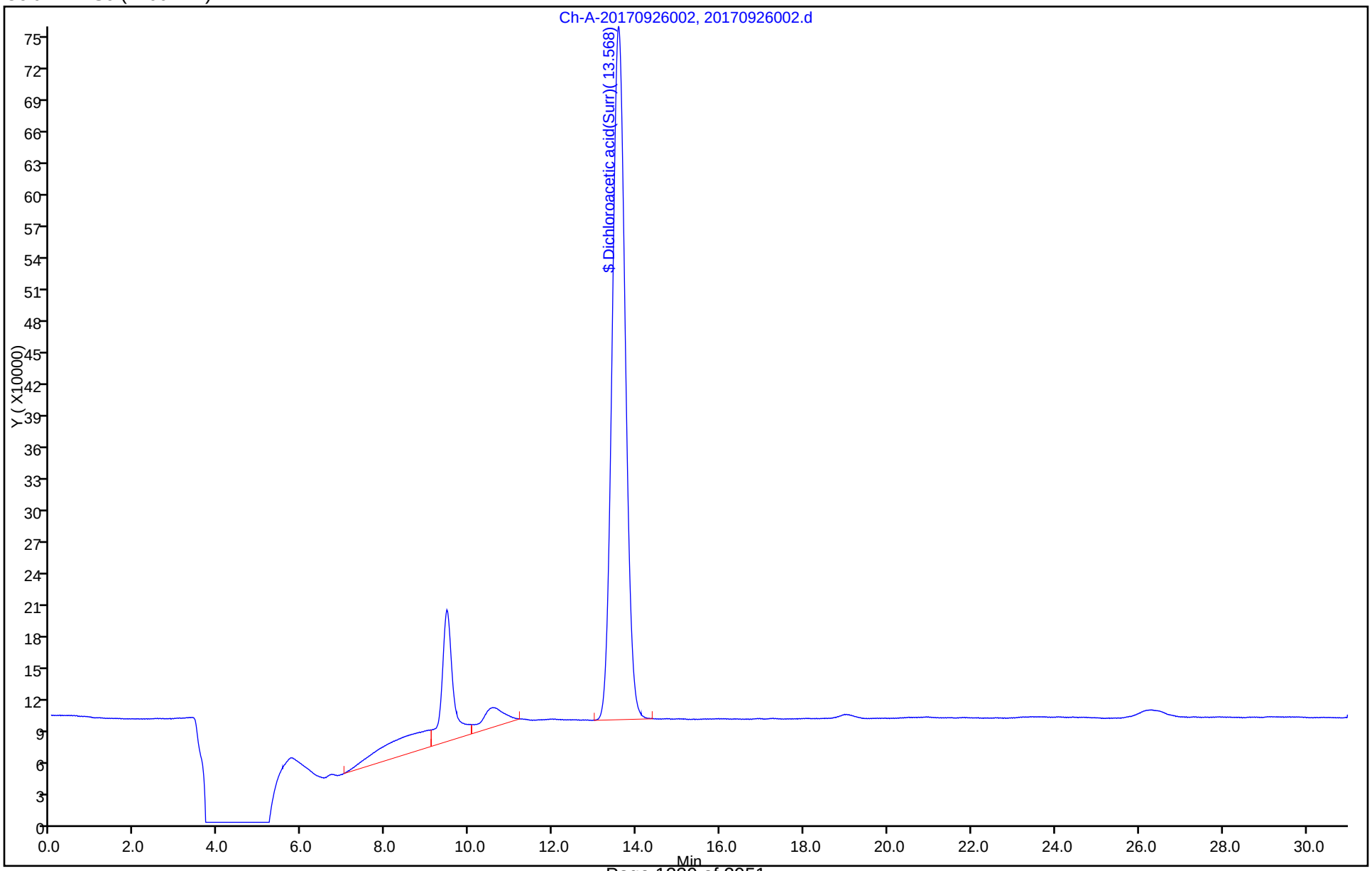
Report Date: 27-Sep-2017 04:35:08 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926002.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 09:02:58 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD0 | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926003.d
Lims ID: STD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 26-Sep-2017 09:36:10 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0093892-003
Misc. Info.: Study: 93892 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist: chrom-300.1_C11*sub2

Method: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 27-Sep-2017 04:35:09 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK050

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.332 | 7.332 | 0.000 | 480167 | 20.0 | 18.7 | |
| 3 Bromate | 8.378 | 8.378 | 0.000 | 79143 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.559 | 13.559 | 0.000 | 14005340 | 993.7 | 985.3 | |
| 4 Bromide | 15.991 | 15.991 | 0.000 | 1336520 | NC | NC | |
| 2 Chlorate | 17.306 | 17.306 | 0.000 | 473629 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WC3001LCS_00054 Amount Added: 25.00 Units: uL
WCDCA_00048 Amount Added: 10.00 Units: uL

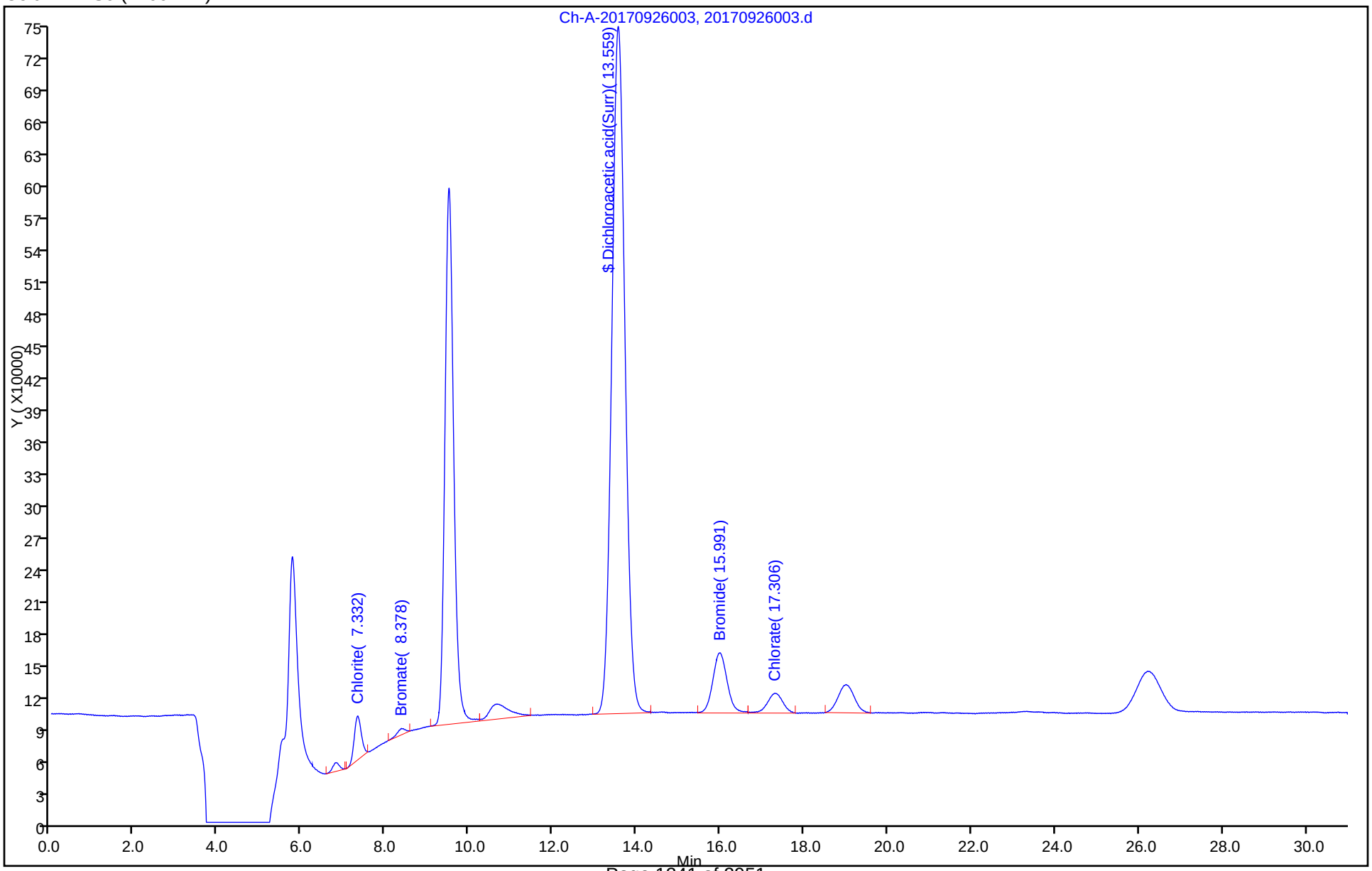
Report Date: 27-Sep-2017 04:35:10 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926003.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 09:36:10 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD1 | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926004.d
Lims ID: STD2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 26-Sep-2017 10:09:21 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0093892-004
Misc. Info.: Study: 93892 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist: chrom-300.1_C11*sub2

Method: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 27-Sep-2017 04:35:11 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK050

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.306 | 7.332 | -0.026 | 1409439 | 50.0 | 51.9 | |
| 3 Bromate | 8.349 | 8.378 | -0.029 | 212482 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.544 | 13.559 | -0.015 | 14178518 | 993.7 | 996.6 | |
| 4 Bromide | 15.920 | 15.991 | -0.071 | 3499404 | NC | NC | |
| 2 Chlorate | 17.283 | 17.306 | -0.023 | 1272302 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WC3001LCS_00054 Amount Added: 62.50 Units: uL
WCDCA_00048 Amount Added: 10.00 Units: uL

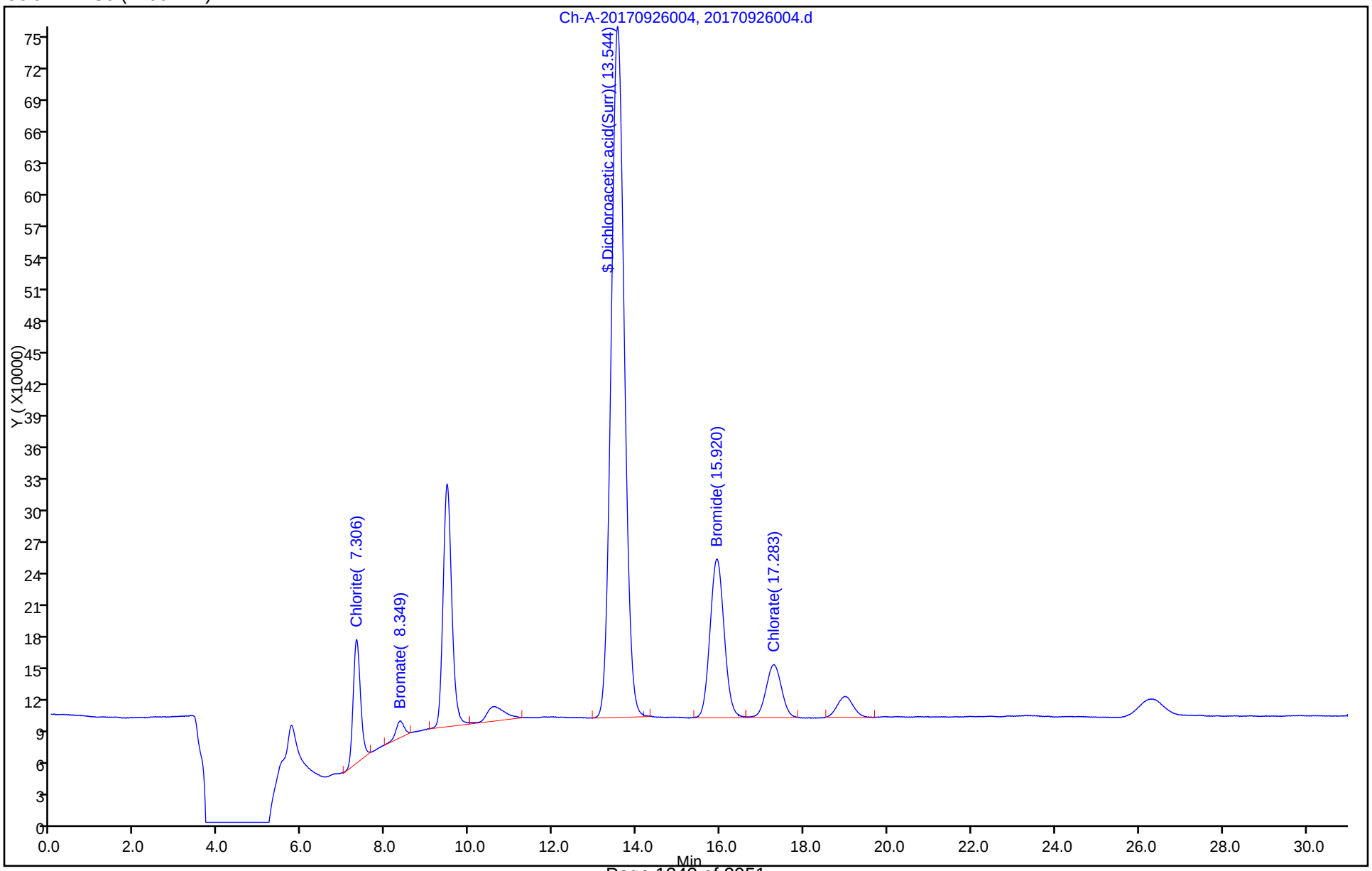
Report Date: 27-Sep-2017 04:35:12 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926004.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 10:09:21 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD2 | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926005.d | | | | |
| Lims ID: | STD3 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 3 | | |
| Inject. Date: | 26-Sep-2017 10:42:32 | ALS Bottle#: | 0 | Worklist Smp#: | 5 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0093892-005 | | | | |
| Misc. Info.: | Study: 93892 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 27-Sep-2017 04:35:04 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK050 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.348 | 7.332 | 0.016 | 2695008 | 100.0 | 97.9 | |
| 3 Bromate | 8.410 | 8.378 | 0.032 | 386378 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.590 | 13.559 | 0.031 | 14089380 | 993.7 | 987.1 | |
| 4 Bromide | 16.094 | 15.991 | 0.103 | 6725300 | NC | NC | |
| 2 Chlorate | 17.432 | 17.306 | 0.126 | 2460996 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

| | | |
|---|---|---|
| WC3001LCS_00054 | Amount Added: 125.00 | Units: uL |
| WCDCA_00048 | Amount Added: 10.00 | Units: uL |

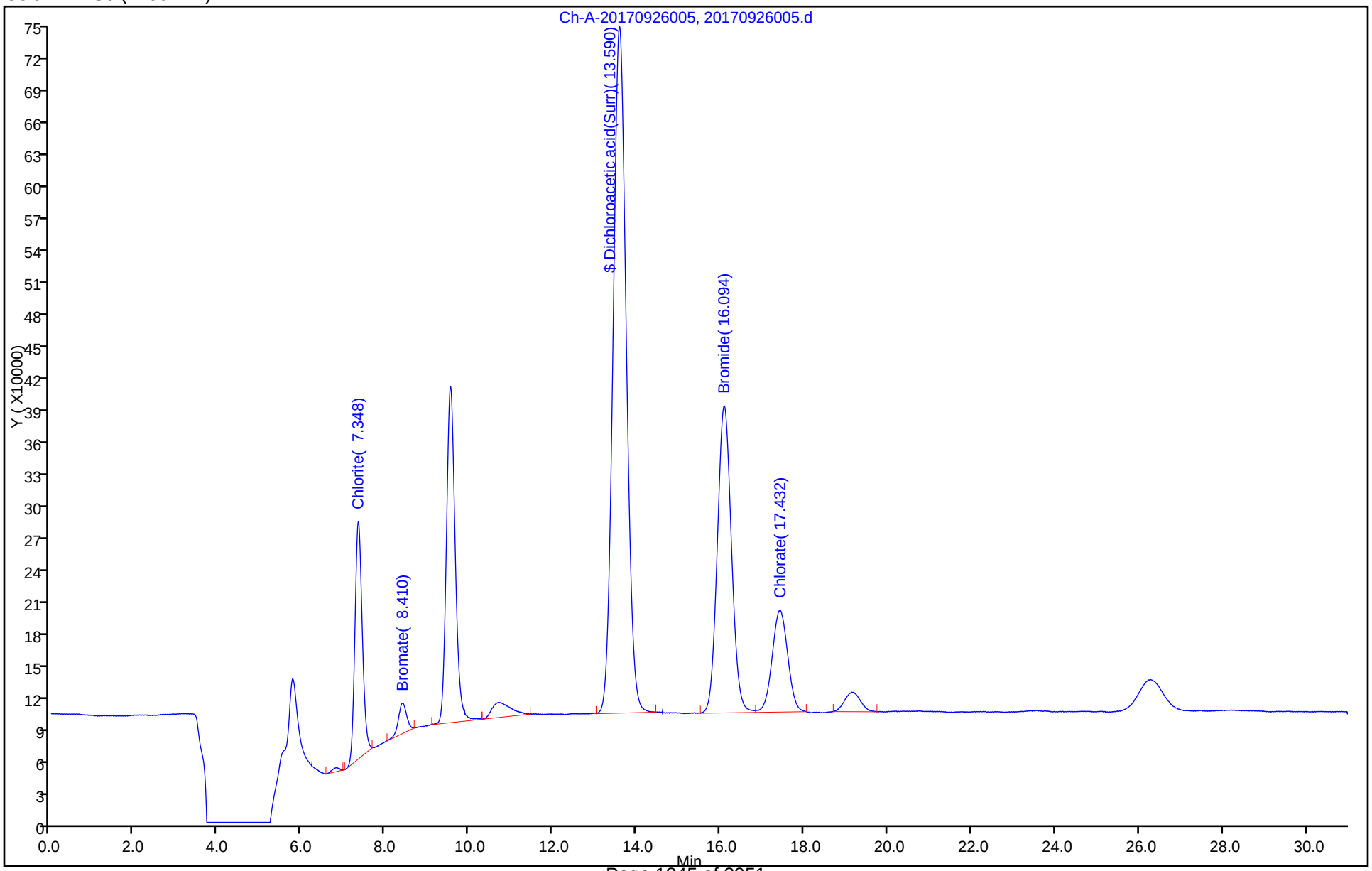
Report Date: 27-Sep-2017 04:35:05 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926005.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 10:42:32 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD3 | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926006.d | | | | |
| Lims ID: | STD4 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 4 | | |
| Inject. Date: | 26-Sep-2017 11:15:44 | ALS Bottle#: | 0 | Worklist Smp#: | 6 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0093892-006 | | | | |
| Misc. Info.: | Study: 93892 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 27-Sep-2017 04:35:13 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK050 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.320 | 7.332 | -0.012 | 5525666 | 200.0 | 199.1 | |
| 3 Bromate | 8.372 | 8.378 | -0.006 | 777302 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.540 | 13.559 | -0.019 | 14082237 | 993.7 | 990.6 | |
| 4 Bromide | 16.018 | 15.991 | 0.026 | 13489824 | NC | NC | |
| 2 Chlorate | 17.347 | 17.306 | 0.041 | 4806717 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

| | | |
|---|---|---|
| WC3001LCS_00054 | Amount Added: 250.00 | Units: uL |
| WCDCA_00048 | Amount Added: 10.00 | Units: uL |

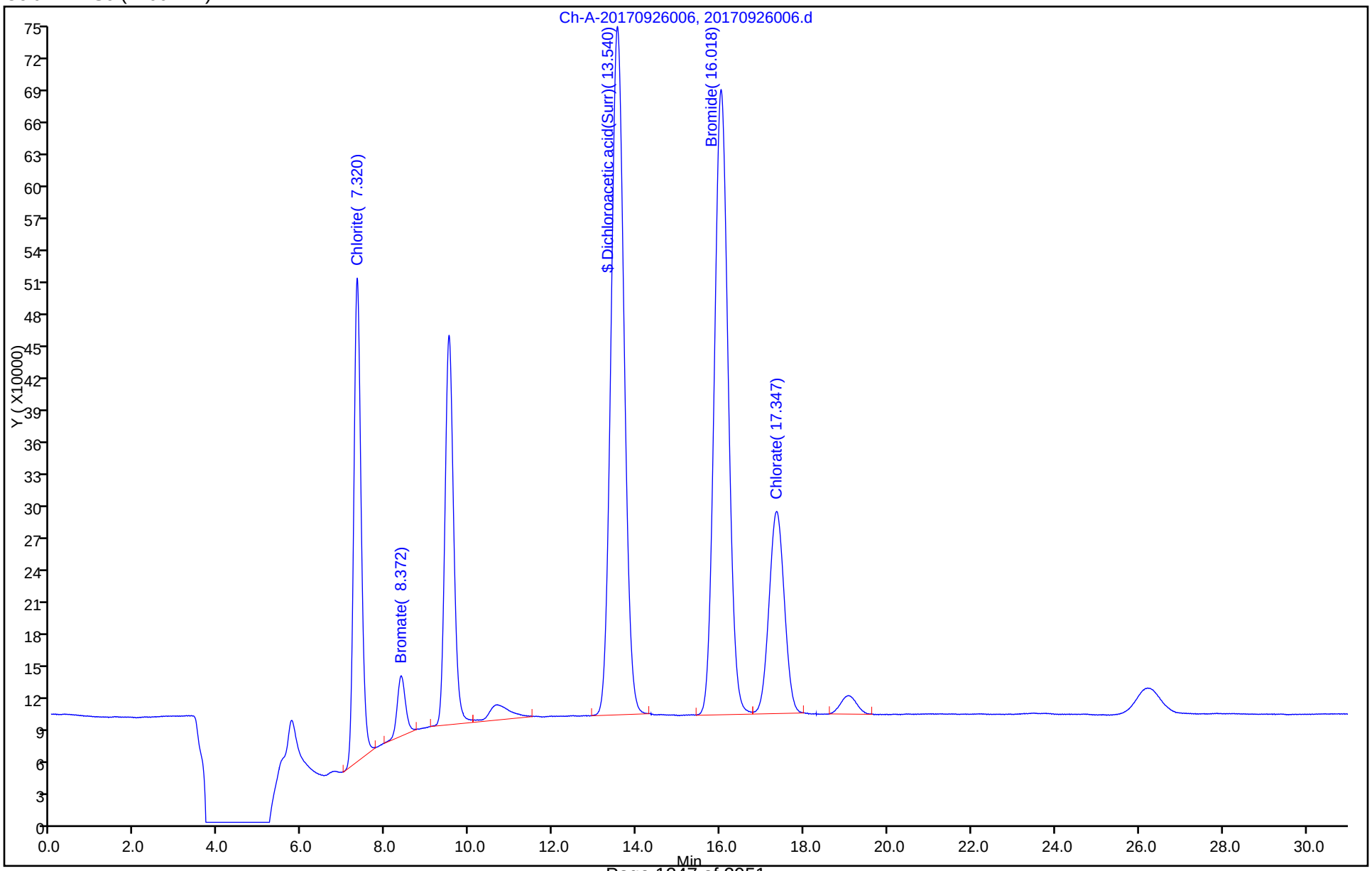
Report Date: 27-Sep-2017 04:35:14 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926006.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 11:15:44 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD4 | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d
Lims ID: STD5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 26-Sep-2017 11:48:55 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0093892-007
Misc. Info.: Study: 93892 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist: chrom-300.1_C11*sub2

Method: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 27-Sep-2017 04:35:15 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK050

| | Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 Chlorite | 7.225 | 7.332 | -0.107 | 11166724 | 400.0 | 400.8 | |
| | 3 Bromate | 8.264 | 8.378 | -0.114 | 1519299 | NC | NC | |
| $ | 6 Dichloroacetic acid(Surr) | 13.433 | 13.559 | -0.127 | 13974525 | 993.7 | 984.8 | |
| | 4 Bromide | 15.986 | 15.991 | -0.005 | 24624099 | NC | NC | |
| | 2 Chlorate | 17.209 | 17.306 | -0.097 | 9717216 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WC3001LCS_00054 Amount Added: 500.00 Units: uL
WCDCA_00048 Amount Added: 10.00 Units: uL

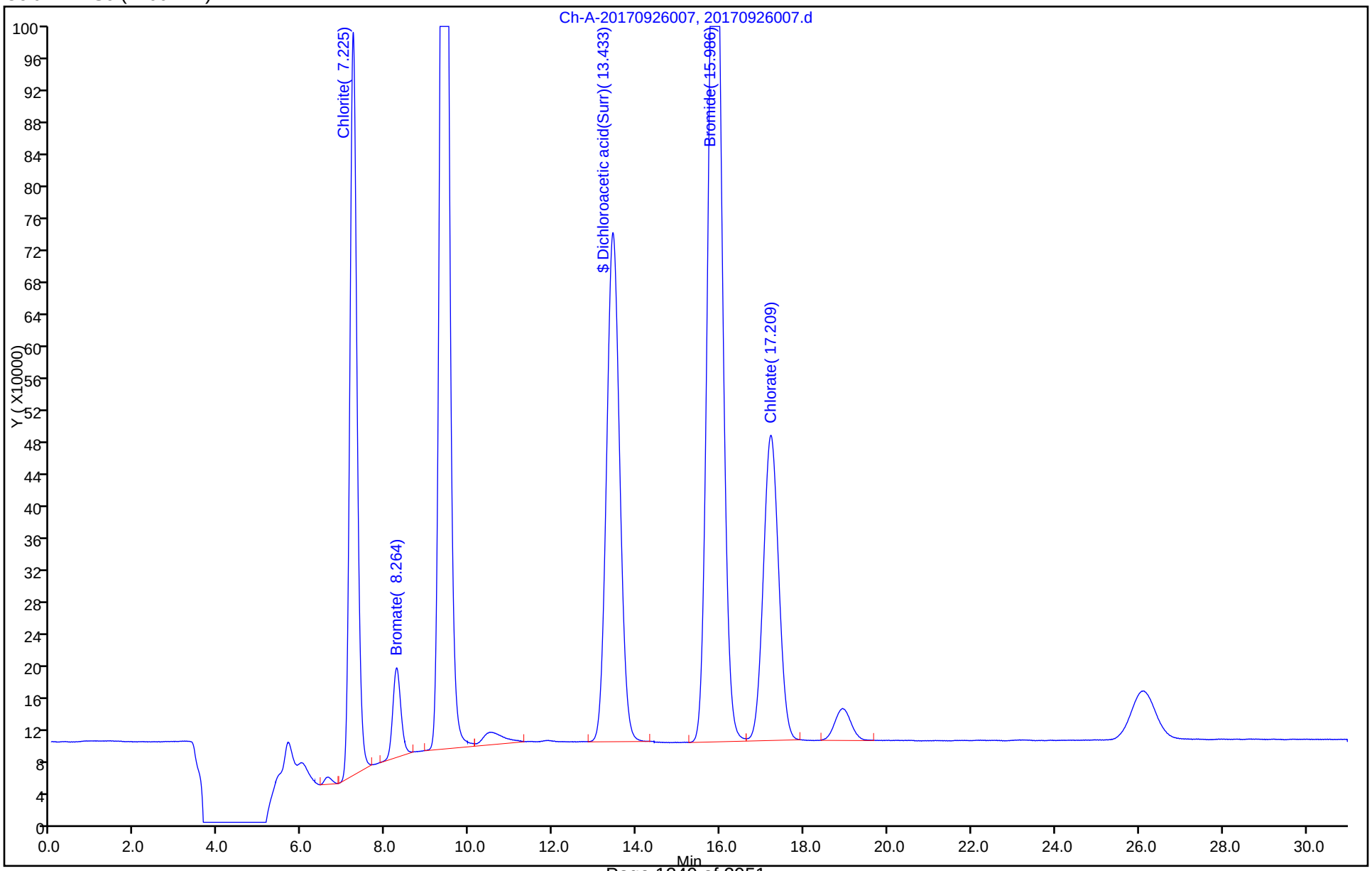
Report Date: 27-Sep-2017 04:35:16 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 11:48:55 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD5 | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1 Analy Batch No.: 423009

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/14/2017 05:28 Calibration End Date: 08/14/2017 08:29 Calibration ID: 17250

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-423009/2 | 440-0092153-002.d |
| Level 2 | STD1 440-423009/3 | 440-0092153-003.d |
| Level 3 | STD2 440-423009/4 | 440-0092153-004.d |
| Level 4 | STD3 440-423009/5 | 440-0092153-005.d |
| Level 5 | STD4 440-423009/6 | 440-0092153-006.d |
| Level 6 | STD5 440-423009/7 | 440-0092153-007.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromate | | 8.250 | 8.242 | 8.233 | 8.150 | 8.150 | | | | | 0.000 - 0.000 | 8.205 |
| Bromide | | 15.967 | 15.975 | 15.933 | 15.742 | 15.717 | | | | | 0.000 - 0.000 | 15.867 |
| Chlorate | | 17.400 | 17.417 | 17.367 | 17.167 | 17.150 | | | | | 0.000 - 0.000 | 17.300 |
| Dichloroacetic acid(Surr) | 13.600 | 13.592 | 13.592 | 13.575 | 13.442 | 13.450 | | | | | 12.640 - 14.543 | 13.542 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-194754-1 Analy Batch No.: 423009

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/14/2017 05:28 Calibration End Date: 08/14/2017 08:29 Calibration ID: 17250

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-423009/2 | 440-0092153-002.d |
| Level 2 | STD1 440-423009/3 | 440-0092153-003.d |
| Level 3 | STD2 440-423009/4 | 440-0092153-004.d |
| Level 4 | STD3 440-423009/5 | 440-0092153-005.d |
| Level 5 | STD4 440-423009/6 | 440-0092153-006.d |
| Level 6 | STD5 440-423009/7 | 440-0092153-007.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Bromate | 79304 | 72780<br>82443 | 79270 | 77699 | Lin | -61097.627 | 82458.7416 | | | | | | | 1.0000 | | 0.9950 |
| Bromide | 145707 | 141083<br>154023 | 142935 | 143857 | Lin | -1402152.1 | 153856.952 | | | | | | | 0.9990 | | 0.9950 |
| Chlorate | 131916 | 131347<br>136786 | 128457 | 131179 | Lin | -332635.33 | 136702.749 | | | | | | | 1.0000 | | 0.9950 |
| Dichloroacetic acid(Surr) | 78811<br>79249 | 81917<br>82668 | 80083 | 80175 | Ave | | 80483.8714 | | | | 1.9 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-194754-1 Analy Batch No.: 423009

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/14/2017 05:28 Calibration End Date: 08/14/2017 08:29 Calibration ID: 17250

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-423009/2 | 440-0092153-002.d |
| Level 2 | STD1 440-423009/3 | 440-0092153-003.d |
| Level 3 | STD2 440-423009/4 | 440-0092153-004.d |
| Level 4 | STD3 440-423009/5 | 440-0092153-005.d |
| Level 5 | STD4 440-423009/6 | 440-0092153-006.d |
| Level 6 | STD5 440-423009/7 | 440-0092153-007.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Bromate | Lin | 8244283 | 363900 | 990869 | 1942473 | 3965197 | 0.000000<br>100 | 5.00 | 12.5 | 25.0 | 50.0 |
| Bromide | Lin | 154022782 | 7054125 | 17866886 | 35964194 | 72853733 | 0.000000<br>1000 | 50.0 | 125 | 250 | 500 |
| Chlorate | Lin | 54714474 | 2626944 | 6422839 | 13117939 | 26383109 | 0.000000<br>400 | 20.0 | 50.0 | 100 | 200 |
| Dichloroacetic acid(Surr) | Ave | 78315176<br>82148091 | 81402171 | 79578914 | 79671177 | 78750673 | 994<br>994 | 994 | 994 | 994 | 994 |

Curve Type Legend:

Ave = Average
Lin = Linear

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-002.d
Lims ID: STD0
Client ID:
Sample Type: IC Calib Level: 0
Inject. Date: 14-Aug-2017 05:28:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0092153-002
Misc. Info.: 2 EB
Operator ID: Instrument ID: IC-8
Sublist: chrom-300.1_C8*sub2

Method: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\300.1_C8.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 14-Aug-2017 09:16:53 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK035

First Level Reviewer: zakhrabovy Date: 14-Aug-2017 06:14:05

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.600 | 13.592 | 0.008 | 78315176 | 993.7 | 973.1 | |

## Reagents:

WC3001LCS_00049 Amount Added: 0.00 Units: uL
WCDCA_00046 Amount Added: 10.00 Units: uL Run Reagent

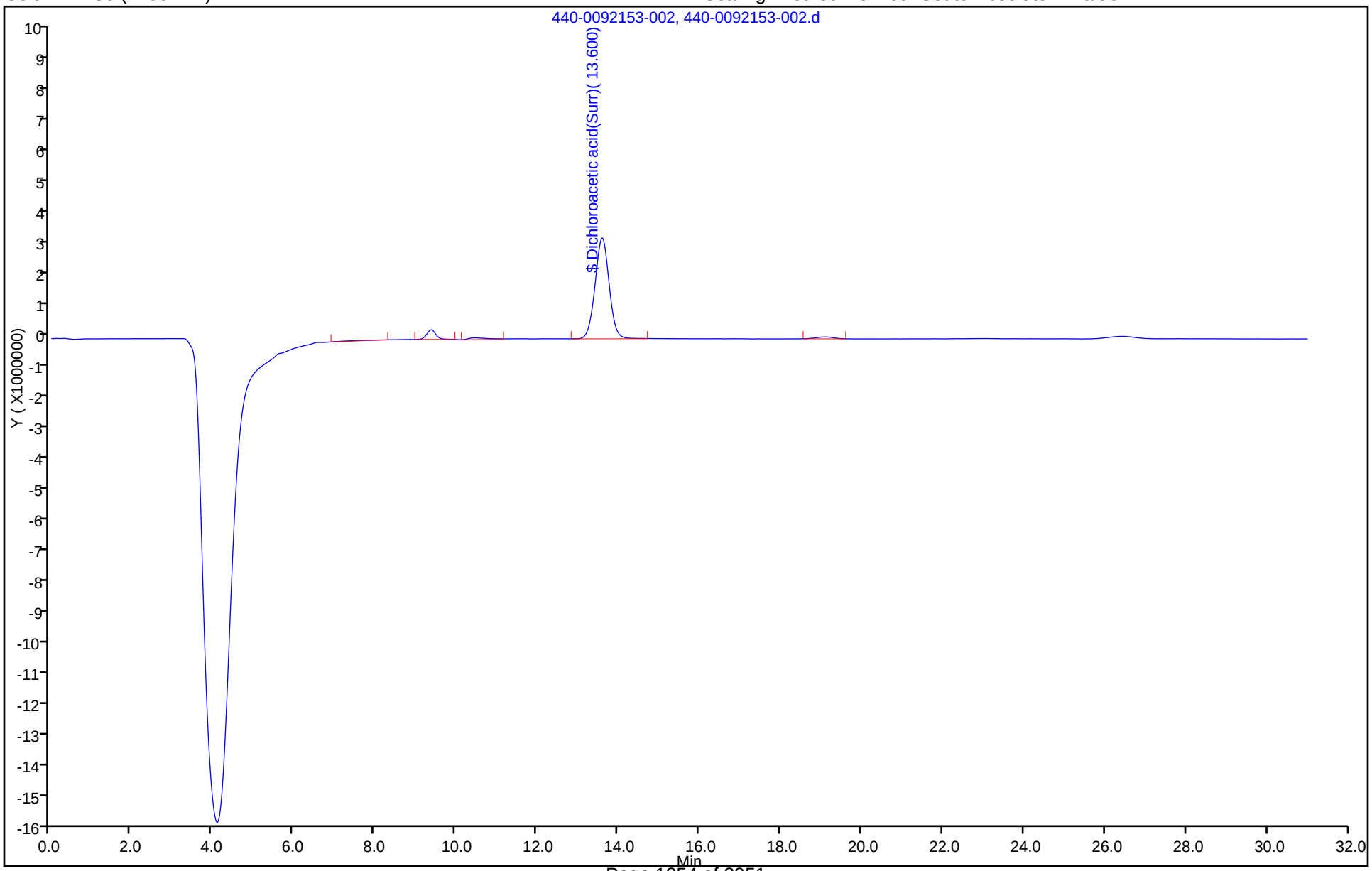
Report Date: 14-Aug-2017 09:16:54 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-002.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 14-Aug-2017 05:28:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | STD0 | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-003.d
Lims ID: STD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 14-Aug-2017 06:04:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0092153-003
Misc. Info.: 3 EB
Operator ID: Instrument ID: IC-8
Sublist: chrom-300.1_C8*sub2

Method: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\300.1_C8.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 14-Aug-2017 09:16:57 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK035

First Level Reviewer: zakhrabovy Date: 14-Aug-2017 06:52:42

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.192 | 7.192 | 0.000 | 3005792 | NC | NC | M |
| 3 Bromate | 8.250 | 8.250 | 0.000 | 363900 | 5.00 | 5.15 | M |
| $ 6 Dichloroacetic acid(Surr) | 13.592 | 13.592 | 0.000 | 81402171 | 993.7 | 1011.4 | |
| 4 Bromide | 15.967 | 15.967 | 0.000 | 7054125 | 50.0 | 55.0 | |
| 2 Chlorate | 17.400 | 17.400 | 0.000 | 2626944 | 20.0 | 21.6 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00049 Amount Added: 25.00 Units: uL
WCDCA_00046 Amount Added: 10.00 Units: uL Run Reagent

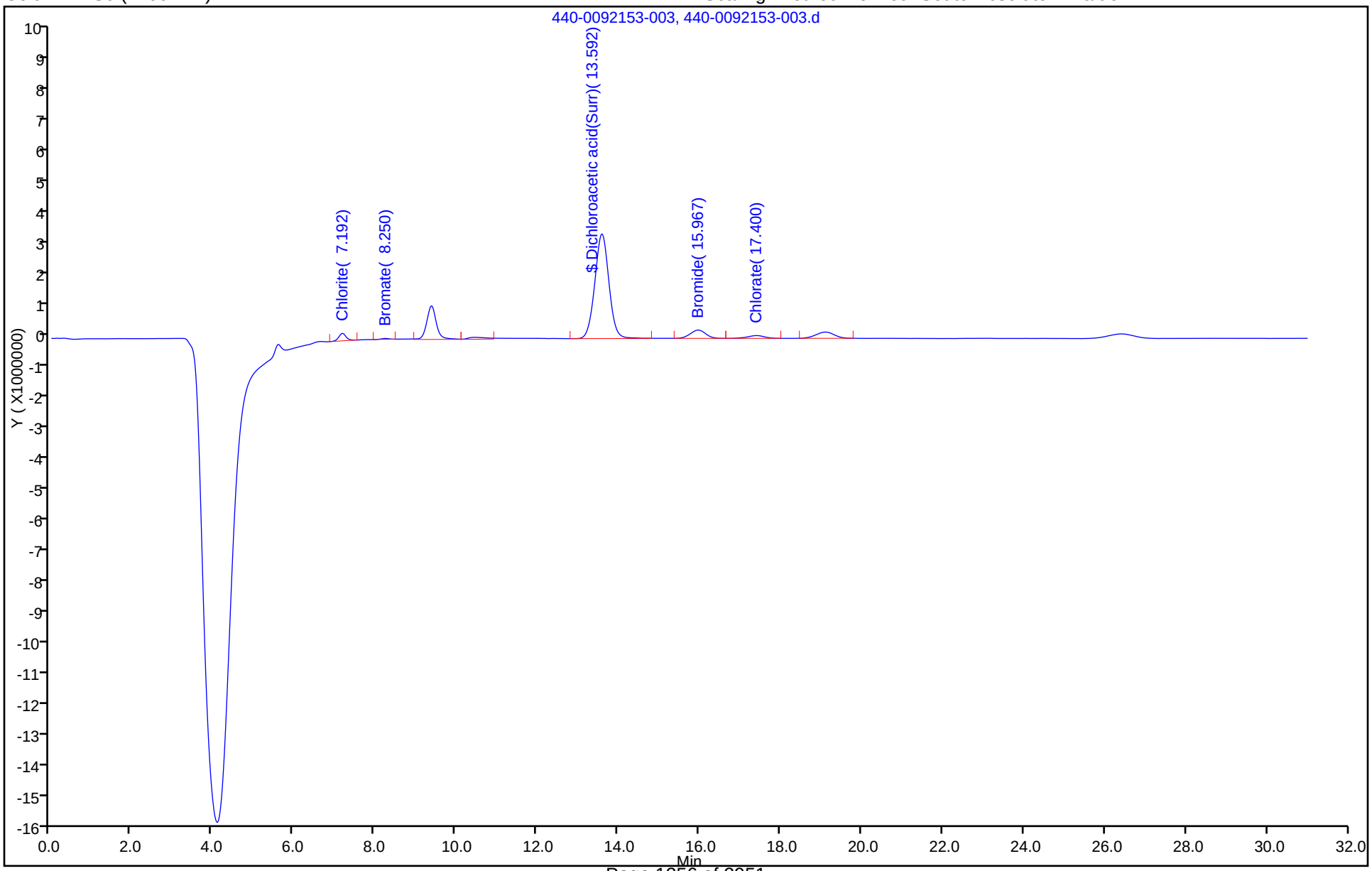
Report Date: 14-Aug-2017 09:16:57 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-003.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 14-Aug-2017 06:04:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | STD1 | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

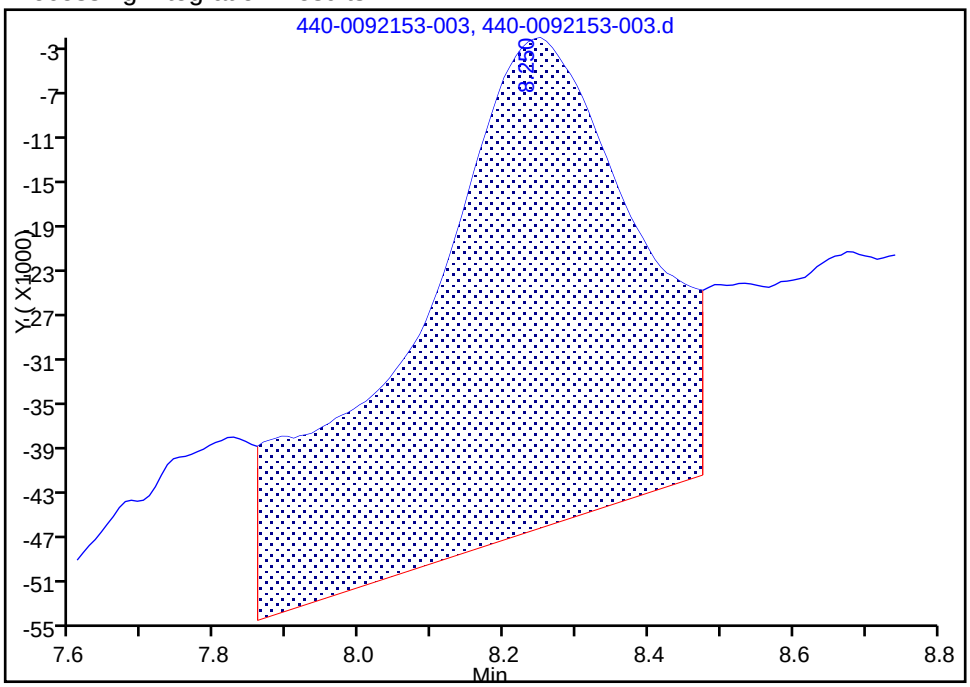
Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-003.d
Injection Date: 14-Aug-2017 06:04:00 Instrument ID: IC-8
Lims ID: STD1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C8 Limit Group: IC-300.1_28D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## 3 Bromate, CAS: 15541-45-4

Signal: 1

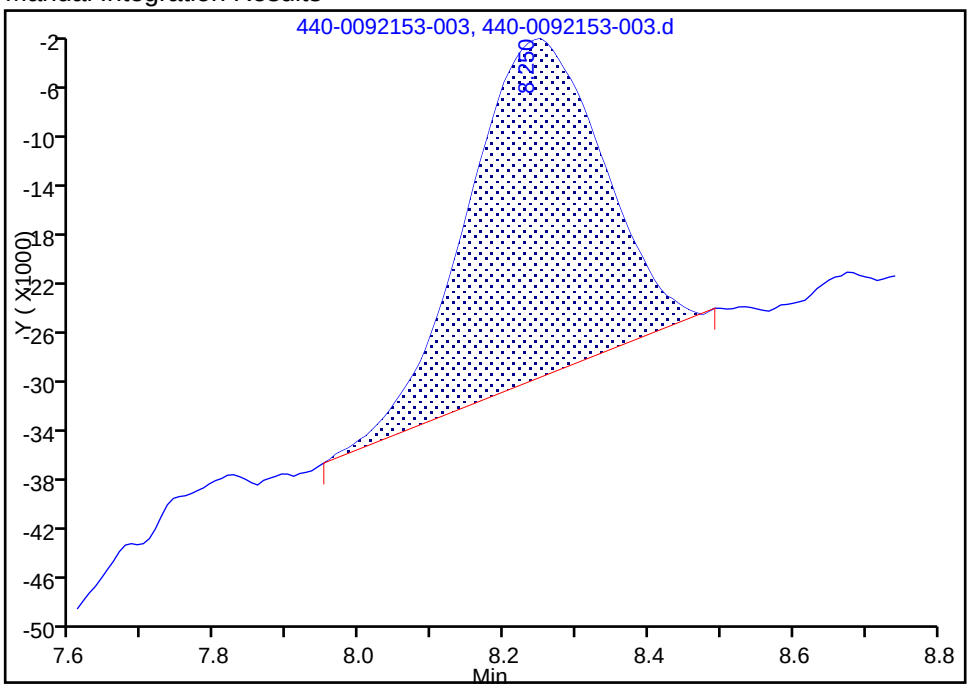
Processing Integration Results

RT: 8.25
Area: 954394
Amount: 5.000000
Amount Units: ug/l




Manual Integration Results

RT: 8.25
Area: 363900
Amount: 5.154064
Amount Units: ug/l




Reviewer: zakhrabovy, 14-Aug-2017 06:52:35
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-004.d
Lims ID: STD2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 14-Aug-2017 06:40:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0092153-004
Misc. Info.: 4 EB
Operator ID: Instrument ID: IC-8
Sublist: chrom-300.1_C8*sub2

Method: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\300.1_C8.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 14-Aug-2017 09:16:59 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK035

First Level Reviewer: zakhrabovy Date: 14-Aug-2017 07:21:06

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.192 | 7.192 | 0.000 | 7278865 | NC | NC | M |
| 3 Bromate | 8.242 | 8.250 | -0.008 | 990869 | 12.5 | 12.8 | M |
| $ 6 Dichloroacetic acid(Surr) | 13.592 | 13.592 | 0.000 | 79578914 | 993.7 | 988.8 | |
| 4 Bromide | 15.975 | 15.967 | 0.008 | 17866886 | 125.0 | 125.2 | |
| 2 Chlorate | 17.417 | 17.400 | 0.017 | 6422839 | 50.0 | 49.4 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00049 Amount Added: 62.50 Units: uL
WCDCA_00046 Amount Added: 10.00 Units: uL Run Reagent

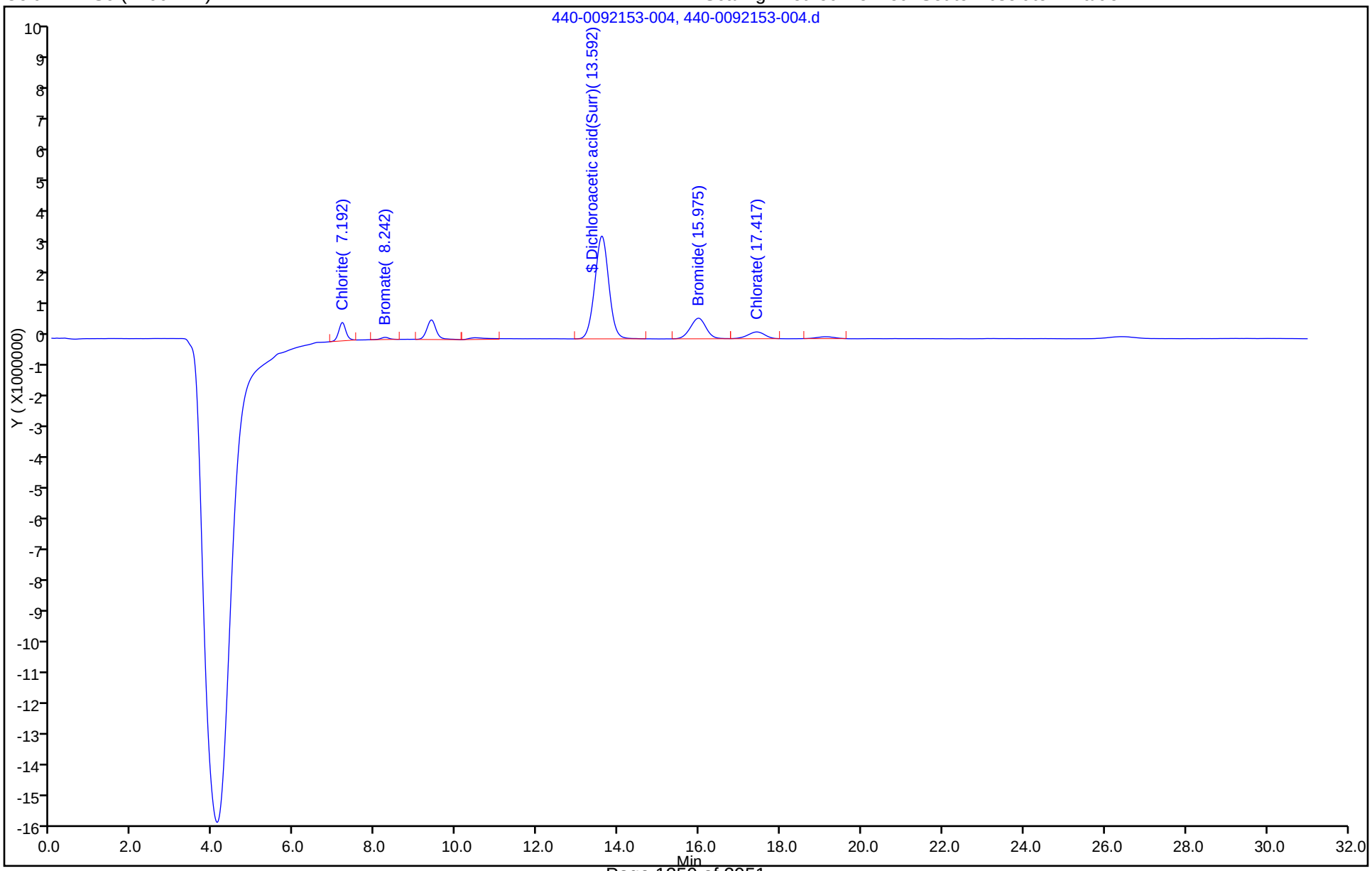
Report Date: 14-Aug-2017 09:16:59 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-004.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 14-Aug-2017 06:40:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | STD2 | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

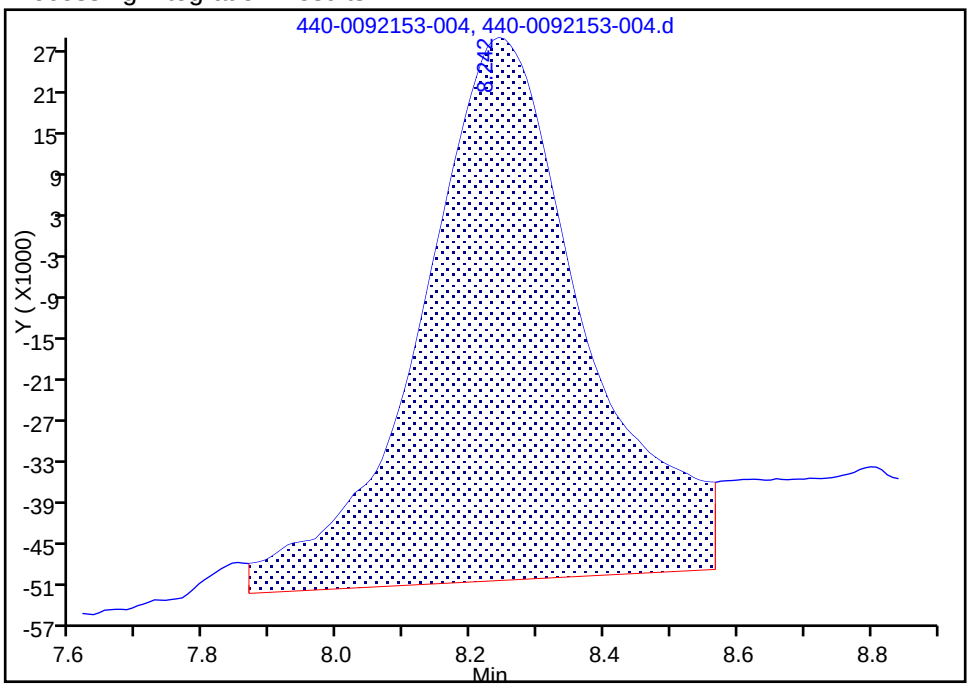
Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-004.d
Injection Date: 14-Aug-2017 06:40:00 Instrument ID: IC-8
Lims ID: STD2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C8 Limit Group: IC-300.1_28D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## 3 Bromate, CAS: 15541-45-4

Signal: 1

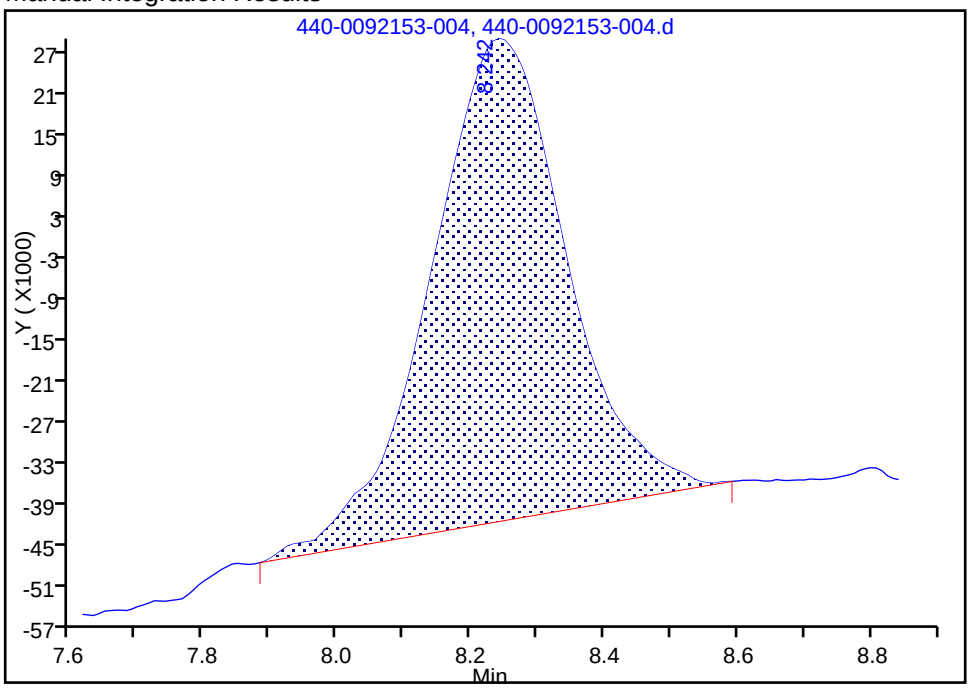
Processing Integration Results

RT: 8.24
Area: 1342361
Amount: 12.500000
Amount Units: ug/l




Manual Integration Results

RT: 8.24
Area: 990869
Amount: 12.757491
Amount Units: ug/l




Reviewer: zakhrabovy, 14-Aug-2017 07:20:52
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-005.d
Lims ID: STD3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 14-Aug-2017 07:17:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0092153-005
Misc. Info.: 5 EB
Operator ID: Instrument ID: IC-8
Sublist: chrom-300.1_C8*sub2

Method: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\300.1_C8.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 14-Aug-2017 09:24:28 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK035

First Level Reviewer: zakhrabovy Date: 14-Aug-2017 08:06:24

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.183 | 7.192 | -0.009 | 14820378 | NC | NC | M |
| 3 Bromate | 8.233 | 8.250 | -0.017 | 1942473 | 25.0 | 24.3 | M |
| $ 6 Dichloroacetic acid(Surr) | 13.575 | 13.592 | -0.017 | 79671177 | 993.7 | 989.9 | |
| 4 Bromide | 15.933 | 15.967 | -0.034 | 35964194 | 250.0 | 242.9 | |
| 2 Chlorate | 17.367 | 17.400 | -0.033 | 13117939 | 100.0 | 98.4 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00049 Amount Added: 125.00 Units: uL
WCDCA_00046 Amount Added: 10.00 Units: uL Run Reagent

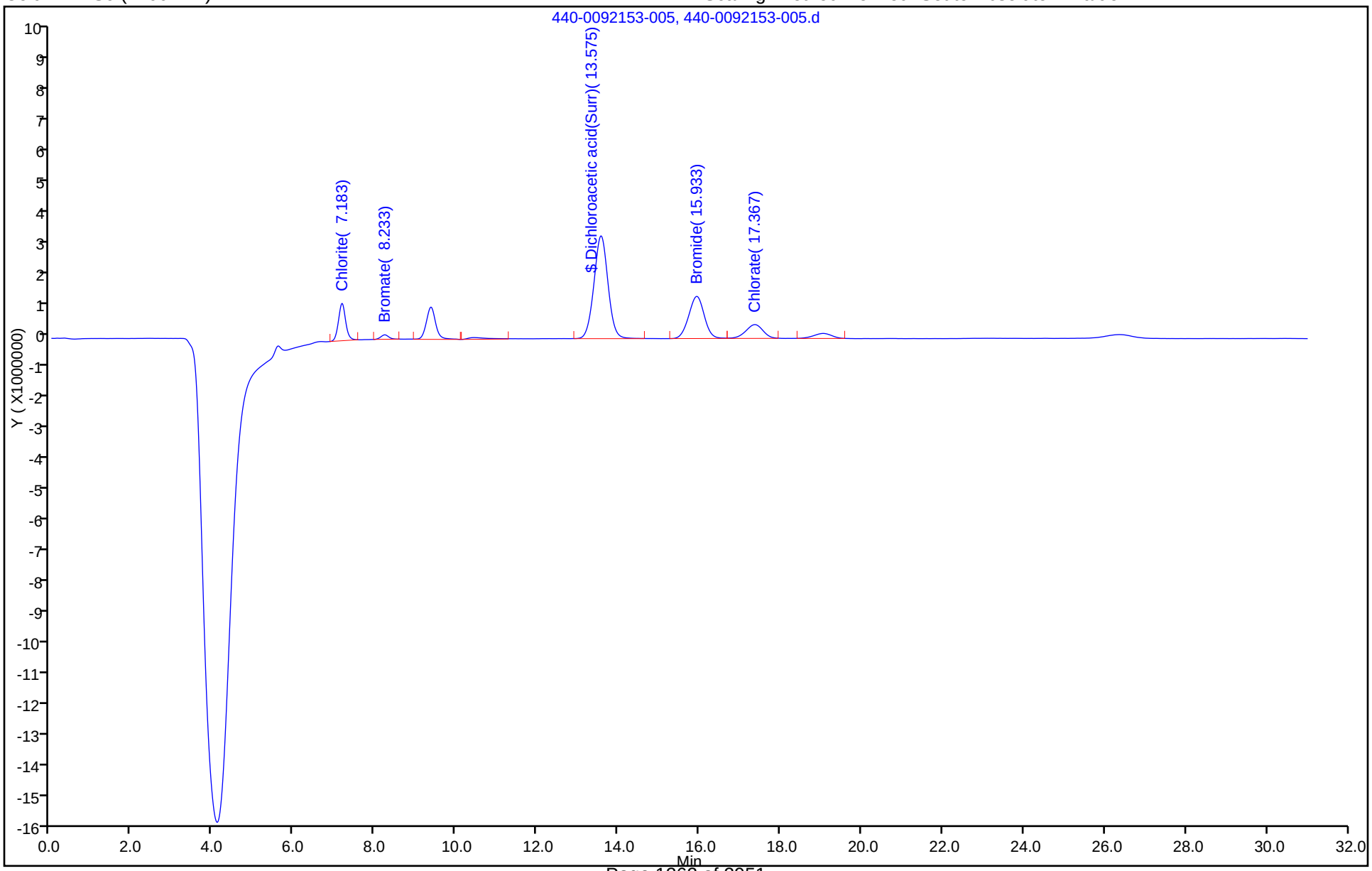
Report Date: 14-Aug-2017 09:24:28 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-005.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 14-Aug-2017 07:17:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | STD3 | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

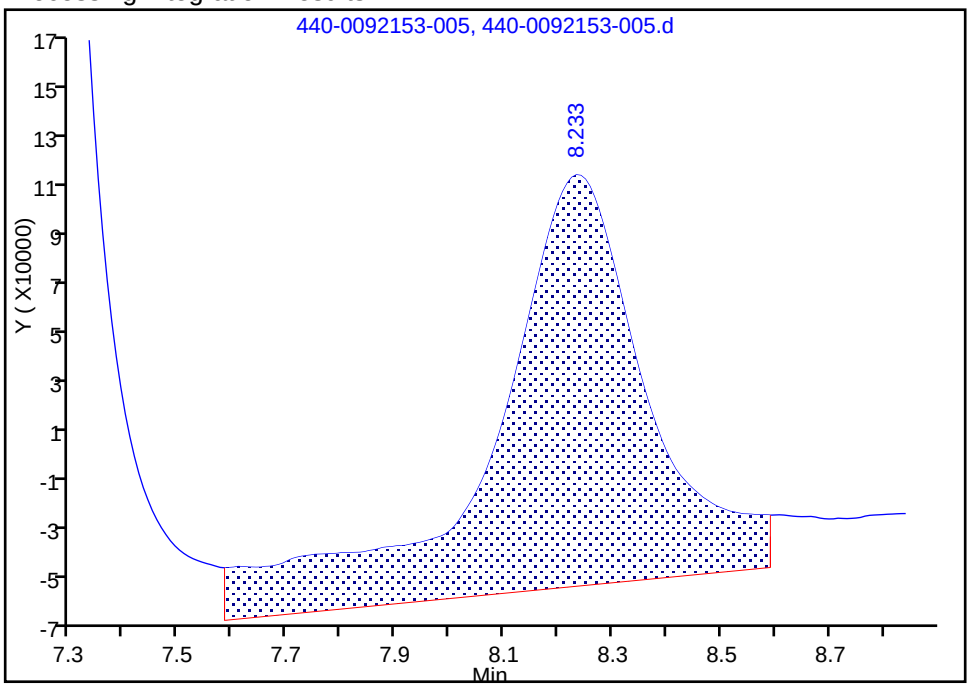
Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-005.d
Injection Date: 14-Aug-2017 07:17:00 Instrument ID: IC-8
Lims ID: STD3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C8 Limit Group: IC-300.1_28D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## 3 Bromate, CAS: 15541-45-4

Signal: 1

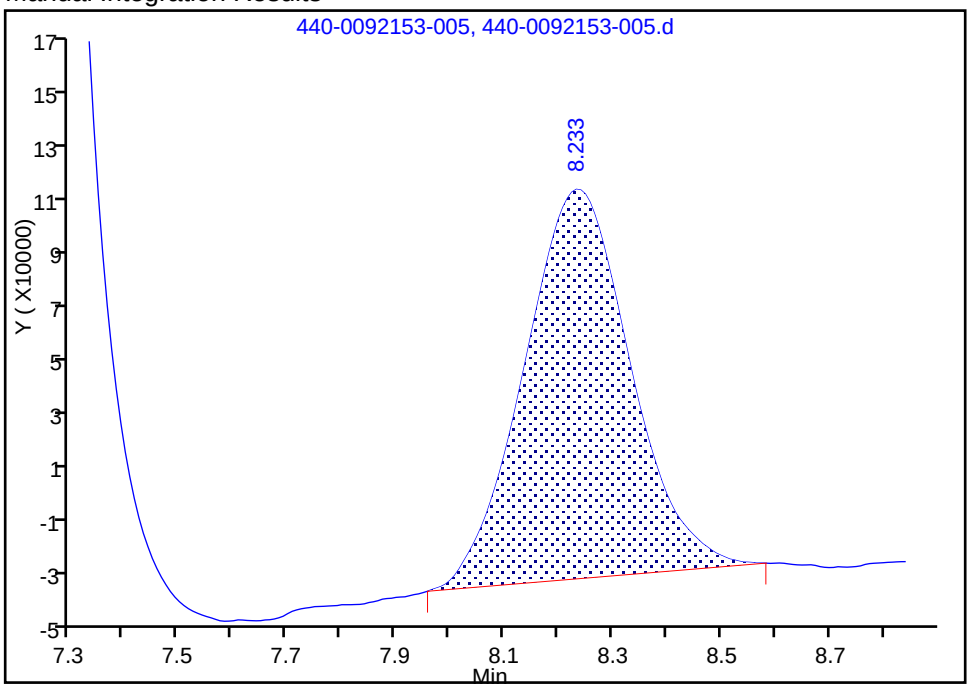
Processing Integration Results

RT: 8.23
Area: 3301620
Amount: 25.000000
Amount Units: ug/l




Manual Integration Results

RT: 8.23
Area: 1942473
Amount: 24.297856
Amount Units: ug/l




Reviewer: zakhrabovy, 14-Aug-2017 08:06:00
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-006.d
Lims ID: STD4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 14-Aug-2017 07:53:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0092153-006
Misc. Info.: 6 EB
Operator ID: Instrument ID: IC-8
Sublist: chrom-300.1_C8*sub2

Method: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\300.1_C8.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 14-Aug-2017 09:17:03 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK035

First Level Reviewer: zakhrabovy Date: 14-Aug-2017 09:16:14

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.117 | 7.192 | -0.075 | 29558579 | NC | NC | M |
| 3 Bromate | 8.150 | 8.250 | -0.100 | 3965197 | 50.0 | 48.8 | |
| $ 6 Dichloroacetic acid(Surr) | 13.442 | 13.592 | -0.150 | 78750673 | 993.7 | 978.5 | |
| 4 Bromide | 15.742 | 15.967 | -0.225 | 72853733 | 500.0 | 482.6 | |
| 2 Chlorate | 17.167 | 17.400 | -0.233 | 26383109 | 200.0 | 195.4 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00049 Amount Added: 250.00 Units: uL
WCDCA_00046 Amount Added: 10.00 Units: uL Run Reagent

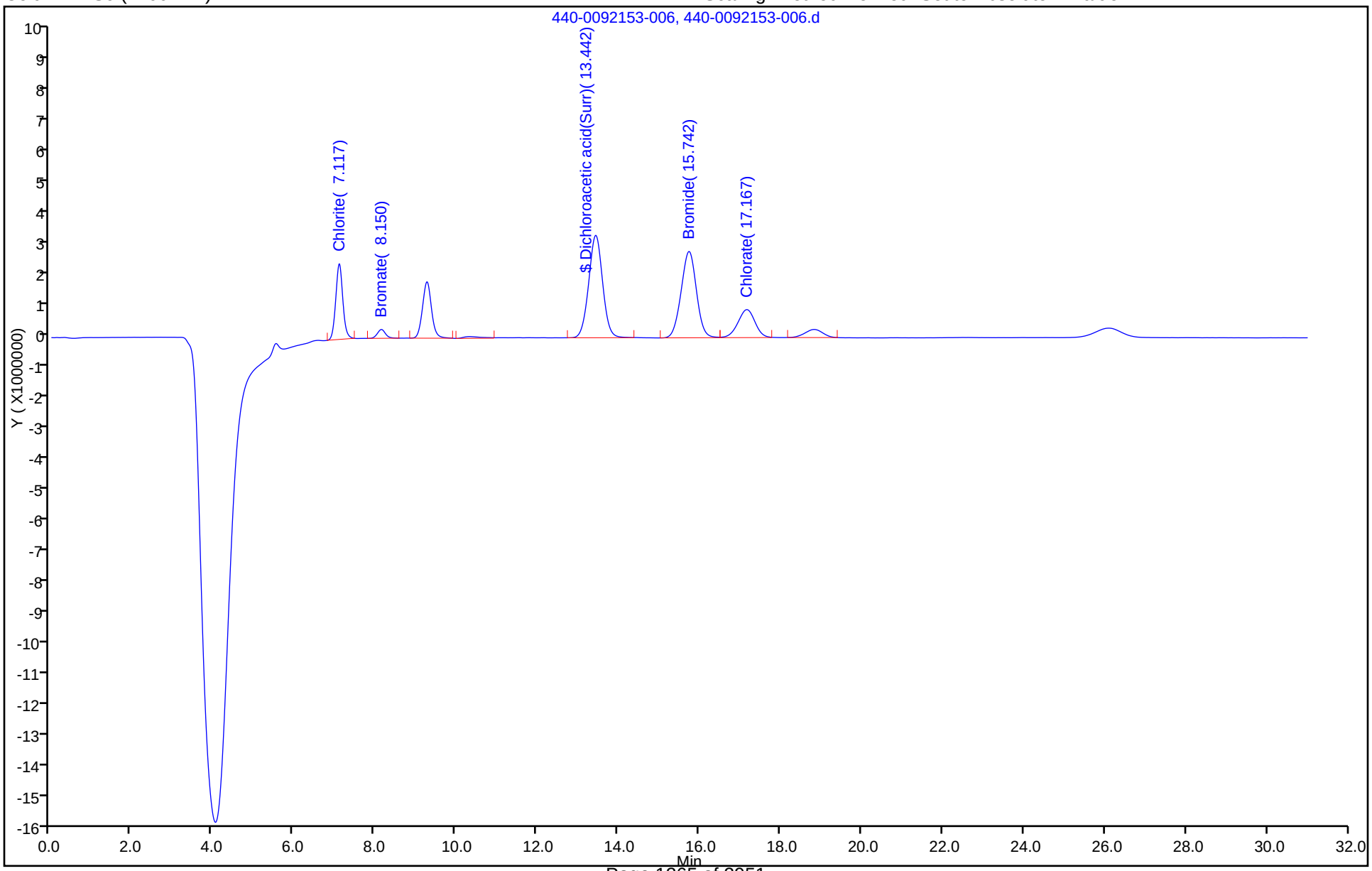
Report Date: 14-Aug-2017 09:17:04 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-006.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 14-Aug-2017 07:53:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | STD4 | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Lims ID: | STD5 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 5 | | |
| Inject. Date: | 14-Aug-2017 08:29:00 | ALS Bottle#: | 0 | Worklist Smp#: | 7 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0092153-007 | | | | |
| Misc. Info.: | 7 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Sublist: | chrom-300.1_C8*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 14-Aug-2017 09:20:38 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK035 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 14-Aug-2017 09:20:38 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.117 | 7.192 | -0.075 | 61259862 | NC | NC | M |
| 3 Bromate | 8.150 | 8.250 | -0.100 | 8244283 | 100.0 | 100.7 | |
| $ 6 Dichloroacetic acid(Surr) | 13.450 | 13.592 | -0.142 | 82148091 | 993.7 | 1020.7 | |
| 4 Bromide | 15.717 | 15.967 | -0.250 | 154022782 | 1000.0 | 1010.2 | |
| 2 Chlorate | 17.150 | 17.400 | -0.250 | 54714474 | 400.0 | 402.7 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

| | | | |
|---|---|---|---|
| WC3001LCS_00049 | Amount Added: 500.00 | Units: uL | |
| WCDCA_00046 | Amount Added: 10.00 | Units: uL | Run Reagent |

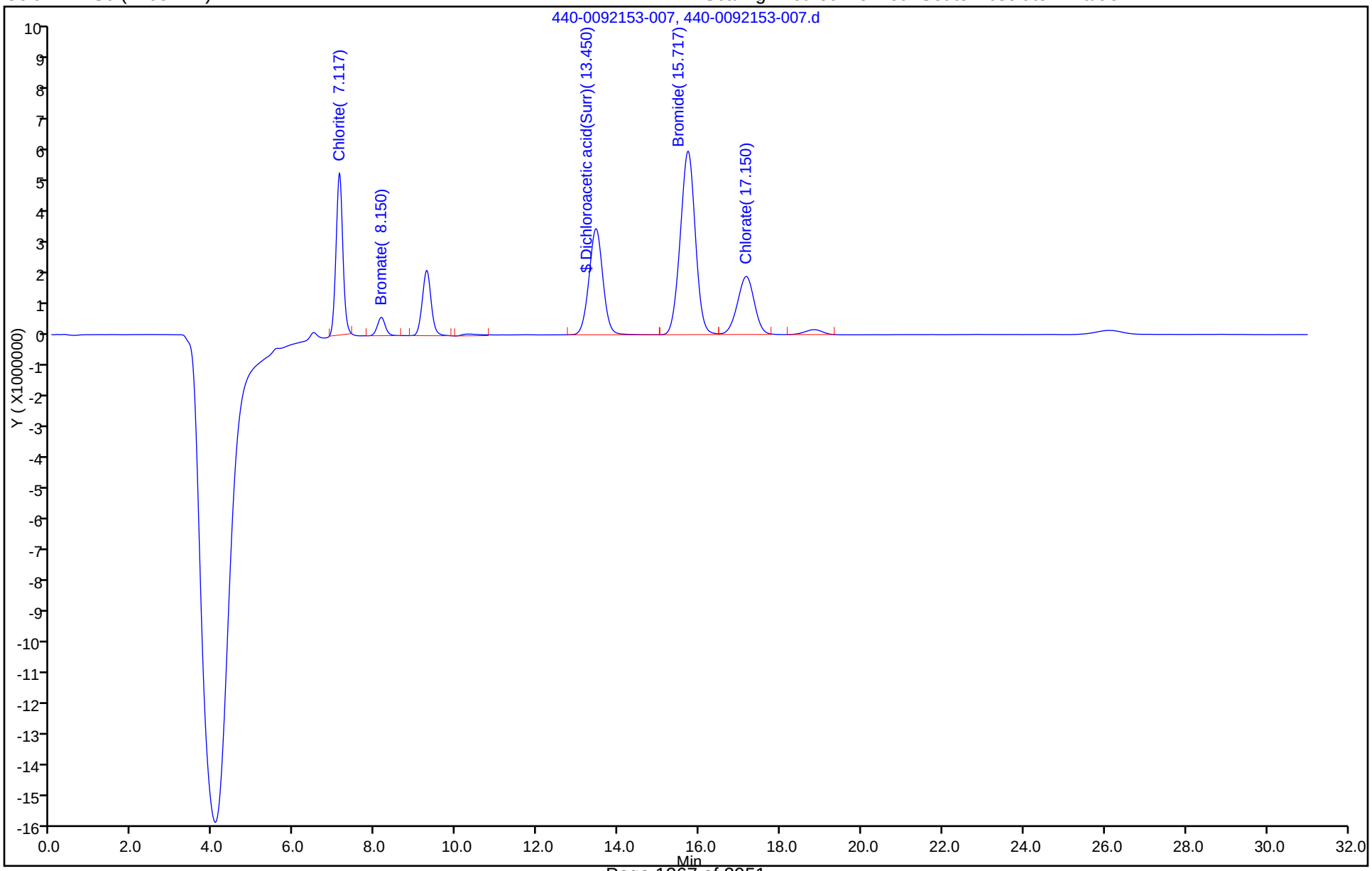
Report Date: 14-Aug-2017 09:20:39 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 14-Aug-2017 08:29:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | STD5 | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1 Analy Batch No.: 423010

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/14/2017 05:28 Calibration End Date: 08/14/2017 08:29 Calibration ID: 17251

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-423010/2 | 440-0092153-002.d |
| Level 2 | STD1 440-423010/3 | 440-0092153-003.d |
| Level 3 | STD2 440-423010/4 | 440-0092153-004.d |
| Level 4 | STD3 440-423010/5 | 440-0092153-005.d |
| Level 5 | STD4 440-423010/6 | 440-0092153-006.d |
| Level 6 | STD5 440-423010/7 | 440-0092153-007.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | 7.192 | 7.192 | 7.183 | 7.117 | 7.117 | | | | | 0.000 - 0.000 | 7.160 |
| Dichloroacetic acid(Surr) | 13.600 | 13.592 | 13.592 | 13.575 | 13.442 | 13.450 | | | | | 12.640 - 14.543 | 13.542 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-194754-1 Analy Batch No.: 423010

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/14/2017 05:28 Calibration End Date: 08/14/2017 08:29 Calibration ID: 17251

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-423010/2 | 440-0092153-002.d |
| Level 2 | STD1 440-423010/3 | 440-0092153-003.d |
| Level 3 | STD2 440-423010/4 | 440-0092153-004.d |
| Level 4 | STD3 440-423010/5 | 440-0092153-005.d |
| Level 5 | STD4 440-423010/6 | 440-0092153-006.d |
| Level 6 | STD5 440-423010/7 | 440-0092153-007.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Chlorite | 147793 | 150290<br>153150 | 145577 | 148204 | Lin | -303353.14 | 152913.760 | | | | | | | 1.0000 | | 0.9950 |
| Dichloroacetic acid(Surr) | 78811<br>79249 | 81917<br>82668 | 80083 | 80175 | Ave | | 80483.8714 | | | | 1.9 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-194754-1 Analy Batch No.: 423010

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/14/2017 05:28 Calibration End Date: 08/14/2017 08:29 Calibration ID: 17251

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-423010/2 | 440-0092153-002.d |
| Level 2 | STD1 440-423010/3 | 440-0092153-003.d |
| Level 3 | STD2 440-423010/4 | 440-0092153-004.d |
| Level 4 | STD3 440-423010/5 | 440-0092153-005.d |
| Level 5 | STD4 440-423010/6 | 440-0092153-006.d |
| Level 6 | STD5 440-423010/7 | 440-0092153-007.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Chlorite | Lin | 61259862 | 3005792 | 7278865 | 14820378 | 29558579 | 0.000000<br>400 | 20.0 | 50.0 | 100 | 200 |
| Dichloroacetic acid(Surr) | Ave | 78315176<br>82148091 | 81402171 | 79578914 | 79671177 | 78750673 | 994<br>994 | 994 | 994 | 994 | 994 |

Curve Type Legend:

Ave = Average
Lin = Linear

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-002.d | | | | |
| Lims ID: | STD0 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 0 | | |
| Inject. Date: | 14-Aug-2017 05:28:00 | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0092153-002 | | | | |
| Misc. Info.: | 2 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Sublist: | chrom-300.1_C8*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 14-Aug-2017 09:16:53 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK035 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 14-Aug-2017 06:14:05 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.600 | 13.592 | 0.008 | 78315176 | 993.7 | 973.1 | |

## Reagents:

| | | | | |
|---|---|---|---|---|
| WC3001LCS_00049 | Amount Added: | 0.00 | Units: uL | |
| WCDCA_00046 | Amount Added: | 10.00 | Units: uL | Run Reagent |

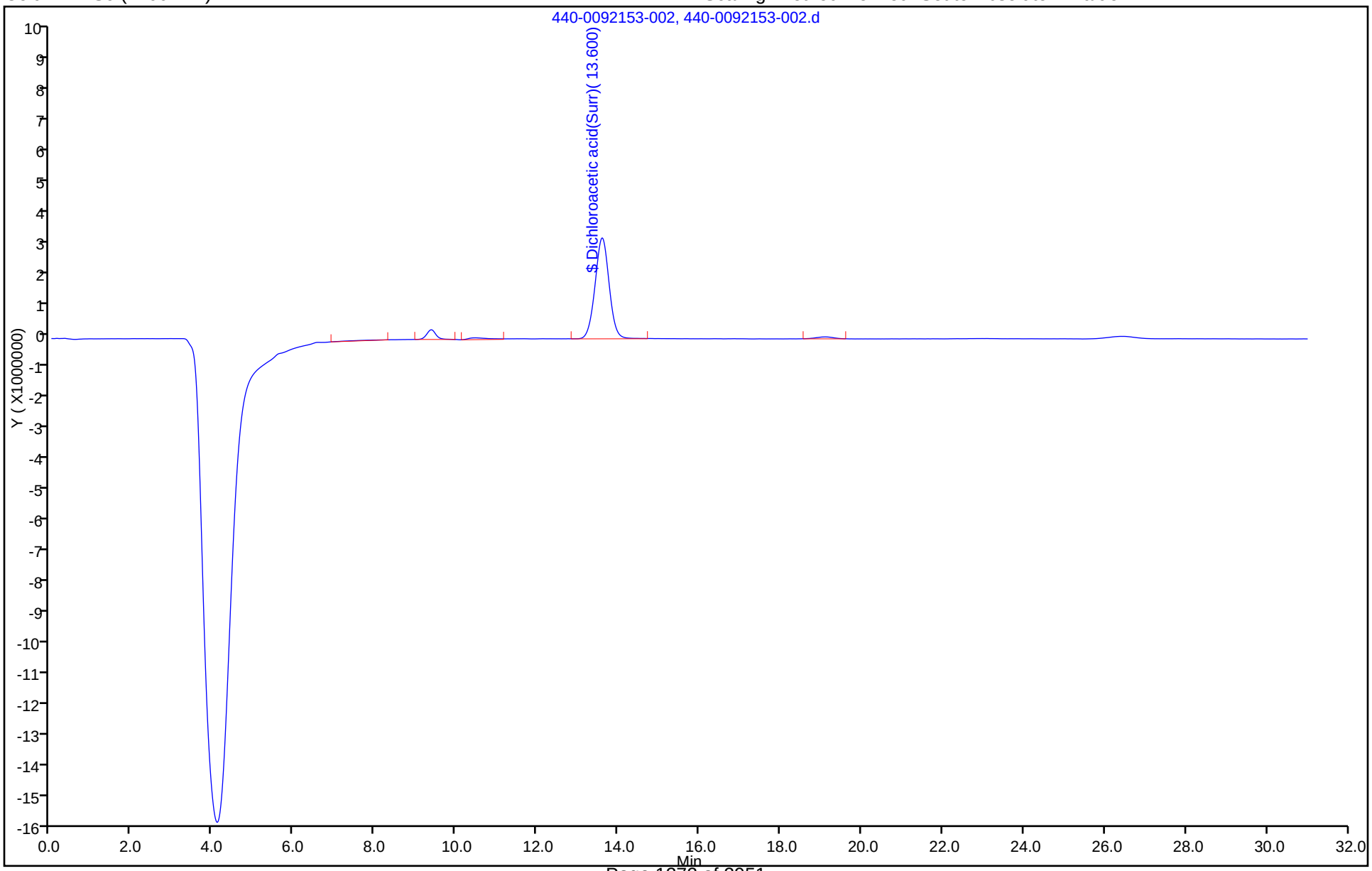
Report Date: 14-Aug-2017 09:16:54 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-002.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 14-Aug-2017 05:28:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | STD0 | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-003.d
Lims ID: STD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 14-Aug-2017 06:04:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0092153-003
Misc. Info.: 3 EB
Operator ID: Instrument ID: IC-8
Sublist: chrom-300.1_C8*sub2

Method: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\300.1_C8.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 14-Aug-2017 09:16:57 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK035

First Level Reviewer: zakhrabovy Date: 14-Aug-2017 06:52:42

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.192 | 7.192 | 0.000 | 3005792 | 20.0 | 21.6 | M |
| 3 Bromate | 8.250 | 8.250 | 0.000 | 363900 | NC | NC | M |
| $ 6 Dichloroacetic acid(Surr) | 13.592 | 13.592 | 0.000 | 81402171 | 993.7 | 1011.4 | |
| 4 Bromide | 15.967 | 15.967 | 0.000 | 7054125 | NC | NC | |
| 2 Chlorate | 17.400 | 17.400 | 0.000 | 2626944 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00049 Amount Added: 25.00 Units: uL
WCDCA_00046 Amount Added: 10.00 Units: uL Run Reagent

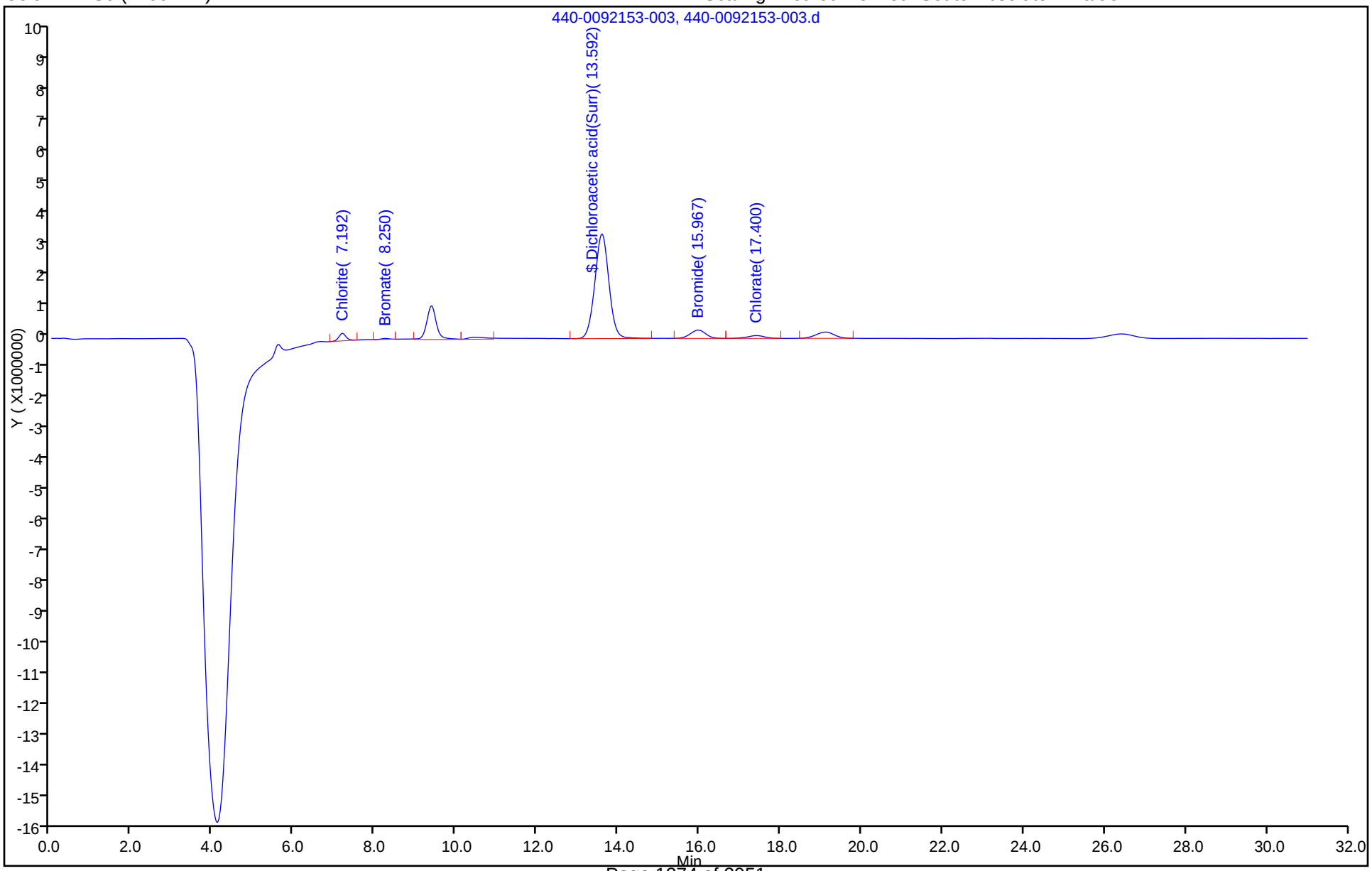
Report Date: 14-Aug-2017 09:16:58 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-003.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 14-Aug-2017 06:04:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | STD1 | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

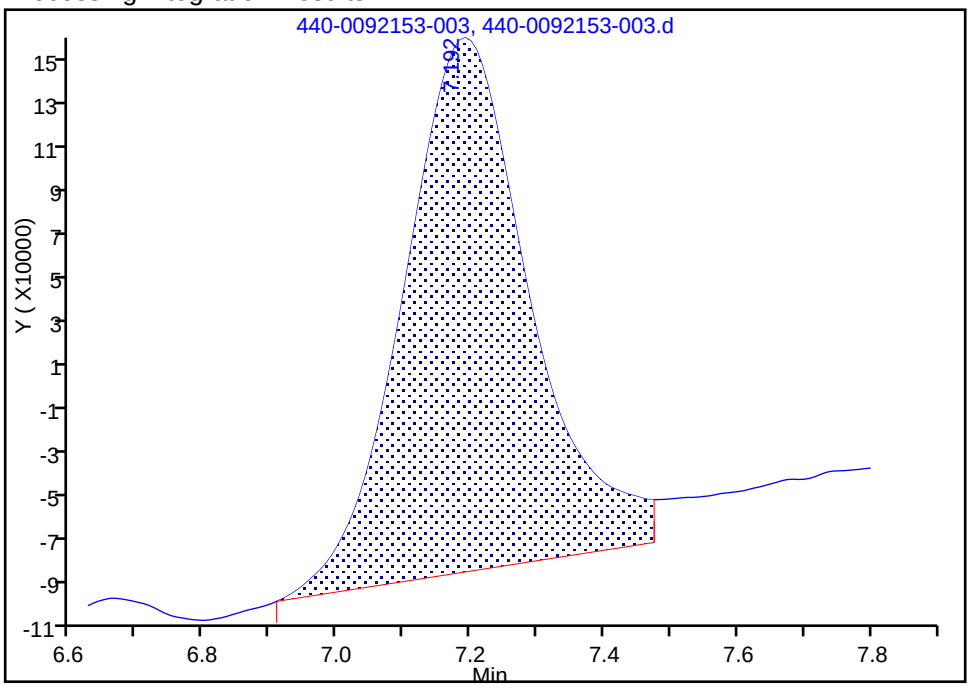
Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-003.d
Injection Date: 14-Aug-2017 06:04:00 Instrument ID: IC-8
Lims ID: STD1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C8 Limit Group: IC-300.1_14D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## 5 Chlorite, CAS: 14998-27-7

Signal: 1

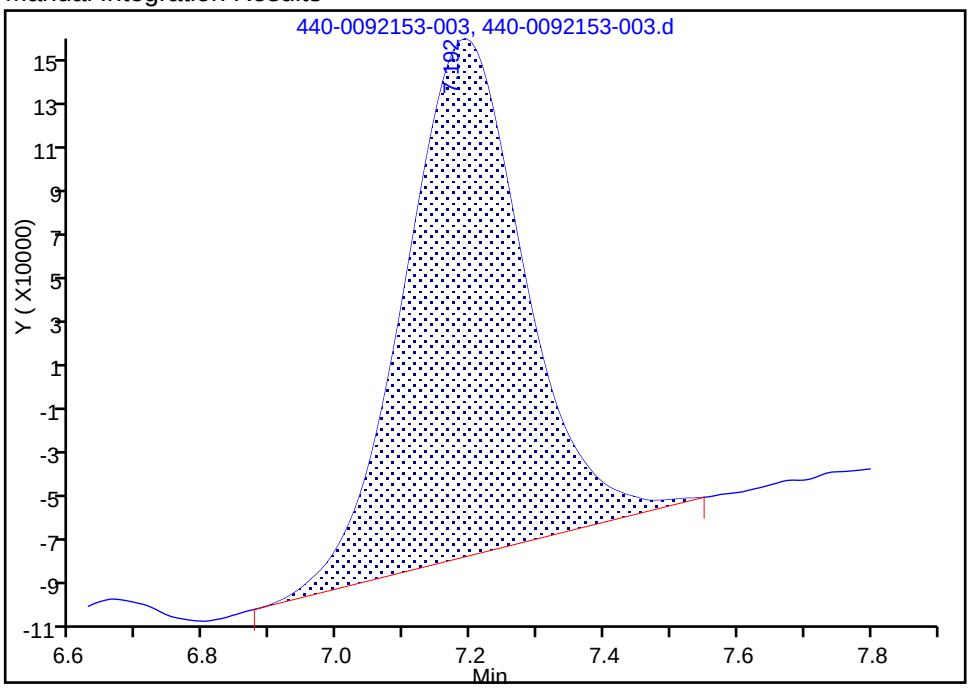
Processing Integration Results

RT: 7.19
Area: 3246682
Amount: 0
Amount Units: ug/l




Manual Integration Results

RT: 7.19
Area: 3005792
Amount: 21.640598
Amount Units: ug/l




Reviewer: zakhrabovy, 14-Aug-2017 06:52:18
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-004.d
Lims ID: STD2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 14-Aug-2017 06:40:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0092153-004
Misc. Info.: 4 EB
Operator ID: Instrument ID: IC-8
Sublist: chrom-300.1_C8*sub2

Method: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\300.1_C8.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 14-Aug-2017 09:16:59 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK035

First Level Reviewer: zakhrabovy Date: 14-Aug-2017 07:21:06

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.192 | 7.192 | 0.000 | 7278865 | 50.0 | 49.6 | M |
| 3 Bromate | 8.242 | 8.250 | -0.008 | 990869 | NC | NC | M |
| $ 6 Dichloroacetic acid(Surr) | 13.592 | 13.592 | 0.000 | 79578914 | 993.7 | 988.8 | |
| 4 Bromide | 15.975 | 15.967 | 0.008 | 17866886 | NC | NC | |
| 2 Chlorate | 17.417 | 17.400 | 0.017 | 6422839 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00049 Amount Added: 62.50 Units: uL
WCDCA_00046 Amount Added: 10.00 Units: uL Run Reagent

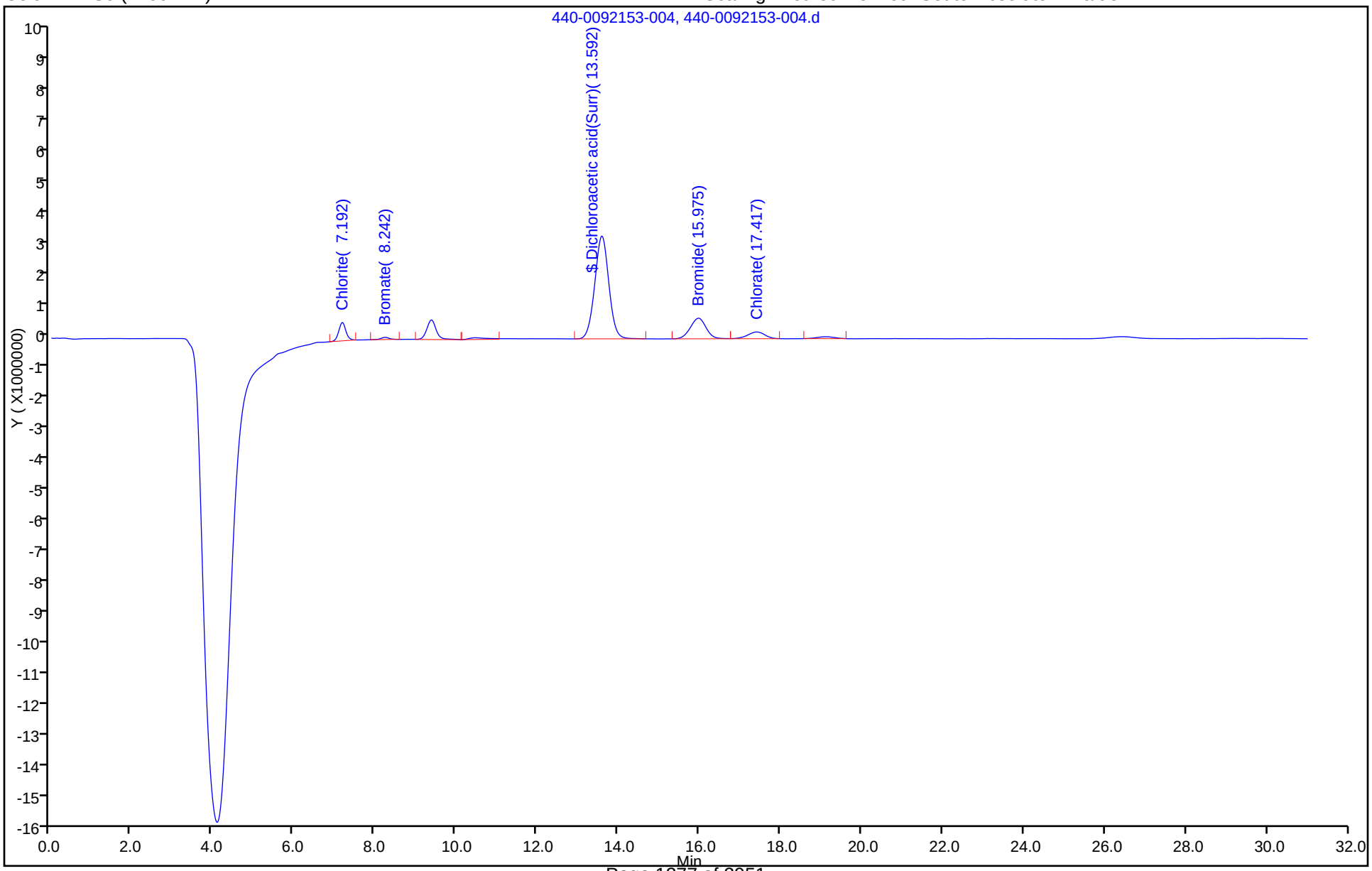
Report Date: 14-Aug-2017 09:17:00 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-004.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 14-Aug-2017 06:40:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | STD2 | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

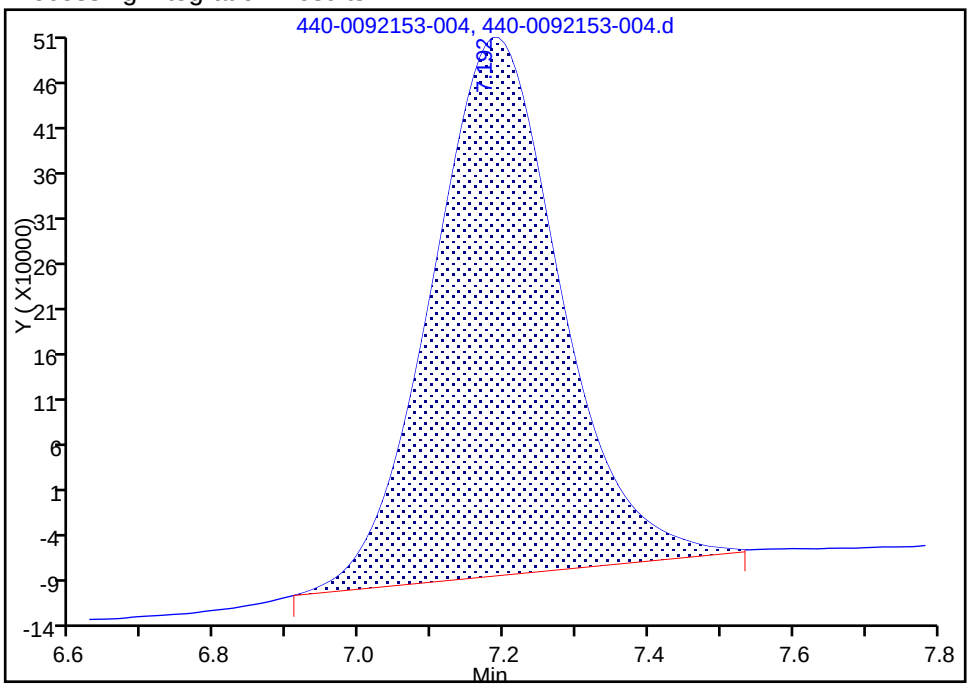
Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-004.d
Injection Date: 14-Aug-2017 06:40:00 Instrument ID: IC-8
Lims ID: STD2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C8 Limit Group: IC-300.1_14D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## 5 Chlorite, CAS: 14998-27-7

Signal: 1

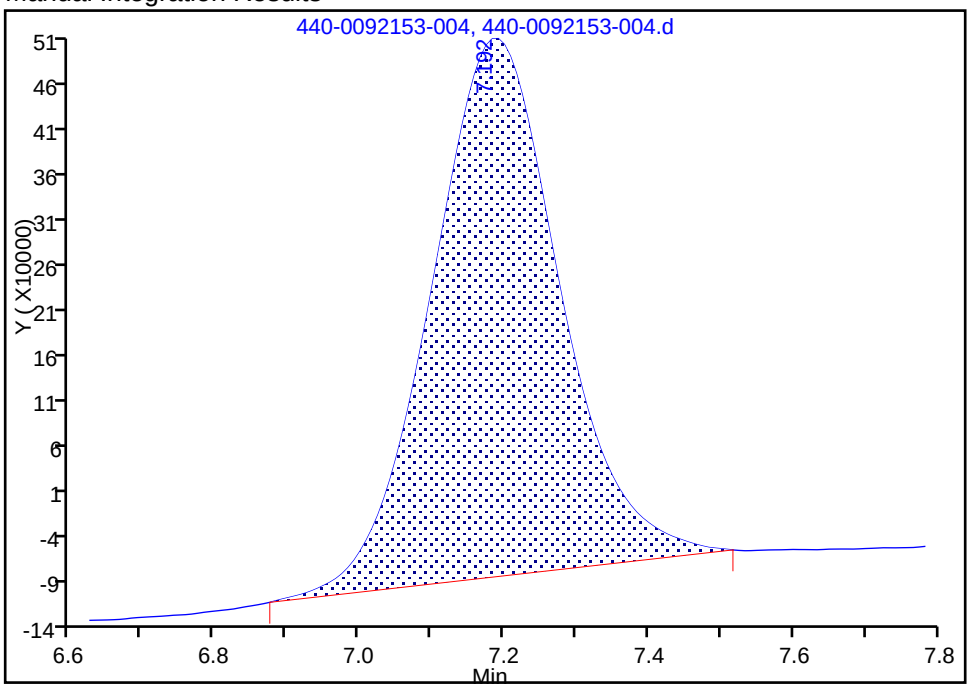
Processing Integration Results

RT: 7.19
Area: 7291340
Amount: 49.755774
Amount Units: ug/l




Manual Integration Results

RT: 7.19
Area: 7278865
Amount: 49.584931
Amount Units: ug/l




Reviewer: zakhrabovy, 14-Aug-2017 09:12:09
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-005.d
Lims ID: STD3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 14-Aug-2017 07:17:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0092153-005
Misc. Info.: 5 EB
Operator ID: Instrument ID: IC-8
Sublist: chrom-300.1_C8*sub2

Method: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\300.1_C8.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 14-Aug-2017 09:24:28 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK035

First Level Reviewer: zakhrabovy Date: 14-Aug-2017 08:06:24

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.183 | 7.192 | -0.009 | 14820378 | 100.0 | 98.9 | M |
| 3 Bromate | 8.233 | 8.250 | -0.017 | 1942473 | NC | NC | M |
| $ 6 Dichloroacetic acid(Surr) | 13.575 | 13.592 | -0.017 | 79671177 | 993.7 | 989.9 | |
| 4 Bromide | 15.933 | 15.967 | -0.034 | 35964194 | NC | NC | |
| 2 Chlorate | 17.367 | 17.400 | -0.033 | 13117939 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00049 Amount Added: 125.00 Units: uL
WCDCA_00046 Amount Added: 10.00 Units: uL Run Reagent

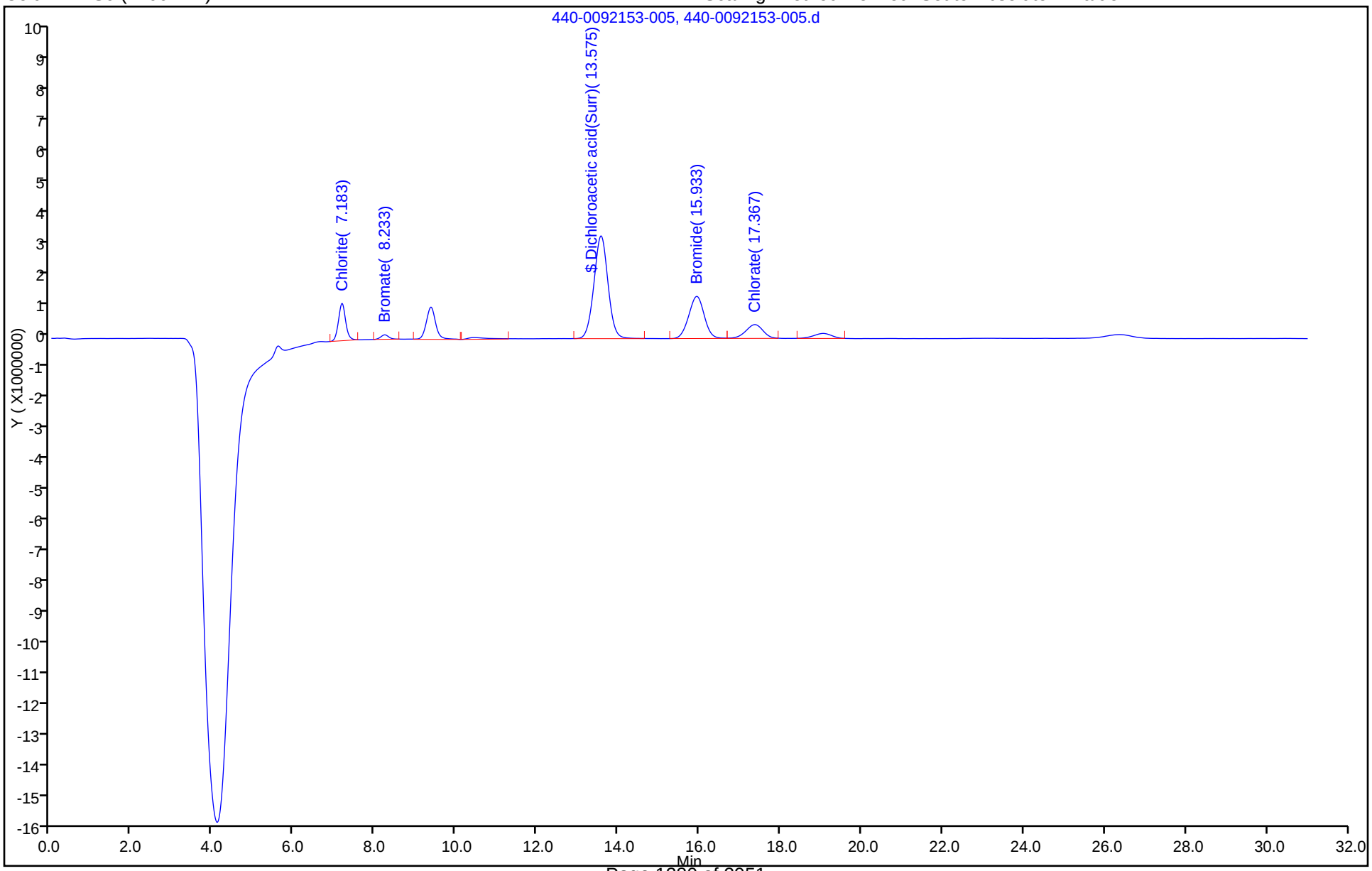
Report Date: 14-Aug-2017 09:24:28 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-005.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 14-Aug-2017 07:17:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | STD3 | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

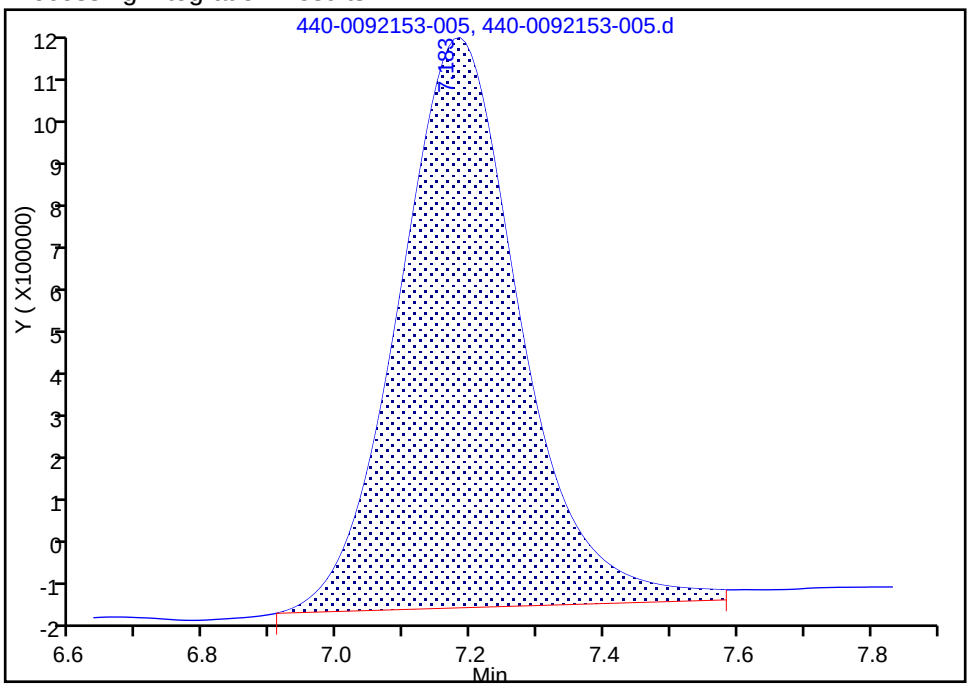
Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-005.d
Injection Date: 14-Aug-2017 07:17:00 Instrument ID: IC-8
Lims ID: STD3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C8 Limit Group: IC-300.1_14D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## 5 Chlorite, CAS: 14998-27-7

Signal: 1

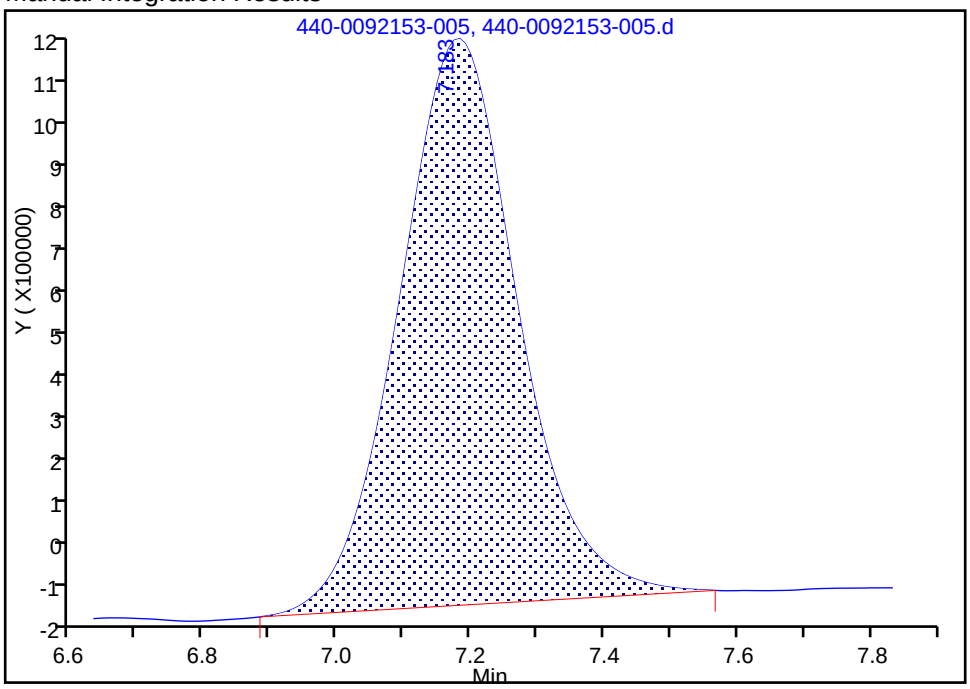
Processing Integration Results

RT: 7.18
Area: 15211384
Amount: 0
Amount Units: ug/l




Manual Integration Results

RT: 7.18
Area: 14820378
Amount: 98.903664
Amount Units: ug/l




Reviewer: zakhrabovy, 14-Aug-2017 08:06:09
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-006.d
Lims ID: STD4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 14-Aug-2017 07:53:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0092153-006
Misc. Info.: 6 EB
Operator ID: Instrument ID: IC-8
Sublist: chrom-300.1_C8*sub2

Method: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\300.1_C8.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 14-Aug-2017 09:17:03 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK035

First Level Reviewer: zakhrabovy Date: 14-Aug-2017 09:16:14

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.117 | 7.192 | -0.075 | 29558579 | 200.0 | 195.3 | M |
| 3 Bromate | 8.150 | 8.250 | -0.100 | 3965197 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.442 | 13.592 | -0.150 | 78750673 | 993.7 | 978.5 | |
| 4 Bromide | 15.742 | 15.967 | -0.225 | 72853733 | NC | NC | |
| 2 Chlorate | 17.167 | 17.400 | -0.233 | 26383109 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00049 Amount Added: 250.00 Units: uL
WCDCA_00046 Amount Added: 10.00 Units: uL Run Reagent

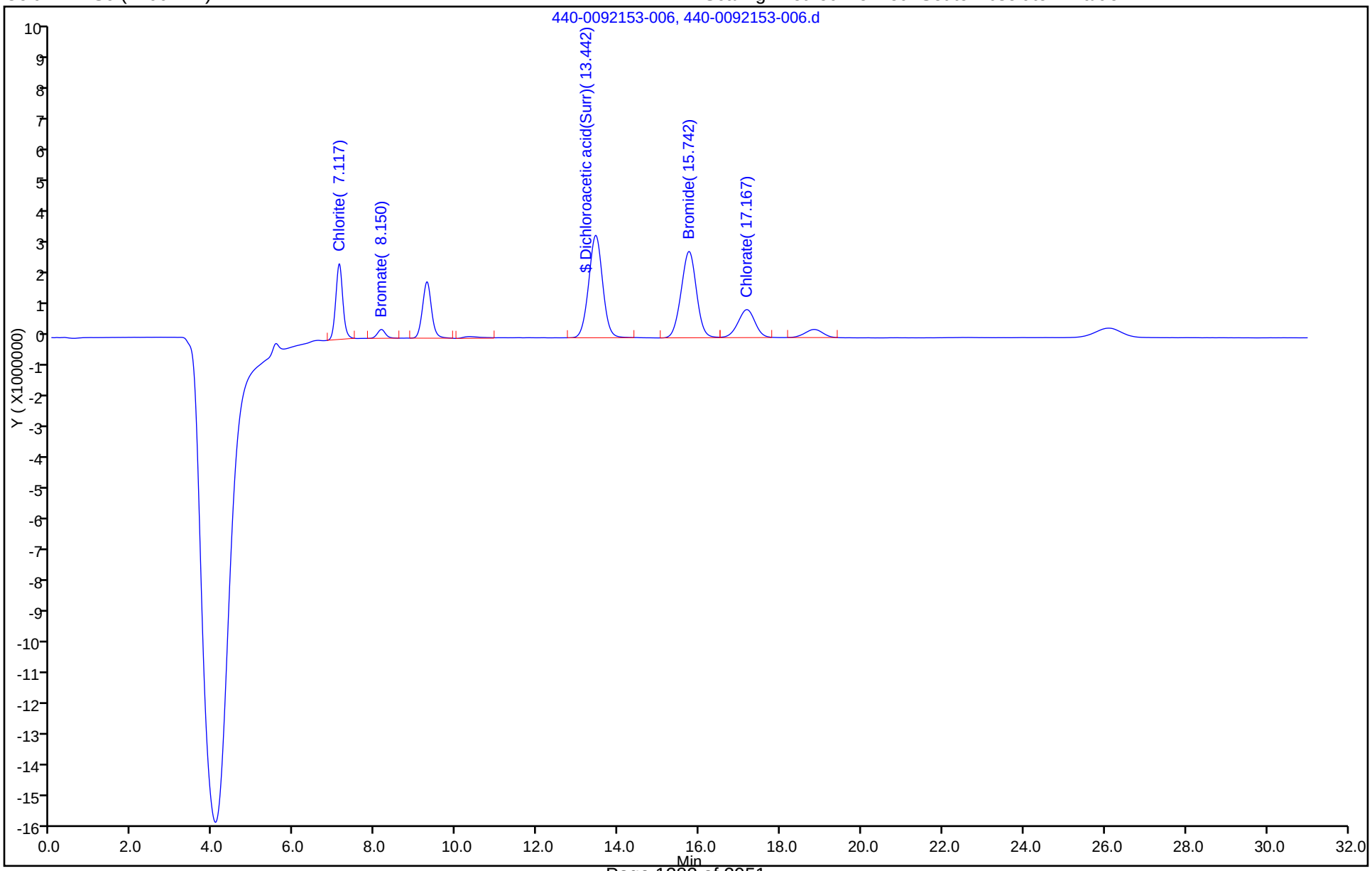
Report Date: 14-Aug-2017 09:17:04 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-006.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 14-Aug-2017 07:53:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | STD4 | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

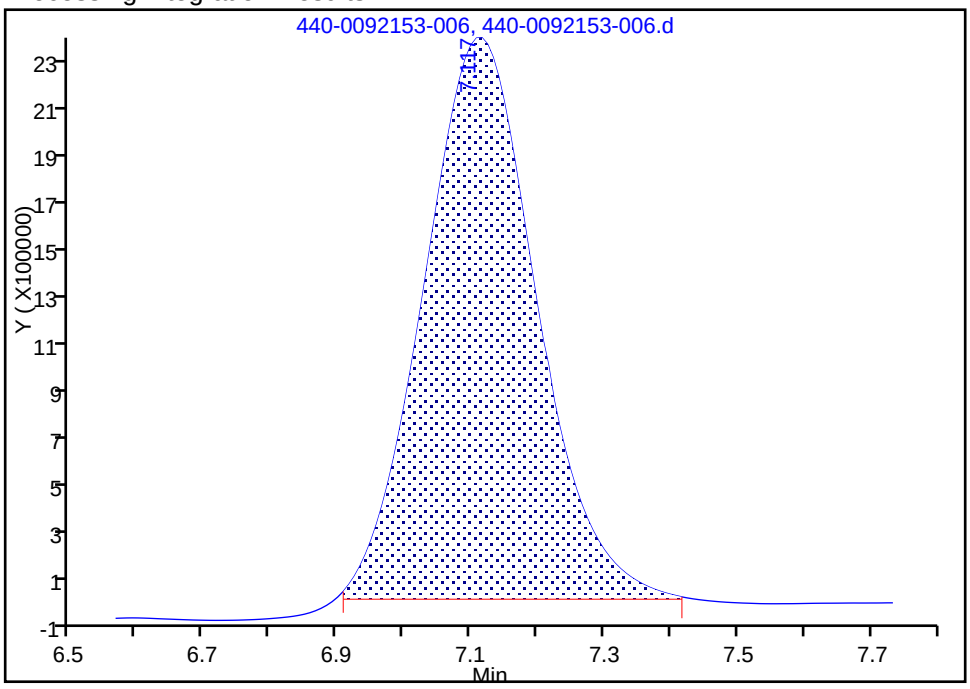
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-006.d | | | | |
| Injection Date: | 14-Aug-2017 07:53:00 | Instrument ID: | IC-8 | | |
| Lims ID: | STD4 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 0 | Worklist Smp#: | 6 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |
| Column: | AS9 ( 4.00 mm) | Detector | Ch-A-20110816009 | | |

## 5 Chlorite, CAS: 14998-27-7

Signal: 1

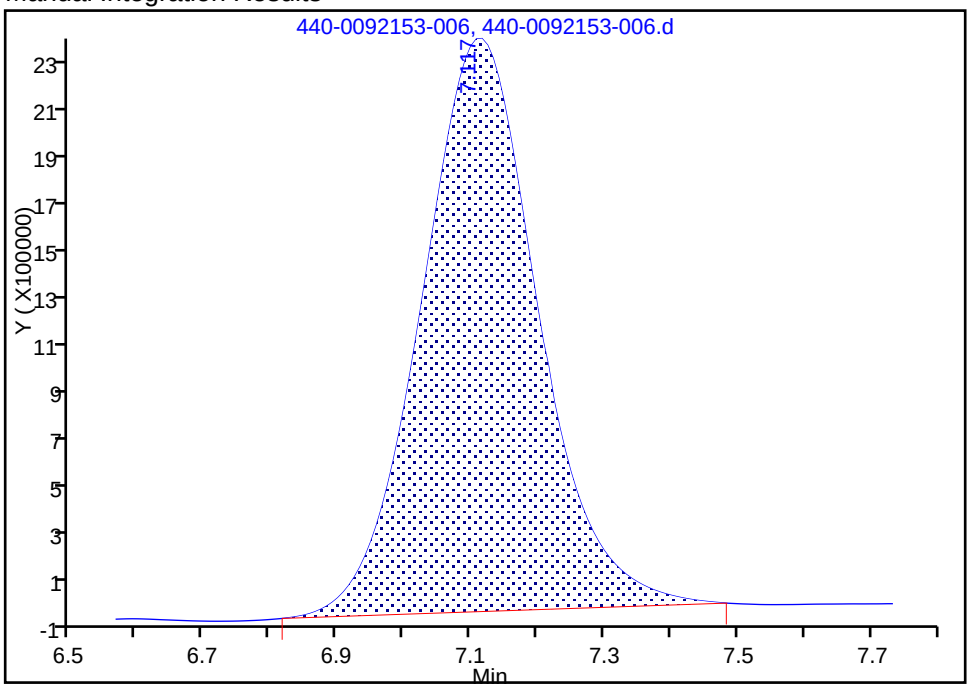
Processing Integration Results

RT: 7.12
Area: 27996652
Amount: 0
Amount Units: ug/l




Manual Integration Results

RT: 7.12
Area: 29558579
Amount: 195.2861
Amount Units: ug/l




Reviewer: zakhrabovy, 14-Aug-2017 09:11:23

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d
Lims ID: STD5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 14-Aug-2017 08:29:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0092153-007
Misc. Info.: 7 EB
Operator ID: Instrument ID: IC-8
Sublist: chrom-300.1_C8*sub2

Method: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\300.1_C8.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 14-Aug-2017 09:20:38 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK035

First Level Reviewer: zakhrabovy Date: 14-Aug-2017 09:20:38

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.117 | 7.192 | -0.075 | 61259862 | 400.0 | 402.6 | M |
| 3 Bromate | 8.150 | 8.250 | -0.100 | 8244283 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.450 | 13.592 | -0.142 | 82148091 | 993.7 | 1020.7 | |
| 4 Bromide | 15.717 | 15.967 | -0.250 | 154022782 | NC | NC | |
| 2 Chlorate | 17.150 | 17.400 | -0.250 | 54714474 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00049 Amount Added: 500.00 Units: uL
WCDCA_00046 Amount Added: 10.00 Units: uL Run Reagent

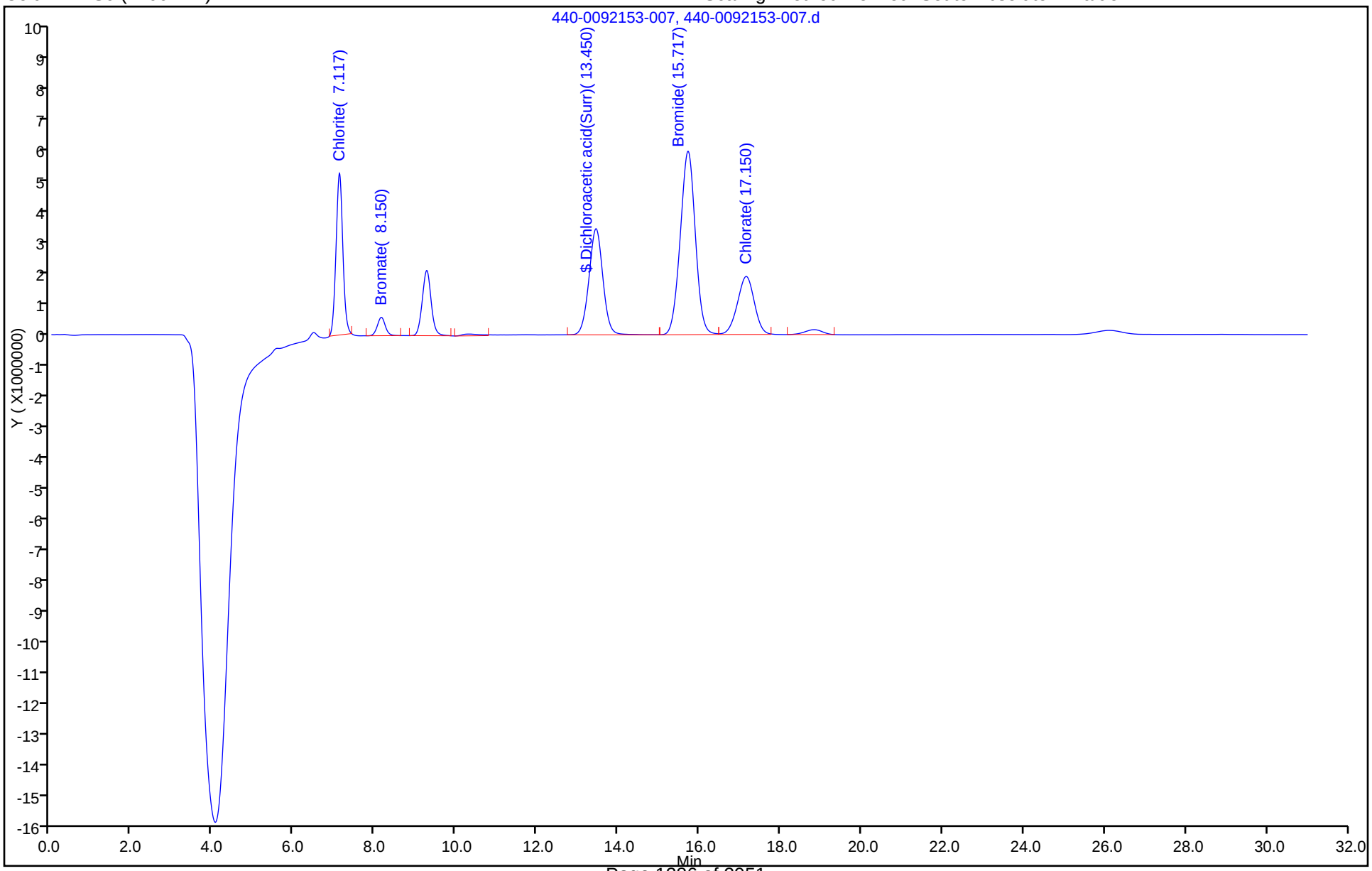
Report Date: 14-Aug-2017 09:20:39 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 14-Aug-2017 08:29:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | STD5 | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

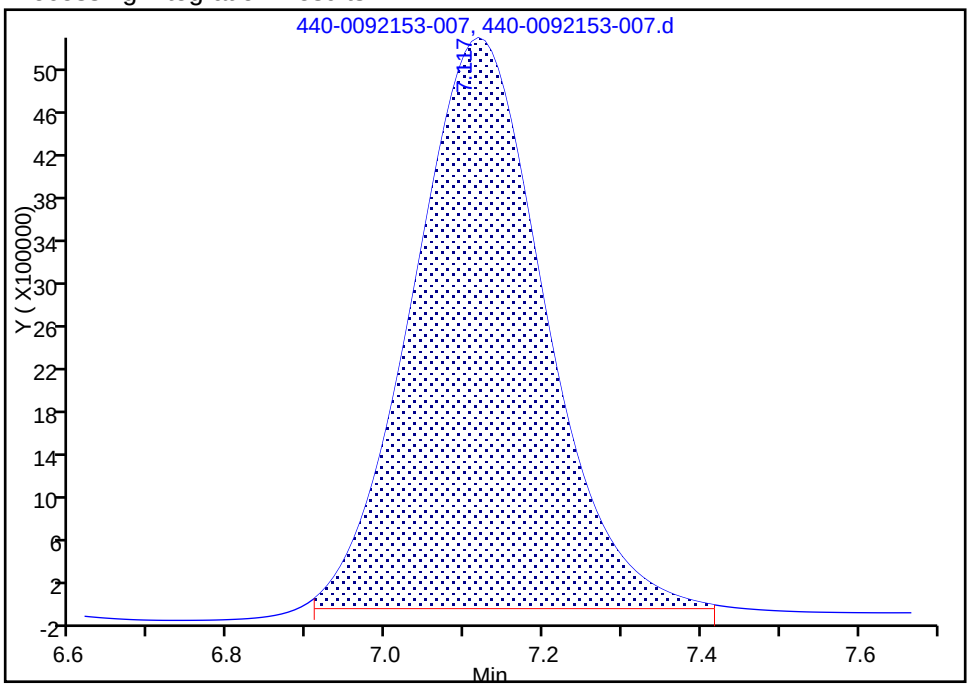
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Injection Date: | 14-Aug-2017 08:29:00 | Instrument ID: | IC-8 | | |
| Lims ID: | STD5 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 0 | Worklist Smp#: | 7 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |
| Column: | AS9 ( 4.00 mm) | Detector | Ch-A-20110816009 | | |

## 5 Chlorite, CAS: 14998-27-7

Signal: 1

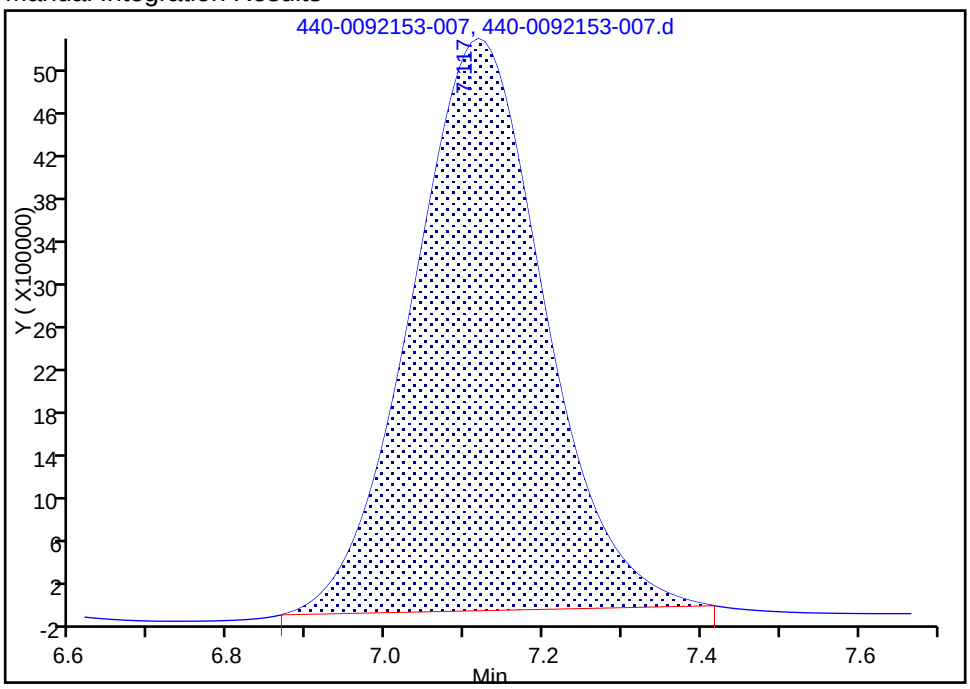
Processing Integration Results

RT: 7.12
Area: 60995472
Amount: 402.2880
Amount Units: ug/l




Manual Integration Results

RT: 7.12
Area: 61259862
Amount: 402.6009
Amount Units: ug/l




Reviewer: zakhrabovy, 14-Aug-2017 09:16:25

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: ICV 440-431296/8  Calibration Date: 09/26/2017 12:33

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20170926008.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 15931 | | 31.0 | 30.1 | 3.0 | 15.0 |
| Bromide | Lin | | 27047 | | 314 | 300 | 4.7 | 15.0 |
| Chlorate | Lin | | 24342 | | 120 | 120 | 0.0 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14155 | 14065 | | 987 | 994 | -0.6 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: ICV 440-431296/8 Calibration Date: 09/26/2017 12:33

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20170926008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.38 | 7.79 | 8.96 |
| Bromide | 16.01 | 14.87 | 17.11 |
| Chlorate | 17.34 | 16.44 | 18.17 |
| Dichloroacetic acid(Surr) | 13.56 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926008.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 26-Sep-2017 12:33:24 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0093892-008
Misc. Info.: Study: 93892 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist:

Method: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 27-Sep-2017 04:48:26 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK050

First Level Reviewer: zakhrabovy Date: 26-Sep-2017 13:06:26

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.334 | 7.332 | 0.002 | 3289372 | NC | NC | |
| 3 Bromate | 8.381 | 8.378 | 0.003 | 478887 | 30.1 | 31.0 | |
| $ 6 Dichloroacetic acid(Surr) | 13.564 | 13.559 | 0.005 | 13976338 | 993.7 | 987.4 | |
| 4 Bromide | 16.010 | 15.991 | 0.019 | 8114020 | 300.0 | 314.1 | |
| 2 Chlorate | 17.340 | 17.306 | 0.034 | 2923929 | 120.1 | 120.2 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WC3001ICV_00034 Amount Added: 150.00 Units: uL
WCDCA_00048 Amount Added: 10.00 Units: uL

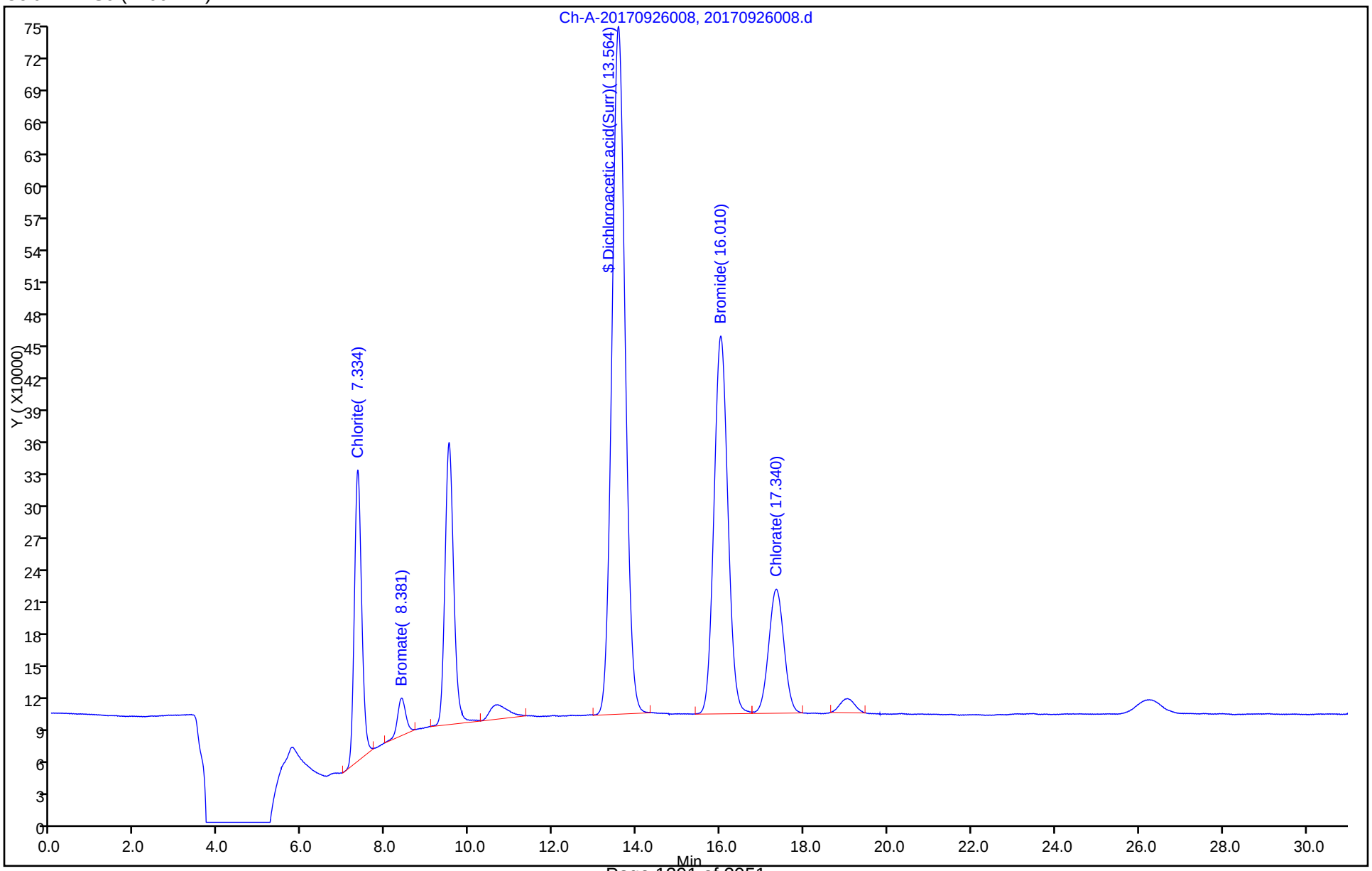
Report Date: 27-Sep-2017 04:48:39 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926008.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 12:33:24 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | ICV | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: ICV 440-431297/8  Calibration Date: 09/26/2017 12:33

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20170926008.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 27411 | | 119 | 120 | -0.7 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14191 | 14065 | | 985 | 994 | -0.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: ICV 440-431297/8 Calibration Date: 09/26/2017 12:33

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20170926008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.33 | 6.82 | 7.85 |
| Dichloroacetic acid(Surr) | 13.56 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926008.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 26-Sep-2017 12:33:24 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0093892-008
Misc. Info.: Study: 93892 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist:

Method: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 27-Sep-2017 04:48:26 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK050

First Level Reviewer: zakhrabovy Date: 26-Sep-2017 13:06:26

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.334 | 7.332 | 0.002 | 3289372 | 120.0 | 119.2 | |
| 3 Bromate | 8.381 | 8.378 | 0.003 | 478887 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.564 | 13.559 | 0.005 | 13976338 | 993.7 | 984.9 | |
| 4 Bromide | 16.010 | 15.991 | 0.019 | 8114020 | NC | NC | |
| 2 Chlorate | 17.340 | 17.306 | 0.034 | 2923929 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WC3001ICV_00034 Amount Added: 150.00 Units: uL
WCDCA_00048 Amount Added: 10.00 Units: uL

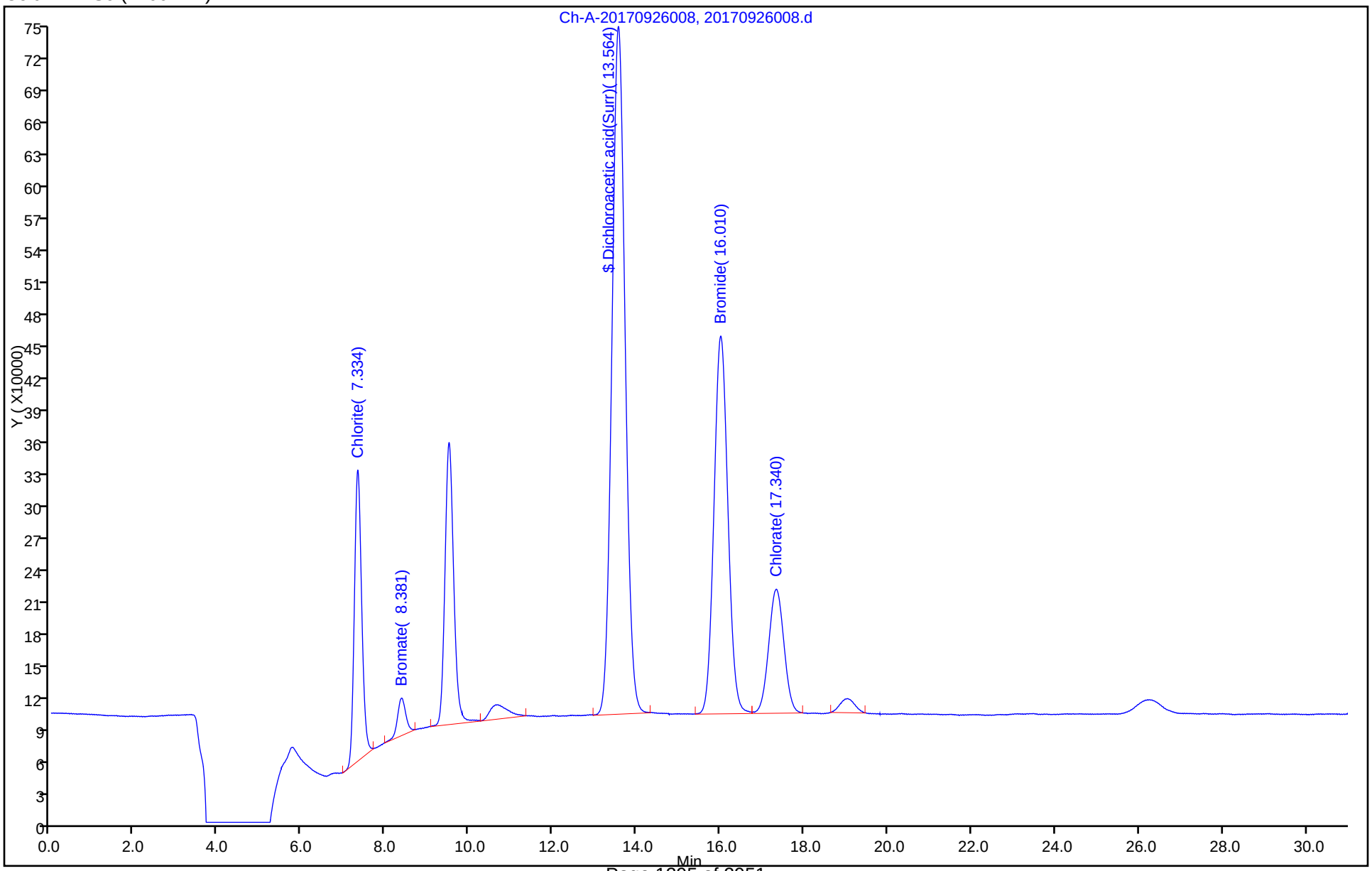
Report Date: 27-Sep-2017 04:48:39 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926008.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 12:33:24 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | ICV | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-436780/8  Calibration Date: 10/23/2017 09:07

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023008.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 13888 | | 45.2 | 50.0 | -9.6 | 15.0 |
| Bromide | Lin | | 25402 | | 500 | 500 | -0.0 | 15.0 |
| Chlorate | Lin | | 23037 | | 190 | 200 | -5.2 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14155 | 13907 | | 976 | 994 | -1.8 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-436780/8 Calibration Date: 10/23/2017 09:07

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.18 | 7.79 | 8.96 |
| Bromide | 15.63 | 14.87 | 17.11 |
| Chlorate | 16.92 | 16.49 | 18.23 |
| Dichloroacetic acid(Surr) | 13.30 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023008.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 23-Oct-2017 09:07:09 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095116-008
Misc. Info.: Study: 95116 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist: chrom-300.1_C11*sub2

Method: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 23-Oct-2017 10:54:14 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK052

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.161 | 7.332 | -0.171 | 5184235 | NC | NC | |
| 3 Bromate | 8.178 | 8.378 | -0.200 | 694383 | 50.0 | 45.2 | |
| $ 6 Dichloroacetic acid(Surr) | 13.303 | 13.557 | -0.255 | 13819303 | 993.7 | 976.3 | |
| 4 Bromide | 15.628 | 15.991 | -0.363 | 12701086 | 500.0 | 499.8 | |
| 2 Chlorate | 16.922 | 17.362 | -0.440 | 4607426 | 200.0 | 189.7 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL
WC3001LCS_00054 Amount Added: 250.00 Units: uL

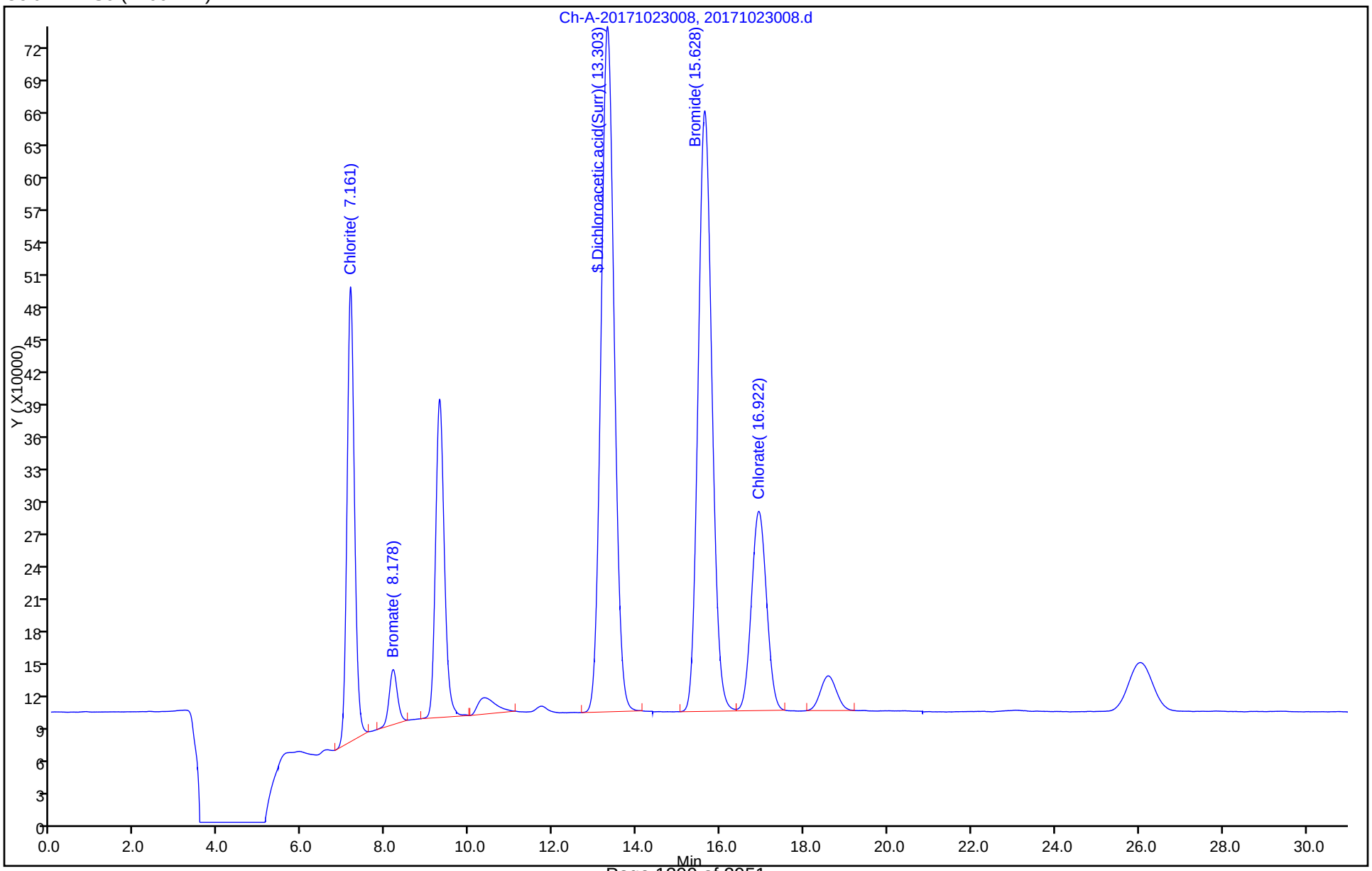
Report Date: 23-Oct-2017 10:54:15 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023008.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 09:07:09 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-436781/8  Calibration Date: 10/23/2017 09:07

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023008.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 25921 | | 187 | 200 | -6.6 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14191 | 13907 | | 974 | 994 | -2.0 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-436781/8 Calibration Date: 10/23/2017 09:07

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.16 | 6.82 | 7.85 |
| Dichloroacetic acid(Surr) | 13.30 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023008.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 23-Oct-2017 09:07:09 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095116-008
Misc. Info.: Study: 95116 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist: chrom-300.1_C11*sub2

Method: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 23-Oct-2017 10:54:14 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK052

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.161 | 7.332 | -0.171 | 5184235 | 200.0 | 186.9 | |
| 3 Bromate | 8.178 | 8.378 | -0.200 | 694383 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.303 | 13.557 | -0.255 | 13819303 | 993.7 | 973.8 | |
| 4 Bromide | 15.628 | 15.991 | -0.363 | 12701086 | NC | NC | |
| 2 Chlorate | 16.922 | 17.362 | -0.440 | 4607426 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL
WC3001LCS_00054 Amount Added: 250.00 Units: uL

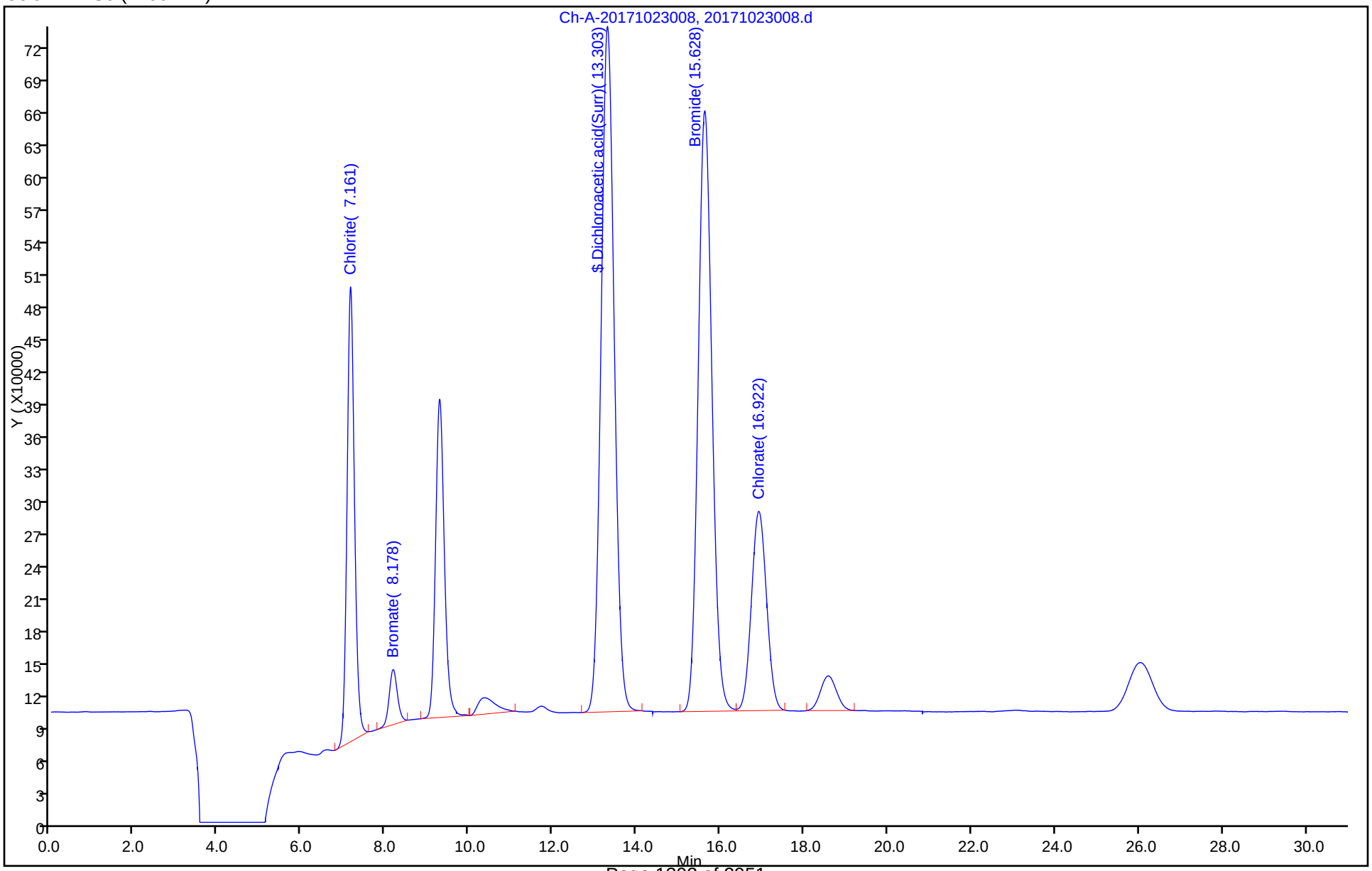
Report Date: 23-Oct-2017 10:54:15 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023008.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 09:07:09 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-436780/20  Calibration Date: 10/23/2017 15:45

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023020.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 15005 | | 24.1 | 25.0 | -3.5 | 15.0 |
| Bromide | Lin | | 27393 | | 263 | 250 | 5.2 | 15.0 |
| Chlorate | Lin | | 25384 | | 104 | 100 | 4.2 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14155 | 13957 | | 980 | 994 | -1.4 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-436780/20 Calibration Date: 10/23/2017 15:45

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023020.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.15 | 7.79 | 8.96 |
| Bromide | 15.32 | 14.87 | 17.11 |
| Chlorate | 16.64 | 16.49 | 18.23 |
| Dichloroacetic acid(Surr) | 13.31 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023020.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 23-Oct-2017 15:45:25 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095116-020
Misc. Info.: Study: 95116 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist: chrom-300.1_C11*sub2

Method: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 24-Oct-2017 05:17:52 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK049

First Level Reviewer: zakhrabovy Date: 24-Oct-2017 04:46:58

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.163 | 7.332 | -0.170 | 2698484 | NC | NC | |
| 3 Bromate | 8.152 | 8.378 | -0.226 | 375136 | 25.0 | 24.1 | |
| $ 6 Dichloroacetic acid(Surr) | 13.313 | 13.557 | -0.245 | 13868939 | 993.7 | 979.8 | |
| 4 Bromide | 15.316 | 15.991 | -0.675 | 6848234 | 250.0 | 262.9 | M |
| 2 Chlorate | 16.643 | 17.362 | -0.720 | 2538380 | 100.0 | 104.2 | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00054 Amount Added: 125.00 Units: uL
WCDCA_00050 Amount Added: 10.00 Units: uL

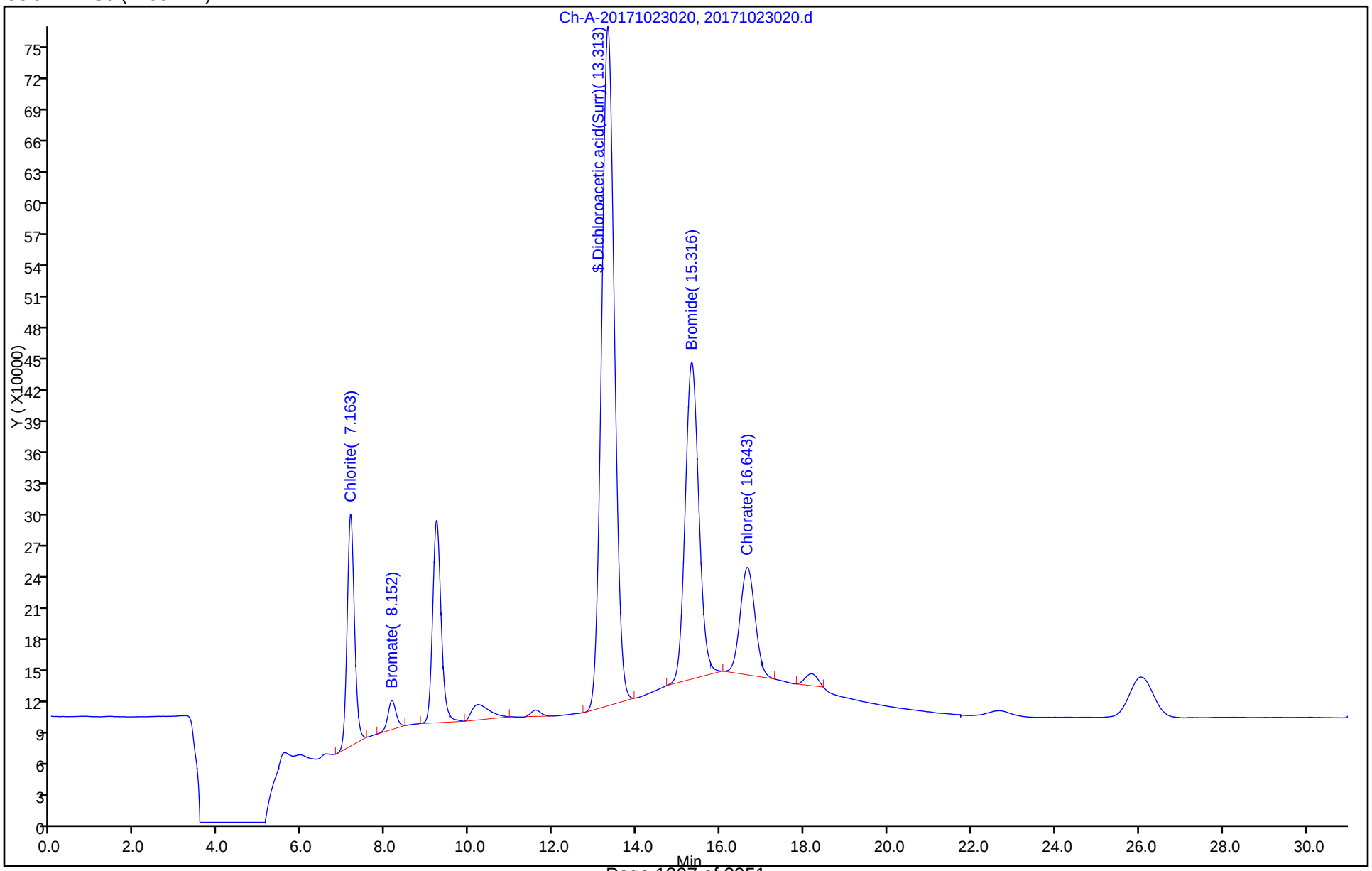
Report Date: 24-Oct-2017 05:17:52 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023020.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 15:45:25 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 20 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Irvine

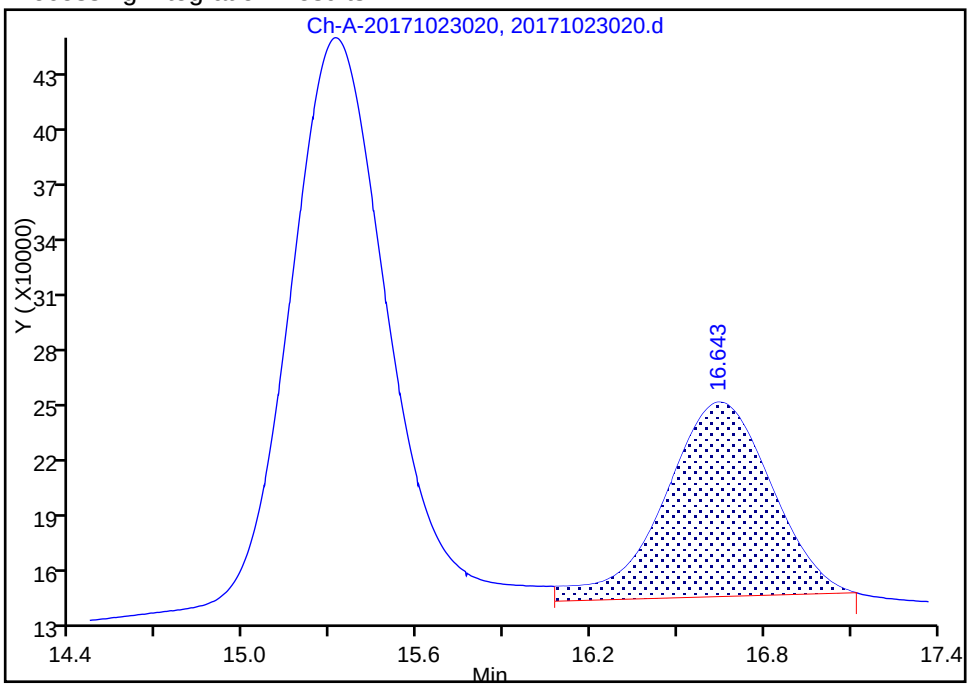
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023020.d | | | | |
| Injection Date: | 23-Oct-2017 15:45:25 | Instrument ID: | IC-11 | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | IRVINSTWET4 | ALS Bottle#: | 0 | Worklist Smp#: | 20 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |
| Column: | AS9 ( 4.00 mm) | Detector | Ch-A-20110816009 | | |

## 4 Bromide, CAS: 24959-67-9

Signal: 1

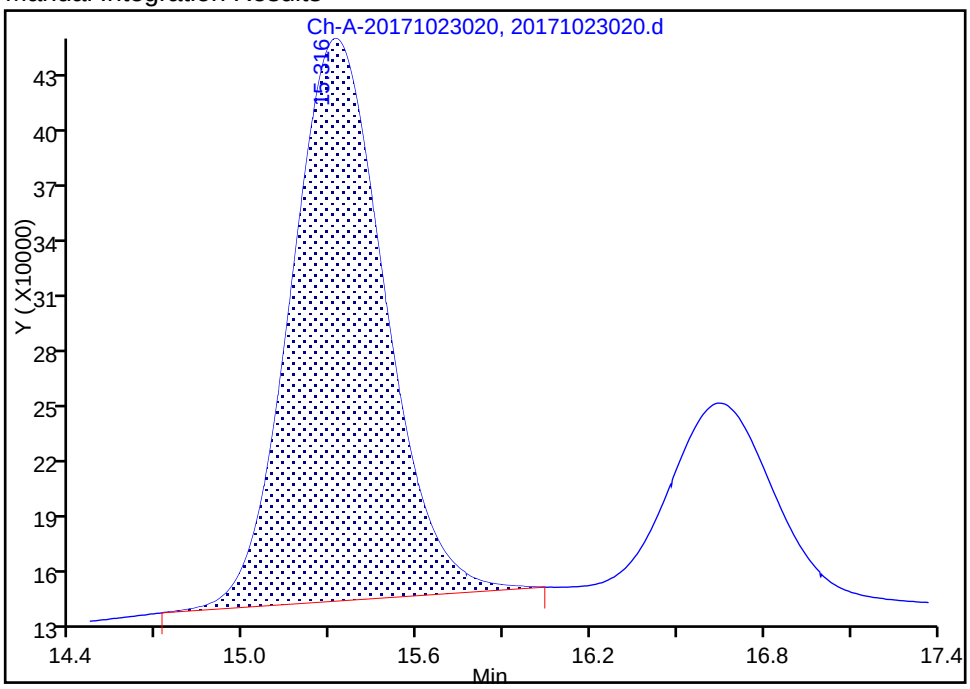
Processing Integration Results

RT: 16.64
Area: 2682825
Amount: 0
Amount Units: ug/l




Manual Integration Results

RT: 15.32
Area: 6848234
Amount: 262.9180
Amount Units: ug/l




Reviewer: zakhrabovy, 24-Oct-2017 04:46:24

Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Irvine

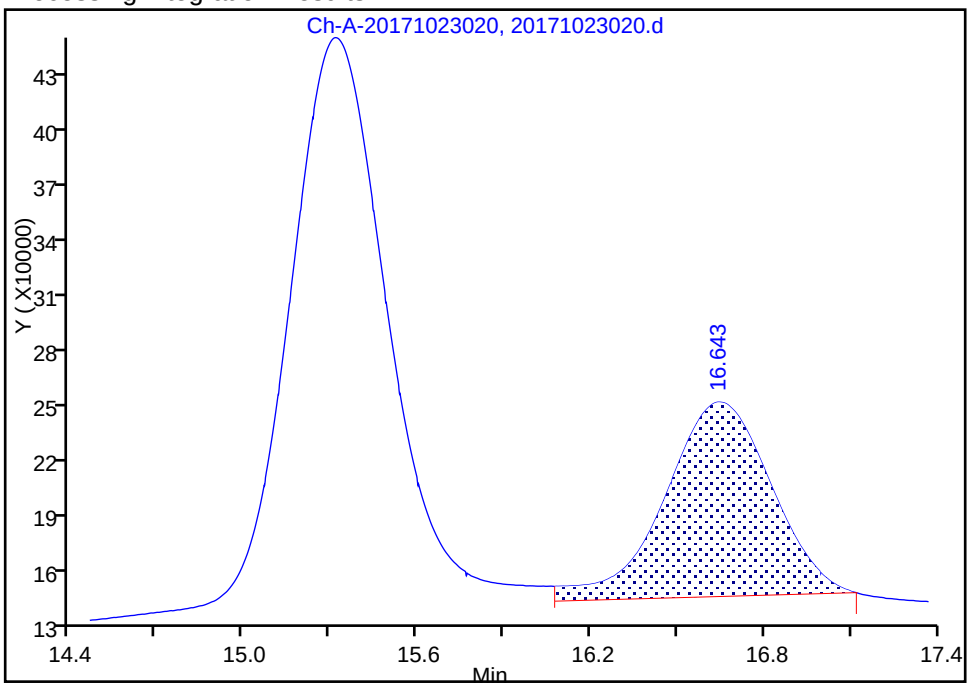
Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023020.d
Injection Date: 23-Oct-2017 15:45:25 Instrument ID: IC-11
Lims ID: CCV
Client ID:
Operator ID: IRVINSTWET4 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C11 Limit Group: IC-300.1_28D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## 4 Bromide, CAS: 24959-67-9

Signal: 1

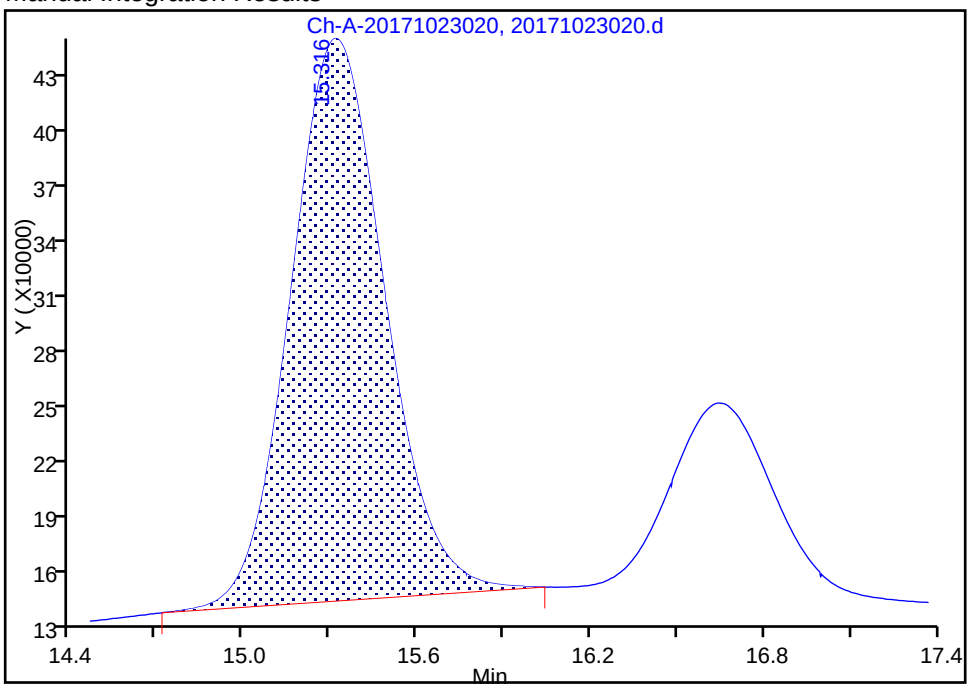
Processing Integration Results

RT: 16.64
Area: 2682825
Amount: 0
Amount Units: ug/l




Manual Integration Results

RT: 15.32
Area: 6848234
Amount: 262.9180
Amount Units: ug/l




Reviewer: zakhrabovy, 24-Oct-2017 04:46:45
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Irvine

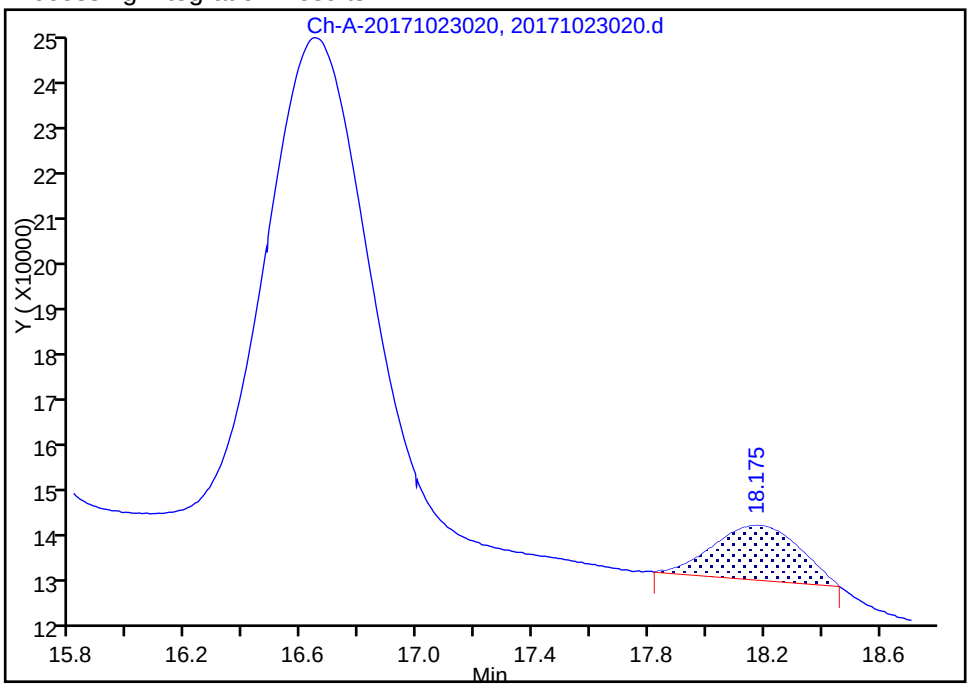
Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023020.d
Injection Date: 23-Oct-2017 15:45:25 Instrument ID: IC-11
Lims ID: CCV
Client ID:
Operator ID: IRVINSTWET4 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C11 Limit Group: IC-300.1_28D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## 2 Chlorate, CAS: 7790-93-4

Signal: 1

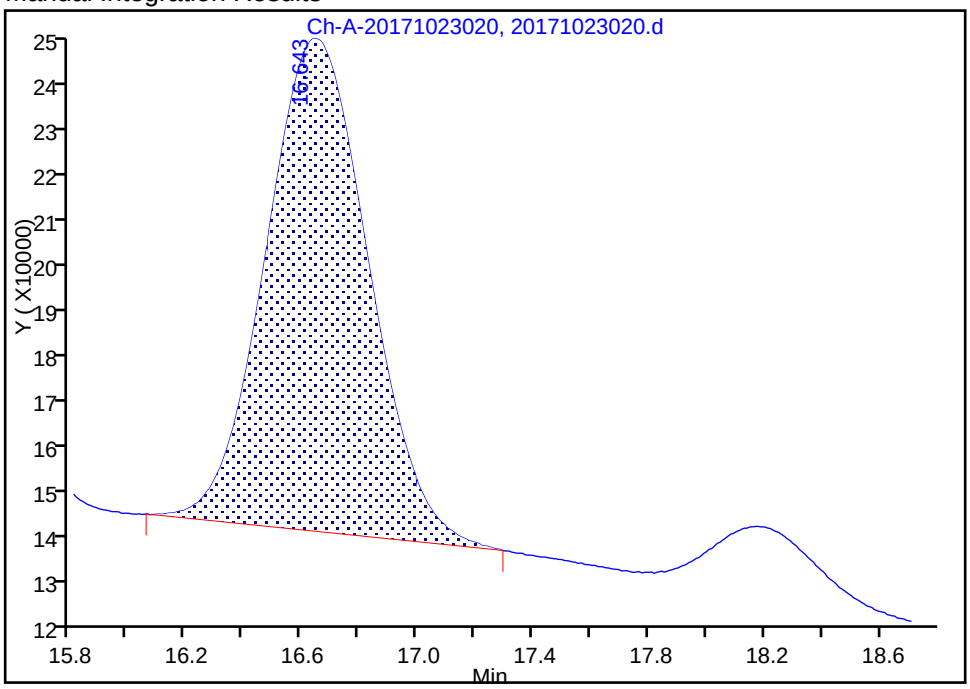
Processing Integration Results

RT: 18.18
Area: 235297
Amount: 0
Amount Units: ug/l




Manual Integration Results

RT: 16.64
Area: 2538380
Amount: 104.2491
Amount Units: ug/l




Reviewer: zakhrabovy, 24-Oct-2017 04:46:29
Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Irvine

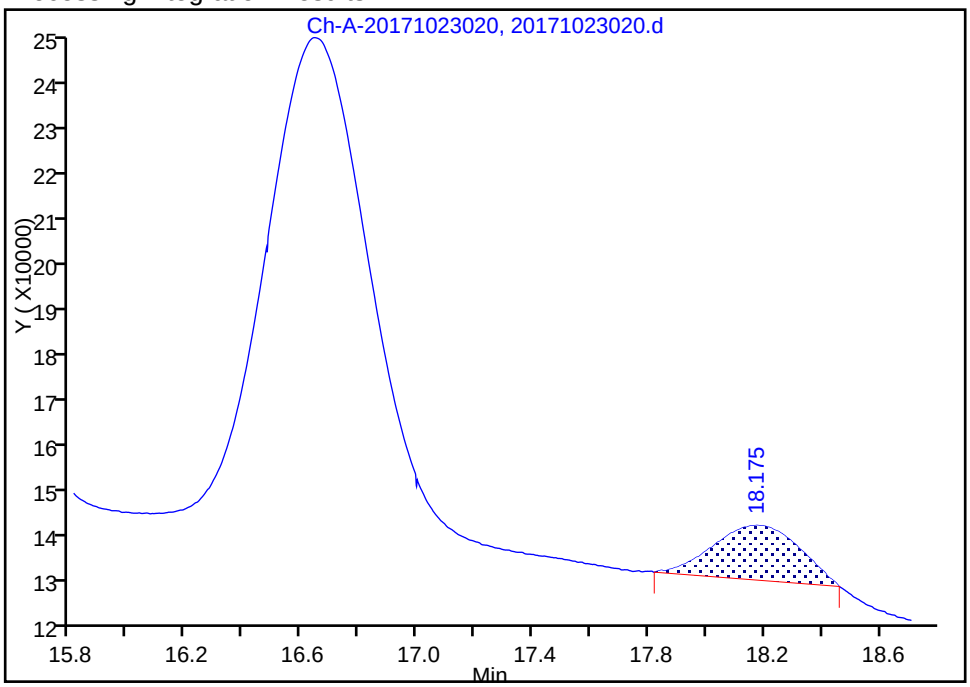
Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023020.d
Injection Date: 23-Oct-2017 15:45:25 Instrument ID: IC-11
Lims ID: CCV
Client ID:
Operator ID: IRVINSTWET4 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C11 Limit Group: IC-300.1_28D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## 2 Chlorate, CAS: 7790-93-4

Signal: 1

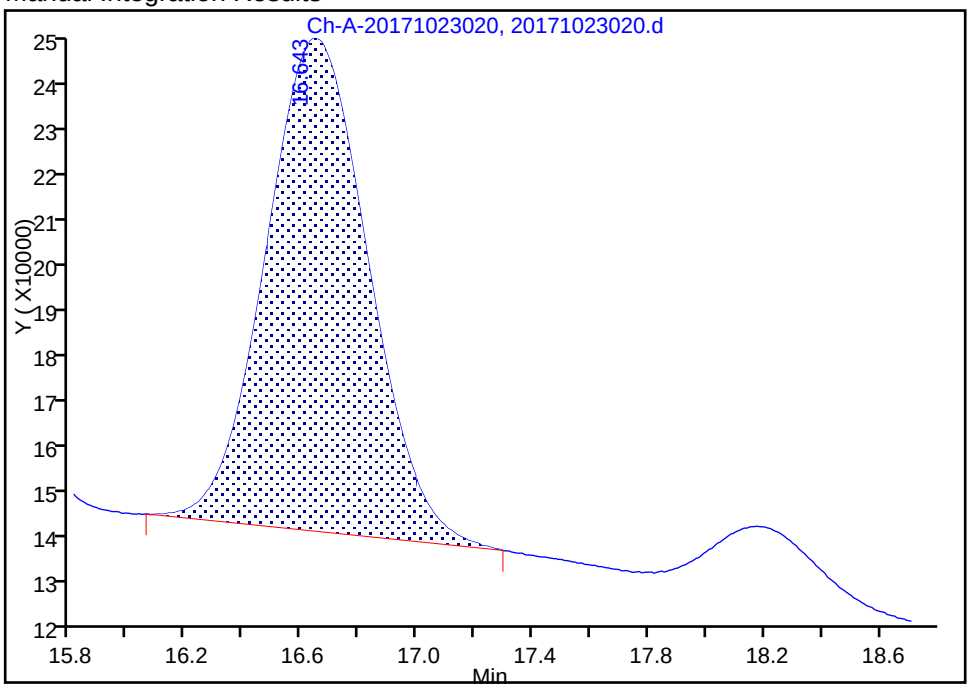
Processing Integration Results

RT: 18.18
Area: 235297
Amount: 0
Amount Units: ug/l




Manual Integration Results

RT: 16.64
Area: 2538380
Amount: 104.2491
Amount Units: ug/l




Reviewer: zakhrabovy, 24-Oct-2017 04:46:37
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-436781/20 Calibration Date: 10/23/2017 15:45

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023020.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 26985 | | 98.0 | 100 | -2.0 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14191 | 13957 | | 977 | 994 | -1.6 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-436781/20 Calibration Date: 10/23/2017 15:45

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023020.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.16 | 6.82 | 7.85 |
| Dichloroacetic acid(Surr) | 13.31 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023020.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 23-Oct-2017 15:45:25 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095116-020
Misc. Info.: Study: 95116 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist: chrom-300.1_C11*sub2

Method: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 24-Oct-2017 05:17:52 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK049

First Level Reviewer: zakhrabovy Date: 24-Oct-2017 04:46:58

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.163 | 7.332 | -0.170 | 2698484 | 100.0 | 98.0 | |
| 3 Bromate | 8.152 | 8.378 | -0.226 | 375136 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.313 | 13.557 | -0.245 | 13868939 | 993.7 | 977.3 | |
| 4 Bromide | 15.316 | 15.991 | -0.675 | 6848234 | NC | NC | M |
| 2 Chlorate | 16.643 | 17.362 | -0.720 | 2538380 | NC | NC | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00054 Amount Added: 125.00 Units: uL
WCDCA_00050 Amount Added: 10.00 Units: uL

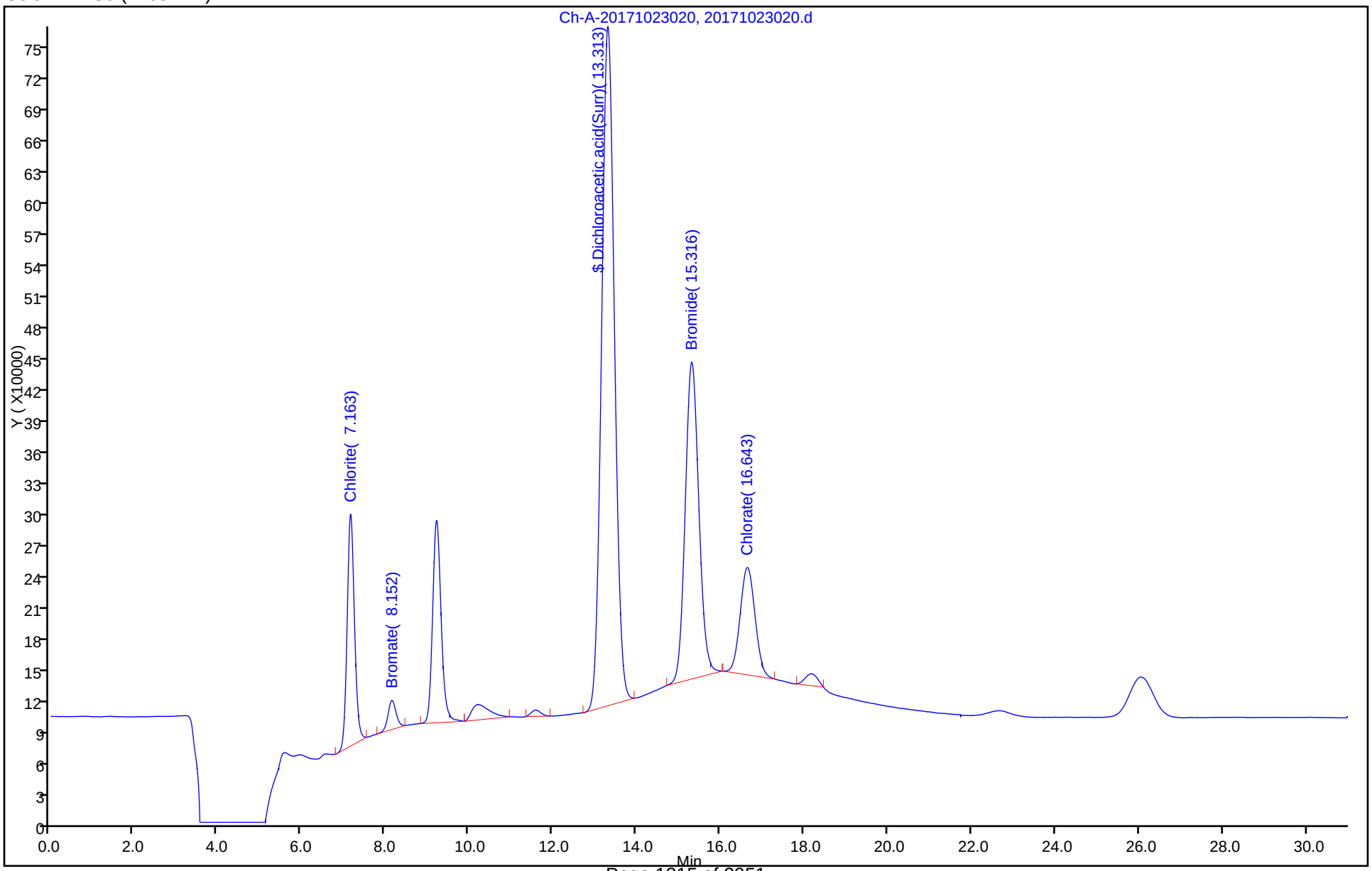
Report Date: 24-Oct-2017 05:17:52 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023020.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 15:45:25 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 20 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-436781/32  Calibration Date: 10/23/2017 22:23

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023032.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 26090 | | 188 | 200 | -5.9 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14191 | 13898 | | 973 | 994 | -2.1 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-436781/32 Calibration Date: 10/23/2017 22:23

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023032.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.16 | 6.82 | 7.85 |
| Dichloroacetic acid(Surr) | 13.23 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023032.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 23-Oct-2017 22:23:41 ALS Bottle#: 0 Worklist Smp#: 32
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095116-032
Misc. Info.: Study: 95116 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist: chrom-300.1_C11*sub2

Method: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 24-Oct-2017 08:49:42 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK049

First Level Reviewer: zakhrabovy Date: 24-Oct-2017 04:51:55

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.158 | 7.332 | -0.174 | 5217956 | 200.0 | 188.1 | |
| 3 Bromate | 8.173 | 8.378 | -0.206 | 709671 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.230 | 13.557 | -0.327 | 13810224 | 993.7 | 973.2 | |
| 4 Bromide | 15.633 | 15.991 | -0.358 | 12845374 | NC | NC | M |
| 2 Chlorate | 16.910 | 17.362 | -0.452 | 5427264 | NC | NC | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL
WC3001LCS_00054 Amount Added: 250.00 Units: uL

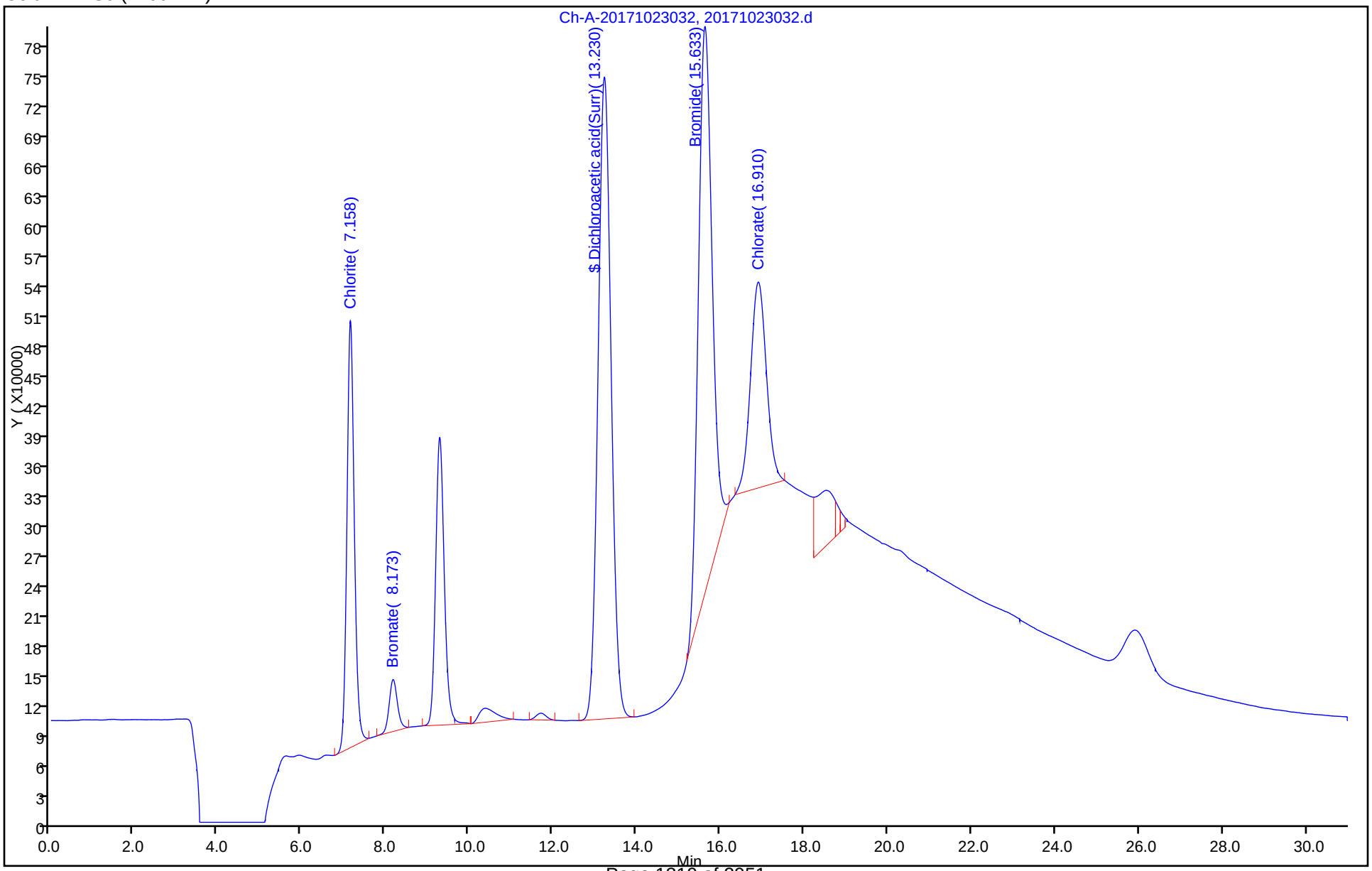
Report Date: 24-Oct-2017 08:49:47 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023032.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 22:23:41 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 32 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-436780/40  Calibration Date: 10/24/2017 05:23

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023040.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 15131 | | 24.3 | 25.0 | -2.7 | 15.0 |
| Bromide | Lin | | 26580 | | 255 | 250 | 1.9 | 15.0 |
| Chlorate | Lin | | 24555 | | 101 | 100 | 0.8 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14155 | 14115 | | 991 | 994 | -0.3 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-436780/40 Calibration Date: 10/24/2017 05:23

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023040.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.26 | 7.79 | 8.96 |
| Bromide | 15.65 | 14.87 | 17.11 |
| Chlorate | 16.95 | 16.49 | 18.23 |
| Dichloroacetic acid(Surr) | 13.37 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023040.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 24-Oct-2017 05:23:43 ALS Bottle#: 0 Worklist Smp#: 40
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095116-040
Misc. Info.: Study: 95116 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist: chrom-300.1_C11*sub2

Method: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 24-Oct-2017 08:50:15 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK049

First Level Reviewer: zakhrabovy Date: 24-Oct-2017 06:29:54

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.237 | 7.332 | -0.095 | 2679596 | NC | NC | |
| 3 Bromate | 8.257 | 8.378 | -0.121 | 378272 | 25.0 | 24.3 | |
| $ 6 Dichloroacetic acid(Surr) | 13.374 | 13.557 | -0.183 | 14026164 | 993.7 | 990.9 | |
| 4 Bromide | 15.652 | 15.991 | -0.339 | 6644882 | 250.0 | 254.7 | |
| 2 Chlorate | 16.952 | 17.362 | -0.410 | 2455460 | 100.0 | 100.8 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WC3001LCS_00054 Amount Added: 125.00 Units: uL
WCDCA_00050 Amount Added: 10.00 Units: uL

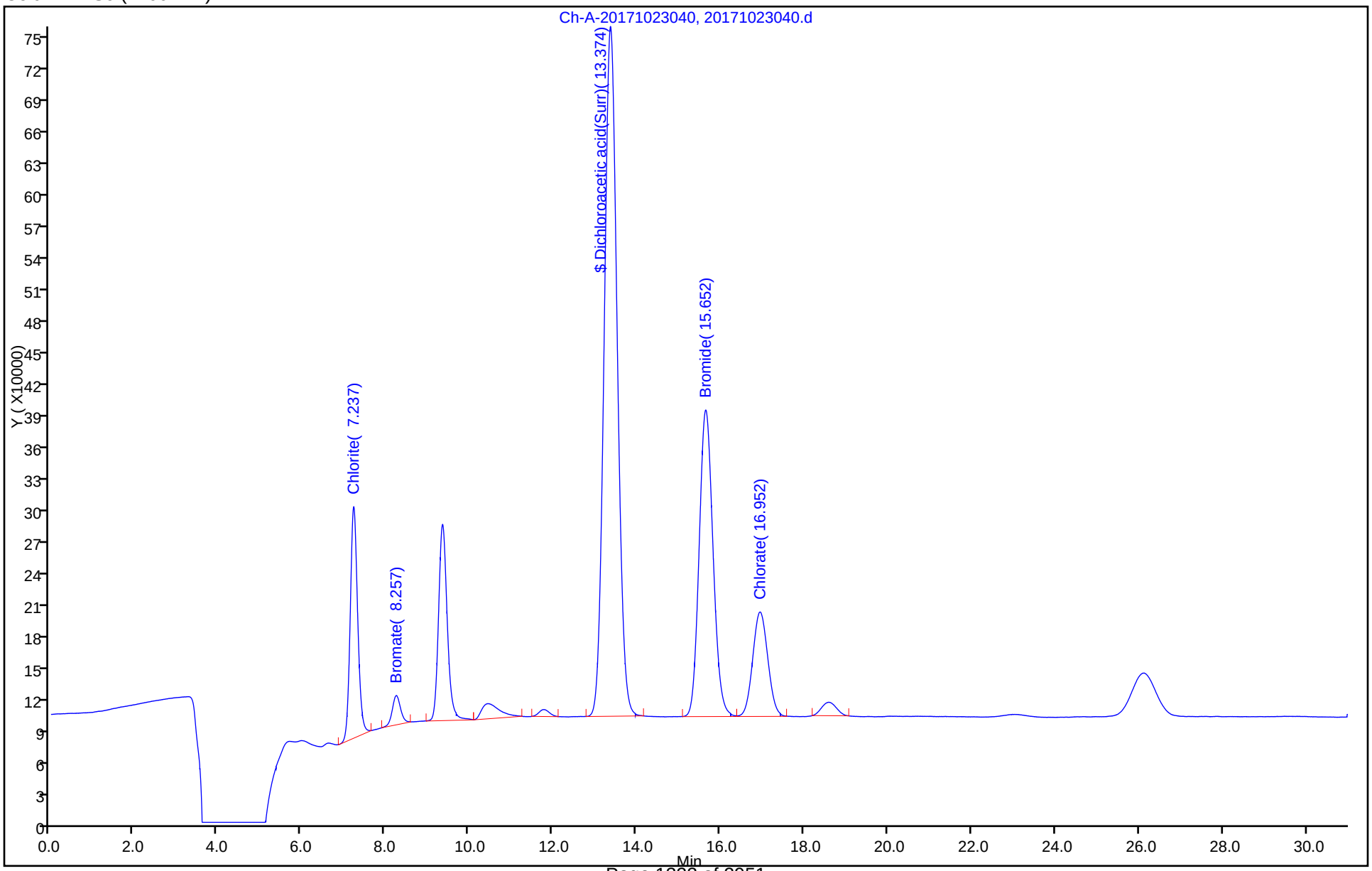
Report Date: 24-Oct-2017 08:50:18 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023040.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 05:23:43 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 40 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-436781/40  Calibration Date: 10/24/2017 05:23

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023040.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 26796 | | 97.4 | 100 | -2.6 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14191 | 14115 | | 988 | 994 | -0.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-436781/40 Calibration Date: 10/24/2017 05:23

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023040.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.24 | 6.82 | 7.85 |
| Dichloroacetic acid(Surr) | 13.37 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023040.d | | | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 24-Oct-2017 05:23:43 | ALS Bottle#: | 0 | Worklist Smp#: | 40 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-040 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 08:50:15 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 06:29:54 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.237 | 7.332 | -0.095 | 2679596 | 100.0 | 97.4 | |
| 3 Bromate | 8.257 | 8.378 | -0.121 | 378272 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.374 | 13.557 | -0.183 | 14026164 | 993.7 | 988.4 | |
| 4 Bromide | 15.652 | 15.991 | -0.339 | 6644882 | NC | NC | |
| 2 Chlorate | 16.952 | 17.362 | -0.410 | 2455460 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

| | | |
|---|---|---|
| WC3001LCS_00054 | Amount Added: 125.00 | Units: uL |
| WCDCA_00050 | Amount Added: 10.00 | Units: uL |

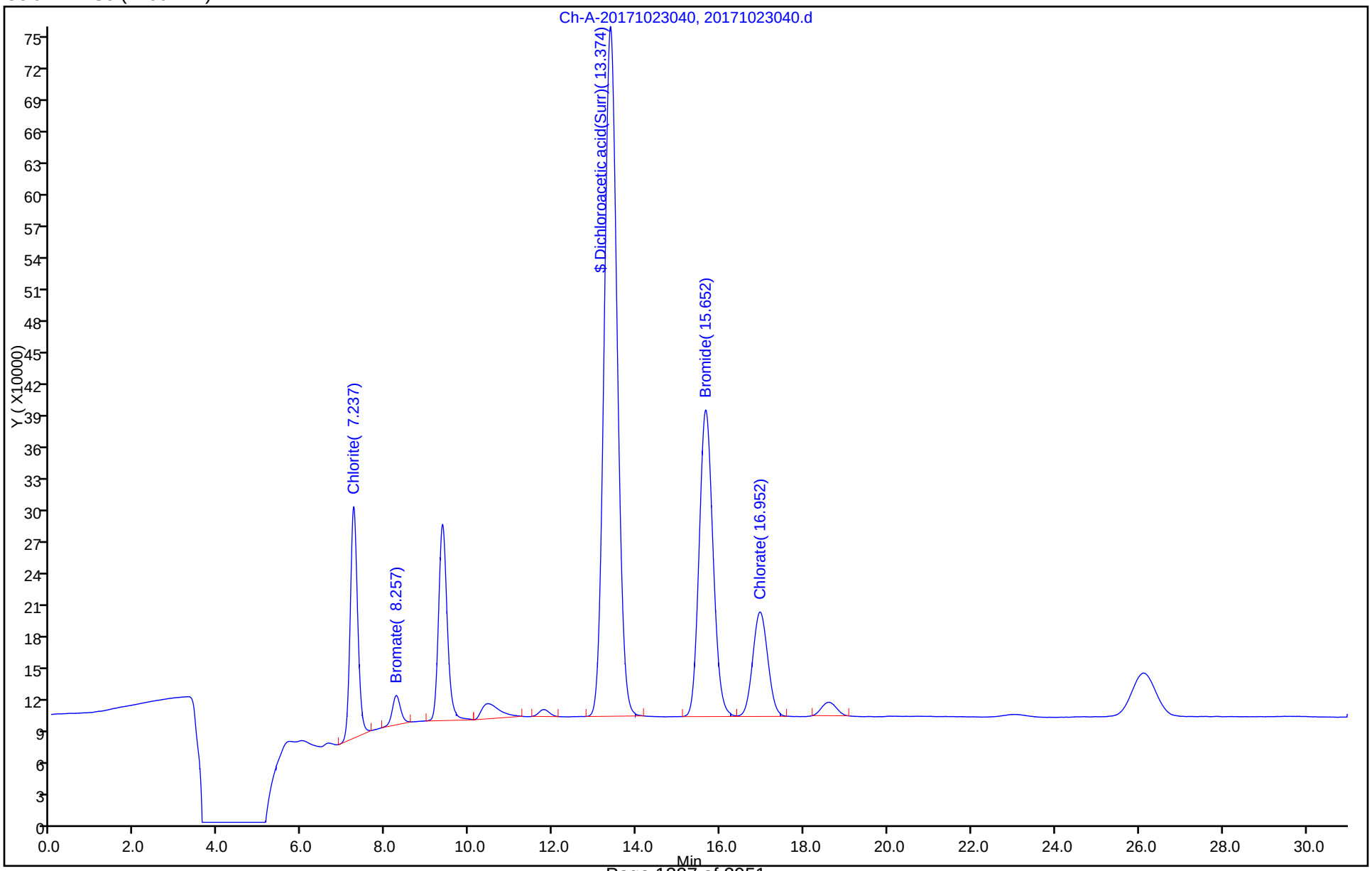
Report Date: 24-Oct-2017 08:50:17 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023040.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 05:23:43 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 40 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-436780/52  Calibration Date: 10/24/2017 12:11

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023052.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 13994 | | 45.5 | 50.0 | -8.9 | 15.0 |
| Bromide | Lin | | 25252 | | 497 | 500 | -0.6 | 15.0 |
| Chlorate | Lin | | 23075 | | 190 | 200 | -5.0 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14155 | 13832 | | 971 | 994 | -2.3 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-436780/52 Calibration Date: 10/24/2017 12:11

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023052.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.21 | 7.79 | 8.96 |
| Bromide | 15.24 | 14.87 | 17.11 |
| Chlorate | 16.60 | 16.49 | 18.23 |
| Dichloroacetic acid(Surr) | 13.43 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023052.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 24-Oct-2017 12:11:19 ALS Bottle#: 0 Worklist Smp#: 52
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095116-047
Misc. Info.: Study: 95116 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist: chrom-300.1_C11*sub2

Method: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 24-Oct-2017 12:45:42 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK049

First Level Reviewer: zakhrabovy Date: 24-Oct-2017 12:45:42

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.239 | 7.332 | -0.093 | 5095918 | NC | NC | |
| 3 Bromate | 8.212 | 8.378 | -0.166 | 699707 | 50.0 | 45.5 | |
| $ 6 Dichloroacetic acid(Surr) | 13.426 | 13.557 | -0.131 | 13744980 | 993.7 | 971.0 | |
| 4 Bromide | 15.243 | 15.991 | -0.748 | 12626032 | 500.0 | 496.8 | |
| 2 Chlorate | 16.604 | 17.362 | -0.758 | 4614932 | 200.0 | 190.0 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL
WC3001LCS_00054 Amount Added: 250.00 Units: uL

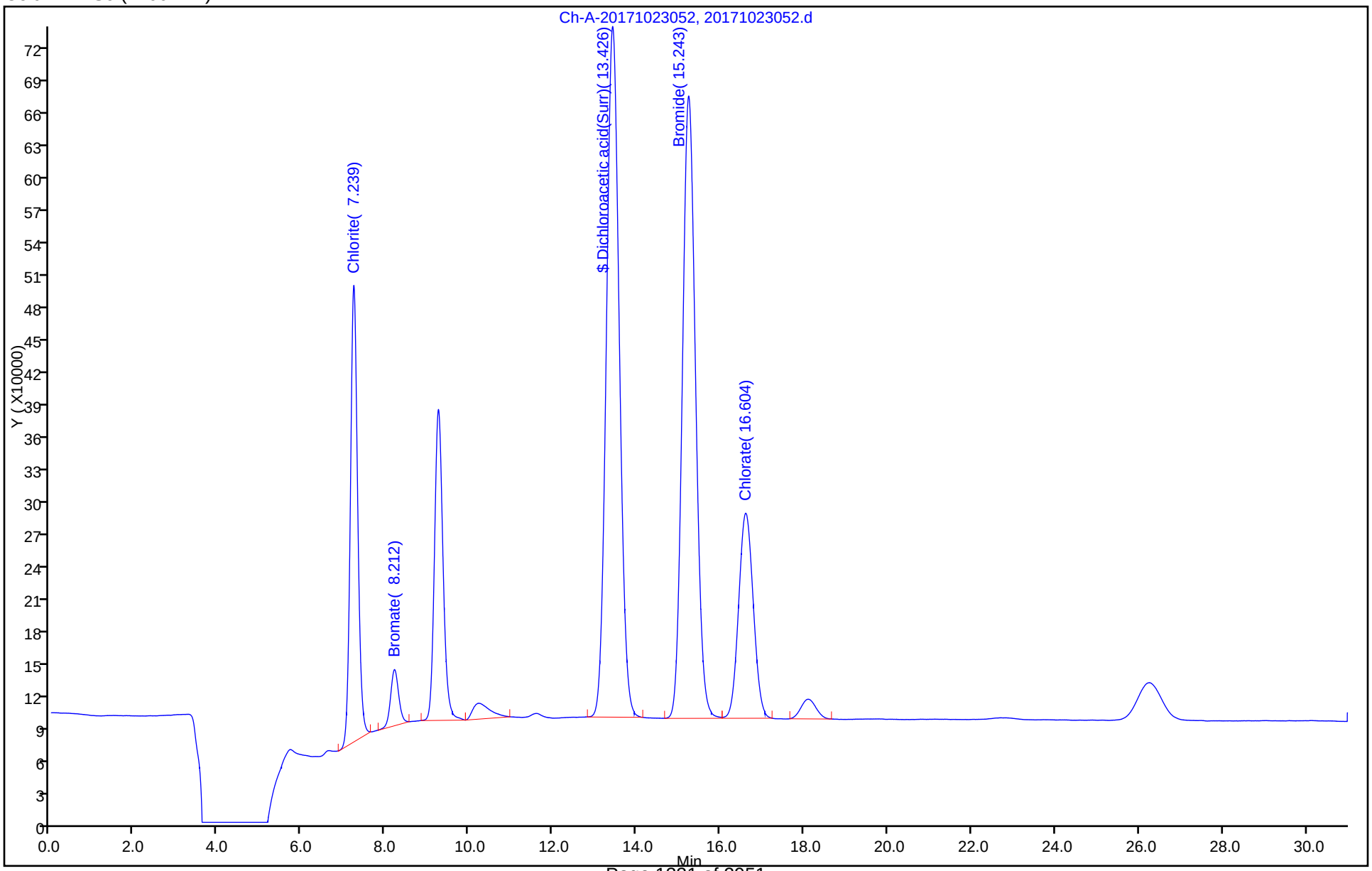
Report Date: 24-Oct-2017 12:45:48 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023052.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 12:11:19 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 52 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-436781/52  Calibration Date: 10/24/2017 12:11

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023052.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 25480 | | 184 | 200 | -8.1 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14191 | 13832 | | 969 | 994 | -2.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-436781/52 Calibration Date: 10/24/2017 12:11

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023052.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.24 | 6.82 | 7.85 |
| Dichloroacetic acid(Surr) | 13.43 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023052.d | | | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 24-Oct-2017 12:11:19 | ALS Bottle#: | 0 | Worklist Smp#: | 52 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-047 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 12:45:42 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 12:45:42 | | |

| | Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 Chlorite | 7.239 | 7.332 | -0.093 | 5095918 | 200.0 | 183.7 | |
| | 3 Bromate | 8.212 | 8.378 | -0.166 | 699707 | NC | NC | |
| $ | 6 Dichloroacetic acid(Surr) | 13.426 | 13.557 | -0.131 | 13744980 | 993.7 | 968.6 | |
| | 4 Bromide | 15.243 | 15.991 | -0.748 | 12626032 | NC | NC | |
| | 2 Chlorate | 16.604 | 17.362 | -0.758 | 4614932 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

| | | |
|---|---|---|
| WCDCA_00050 | Amount Added: 10.00 | Units: uL |
| WC3001LCS_00054 | Amount Added: 250.00 | Units: uL |

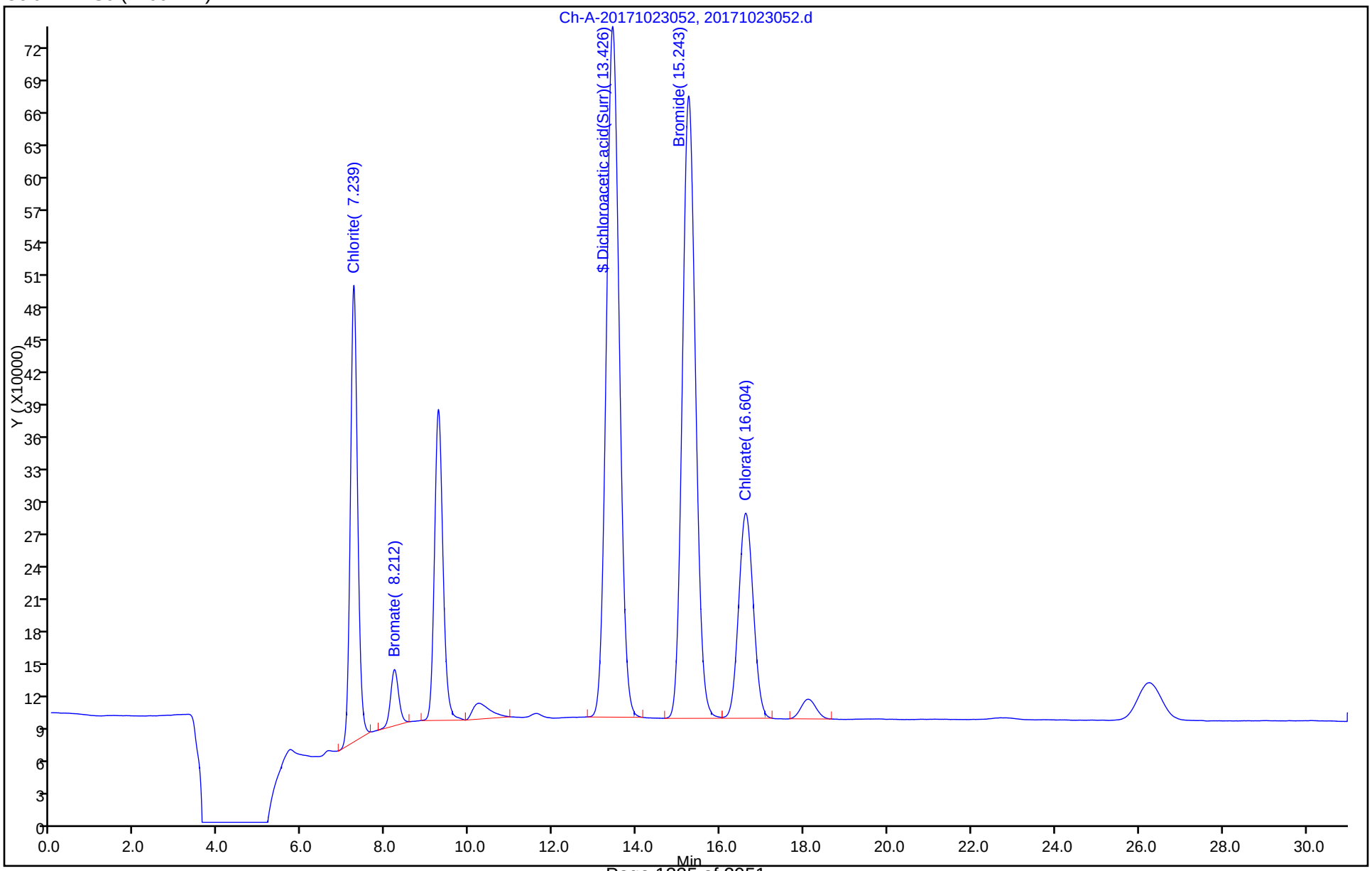
Report Date: 24-Oct-2017 12:45:47 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023052.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 12:11:19 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 52 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-436780/64  Calibration Date: 10/24/2017 18:49

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023064.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 14355 | | 23.1 | 25.0 | -7.8 | 15.0 |
| Bromide | Lin | | 26226 | | 251 | 250 | 0.4 | 15.0 |
| Chlorate | Lin | | 24592 | | 101 | 100 | 1.0 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14155 | 14003 | | 983 | 994 | -1.1 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-436780/64 Calibration Date: 10/24/2017 18:49

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023064.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.25 | 7.79 | 8.96 |
| Bromide | 15.46 | 14.87 | 17.11 |
| Chlorate | 16.80 | 16.49 | 18.23 |
| Dichloroacetic acid(Surr) | 13.43 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023064.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 24-Oct-2017 18:49:35 ALS Bottle#: 0 Worklist Smp#: 64
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095116-064
Misc. Info.: Study: 95116 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist: chrom-300.1_C11*sub2

Method: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 25-Oct-2017 03:35:50 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK047

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.253 | 7.332 | -0.079 | 2627721 | NC | NC | |
| 3 Bromate | 8.248 | 8.378 | -0.130 | 358874 | 25.0 | 23.1 | |
| $ 6 Dichloroacetic acid(Surr) | 13.434 | 13.557 | -0.123 | 13915265 | 993.7 | 983.1 | |
| 4 Bromide | 15.460 | 15.991 | -0.531 | 6556480 | 250.0 | 251.1 | |
| 2 Chlorate | 16.798 | 17.362 | -0.564 | 2459232 | 100.0 | 101.0 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL
WC3001LCS_00054 Amount Added: 125.00 Units: uL

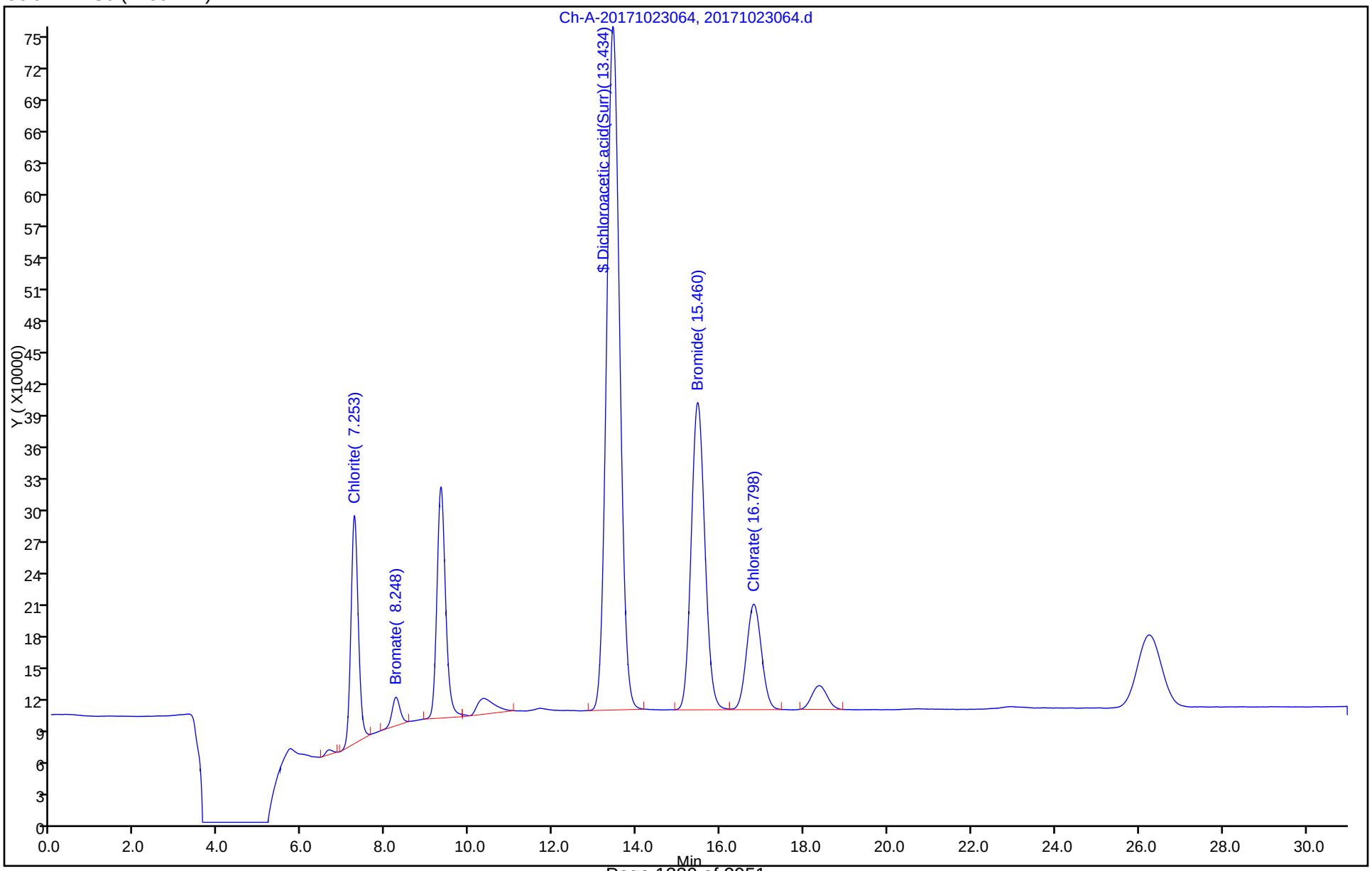
Report Date: 25-Oct-2017 03:35:51 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023064.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 18:49:35 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 64 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-436781/64  Calibration Date: 10/24/2017 18:49

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023064.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 26277 | | 95.5 | 100 | -4.5 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14191 | 14003 | | 981 | 994 | -1.3 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-436781/64 Calibration Date: 10/24/2017 18:49

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023064.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.25 | 6.82 | 7.85 |
| Dichloroacetic acid(Surr) | 13.43 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023064.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 24-Oct-2017 18:49:35 ALS Bottle#: 0 Worklist Smp#: 64
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095116-064
Misc. Info.: Study: 95116 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist: chrom-300.1_C11*sub2

Method: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 25-Oct-2017 03:35:50 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK047

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.253 | 7.332 | -0.079 | 2627721 | 100.0 | 95.5 | |
| 3 Bromate | 8.248 | 8.378 | -0.130 | 358874 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.434 | 13.557 | -0.123 | 13915265 | 993.7 | 980.6 | |
| 4 Bromide | 15.460 | 15.991 | -0.531 | 6556480 | NC | NC | |
| 2 Chlorate | 16.798 | 17.362 | -0.564 | 2459232 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL
WC3001LCS_00054 Amount Added: 125.00 Units: uL

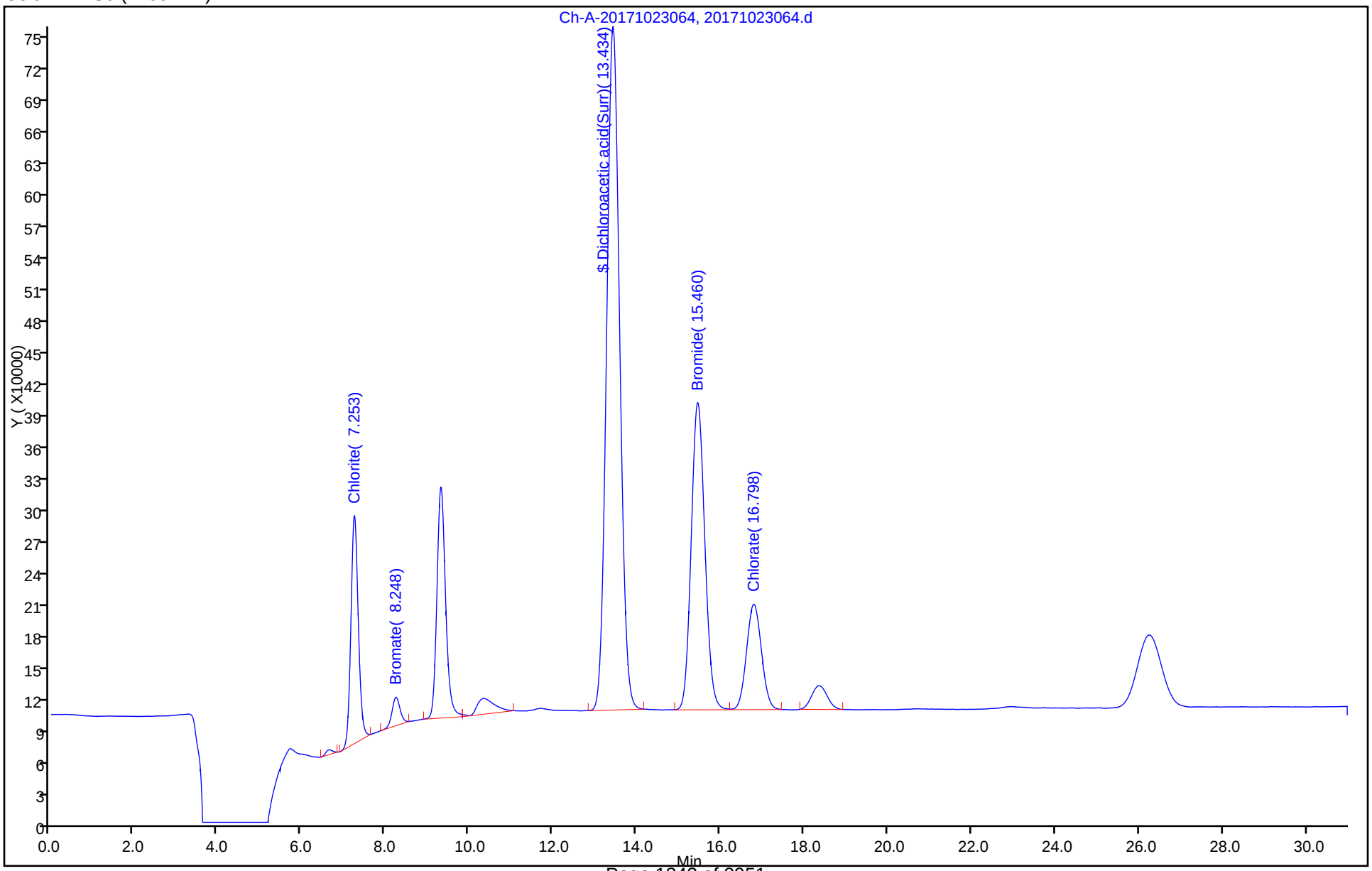
Report Date: 25-Oct-2017 03:35:51 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023064.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 18:49:35 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 64 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437272/34  Calibration Date: 10/26/2017 05:03

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171025034.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 26101 | | 188 | 200 | -5.9 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14191 | 14120 | | 989 | 994 | -0.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437272/34 Calibration Date: 10/26/2017 05:03

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171025034.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.24 | 6.82 | 7.85 |
| Dichloroacetic acid(Surr) | 13.50 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025034.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 26-Oct-2017 05:03:43 ALS Bottle#: 0 Worklist Smp#: 34
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095227-022
Misc. Info.: Study: 95227 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist: chrom-300.1_C11*sub2

Method: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 26-Oct-2017 08:29:43 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK034

| | Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 Chlorite | 7.238 | 7.332 | -0.094 | 5220196 | 200.0 | 188.2 | |
| | 3 Bromate | 8.276 | 8.378 | -0.102 | 719186 | NC | NC | |
| $ | 6 Dichloroacetic acid(Surr) | 13.497 | 13.557 | -0.060 | 14031121 | 993.7 | 988.8 | |
| | 4 Bromide | 15.844 | 15.991 | -0.147 | 12842827 | NC | NC | |
| | 2 Chlorate | 17.170 | 17.362 | -0.192 | 4733002 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL
WC3001LCS_00054 Amount Added: 250.00 Units: uL

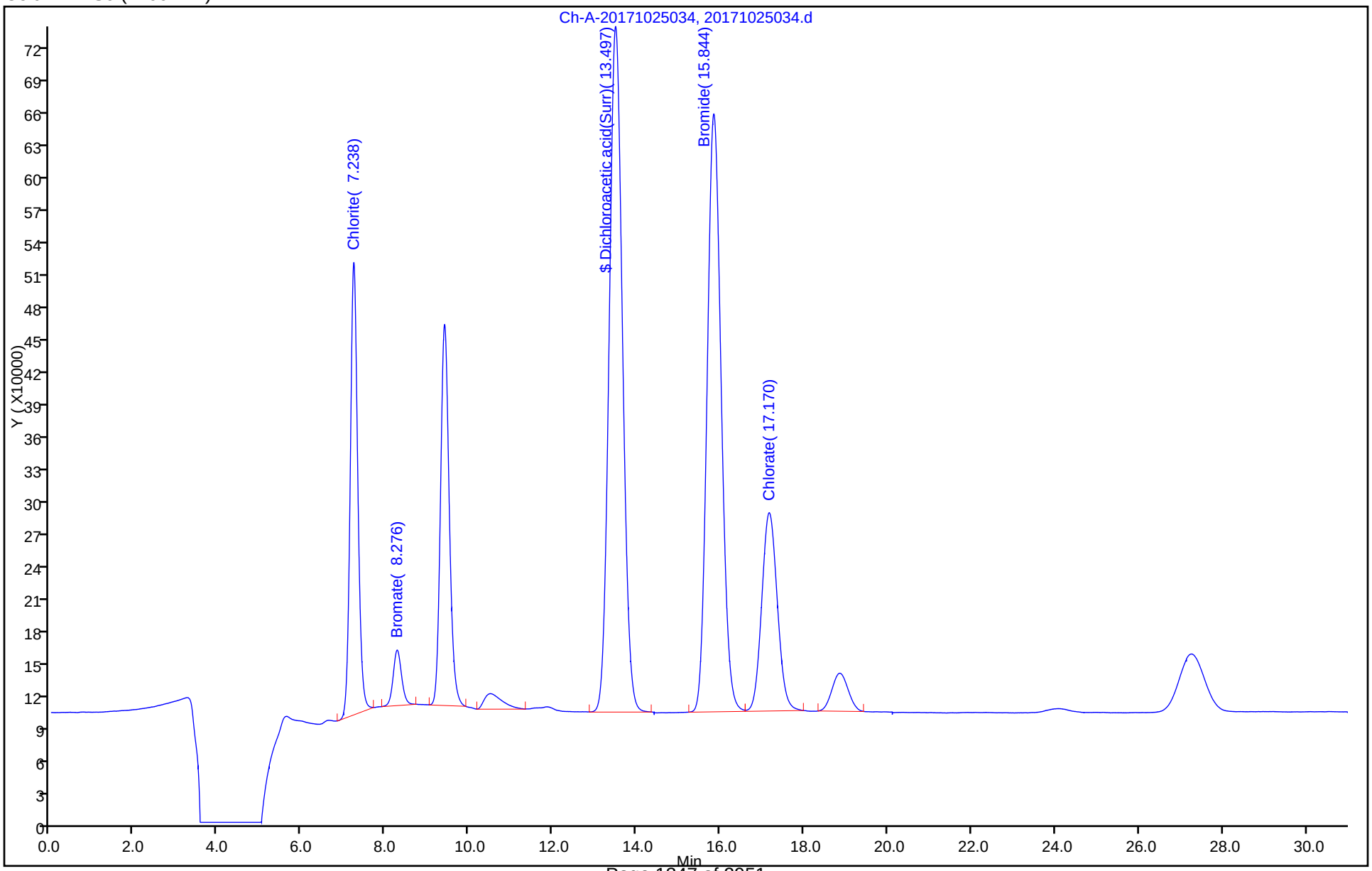
Report Date: 26-Oct-2017 08:29:44 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025034.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 05:03:43 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 34 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437272/42  Calibration Date: 10/26/2017 09:33

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171025042.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 26285 | | 95.5 | 100 | -4.5 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14191 | 14578 | | 1020 | 994 | 2.7 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437272/42 Calibration Date: 10/26/2017 09:33

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171025042.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.33 | 6.82 | 7.85 |
| Dichloroacetic acid(Surr) | 13.59 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025042.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 26-Oct-2017 09:33:17 ALS Bottle#: 0 Worklist Smp#: 42
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095227-042
Misc. Info.: Study: 95227 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist: chrom-300.1_C11*sub2

Method: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 26-Oct-2017 10:12:36 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK034

First Level Reviewer: zakhrabovy Date: 26-Oct-2017 10:12:36

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.327 | 7.332 | -0.005 | 2628463 | 100.0 | 95.5 | |
| 3 Bromate | 8.384 | 8.378 | 0.006 | 358852 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.588 | 13.557 | 0.031 | 14486199 | 993.7 | 1020.8 | |
| 4 Bromide | 16.048 | 15.991 | 0.057 | 6458862 | NC | NC | |
| 2 Chlorate | 17.353 | 17.362 | -0.009 | 2356983 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL
WC3001LCS_00054 Amount Added: 125.00 Units: uL

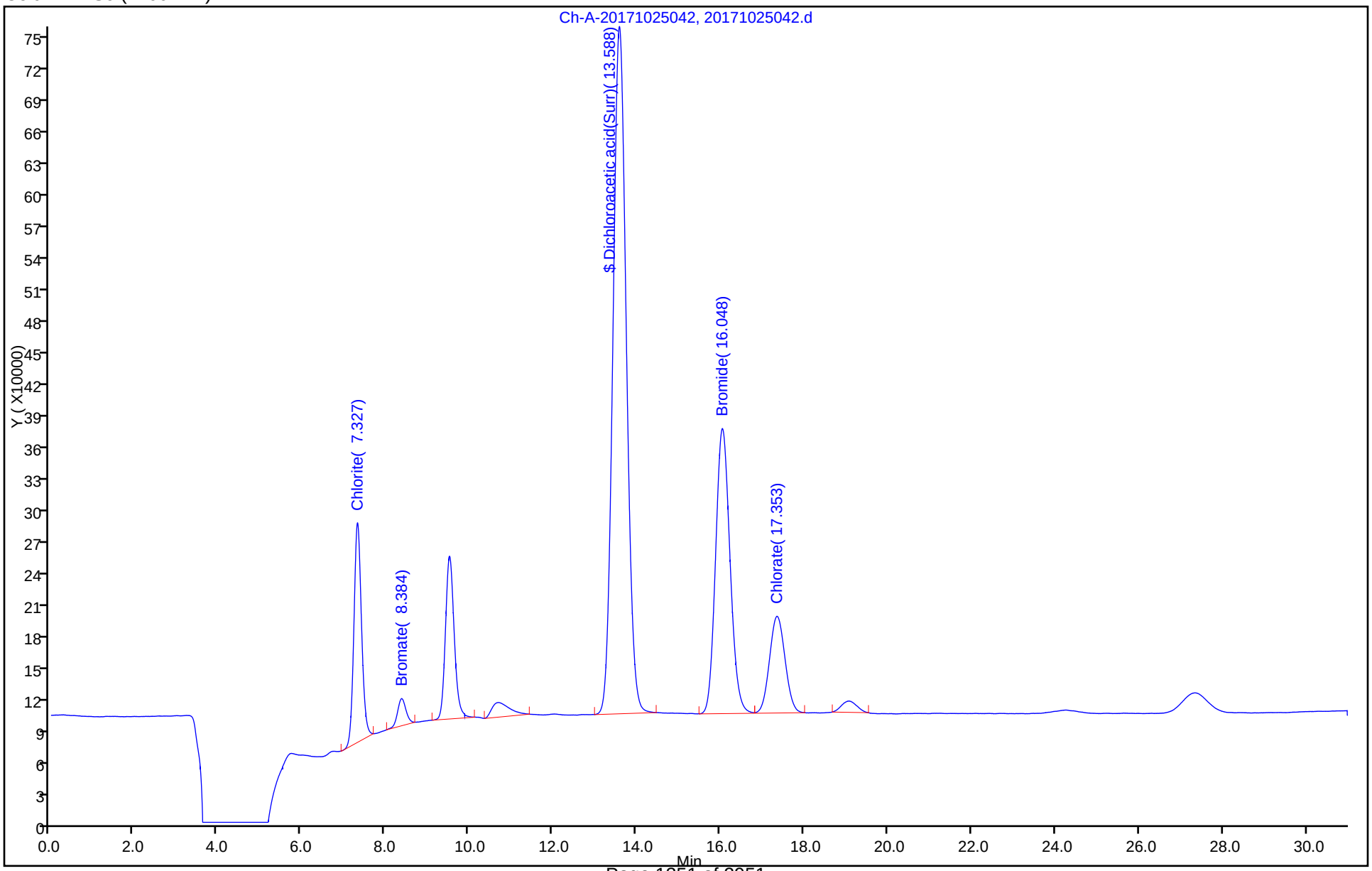
Report Date: 26-Oct-2017 10:12:36 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025042.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 09:33:17 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 42 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437778/34  Calibration Date: 10/28/2017 02:21

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171027034.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 14543 | | 47.3 | 50.0 | -5.3 | 15.0 |
| Bromide | Lin | | 26215 | | 516 | 500 | 3.3 | 15.0 |
| Chlorate | Lin | | 23472 | | 193 | 200 | -3.4 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14155 | 14590 | | 1020 | 994 | 3.1 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437778/34 Calibration Date: 10/28/2017 02:21

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171027034.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.50 | 7.79 | 8.96 |
| Bromide | 16.34 | 14.87 | 17.11 |
| Chlorate | 17.70 | 16.49 | 18.23 |
| Dichloroacetic acid(Surr) | 13.87 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\20171027034.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 28-Oct-2017 02:21:27 ALS Bottle#: 0 Worklist Smp#: 34
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095341-034
Misc. Info.: Study: 95341 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist: chrom-300.1_C11*sub2

Method: \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\300.1_C11.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 28-Oct-2017 04:55:39 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK048

| | Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 Chlorite | 7.421 | 7.332 | 0.089 | 5316585 | NC | NC | |
| | 3 Bromate | 8.495 | 8.378 | 0.117 | 727147 | 50.0 | 47.3 | |
| $ | 6 Dichloroacetic acid(Surr) | 13.866 | 13.557 | 0.309 | 14498539 | 993.7 | 1024.3 | |
| | 4 Bromide | 16.342 | 15.991 | 0.351 | 13107648 | 500.0 | 516.3 | |
| | 2 Chlorate | 17.697 | 17.362 | 0.335 | 4694423 | 200.0 | 193.3 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL
WC3001LCS_00054 Amount Added: 250.00 Units: uL

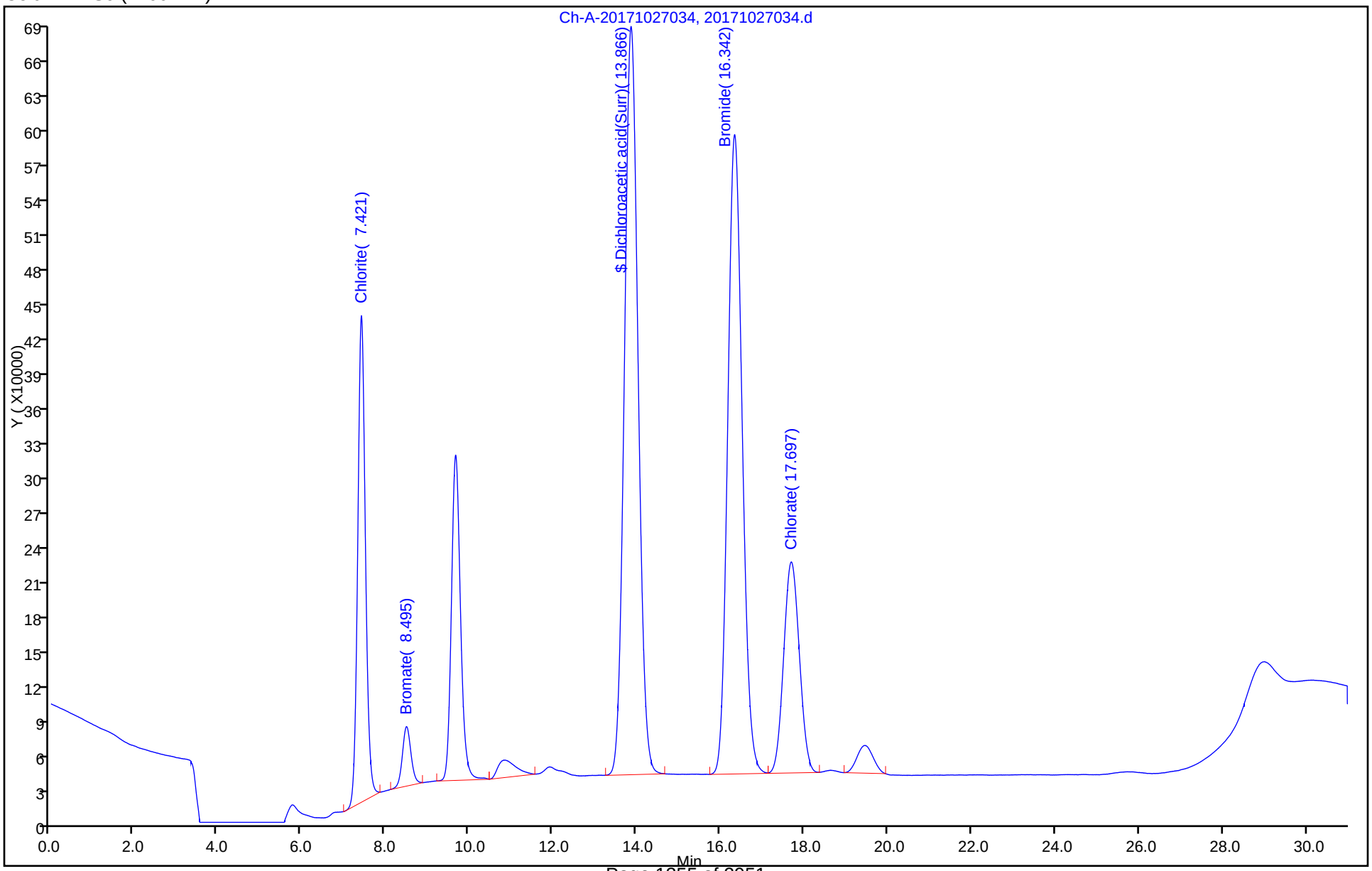
Report Date: 28-Oct-2017 04:55:39 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\20171027034.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 02:21:27 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 34 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437778/46  Calibration Date: 10/28/2017 09:14

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171027046.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 15367 | | 24.7 | 25.0 | -1.1 | 15.0 |
| Bromide | Lin | | 26607 | | 255 | 250 | 2.0 | 15.0 |
| Chlorate | Lin | | 23956 | | 98.4 | 100 | -1.6 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14155 | 14616 | | 1030 | 994 | 3.3 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437778/46 Calibration Date: 10/28/2017 09:14

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171027046.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.54 | 7.79 | 8.96 |
| Bromide | 16.52 | 14.87 | 17.11 |
| Chlorate | 17.86 | 16.49 | 18.23 |
| Dichloroacetic acid(Surr) | 13.89 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\20171027046.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 28-Oct-2017 09:14:49 ALS Bottle#: 0 Worklist Smp#: 46
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095341-035
Misc. Info.: Study: 95341 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist: chrom-300.1_C11*sub2

Method: \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\300.1_C11.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 28-Oct-2017 10:11:08 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK048

First Level Reviewer: zakhrabovy Date: 28-Oct-2017 10:11:08

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.443 | 7.332 | 0.110 | 2691919 | NC | NC | |
| 3 Bromate | 8.543 | 8.378 | 0.164 | 384176 | 25.0 | 24.7 | |
| $ 6 Dichloroacetic acid(Surr) | 13.892 | 13.557 | 0.335 | 14524375 | 993.7 | 1026.1 | |
| 4 Bromide | 16.517 | 15.991 | 0.526 | 6651841 | 250.0 | 255.0 | |
| 2 Chlorate | 17.858 | 17.362 | 0.496 | 2395592 | 100.0 | 98.4 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL
WC3001LCS_00054 Amount Added: 125.00 Units: uL

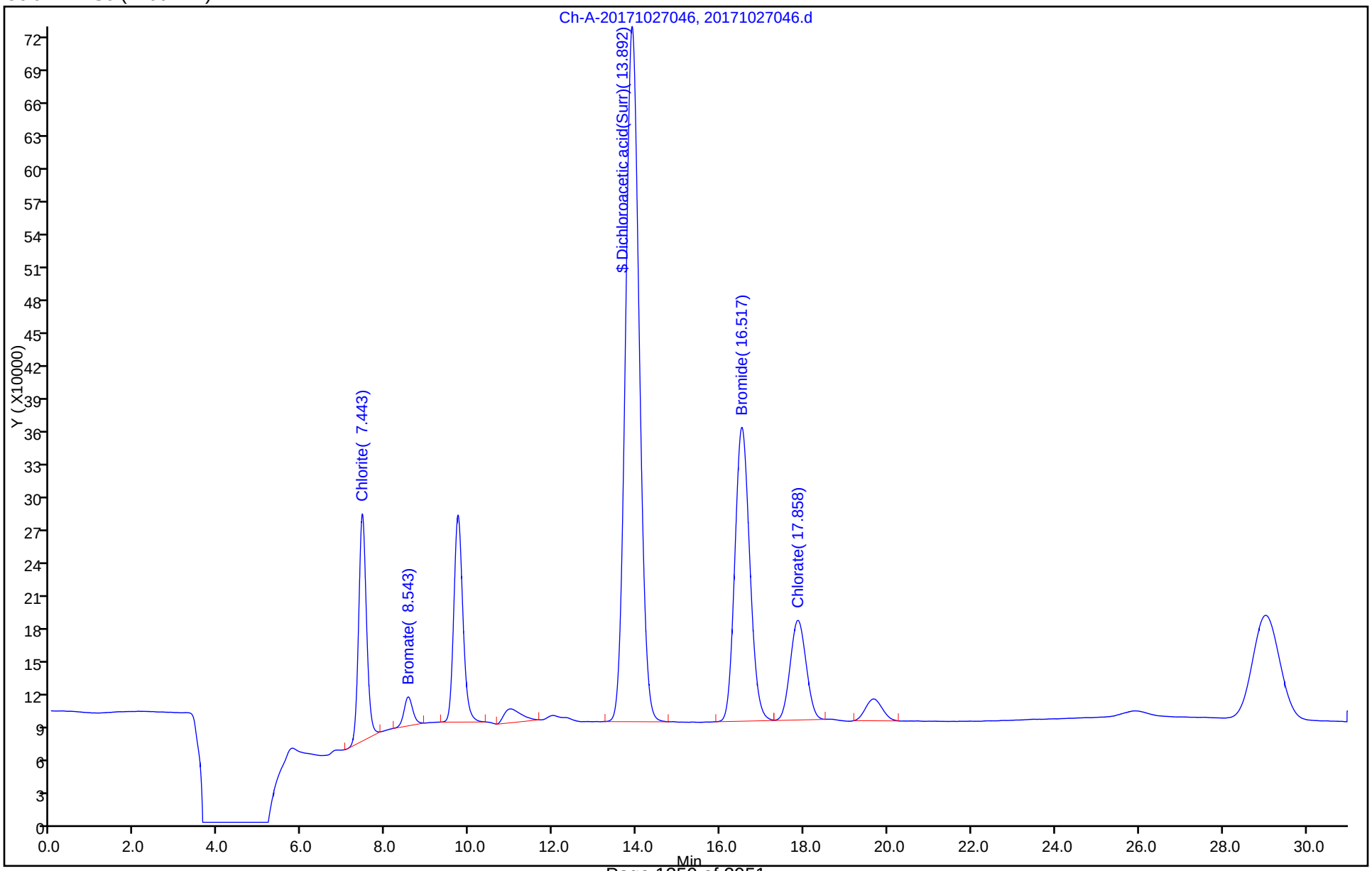
Report Date: 28-Oct-2017 10:11:09 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\20171027046.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 09:14:49 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 46 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: ICV 440-423009/8 Calibration Date: 08/14/2017 09:17

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0092153-008.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 77668 | | 29.1 | 30.1 | -3.3 | 15.0 |
| Bromide | Lin | | 144321 | | 291 | 300 | -3.2 | 15.0 |
| Chlorate | Lin | | 132909 | | 119 | 120 | -0.7 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 80484 | 79835 | | 986 | 994 | -0.8 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: ICV 440-423009/8 Calibration Date: 08/14/2017 09:17

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0092153-008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.24 | 7.67 | 8.83 |
| Bromide | 15.93 | 14.85 | 17.09 |
| Chlorate | 17.38 | 16.53 | 18.27 |
| Dichloroacetic acid(Surr) | 13.59 | 12.64 | 14.54 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-008.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 14-Aug-2017 09:17:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0092153-008
Misc. Info.: 8 EB
Operator ID: Instrument ID: IC-8
Sublist:

Method: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\300.1_C8.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 14-Aug-2017 10:22:44 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK035

First Level Reviewer: zakhrabovy Date: 14-Aug-2017 10:22:58

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.184 | 7.192 | -0.008 | 17660196 | NC | NC | M |
| 3 Bromate | 8.242 | 8.250 | -0.008 | 2334693 | 30.1 | 29.1 | M |
| $ 6 Dichloroacetic acid(Surr) | 13.592 | 13.592 | 0.000 | 79332707 | 993.7 | 985.7 | |
| 4 Bromide | 15.934 | 15.967 | -0.033 | 43296413 | 300.0 | 290.5 | |
| 2 Chlorate | 17.375 | 17.400 | -0.025 | 15965060 | 120.1 | 119.2 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001ICV_00034 Amount Added: 150.00 Units: uL
WCDCA_00046 Amount Added: 10.00 Units: uL Run Reagent

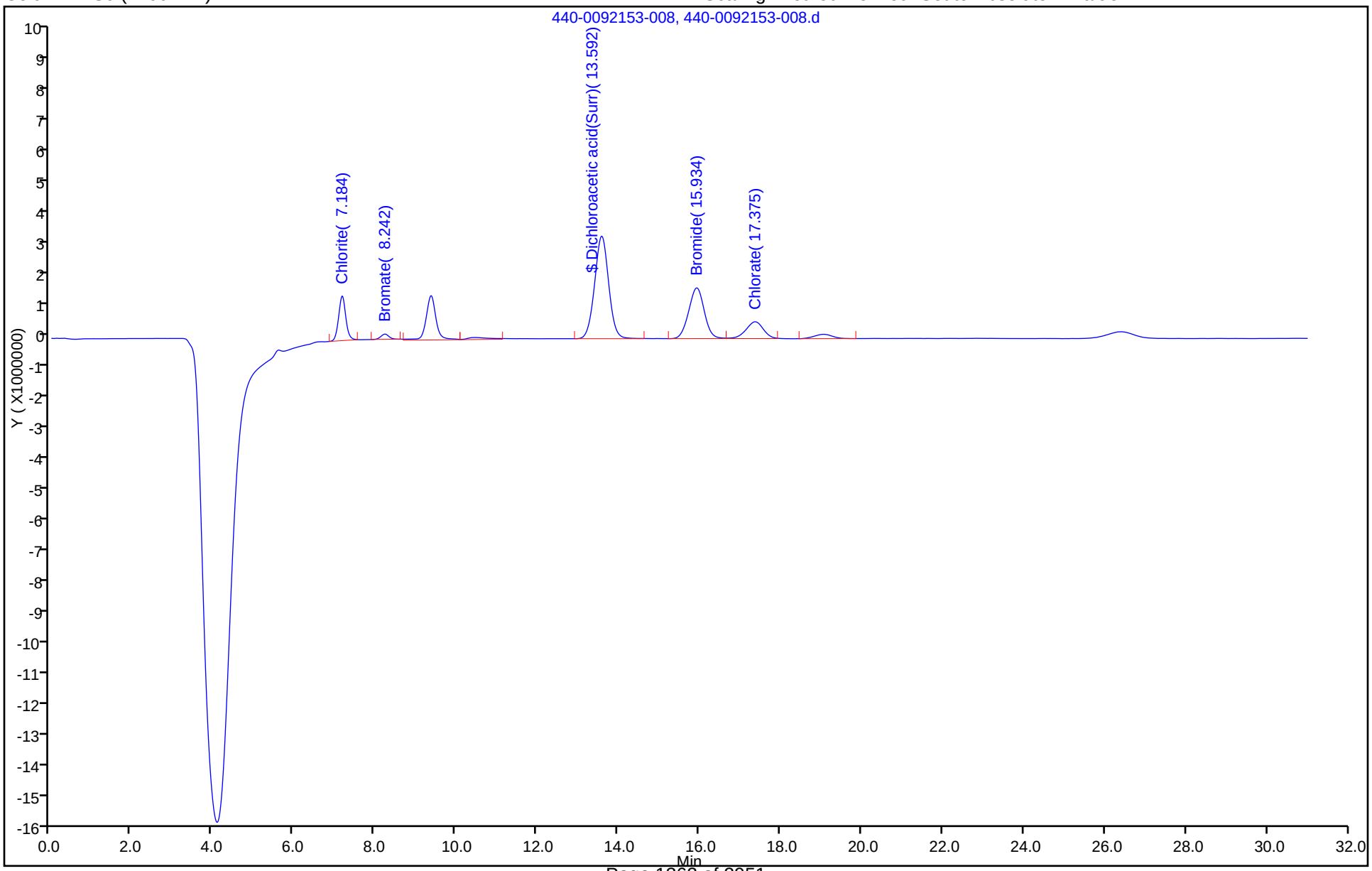
Report Date: 14-Aug-2017 10:22:58 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-008.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 14-Aug-2017 09:17:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | ICV | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

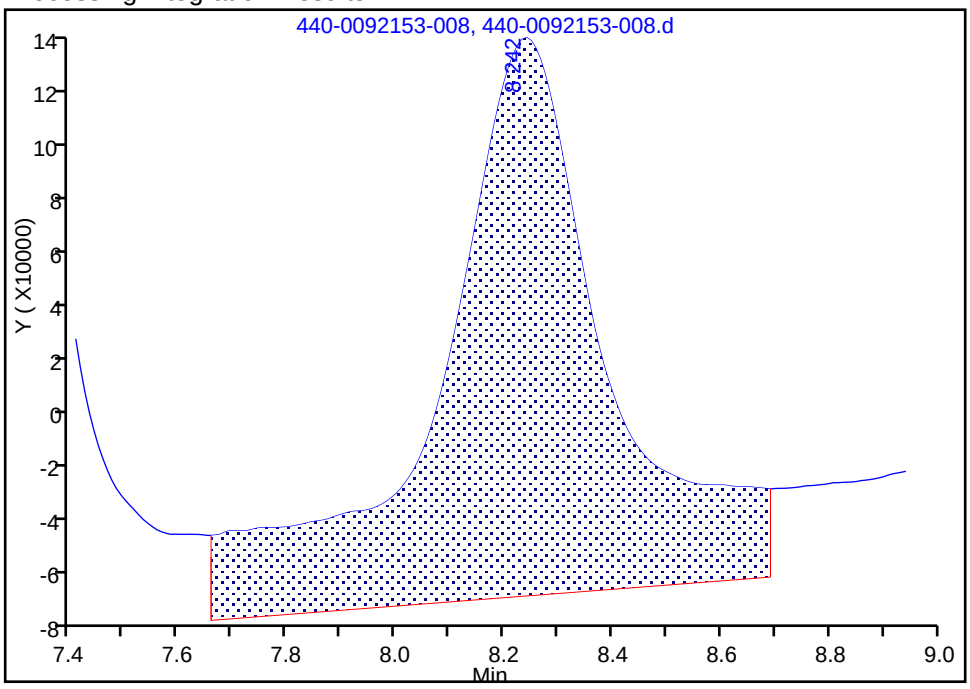
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-008.d | | | | |
| Injection Date: | 14-Aug-2017 09:17:00 | Instrument ID: | IC-8 | | |
| Lims ID: | ICV | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 0 | Worklist Smp#: | 8 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |
| Column: | AS9 ( 4.00 mm) | Detector | Ch-A-20110816009 | | |

## 3 Bromate, CAS: 15541-45-4

Signal: 1

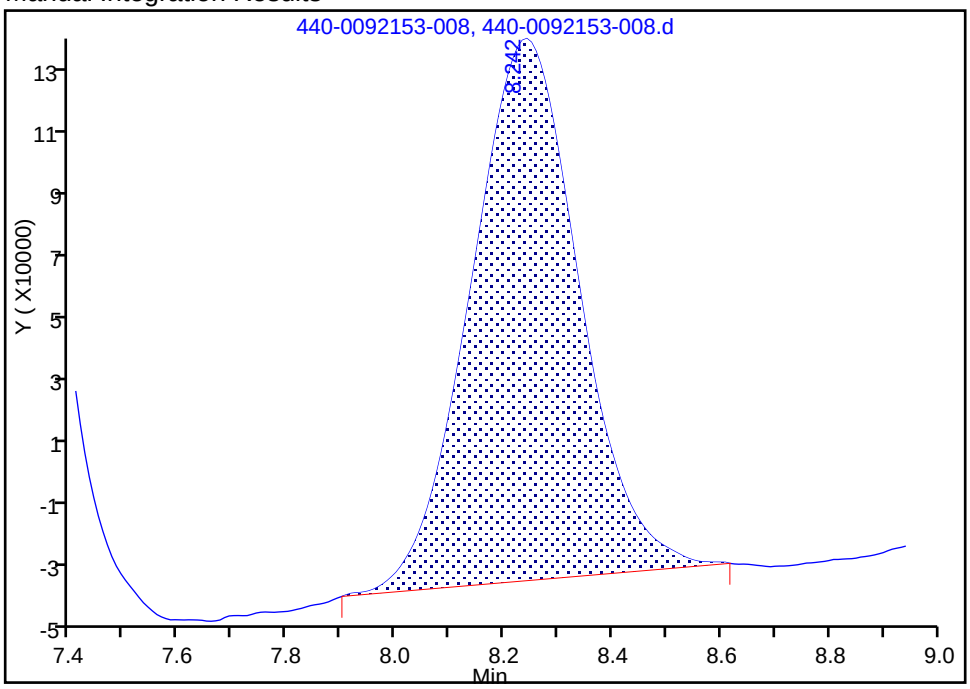
Processing Integration Results

RT: 8.24
Area: 4429401
Amount: 0
Amount Units: ug/l




Manual Integration Results

RT: 8.24
Area: 2334693
Amount: 29.054417
Amount Units: ug/l




Reviewer: zakhrabovy, 14-Aug-2017 10:22:16

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: ICV 440-423010/8  Calibration Date: 08/14/2017 09:17

Instrument ID: IC-8  Calib Start Date: 08/14/2017 05:28

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0092153-008.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 147168 | | 117 | 120 | -2.1 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 80484 | 79835 | | 986 | 994 | -0.8 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: ICV 440-423010/8 Calibration Date: 08/14/2017 09:17

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0092153-008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.18 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 13.59 | 12.64 | 14.54 |

Form VII 300.1B

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-008.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 14-Aug-2017 09:17:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0092153-008
Misc. Info.: 8 EB
Operator ID: Instrument ID: IC-8
Sublist:

Method: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\300.1_C8.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 14-Aug-2017 10:22:44 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK035

First Level Reviewer: zakhrabovy Date: 14-Aug-2017 10:22:58

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.184 | 7.192 | -0.008 | 17660196 | 120.0 | 117.5 | M |
| 3 Bromate | 8.242 | 8.250 | -0.008 | 2334693 | NC | NC | M |
| $ 6 Dichloroacetic acid(Surr) | 13.592 | 13.592 | 0.000 | 79332707 | 993.7 | 985.7 | |
| 4 Bromide | 15.934 | 15.967 | -0.033 | 43296413 | NC | NC | |
| 2 Chlorate | 17.375 | 17.400 | -0.025 | 15965060 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001ICV_00034 Amount Added: 150.00 Units: uL
WCDCA_00046 Amount Added: 10.00 Units: uL Run Reagent

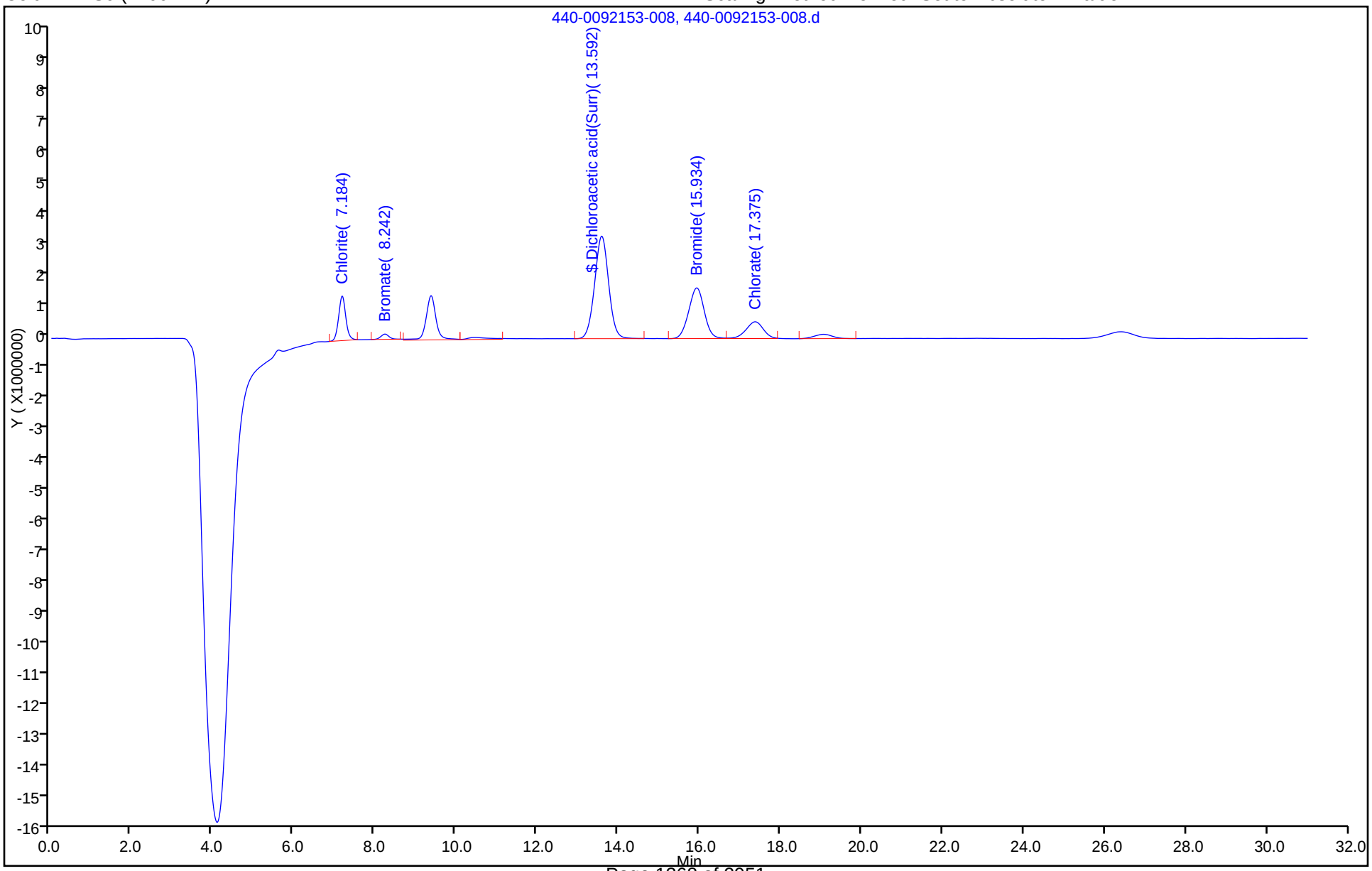
Report Date: 14-Aug-2017 10:22:58 Chrom Revision: 2.2 20-Jun-2017 07:42:38

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-008.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 14-Aug-2017 09:17:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | ICV | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

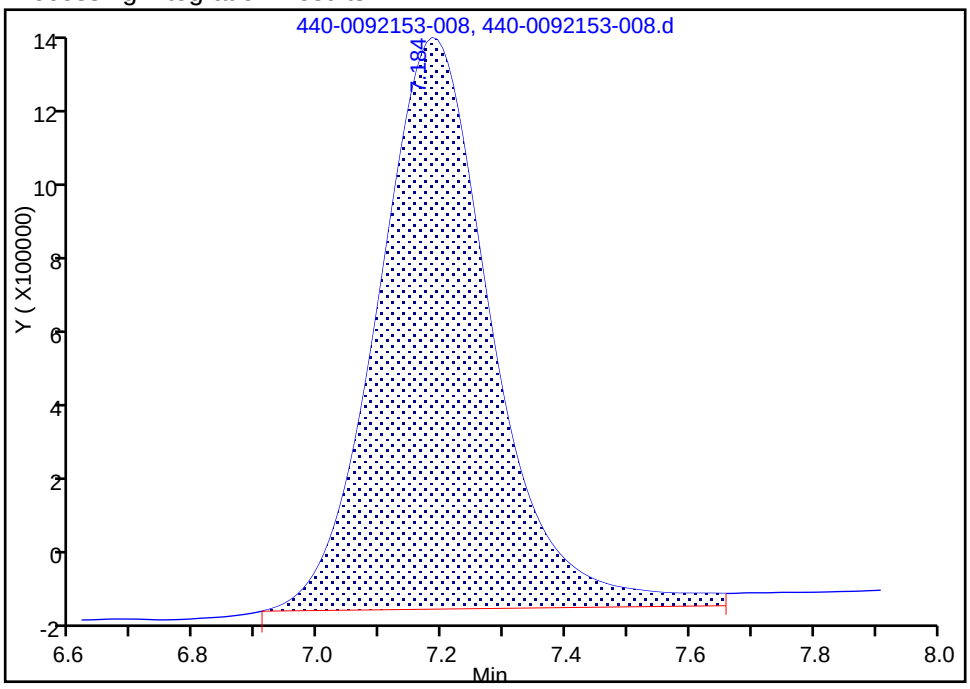
Data File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-008.d
Injection Date: 14-Aug-2017 09:17:00 Instrument ID: IC-8
Lims ID: ICV
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C8 Limit Group: IC-300.1_14D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## 5 Chlorite, CAS: 14998-27-7

Signal: 1

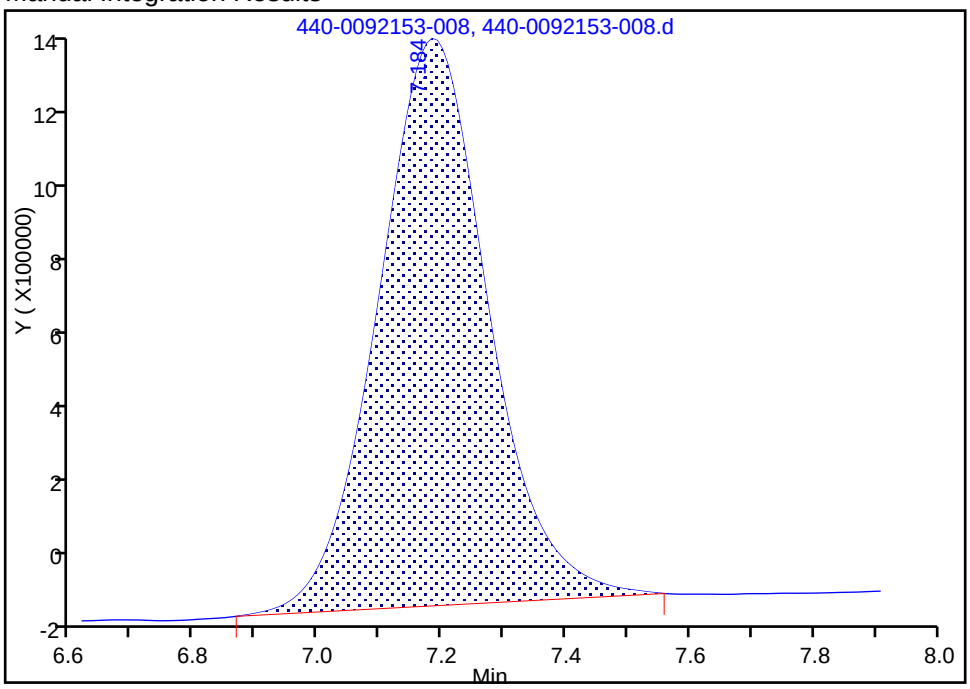
Processing Integration Results

RT: 7.18
Area: 18378443
Amount: 122.1721
Amount Units: ug/l




Manual Integration Results

RT: 7.18
Area: 17660196
Amount: 117.4750
Amount Units: ug/l




Reviewer: zakhrabovy, 14-Aug-2017 10:22:10
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437026/1  Calibration Date: 10/24/2017 04:58

Instrument ID: IC-8  Calib Start Date: 08/14/2017 05:28

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0095168-001.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 80786 | | 25.2 | 25.0 | 0.9 | 15.0 |
| Bromide | Lin | | 147821 | | 249 | 250 | -0.3 | 15.0 |
| Chlorate | Lin | | 139577 | | 105 | 100 | 4.5 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 80484 | 79267 | | 979 | 994 | -1.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437026/1 Calibration Date: 10/24/2017 04:58

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0095168-001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.28 | 7.67 | 8.83 |
| Bromide | 15.70 | 14.85 | 17.09 |
| Chlorate | 16.95 | 16.53 | 18.27 |
| Dichloroacetic acid(Surr) | 13.34 | 12.64 | 14.54 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-001.d | | | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 24-Oct-2017 04:58:00 | ALS Bottle#: | 0 | Worklist Smp#: | 1 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-001 | | | | |
| Misc. Info.: | 1 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Sublist: | chrom-300.1_C8*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 06:59:09 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 06:27:30 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.267 | 7.192 | 0.075 | 15533290 | NC | NC | |
| 3 Bromate | 8.283 | 8.250 | 0.033 | 2019642 | 25.0 | 25.2 | M |
| $ 6 Dichloroacetic acid(Surr) | 13.342 | 13.592 | -0.250 | 78768635 | 993.7 | 978.7 | |
| 4 Bromide | 15.700 | 15.967 | -0.267 | 36955312 | 250.0 | 249.3 | |
| 2 Chlorate | 16.950 | 17.400 | -0.450 | 13957707 | 100.0 | 104.5 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

| | | | |
|---|---|---|---|
| WC3001LCS_00054 | Amount Added: 125.00 | Units: uL | |
| WCDCA_00050 | Amount Added: 10.00 | Units: uL | Run Reagent |

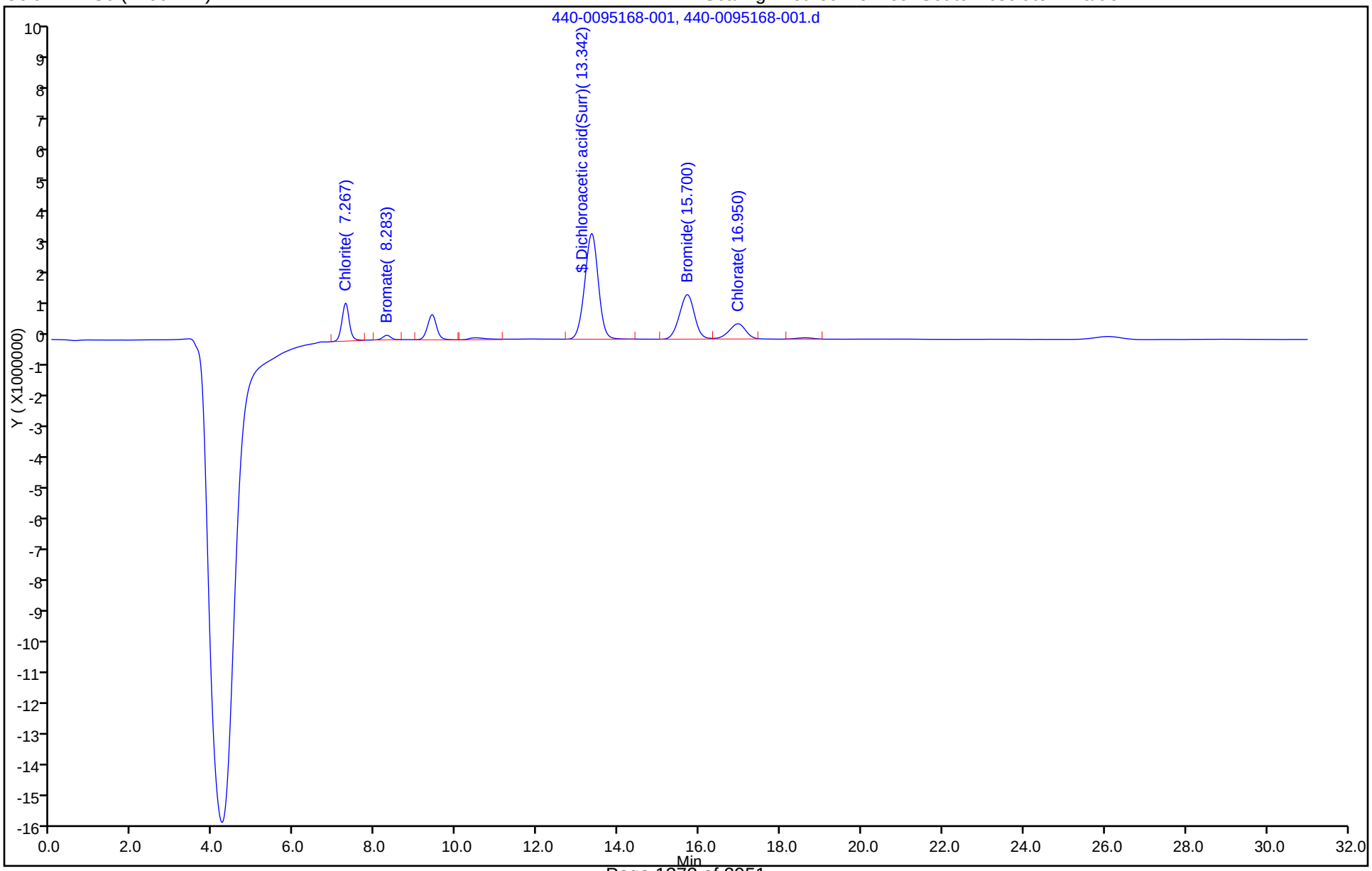
Report Date: 24-Oct-2017 06:59:10 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-001.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 04:58:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | CCV | | | Worklist Smp#: | 1 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

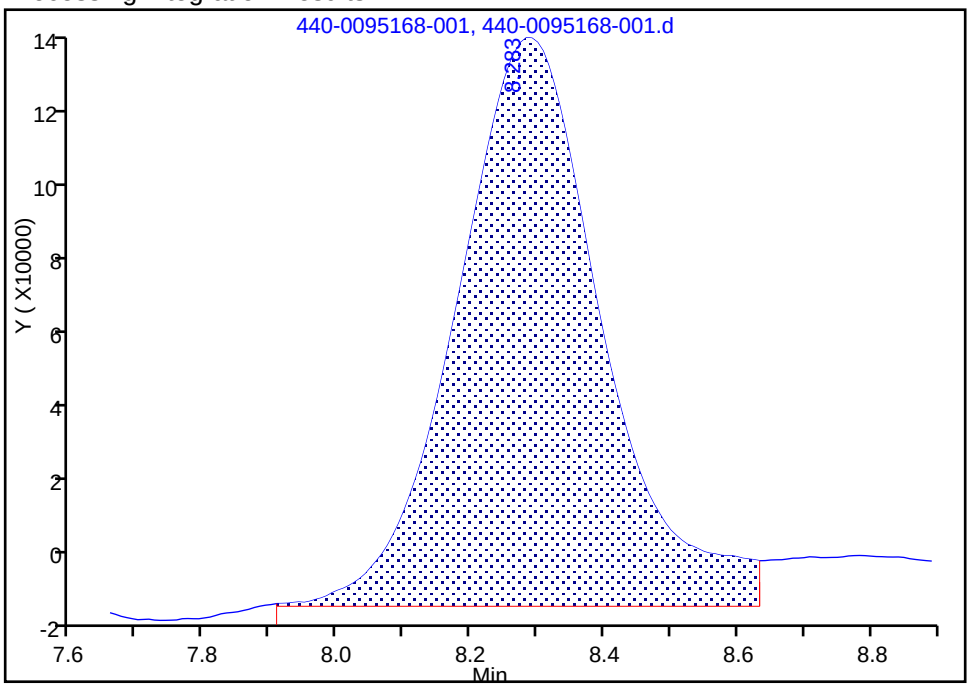
Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-001.d
Injection Date: 24-Oct-2017 04:58:00 Instrument ID: IC-8
Lims ID: CCV
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C8 Limit Group: IC-300.1_28D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## 3 Bromate, CAS: 15541-45-4

Signal: 1

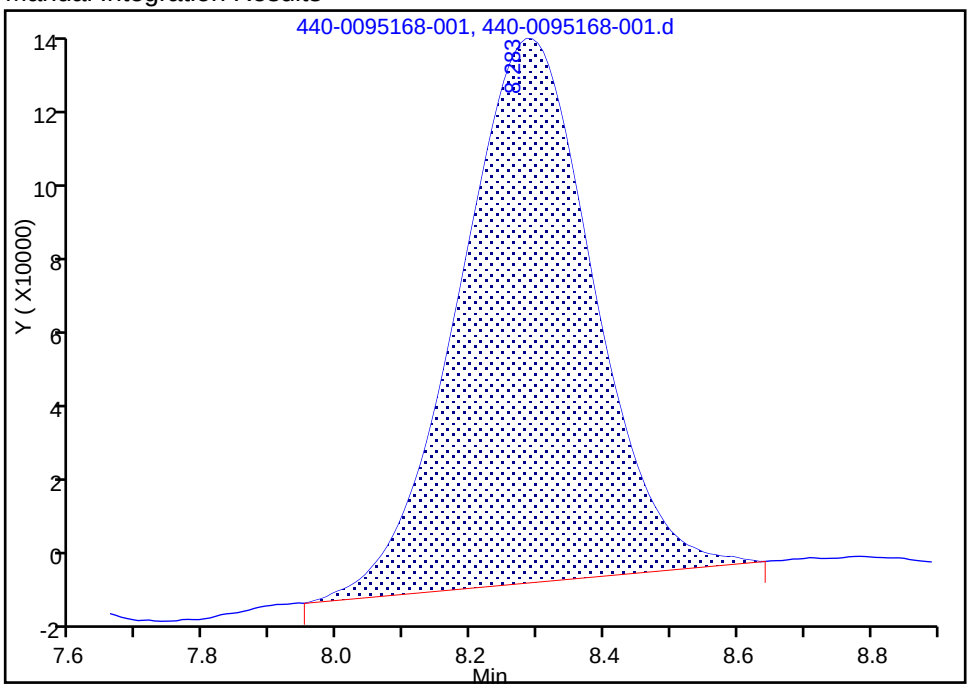
Processing Integration Results

RT: 8.28
Area: 2288157
Amount: 28.490062
Amount Units: ug/l




Manual Integration Results

RT: 8.28
Area: 2019642
Amount: 25.233706
Amount Units: ug/l




Reviewer: zakhrabovy, 24-Oct-2017 06:27:25
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437027/1  Calibration Date: 10/24/2017 04:58

Instrument ID: IC-8  Calib Start Date: 08/14/2017 05:28

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0095168-001.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 155333 | | 104 | 100 | 3.6 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 80484 | 79267 | | 979 | 994 | -1.5 | 15.0 |

FORM VII 300.1B

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437027/1 Calibration Date: 10/24/2017 04:58

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0095168-001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.27 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 13.34 | 12.64 | 14.54 |

Form VII 300.1B

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-001.d | | | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 24-Oct-2017 04:58:00 | ALS Bottle#: | 0 | Worklist Smp#: | 1 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-001 | | | | |
| Misc. Info.: | 1 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Sublist: | chrom-300.1_C8*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 06:59:09 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 06:27:30 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.267 | 7.192 | 0.075 | 15533290 | 100.0 | 103.6 | |
| 3 Bromate | 8.283 | 8.250 | 0.033 | 2019642 | NC | NC | M |
| $ 6 Dichloroacetic acid(Surr) | 13.342 | 13.592 | -0.250 | 78768635 | 993.7 | 978.7 | |
| 4 Bromide | 15.700 | 15.967 | -0.267 | 36955312 | NC | NC | |
| 2 Chlorate | 16.950 | 17.400 | -0.450 | 13957707 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

| | | | |
|---|---|---|---|
| WC3001LCS_00054 | Amount Added: 125.00 | Units: uL | |
| WCDCA_00050 | Amount Added: 10.00 | Units: uL | Run Reagent |

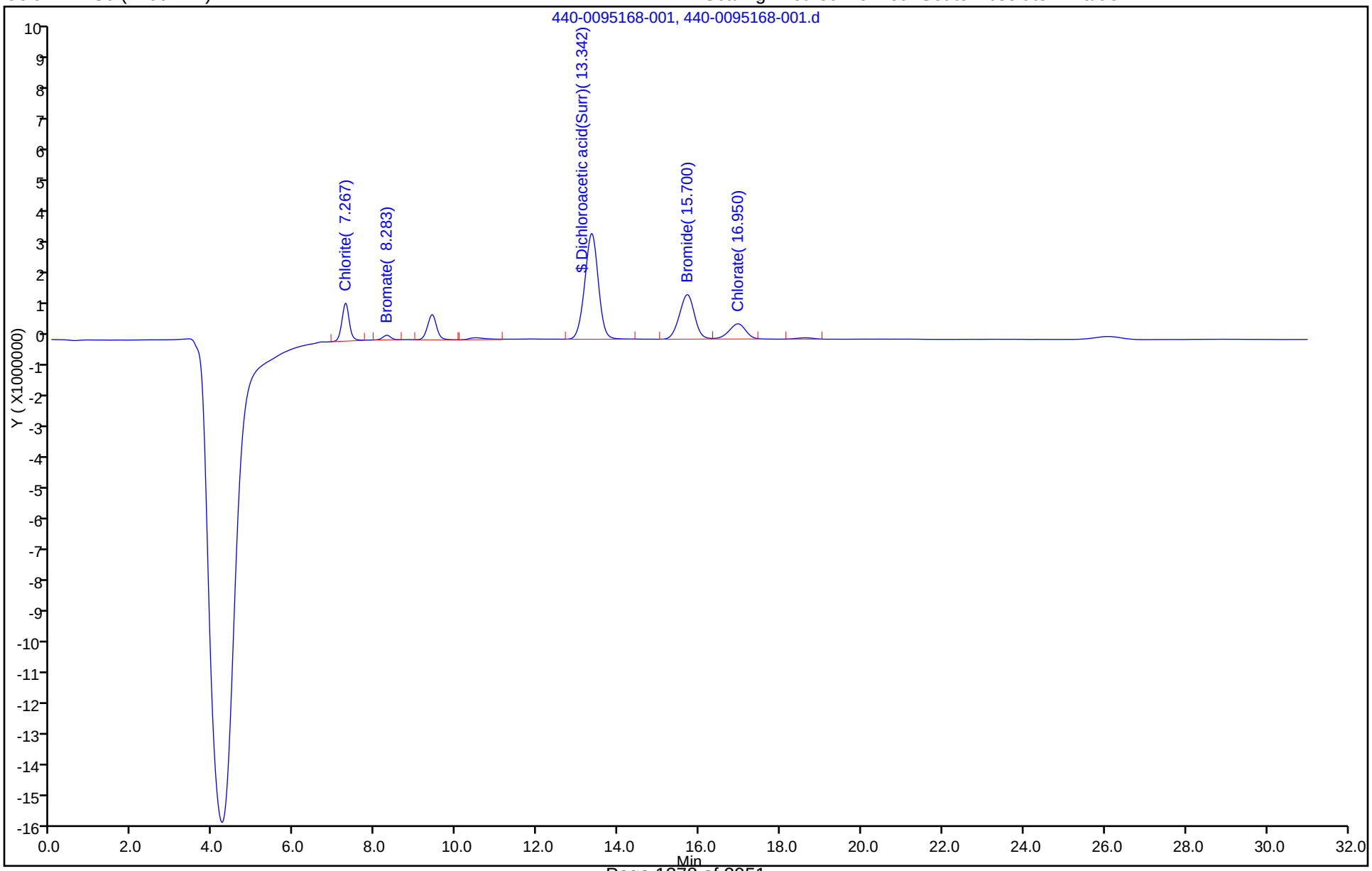
Report Date: 24-Oct-2017 06:59:10 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-001.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 04:58:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | CCV | | | Worklist Smp#: | 1 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437026/13  Calibration Date: 10/24/2017 12:13

Instrument ID: IC-8  Calib Start Date: 08/14/2017 05:28

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0095168-013.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 77493 | | 47.7 | 50.0 | -4.5 | 15.0 |
| Bromide | Lin | | 143809 | | 476 | 500 | -4.7 | 15.0 |
| Chlorate | Lin | | 131271 | | 194 | 200 | -2.8 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 80484 | 80579 | | 995 | 994 | 0.1 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437026/13 Calibration Date: 10/24/2017 12:13

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0095168-013.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.24 | 7.67 | 8.83 |
| Bromide | 15.36 | 14.85 | 17.09 |
| Chlorate | 16.70 | 16.53 | 18.27 |
| Dichloroacetic acid(Surr) | 13.46 | 12.64 | 14.54 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-013.d | | | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 24-Oct-2017 12:13:00 | ALS Bottle#: | 0 | Worklist Smp#: | 13 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-013 | | | | |
| Misc. Info.: | 13 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Sublist: | chrom-300.1_C8*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 13:12:52 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 13:12:52 | | |

| | Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 Chlorite | 7.267 | 7.192 | 0.075 | 29778020 | NC | NC | M |
| | 3 Bromate | 8.242 | 8.250 | -0.008 | 3874664 | 50.0 | 47.7 | M |
| $ | 6 Dichloroacetic acid(Surr) | 13.459 | 13.592 | -0.133 | 80072112 | 993.7 | 994.9 | |
| | 4 Bromide | 15.359 | 15.967 | -0.608 | 71904325 | 500.0 | 476.5 | |
| | 2 Chlorate | 16.700 | 17.400 | -0.700 | 26254112 | 200.0 | 194.5 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

| | | | |
|---|---|---|---|
| WC3001LCS_00054 | Amount Added: 250.00 | Units: uL | |
| WCDCA_00050 | Amount Added: 10.00 | Units: uL | Run Reagent |

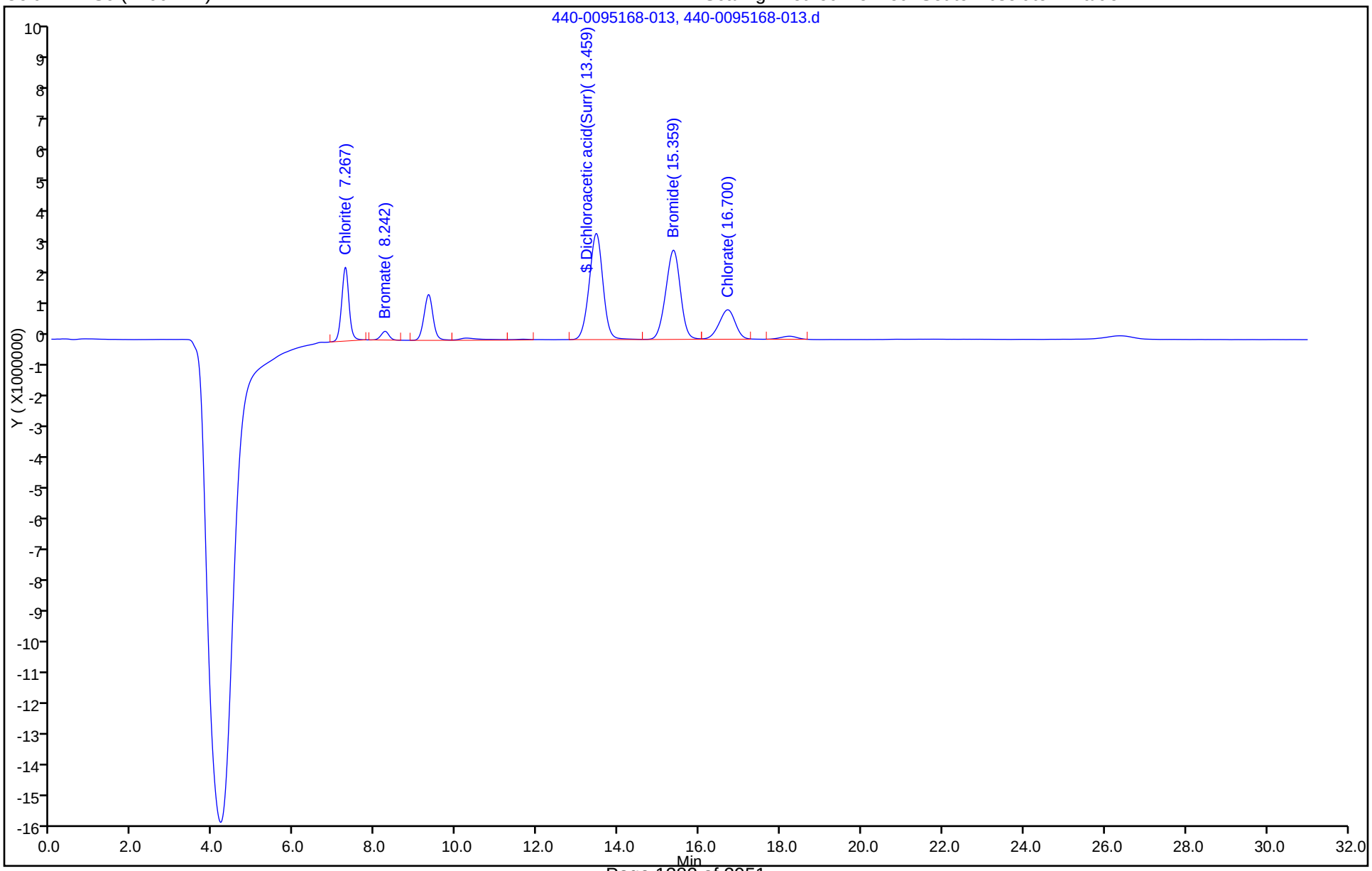
Report Date: 24-Oct-2017 13:12:52 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-013.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 12:13:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | CCV | | | Worklist Smp#: | 13 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

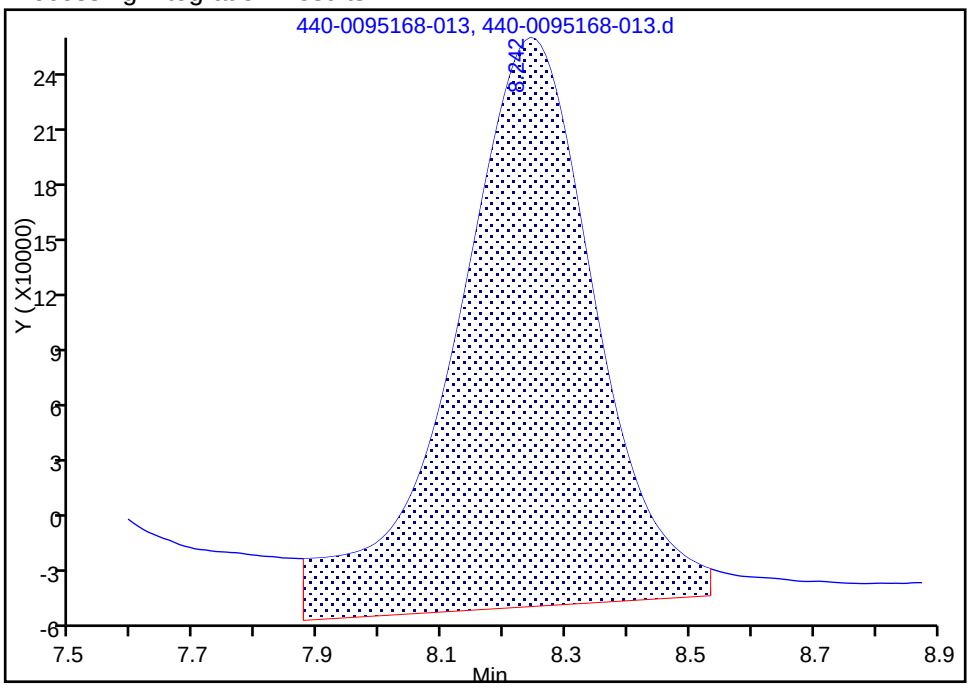
Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-013.d
Injection Date: 24-Oct-2017 12:13:00 Instrument ID: IC-8
Lims ID: CCV
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C8 Limit Group: IC-300.1_28D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## 3 Bromate, CAS: 15541-45-4

Signal: 1

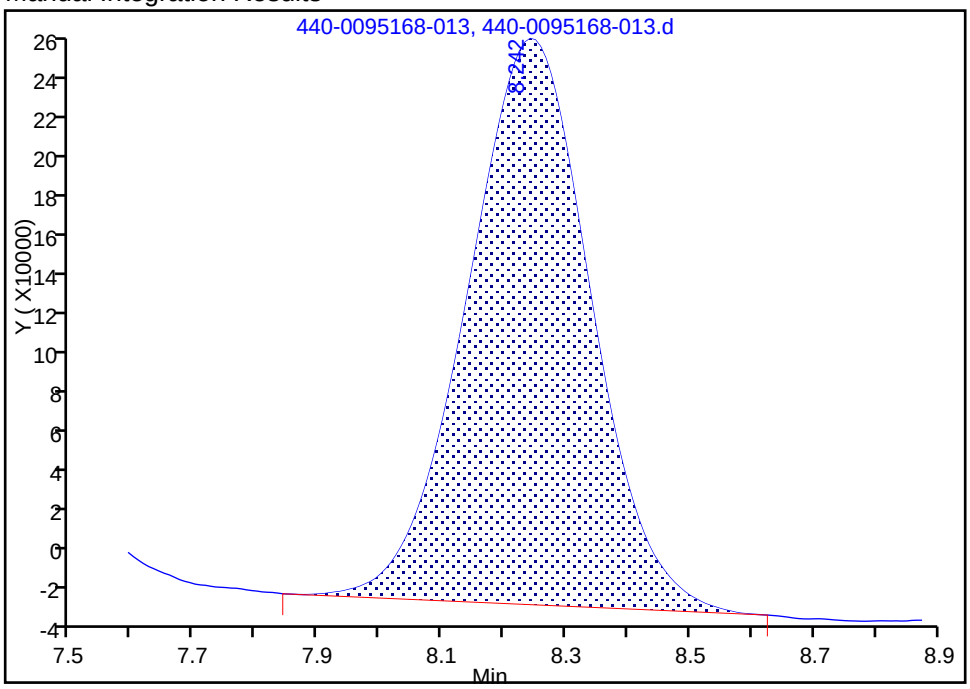
Processing Integration Results

RT: 8.24
Area: 4718361
Amount: 57.961819
Amount Units: ug/l




Manual Integration Results

RT: 8.24
Area: 3874664
Amount: 47.730071
Amount Units: ug/l




Reviewer: zakhrabovy, 24-Oct-2017 13:12:34
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437027/13  Calibration Date: 10/24/2017 12:13

Instrument ID: IC-8  Calib Start Date: 08/14/2017 05:28

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0095168-013.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 148890 | | 197 | 200 | -1.6 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 80484 | 80579 | | 995 | 994 | 0.1 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437027/13 Calibration Date: 10/24/2017 12:13

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0095168-013.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.27 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 13.46 | 12.64 | 14.54 |

Form VII 300.1B

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-013.d | | | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 24-Oct-2017 12:13:00 | ALS Bottle#: | 0 | Worklist Smp#: | 13 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-013 | | | | |
| Misc. Info.: | 13 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Sublist: | chrom-300.1_C8*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 13:12:52 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 13:12:52 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.267 | 7.192 | 0.075 | 29778020 | 200.0 | 196.7 | M |
| 3 Bromate | 8.242 | 8.250 | -0.008 | 3874664 | NC | NC | M |
| $ 6 Dichloroacetic acid(Surr) | 13.459 | 13.592 | -0.133 | 80072112 | 993.7 | 994.9 | |
| 4 Bromide | 15.359 | 15.967 | -0.608 | 71904325 | NC | NC | |
| 2 Chlorate | 16.700 | 17.400 | -0.700 | 26254112 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

| | | | |
|---|---|---|---|
| WC3001LCS_00054 | Amount Added: 250.00 | Units: uL | |
| WCDCA_00050 | Amount Added: 10.00 | Units: uL | Run Reagent |

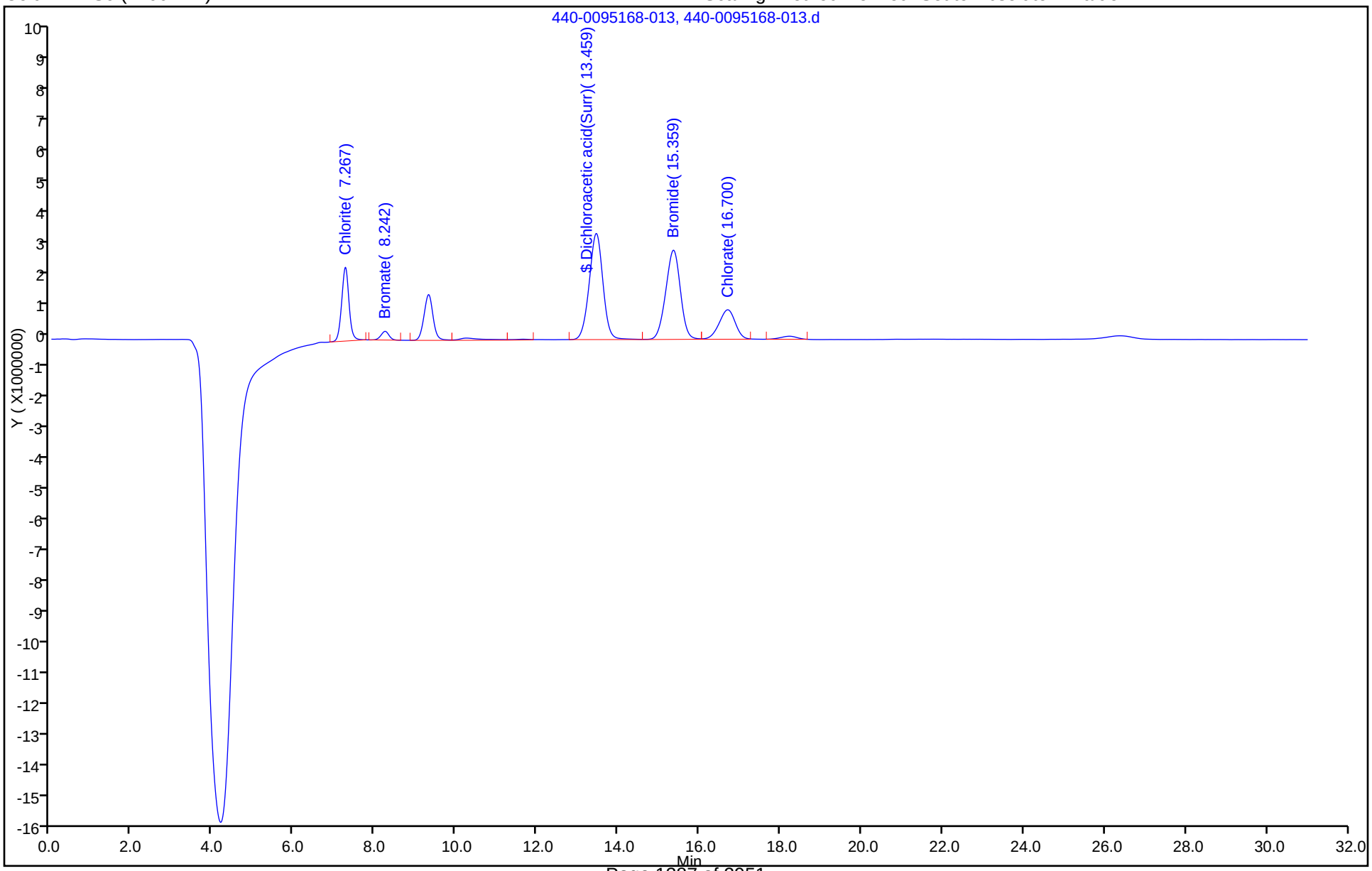
Report Date: 24-Oct-2017 13:12:52 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-013.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 12:13:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | CCV | | | Worklist Smp#: | 13 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

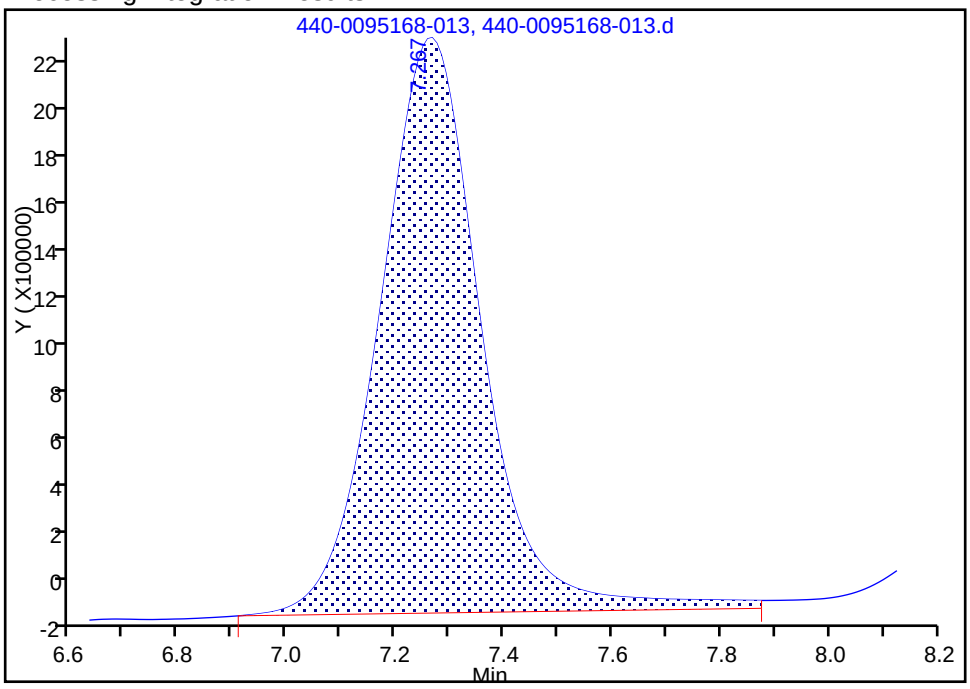
Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-013.d
Injection Date: 24-Oct-2017 12:13:00 Instrument ID: IC-8
Lims ID: CCV
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C8 Limit Group: IC-300.1_14D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## 5 Chlorite, CAS: 14998-27-7

Signal: 1

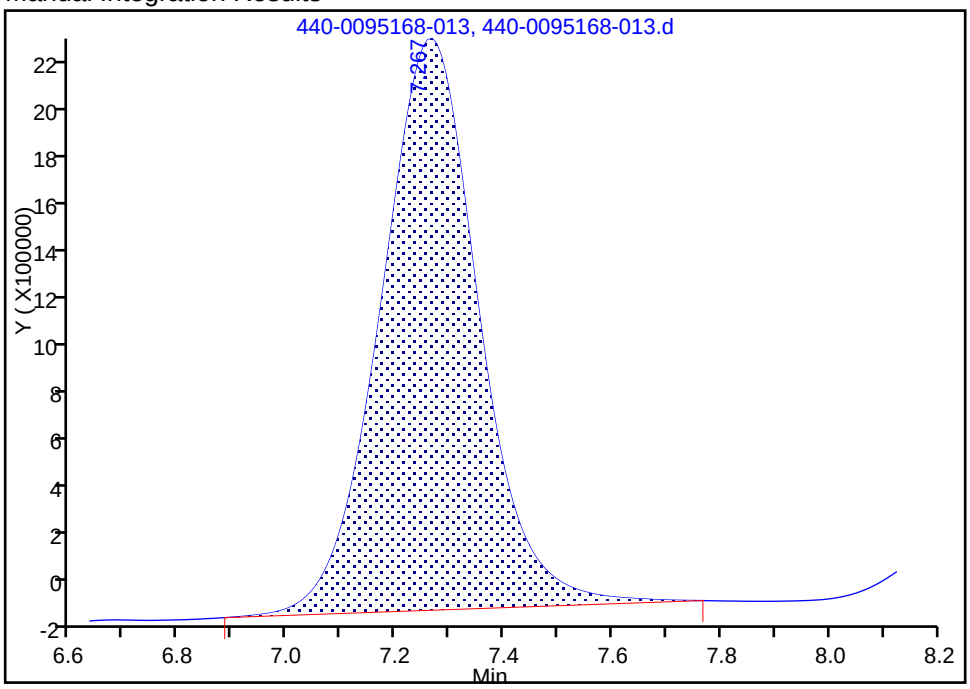
Processing Integration Results

RT: 7.27
Area: 30964123
Amount: 0
Amount Units: ug/l




Manual Integration Results

RT: 7.27
Area: 29778020
Amount: 196.7212
Amount Units: ug/l




Reviewer: zakhrabovy, 24-Oct-2017 13:12:45
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437026/25 Calibration Date: 10/24/2017 19:28

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0095168-025.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 84028 | | 26.2 | 25.0 | 4.9 | 15.0 |
| Bromide | Lin | | 148999 | | 251 | 250 | 0.5 | 15.0 |
| Chlorate | Lin | | 140012 | | 105 | 100 | 4.9 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 80484 | 77458 | | 956 | 994 | -3.8 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437026/25 Calibration Date: 10/24/2017 19:28

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0095168-025.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.32 | 7.67 | 8.83 |
| Bromide | 15.77 | 14.85 | 17.09 |
| Chlorate | 17.07 | 16.53 | 18.27 |
| Dichloroacetic acid(Surr) | 13.49 | 12.64 | 14.54 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-025.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 24-Oct-2017 19:28:00 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095168-025
Misc. Info.: 25 EB
Operator ID: Instrument ID: IC-8
Sublist: chrom-300.1_C8*sub2

Method: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 25-Oct-2017 04:06:03 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK047

First Level Reviewer: zakhrabovy Date: 25-Oct-2017 04:01:40

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.292 | 7.192 | 0.100 | 15252637 | NC | NC | M |
| 3 Bromate | 8.317 | 8.250 | 0.067 | 2100689 | 25.0 | 26.2 | M |
| $ 6 Dichloroacetic acid(Surr) | 13.492 | 13.592 | -0.100 | 76970414 | 993.7 | 956.3 | |
| 4 Bromide | 15.767 | 15.967 | -0.200 | 37249768 | 250.0 | 251.2 | |
| 2 Chlorate | 17.067 | 17.400 | -0.333 | 14001213 | 100.0 | 104.9 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00054 Amount Added: 125.00 Units: uL
WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

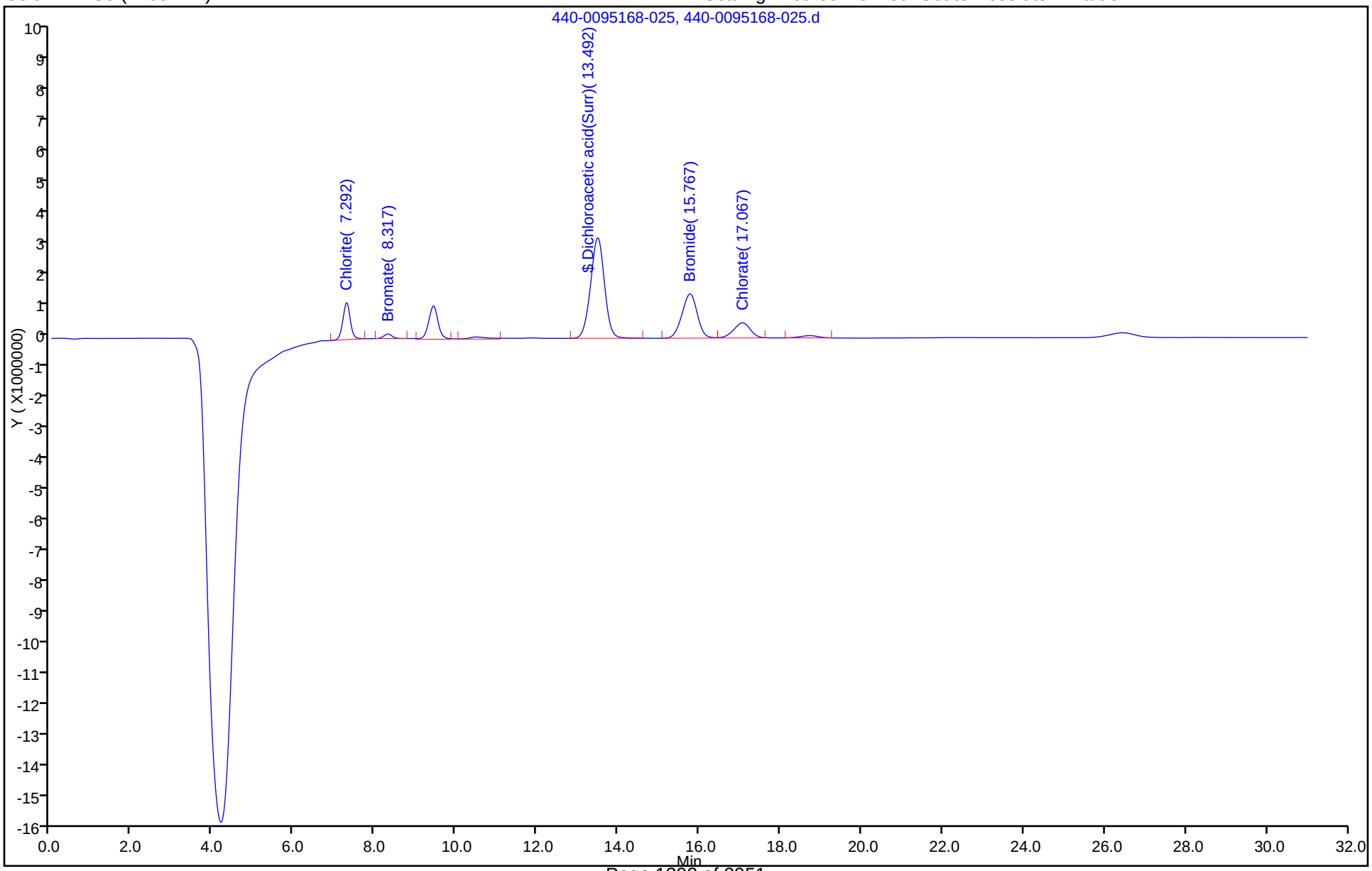
Report Date: 25-Oct-2017 04:06:03 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-025.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 19:28:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | CCV | | | Worklist Smp#: | 25 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

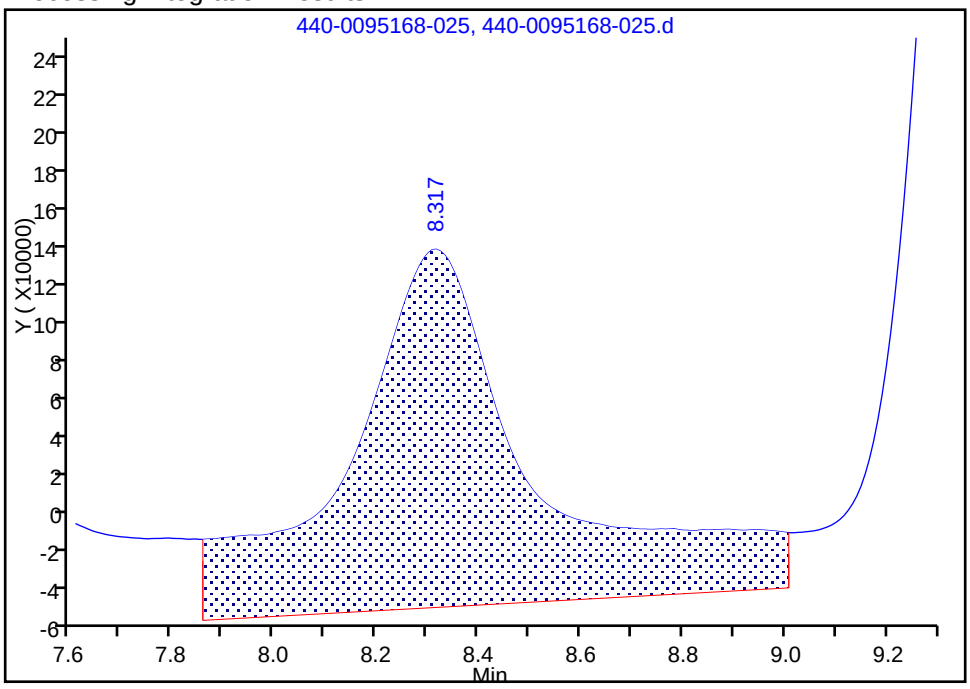
Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-025.d
Injection Date: 24-Oct-2017 19:28:00 Instrument ID: IC-8
Lims ID: CCV
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C8 Limit Group: IC-300.1_28D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## 3 Bromate, CAS: 15541-45-4

Signal: 1

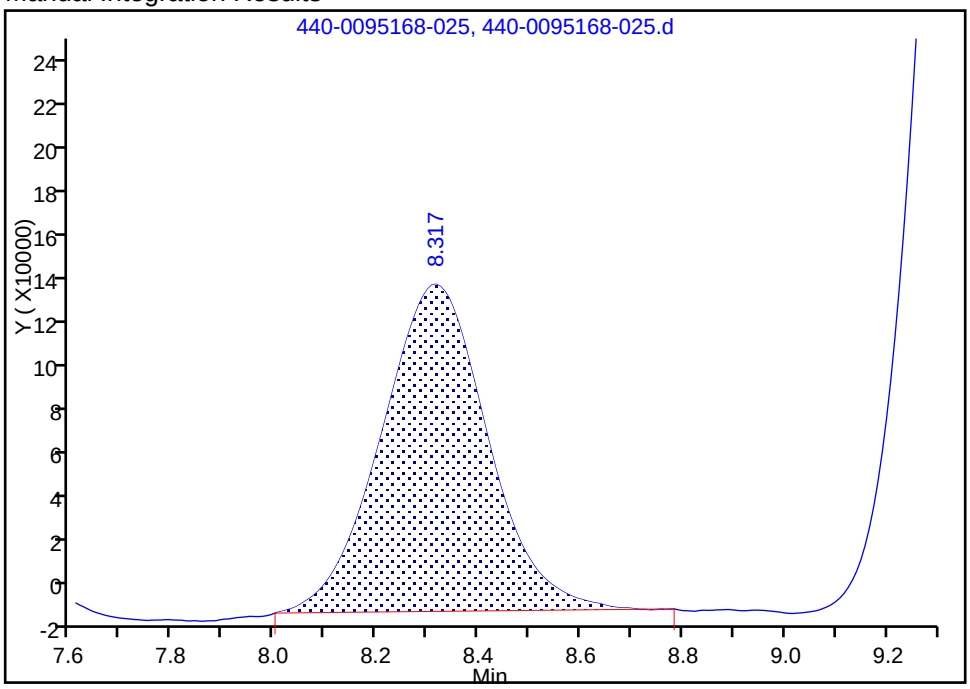
Processing Integration Results

RT: 8.32
Area: 4692226
Amount: 57.644872
Amount Units: ug/l




Manual Integration Results

RT: 8.32
Area: 2100689
Amount: 26.216585
Amount Units: ug/l




Reviewer: zakhrabovy, 25-Oct-2017 04:01:33
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437027/25  Calibration Date: 10/24/2017 19:28

Instrument ID: IC-8  Calib Start Date: 08/14/2017 05:28

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0095168-025.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 152526 | | 102 | 100 | 1.7 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 80484 | 77458 | | 956 | 994 | -3.8 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437027/25 Calibration Date: 10/24/2017 19:28

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0095168-025.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.29 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 13.49 | 12.64 | 14.54 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-025.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 24-Oct-2017 19:28:00 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095168-025
Misc. Info.: 25 EB
Operator ID: Instrument ID: IC-8
Sublist: chrom-300.1_C8*sub2

Method: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 25-Oct-2017 04:06:03 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK047

First Level Reviewer: zakhrabovy Date: 25-Oct-2017 04:01:40

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.292 | 7.192 | 0.100 | 15252637 | 100.0 | 101.7 | M |
| 3 Bromate | 8.317 | 8.250 | 0.067 | 2100689 | NC | NC | M |
| $ 6 Dichloroacetic acid(Surr) | 13.492 | 13.592 | -0.100 | 76970414 | 993.7 | 956.3 | |
| 4 Bromide | 15.767 | 15.967 | -0.200 | 37249768 | NC | NC | |
| 2 Chlorate | 17.067 | 17.400 | -0.333 | 14001213 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00054 Amount Added: 125.00 Units: uL
WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

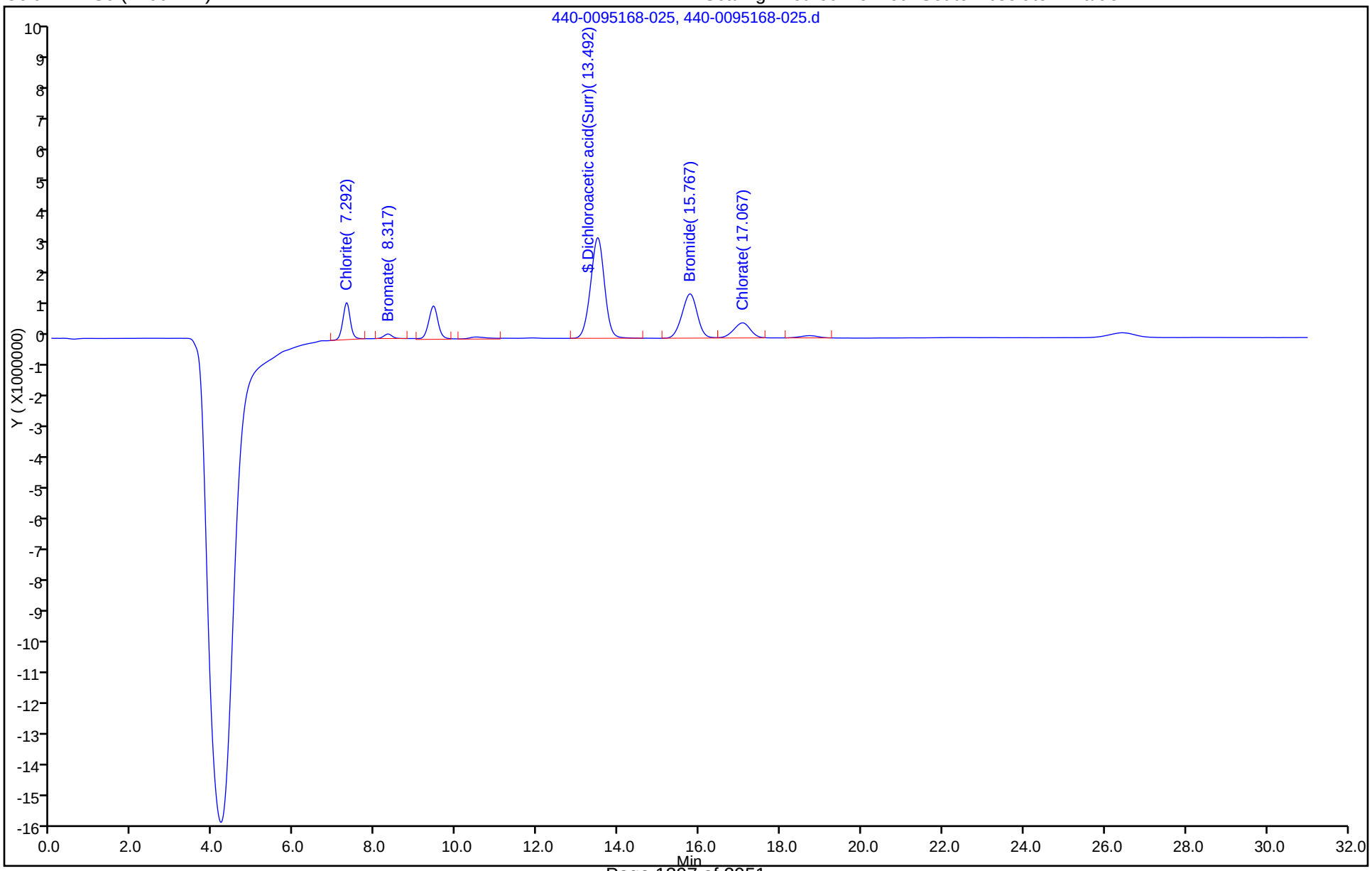
Report Date: 25-Oct-2017 04:06:03 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-025.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 19:28:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | CCV | | | Worklist Smp#: | 25 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

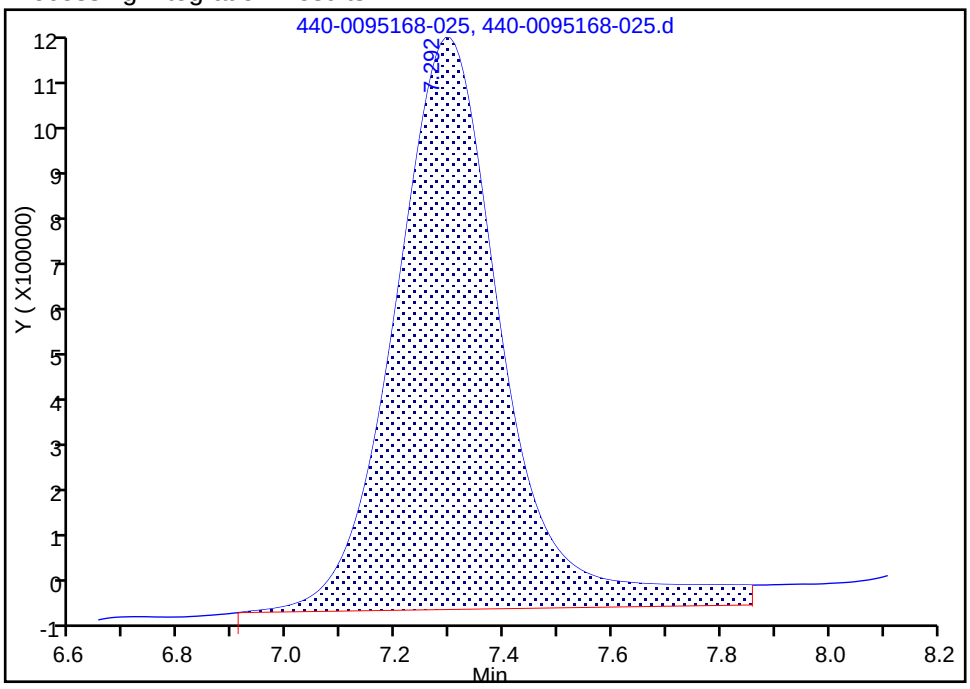
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-025.d | | | | |
| Injection Date: | 24-Oct-2017 19:28:00 | Instrument ID: | IC-8 | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 0 | Worklist Smp#: | 25 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |
| Column: | AS9 ( 4.00 mm) | Detector | Ch-A-20110816009 | | |

## 5 Chlorite, CAS: 14998-27-7

Signal: 1

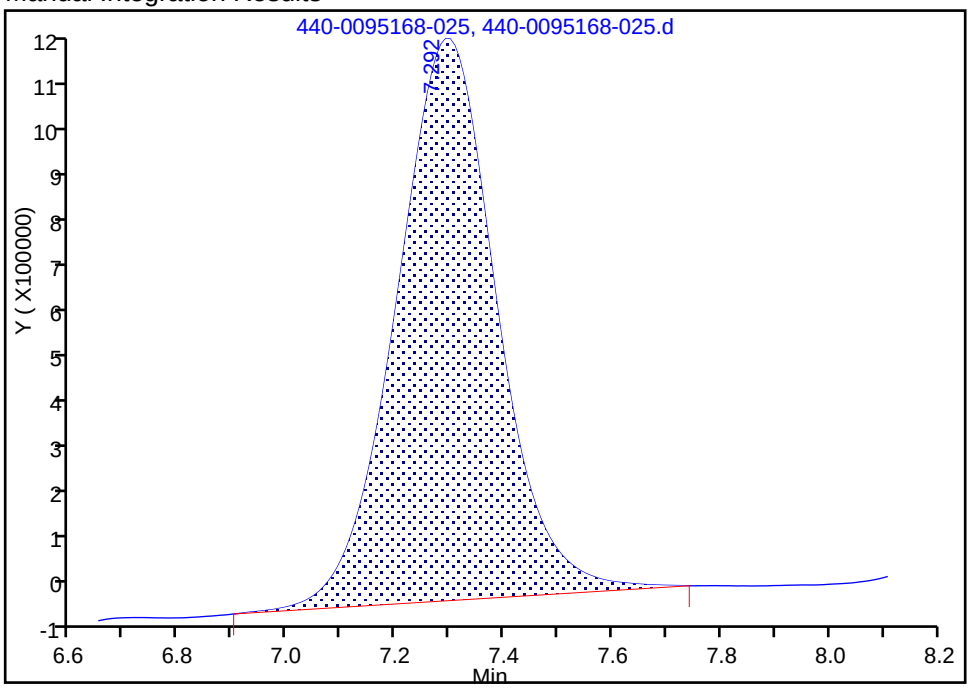
Processing Integration Results

RT: 7.29
Area: 16648844
Amount: 0
Amount Units: ug/l




Manual Integration Results

RT: 7.29
Area: 15252637
Amount: 101.7305
Amount Units: ug/l




Reviewer: zakhrabovy, 25-Oct-2017 04:01:37

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437275/1  Calibration Date: 10/25/2017 04:15

Instrument ID: IC-8  Calib Start Date: 08/14/2017 05:28

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0095228-001.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 147472 | | 98.4 | 100 | -1.6 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 80484 | 78932 | | 975 | 994 | -1.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437275/1 Calibration Date: 10/25/2017 04:15

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0095228-001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.30 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 13.46 | 12.64 | 14.54 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 25-Oct-2017 04:15:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095228-001
Misc. Info.: 1 EB
Operator ID: Instrument ID: IC-8
Sublist: chrom-300.1_C8*sub2

Method: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\300.1_C8.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 25-Oct-2017 07:03:34 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK047

First Level Reviewer: zakhrabovy Date: 25-Oct-2017 05:58:32

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.300 | 7.192 | 0.108 | 14747191 | 100.0 | 98.4 | M |
| 3 Bromate | 8.342 | 8.250 | 0.092 | 2037977 | NC | NC | M |
| $ 6 Dichloroacetic acid(Surr) | 13.459 | 13.592 | -0.133 | 78435986 | 993.7 | 974.6 | |
| 4 Bromide | 16.000 | 15.967 | 0.033 | 36016007 | NC | NC | |
| 2 Chlorate | 17.250 | 17.400 | -0.150 | 14007209 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00054 Amount Added: 125.00 Units: uL
WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

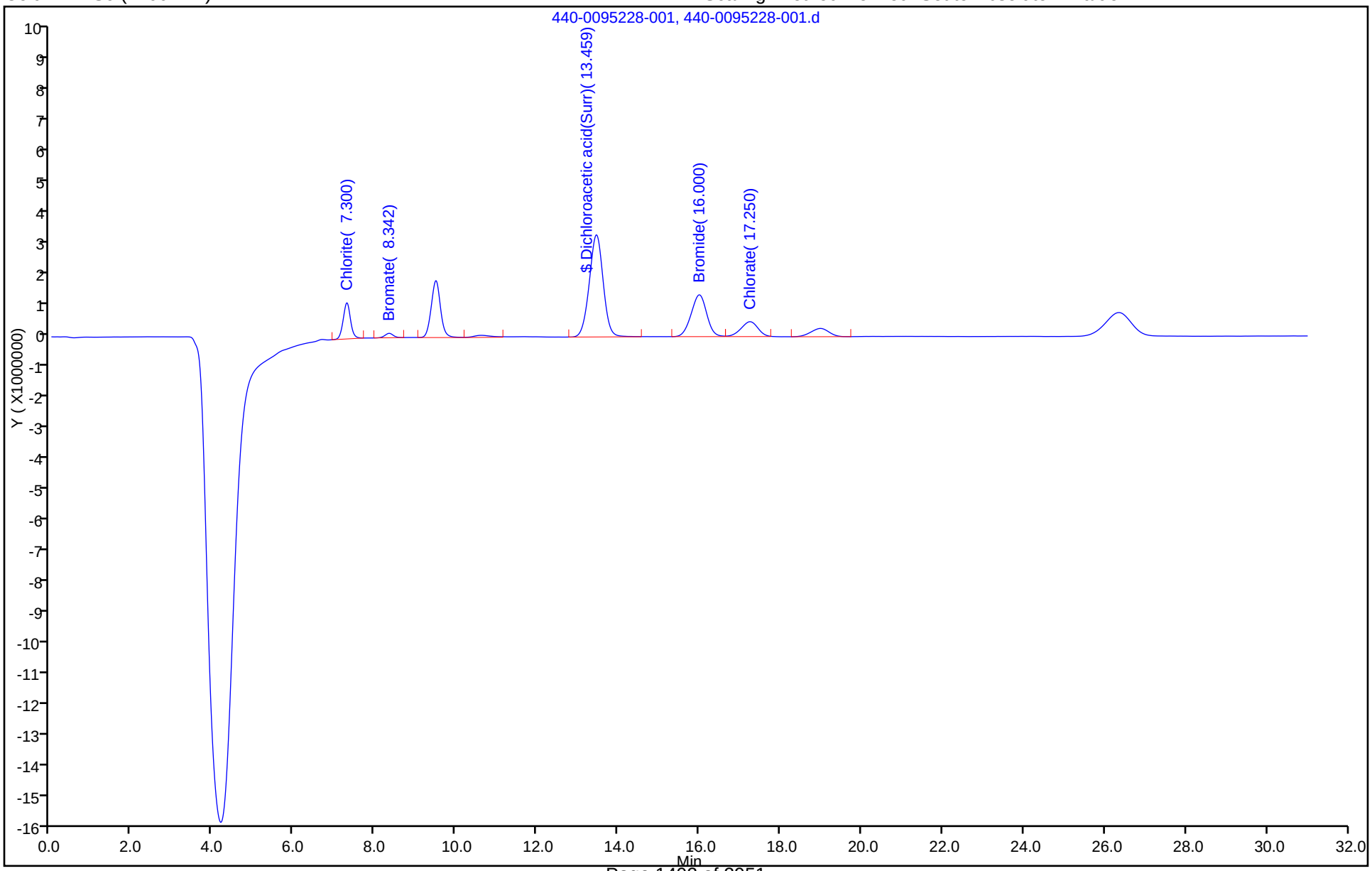
Report Date: 25-Oct-2017 07:03:35 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-001.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Oct-2017 04:15:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | CCV | | | Worklist Smp#: | 1 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

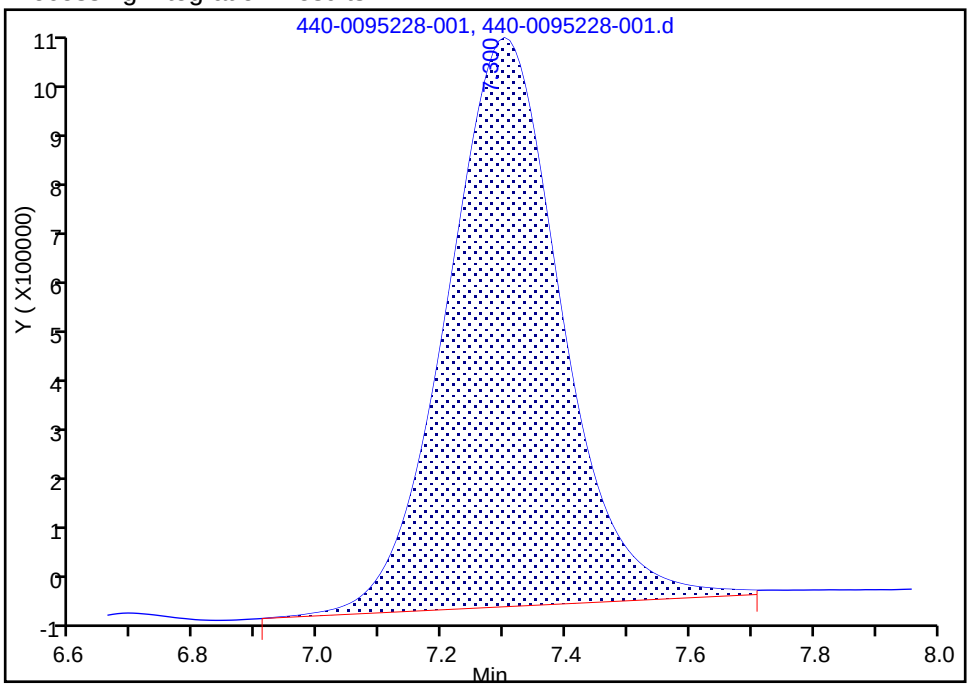
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-001.d | | | | |
| Injection Date: | 25-Oct-2017 04:15:00 | Instrument ID: | IC-8 | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 0 | Worklist Smp#: | 1 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |
| Column: | AS9 ( 4.00 mm) | Detector | Ch-A-20110816009 | | |

## 5 Chlorite, CAS: 14998-27-7

Signal: 1

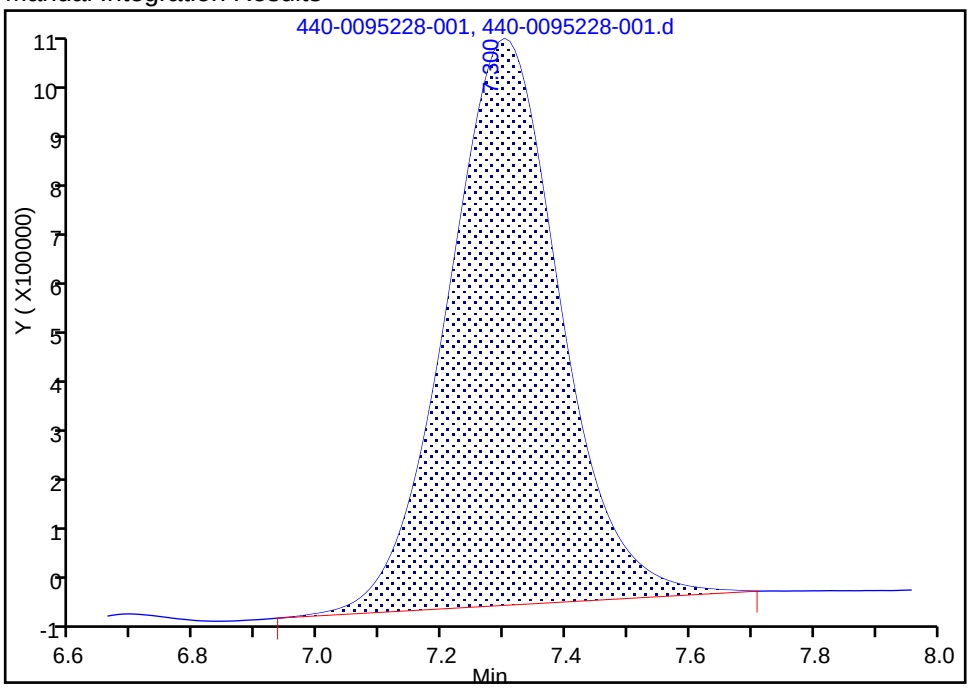
Processing Integration Results

RT: 7.30
Area: 14972006
Amount: 0
Amount Units: ug/l




Manual Integration Results

RT: 7.30
Area: 14747191
Amount: 98.425048
Amount Units: ug/l




Reviewer: zakhrabovy, 25-Oct-2017 05:58:30

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437275/13  Calibration Date: 10/25/2017 12:04

Instrument ID: IC-8  Calib Start Date: 08/14/2017 05:28

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0095228-013.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 151246 | | 200 | 200 | -0.1 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 80484 | 79939 | | 987 | 994 | -0.7 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437275/13 Calibration Date: 10/25/2017 12:04

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0095228-013.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.35 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 13.60 | 12.64 | 14.54 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-013.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 25-Oct-2017 12:04:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095228-013
Misc. Info.: 13 EB
Operator ID: Instrument ID: IC-8
Sublist: chrom-300.1_C8*sub2

Method: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\300.1_C8.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 26-Oct-2017 03:36:41 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK034

First Level Reviewer: nguyennt Date: 25-Oct-2017 18:34:40

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.350 | 7.192 | 0.158 | 30249128 | 200.0 | 199.8 | |
| 3 Bromate | 8.375 | 8.250 | 0.125 | 3905892 | NC | NC | M |
| $ 6 Dichloroacetic acid(Surr) | 13.600 | 13.592 | 0.008 | 79435807 | 993.7 | 987.0 | |
| 4 Bromide | 15.767 | 15.967 | -0.200 | 71984564 | NC | NC | |
| 2 Chlorate | 17.092 | 17.400 | -0.308 | 26137828 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00054 Amount Added: 250.00 Units: uL
WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

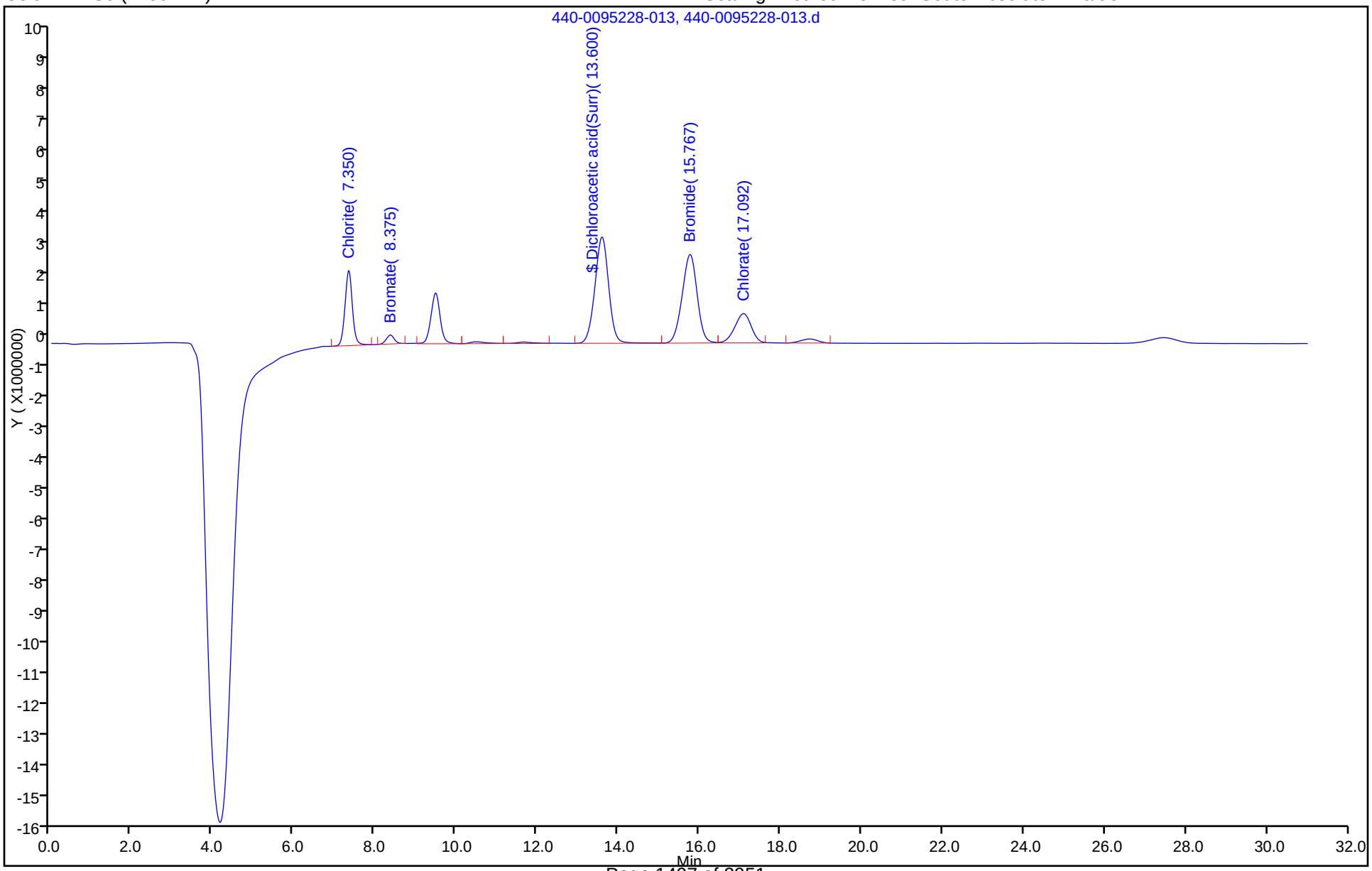
Report Date: 26-Oct-2017 03:36:42 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-013.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Oct-2017 12:04:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | CCV | | | Worklist Smp#: | 13 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437275/25 Calibration Date: 10/25/2017 19:19

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0095228-025.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 159518 | | 106 | 100 | 6.3 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 80484 | 83989 | | 1040 | 994 | 4.4 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437275/25 Calibration Date: 10/25/2017 19:19

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0095228-025.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.38 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 13.72 | 12.64 | 14.54 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-025.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 25-Oct-2017 19:19:00 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095228-025
Misc. Info.: 25 EB
Operator ID: Instrument ID: IC-8
Sublist: chrom-300.1_C8*sub2

Method: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\300.1_C8.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 26-Oct-2017 04:28:49 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK034

First Level Reviewer: nguyennt Date: 25-Oct-2017 21:11:20

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.384 | 7.192 | 0.192 | 15951797 | 100.0 | 106.3 | |
| 3 Bromate | 8.442 | 8.250 | 0.192 | 2046177 | NC | NC | M |
| $ 6 Dichloroacetic acid(Surr) | 13.717 | 13.592 | 0.125 | 83460995 | 993.7 | 1037.0 | |
| 4 Bromide | 16.184 | 15.967 | 0.217 | 38407021 | NC | NC | |
| 2 Chlorate | 17.484 | 17.400 | 0.084 | 14298811 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00054 Amount Added: 125.00 Units: uL
WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

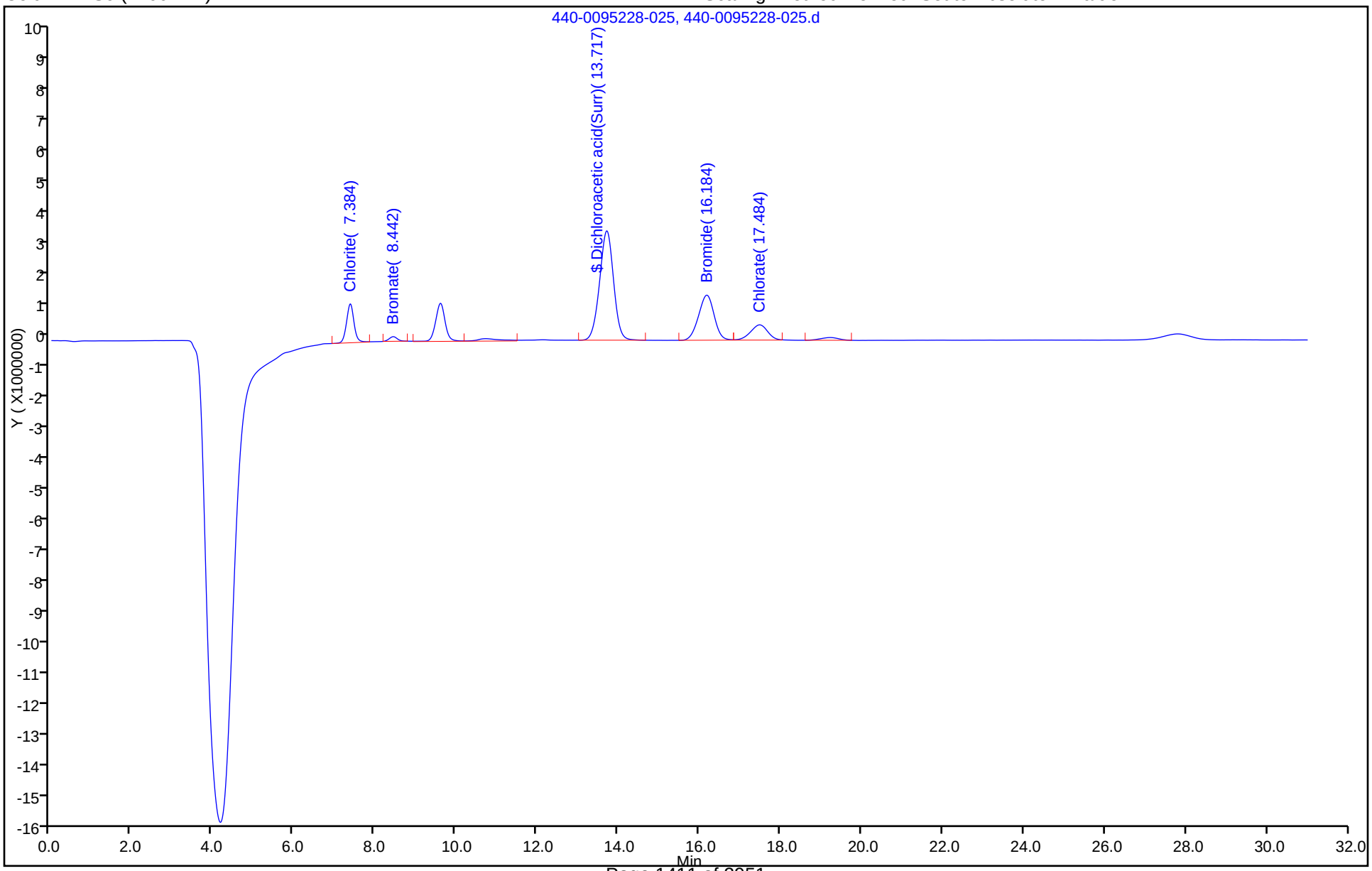
Report Date: 26-Oct-2017 04:28:49 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-025.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Oct-2017 19:19:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | CCV | | | Worklist Smp#: | 25 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-436671/2-A

Matrix: Solid (Soluble) | Lab File ID: 20171023012.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 11:19

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436780 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 200 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 99 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023012.d | | | | |
| Lims ID: | MB 440-436671/2-A | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 23-Oct-2017 11:19:54 | ALS Bottle#: | 0 | Worklist Smp#: | 12 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-012 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 13:25:06 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 12:47:17 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.262 | 13.557 | -0.295 | 13881198 | 993.7 | 980.7 | |
| $ 1 Dichloroacetic acid | 13.262 | 14.113 | -0.851 | 13881198 | | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

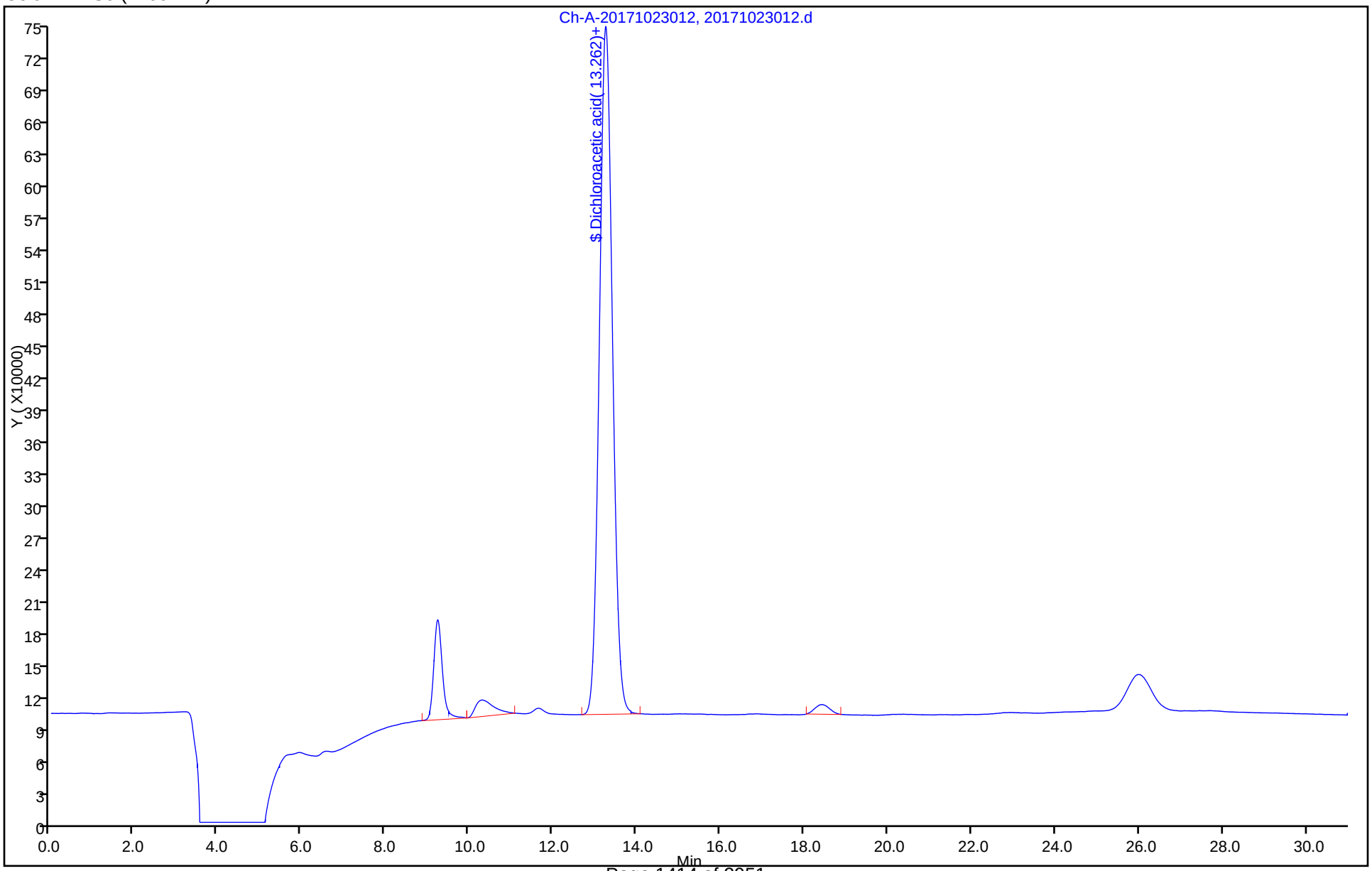
Report Date: 23-Oct-2017 12:47:31 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023012.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 11:19:54 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | MB 440-436671/2-A | | | Worklist Smp#: | 12 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023012.d
Lims ID: MB 440-436671/2-A
Client ID:
Sample Type: MB
Inject. Date: 23-Oct-2017 11:19:54 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095116-012
Misc. Info.: Study: 95116 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11

Method: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 23-Oct-2017 13:25:06 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK052

First Level Reviewer: zakhrabovy Date: 23-Oct-2017 12:47:17

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 980.7 | 98.69 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-436671/2-A

Matrix: Solid (Soluble) | Lab File ID: 20171023012.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 11:19

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 200 | 40 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 440-436671/2-A

Matrix: Solid (Soluble) Lab File ID: 20171023012.d

Analysis Method: 300.1B Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 10/23/2017 11:19

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: AS14 ID: 4(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 98 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023012.d | | | | |
| Lims ID: | MB 440-436671/2-A | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 23-Oct-2017 11:19:54 | ALS Bottle#: | 0 | Worklist Smp#: | 12 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-012 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 13:25:06 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 12:47:17 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.262 | 13.557 | -0.295 | 13881198 | 993.7 | 978.2 | |
| $ 1 Dichloroacetic acid | 13.262 | 14.113 | -0.851 | 13881198 | | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

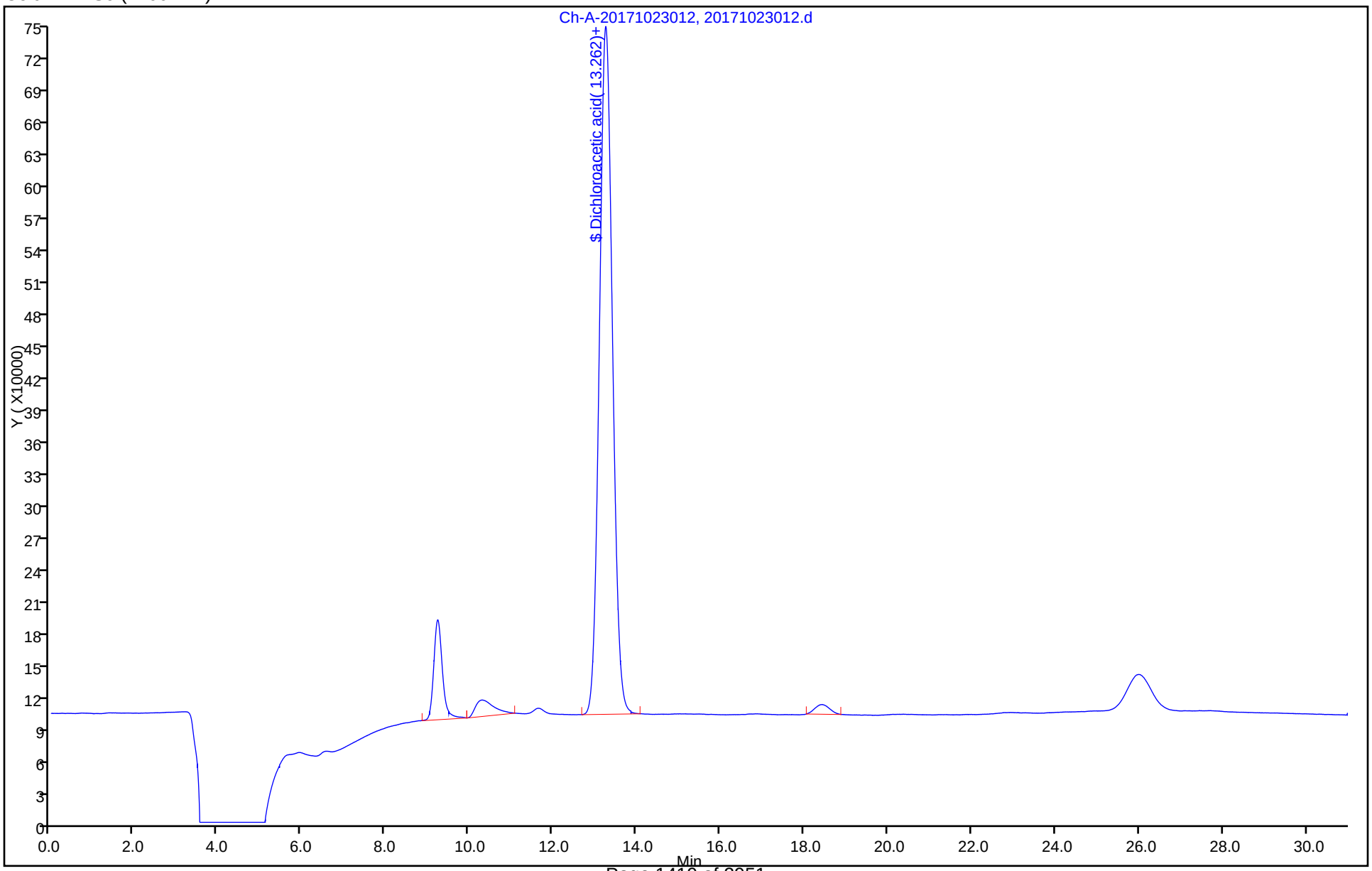
Report Date: 23-Oct-2017 12:47:31 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023012.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 11:19:54 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | MB 440-436671/2-A | | | Worklist Smp#: | 12 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023012.d | | | | |
| Lims ID: | MB 440-436671/2-A | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 23-Oct-2017 11:19:54 | ALS Bottle#: | 0 | Worklist Smp#: | 12 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-012 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 13:25:06 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 12:47:17 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 978.2 | 98.44 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-437026/5

Matrix: Water | Lab File ID: 440-0095168-005.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 07:23

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437026 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 99 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-005.d | | | | |
| Lims ID: | MB | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 24-Oct-2017 07:23:00 | ALS Bottle#: | 0 | Worklist Smp#: | 5 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-005 | | | | |
| Misc. Info.: | 5 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 08:45:54 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 08:45:54 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.367 | 13.592 | -0.225 | 79298996 | 993.7 | 985.3 | |
| $ 1 Dichloroacetic acid | 13.367 | 13.759 | -0.392 | 79298996 | | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

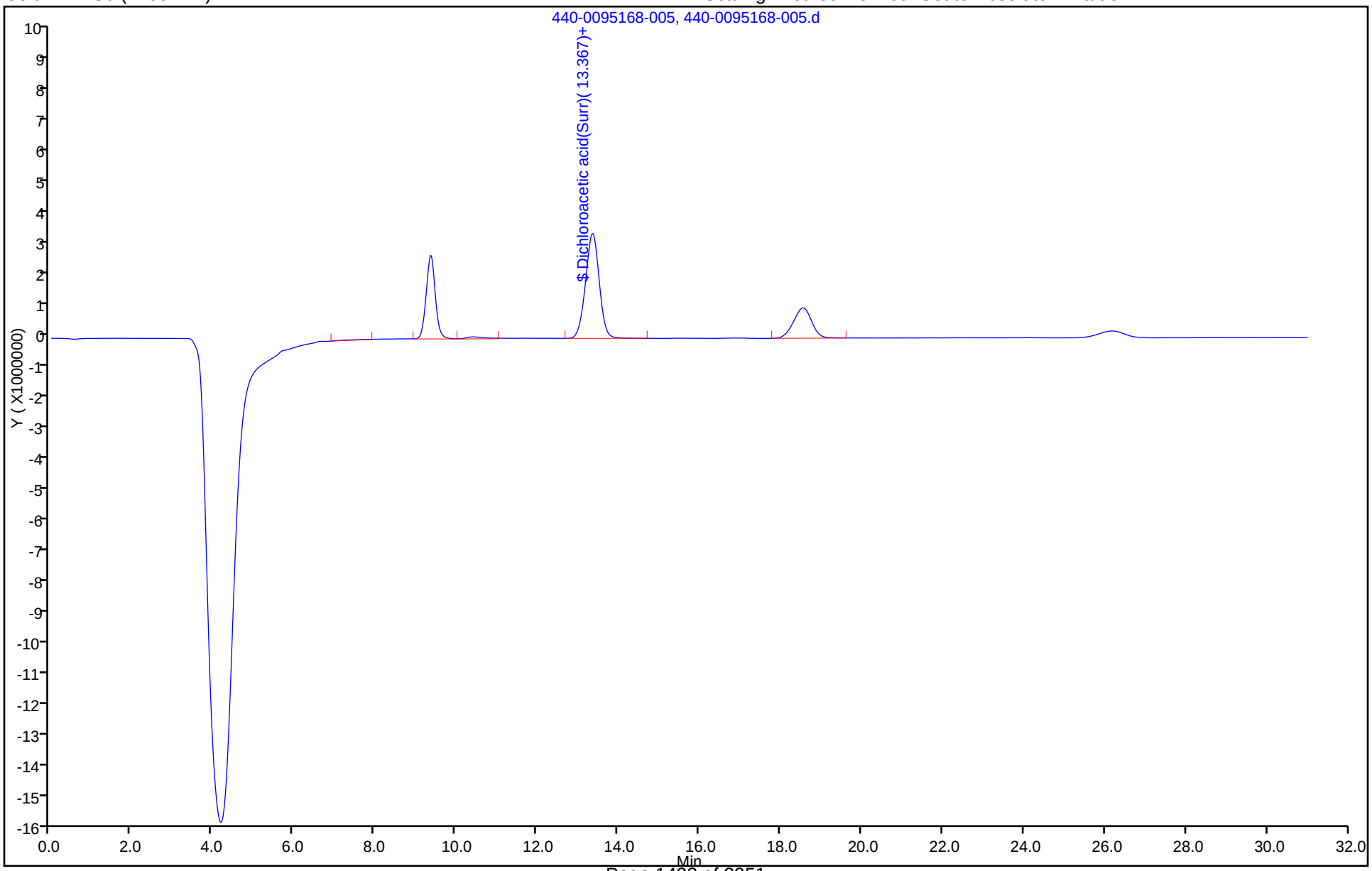
Report Date: 24-Oct-2017 08:45:54 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-005.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 07:23:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | MB | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-005.d | | | | |
| Lims ID: | MB | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 24-Oct-2017 07:23:00 | ALS Bottle#: | 0 | Worklist Smp#: | 5 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-005 | | | | |
| Misc. Info.: | 5 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 08:45:54 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 08:45:54 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 985.3 | 99.15 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-437027/5

Matrix: Water | Lab File ID: 440-0095168-005.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 07:23

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437027 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 99 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-005.d | | | | |
| Lims ID: | MB | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 24-Oct-2017 07:23:00 | ALS Bottle#: | 0 | Worklist Smp#: | 5 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-005 | | | | |
| Misc. Info.: | 5 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 08:45:54 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 08:45:54 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.367 | 13.592 | -0.225 | 79298996 | 993.7 | 985.3 | |
| $ 1 Dichloroacetic acid | 13.367 | 13.759 | -0.392 | 79298996 | | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

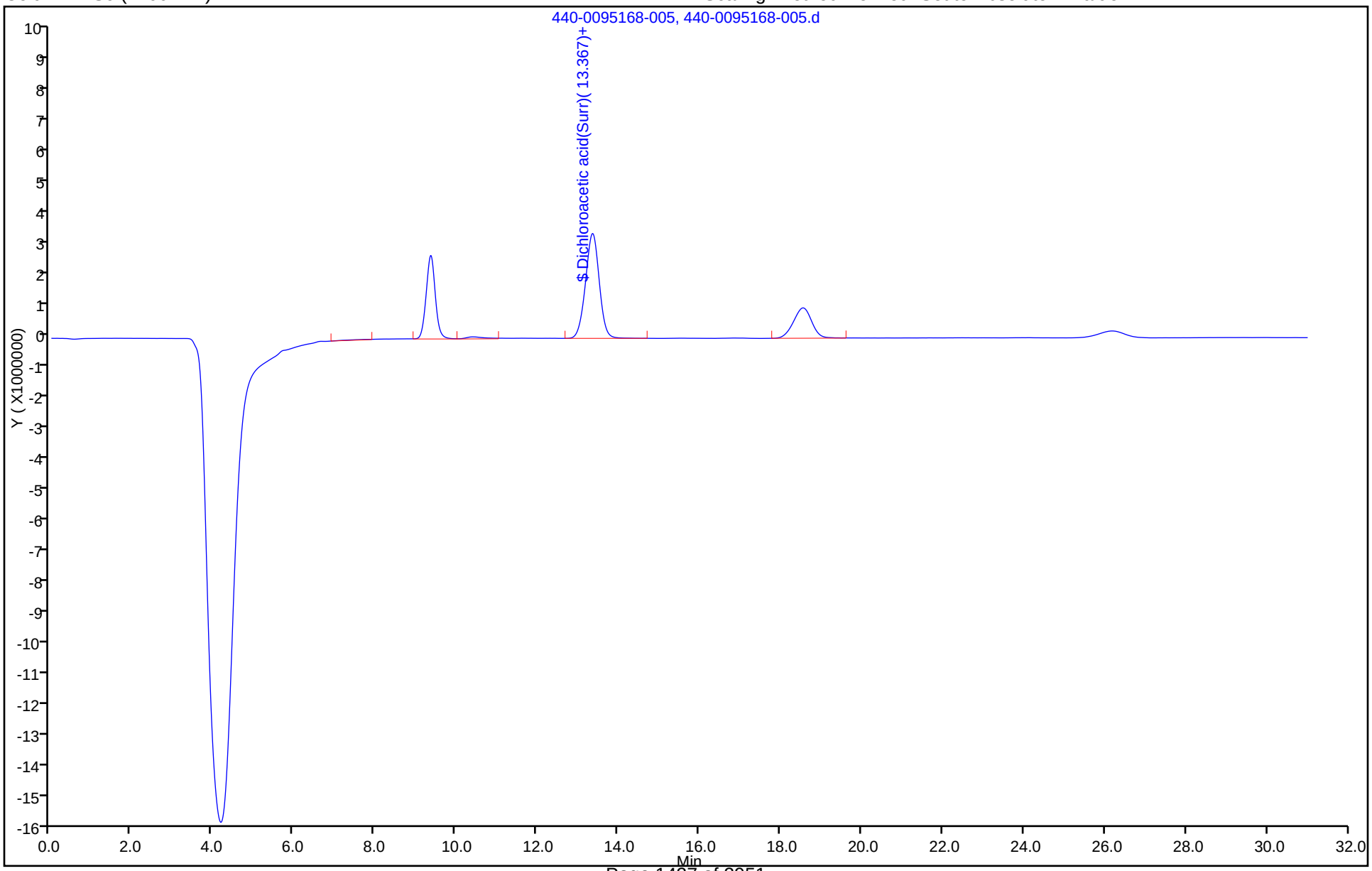
Report Date: 24-Oct-2017 08:45:55 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-005.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 07:23:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | MB | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 24-Oct-2017 08:45:54 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-005.d | | | | |
| Lims ID: | MB | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 24-Oct-2017 07:23:00 | ALS Bottle#: | 0 | Worklist Smp#: | 5 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-005 | | | | |
| Misc. Info.: | 5 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 08:45:54 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 08:45:54 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 985.3 | 99.15 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-437275/5

Matrix: Water | Lab File ID: 440-0095228-005.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/25/2017 06:55

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437275 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-005.d | | | | |
| Lims ID: | MB | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 25-Oct-2017 06:55:00 | ALS Bottle#: | 0 | Worklist Smp#: | 5 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095228-005 | | | | |
| Misc. Info.: | 5 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 08:05:22 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 08:05:22 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.483 | 13.592 | -0.109 | 80262472 | 993.7 | 997.2 | |
| $ 1 Dichloroacetic acid | 13.483 | 13.759 | -0.276 | 80262472 | | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

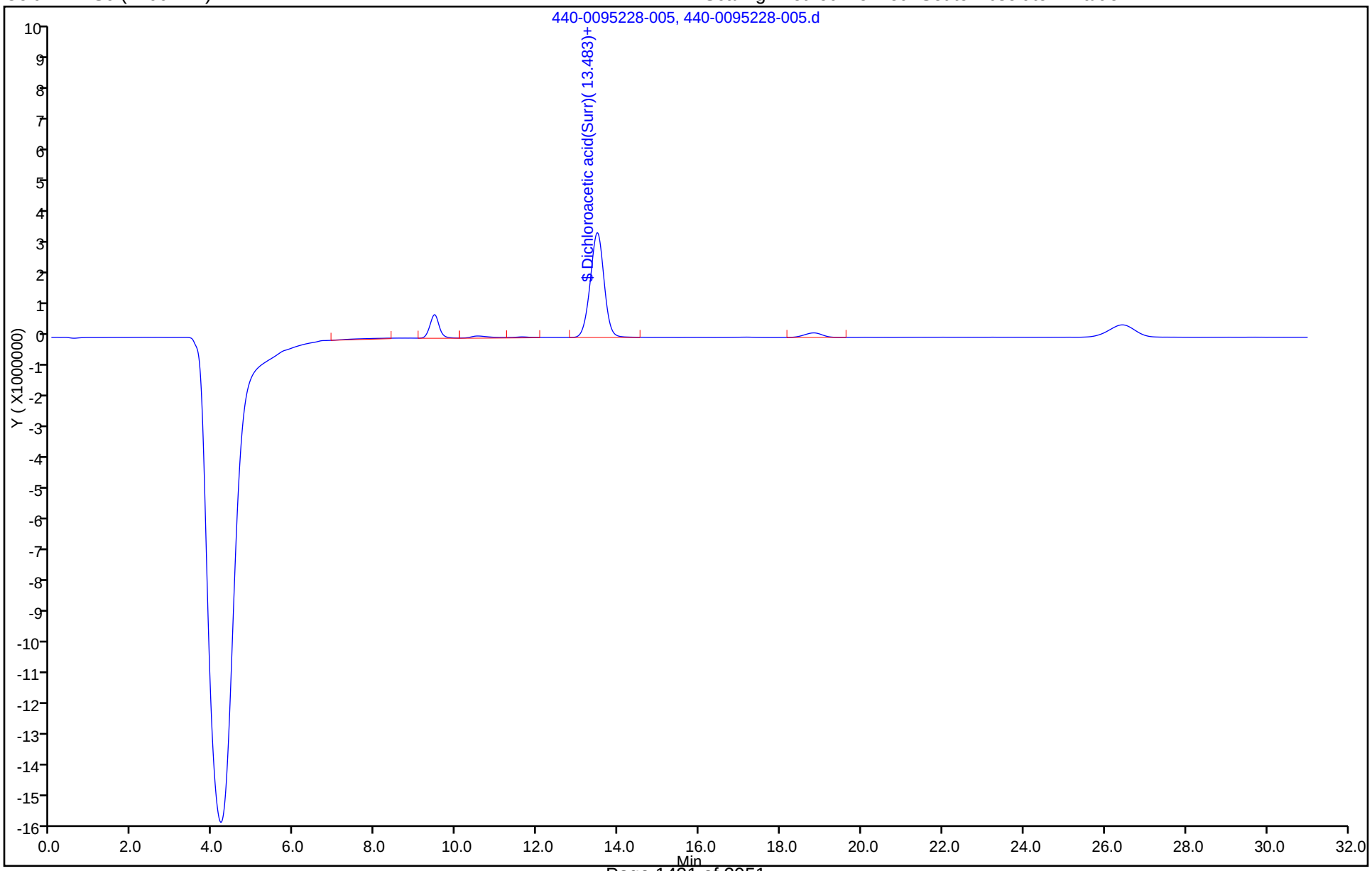
Report Date: 25-Oct-2017 08:05:23 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-005.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Oct-2017 06:55:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | MB | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 25-Oct-2017 08:05:23 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-005.d | | | | |
| Lims ID: | MB | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 25-Oct-2017 06:55:00 | ALS Bottle#: | 0 | Worklist Smp#: | 5 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095228-005 | | | | |
| Misc. Info.: | 5 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 08:05:22 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 08:05:22 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 997.2 | 100.36 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-436780/9

Matrix: Solid | Lab File ID: 20171023009.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 09:40

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436780 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023009.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 23-Oct-2017 09:40:20 | ALS Bottle#: | 0 | Worklist Smp#: | 9 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-009 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 10:54:14 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.364 | 13.557 | -0.193 | 14030516 | 993.7 | 991.2 | |
| $ 1 Dichloroacetic acid | 13.364 | 14.113 | -0.749 | 14030516 | | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

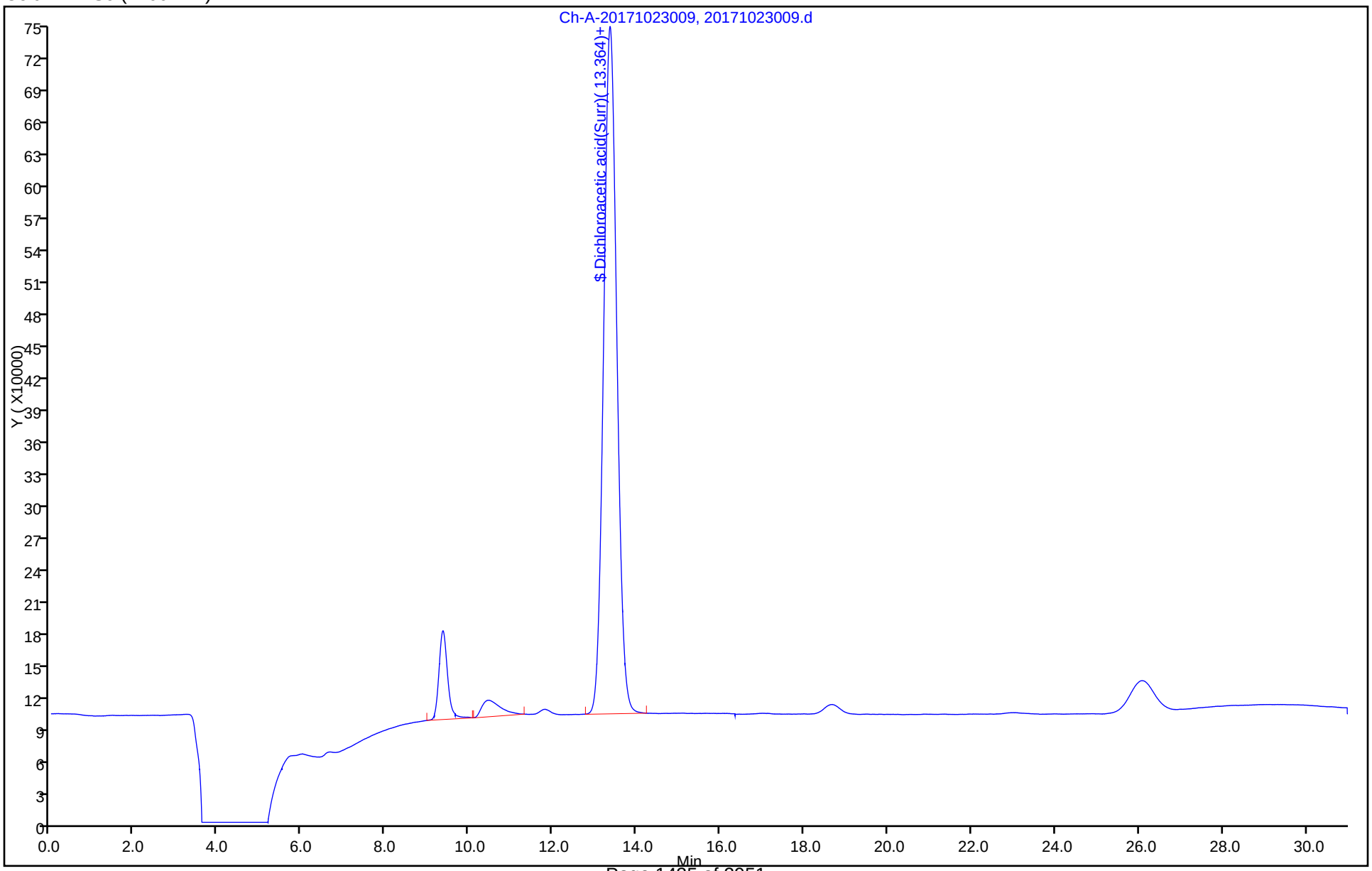
Report Date: 23-Oct-2017 10:54:16 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023009.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 09:40:20 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023009.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 23-Oct-2017 09:40:20 | ALS Bottle#: | 0 | Worklist Smp#: | 9 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-009 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 10:54:14 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 991.2 | 99.75 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-436780/21

Matrix: Solid | Lab File ID: 20171023021.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 16:18

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436780 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023021.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 23-Oct-2017 16:18:36 | ALS Bottle#: | 0 | Worklist Smp#: | 21 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-021 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 06:57:18 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 05:18:06 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.404 | 13.557 | -0.153 | 14251667 | 993.7 | 1006.8 | M |
| $ 1 Dichloroacetic acid | 13.404 | 14.113 | -0.709 | 14251667 | | NC | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

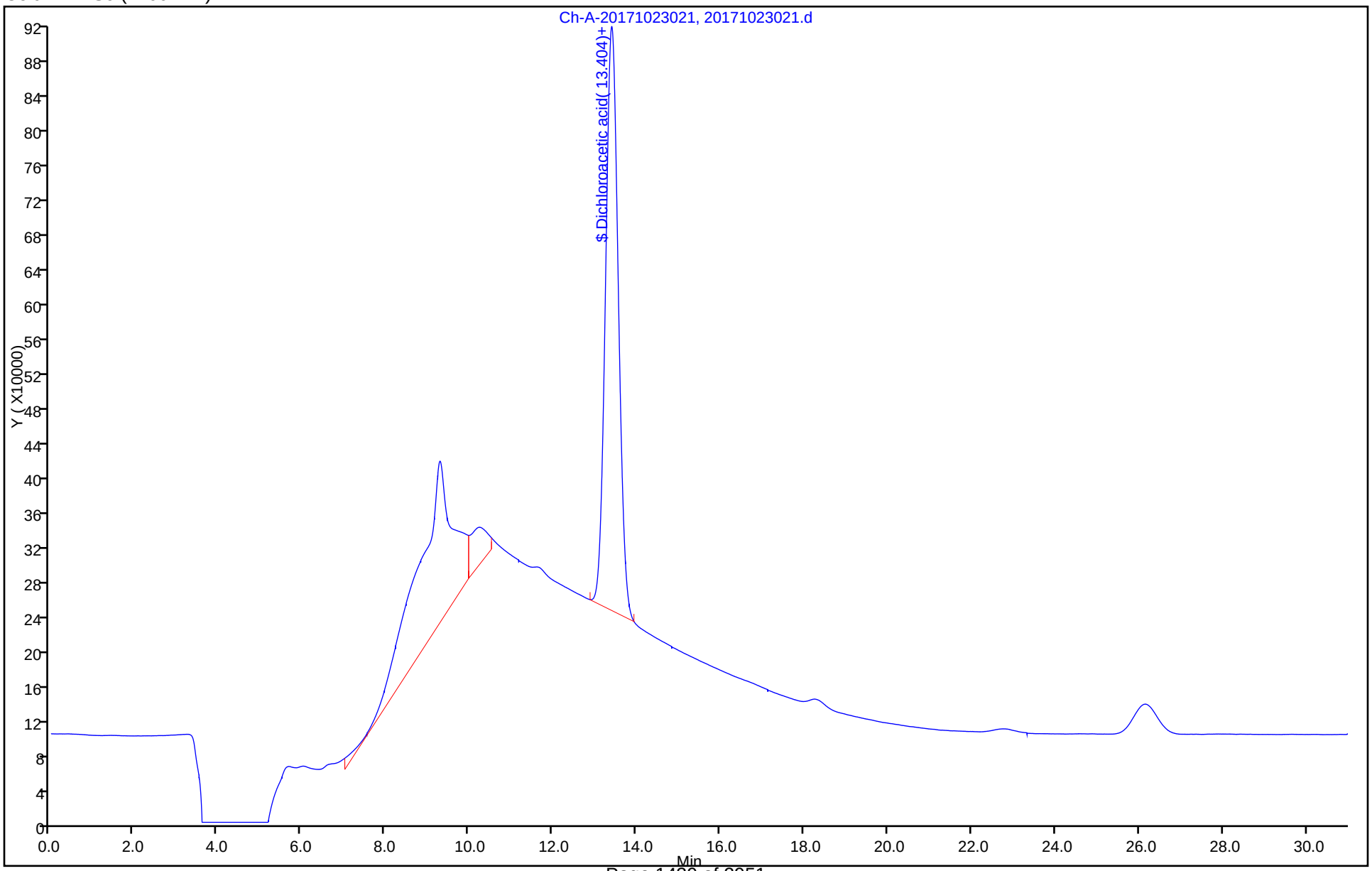
Report Date: 24-Oct-2017 06:27:56 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023021.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 16:18:36 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 21 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023021.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 23-Oct-2017 16:18:36 | ALS Bottle#: | 0 | Worklist Smp#: | 21 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-021 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 06:57:18 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 05:18:06 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1006.8 | 101.32 |

Manual Integration/User Assign Peak Report

TestAmerica Irvine

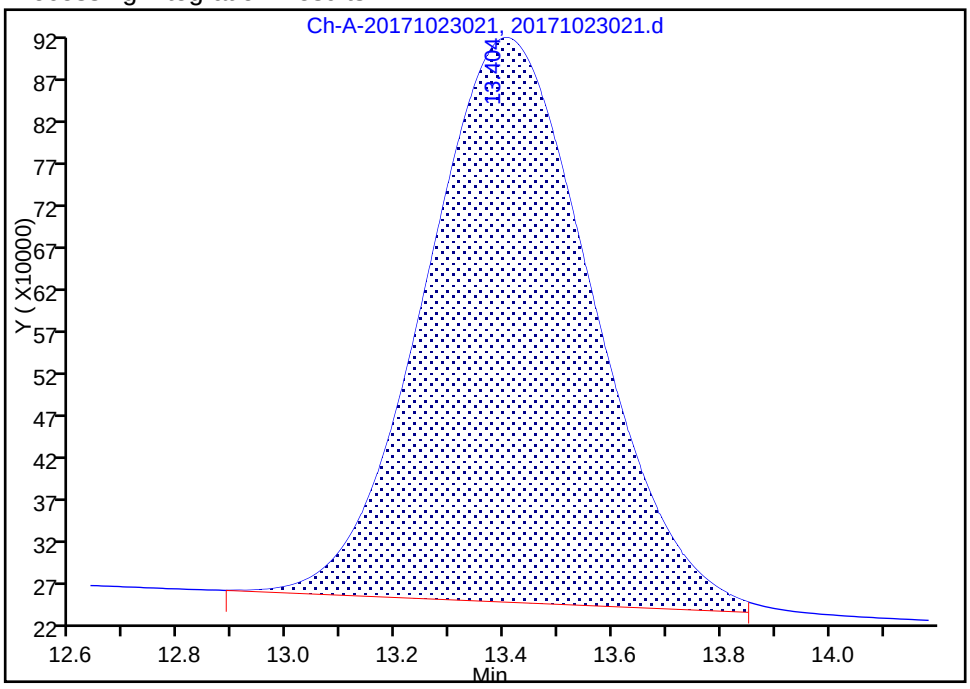
Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023021.d
Injection Date: 23-Oct-2017 16:18:36 Instrument ID: IC-11
Lims ID: CCB
Client ID:
Operator ID: IRVINSTWET4 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C11 Limit Group: IC-300.1_28D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## $ 6 Dichloroacetic acid(Surr), CAS: 79-43-6

Signal: 1

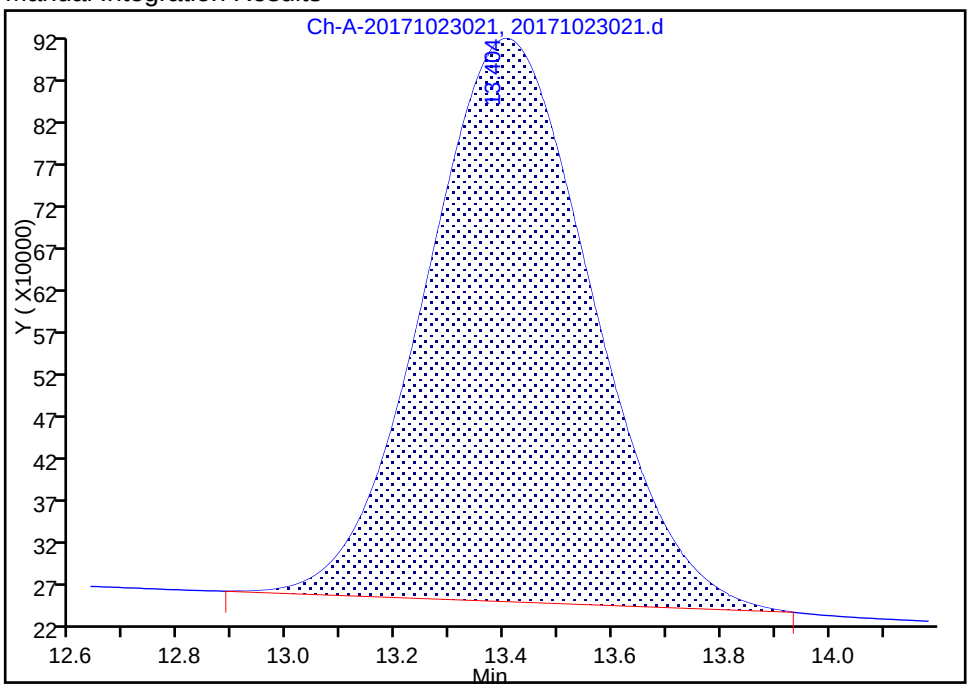
Processing Integration Results

RT: 13.40
Area: 14320851
Amount: 1009.1711
Amount Units: ug/l




Manual Integration Results

RT: 13.40
Area: 14251667
Amount: 1006.8276
Amount Units: ug/l




Reviewer: zakhrabovy, 24-Oct-2017 04:47:12
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-436780/41

Matrix: Solid | Lab File ID: 20171023041.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 05:56

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436780 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023041.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 24-Oct-2017 05:56:54 | ALS Bottle#: | 0 | Worklist Smp#: | 41 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-041 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 08:50:15 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 06:29:49 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.280 | 13.557 | -0.277 | 14274895 | 993.7 | 1008.5 | |
| $ 1 Dichloroacetic acid | 13.280 | 14.113 | -0.833 | 14274895 | | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

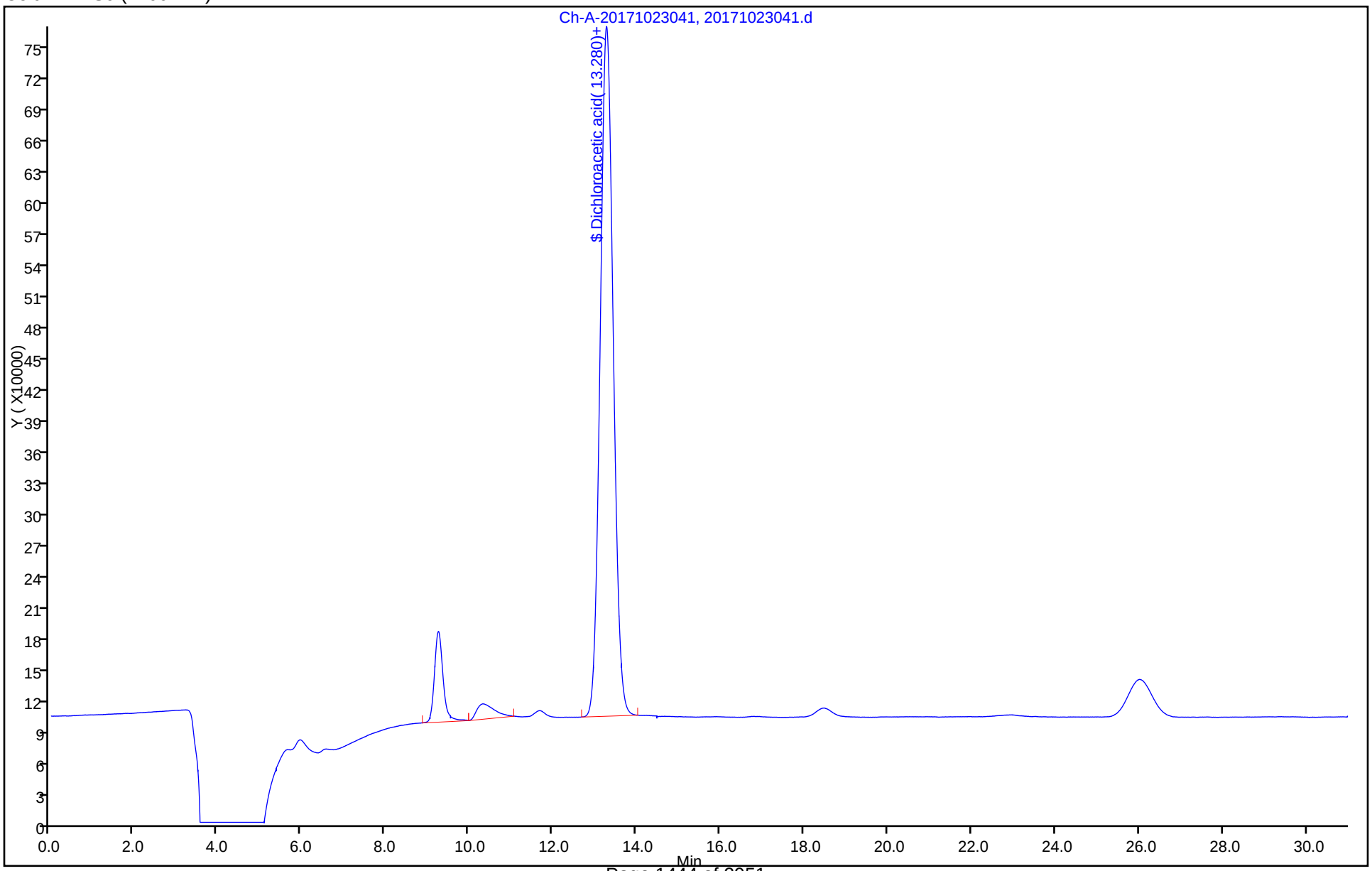
Report Date: 24-Oct-2017 08:50:23 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023041.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 05:56:54 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 41 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023041.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 24-Oct-2017 05:56:54 ALS Bottle#: 0 Worklist Smp#: 41
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095116-041
Misc. Info.: Study: 95116 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11

Method: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 24-Oct-2017 08:50:15 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK049

First Level Reviewer: zakhrabovy Date: 24-Oct-2017 06:29:49

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1008.5 | 101.49 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-436780/53

Matrix: Solid | Lab File ID: 20171023053.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 12:44

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436780 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 99 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023053.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 24-Oct-2017 12:44:30 ALS Bottle#: 0 Worklist Smp#: 53
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095116-047
Misc. Info.: Study: 95116 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11

Method: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 24-Oct-2017 13:29:13 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK049

First Level Reviewer: zakhrabovy Date: 24-Oct-2017 13:29:26

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.423 | 13.557 | -0.135 | 13940518 | 993.7 | 984.8 | |
| $ 1 Dichloroacetic acid | 13.423 | 14.113 | -0.691 | 13940518 | | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

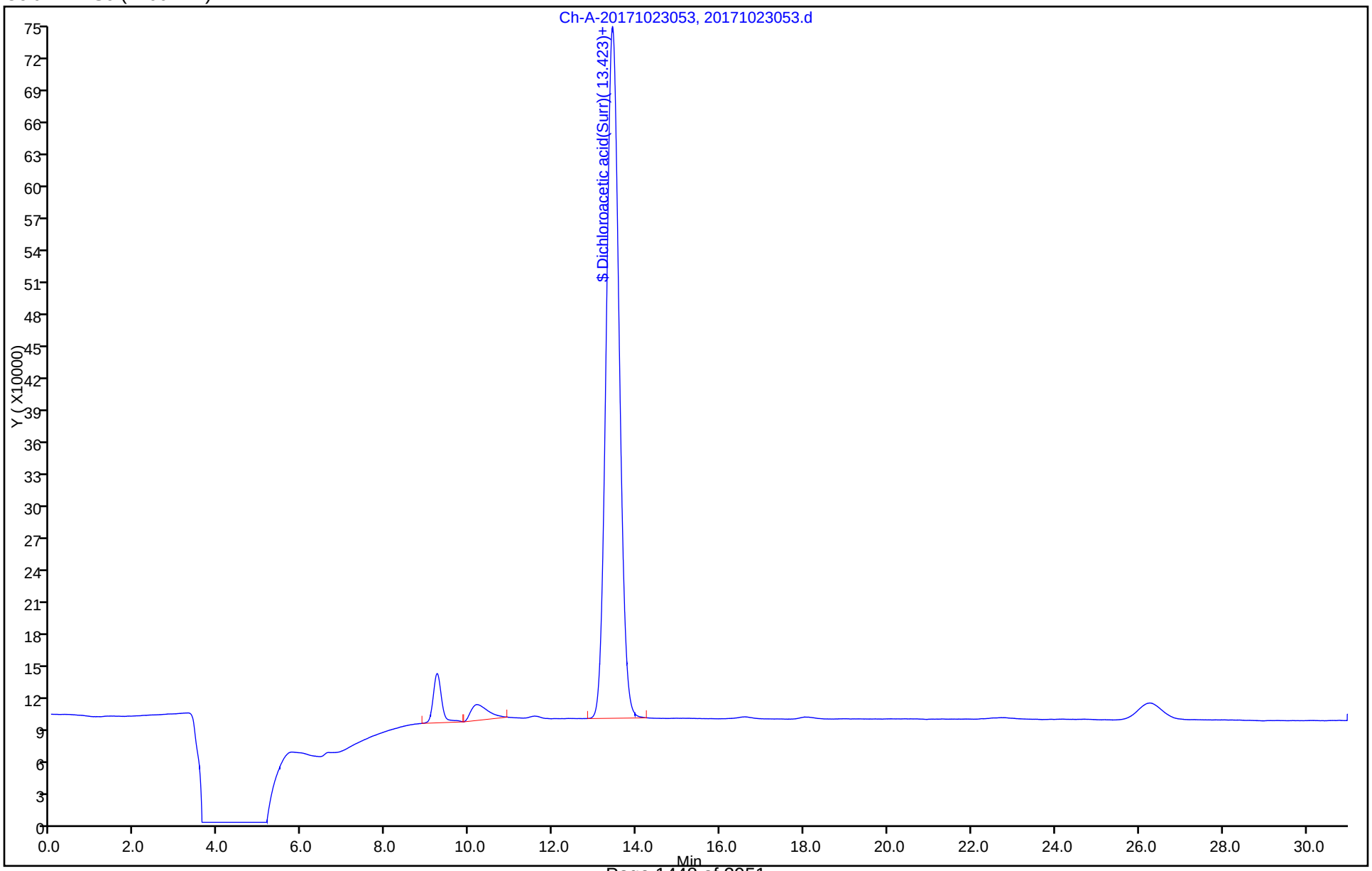
Report Date: 24-Oct-2017 13:29:26 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023053.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 12:44:30 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 53 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023053.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 24-Oct-2017 12:44:30 | ALS Bottle#: | 0 | Worklist Smp#: | 53 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-047 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 13:29:13 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 13:29:26 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 984.8 | 99.11 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-436780/65

Matrix: Solid | Lab File ID: 20171023065.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 19:22

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436780 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 99 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023065.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 24-Oct-2017 19:22:46 | ALS Bottle#: | 0 | Worklist Smp#: | 65 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-065 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:35:50 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.436 | 13.557 | -0.121 | 13988143 | 993.7 | 988.2 | |
| $ 1 Dichloroacetic acid | 13.436 | 14.113 | -0.677 | 13988143 | | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

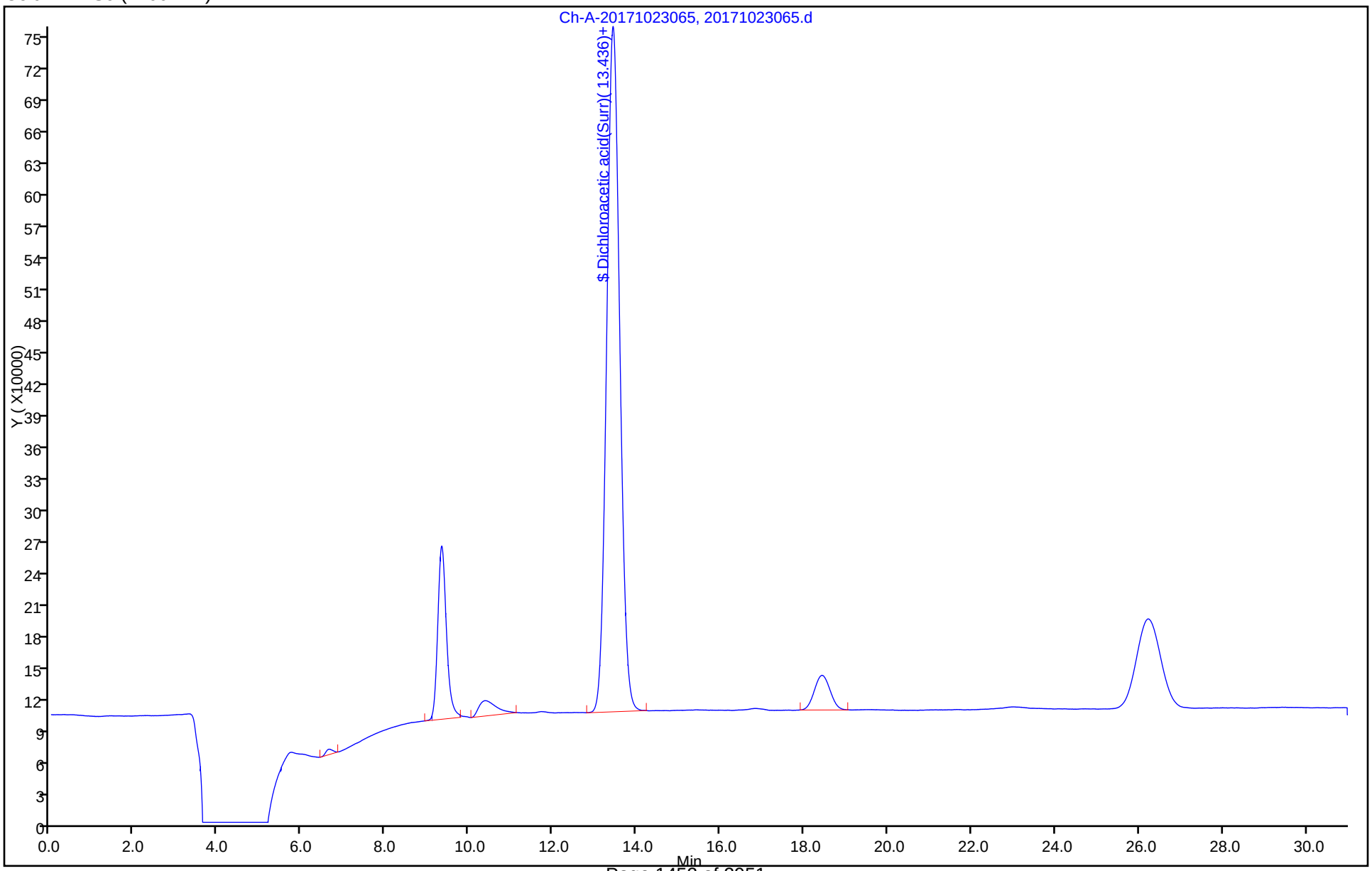
Report Date: 25-Oct-2017 03:35:52 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023065.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 19:22:46 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 65 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023065.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 24-Oct-2017 19:22:46 | ALS Bottle#: | 0 | Worklist Smp#: | 65 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-065 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:35:50 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 988.2 | 99.45 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-436781/9

Matrix: Solid | Lab File ID: 20171023009.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 09:40

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 99 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023009.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 23-Oct-2017 09:40:20 | ALS Bottle#: | 0 | Worklist Smp#: | 9 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-009 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 10:54:14 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.364 | 13.557 | -0.193 | 14030516 | 993.7 | 988.7 | |
| $ 1 Dichloroacetic acid | 13.364 | 14.113 | -0.749 | 14030516 | | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

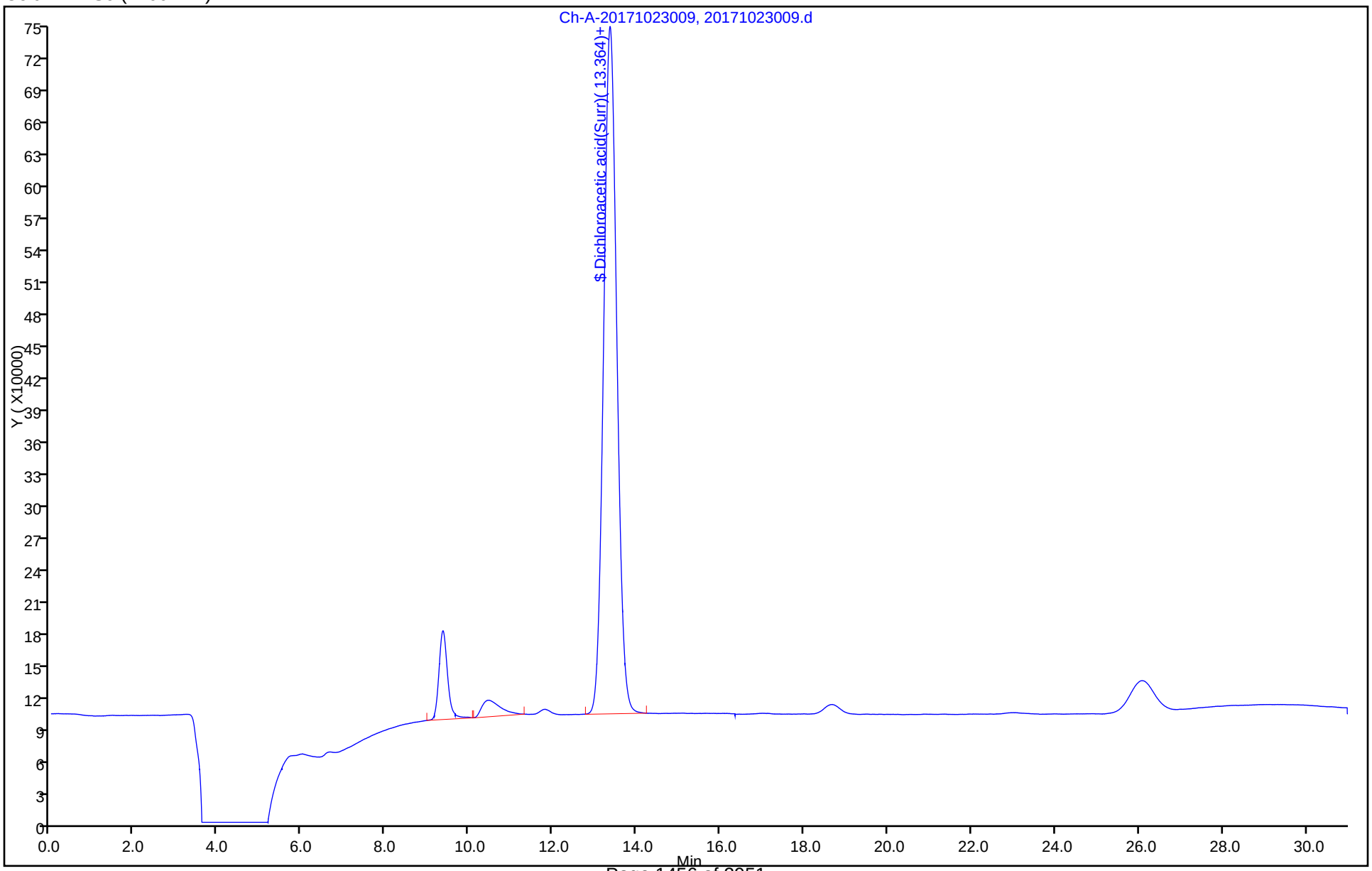
Report Date: 23-Oct-2017 10:54:16 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023009.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 09:40:20 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023009.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 23-Oct-2017 09:40:20 | ALS Bottle#: | 0 | Worklist Smp#: | 9 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-009 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 10:54:14 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 988.7 | 99.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-436781/21

Matrix: Solid | Lab File ID: 20171023021.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 16:18

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023021.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 23-Oct-2017 16:18:36 | ALS Bottle#: | 0 | Worklist Smp#: | 21 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-021 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 06:57:18 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 05:18:06 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.404 | 13.557 | -0.153 | 14251667 | 993.7 | 1004.3 | M |
| $ 1 Dichloroacetic acid | 13.404 | 14.113 | -0.709 | 14251667 | | NC | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

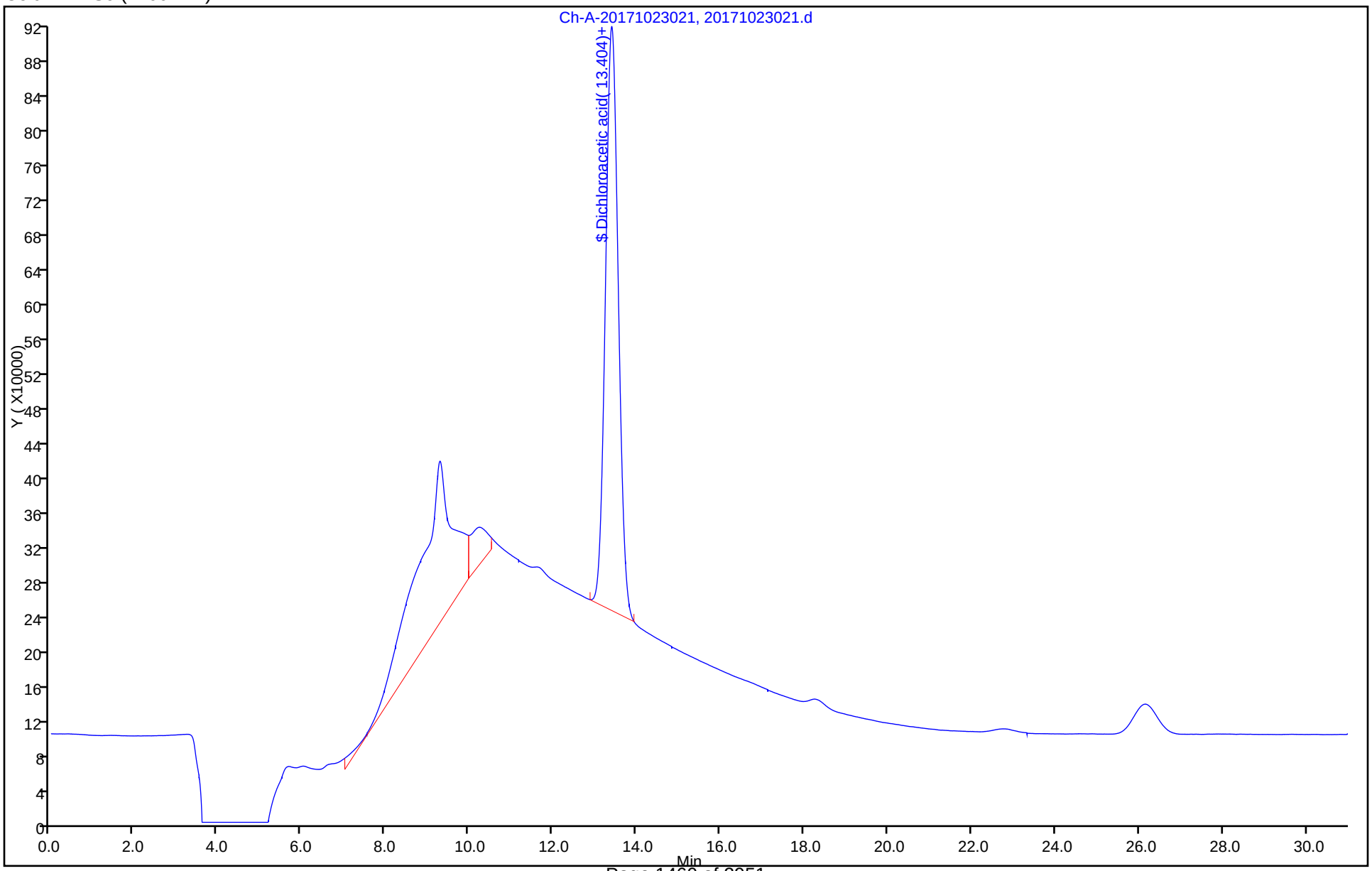
Report Date: 24-Oct-2017 06:27:56 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023021.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 16:18:36 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 21 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023021.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 23-Oct-2017 16:18:36 | ALS Bottle#: | 0 | Worklist Smp#: | 21 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-021 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 06:57:18 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 05:18:06 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1004.3 | 101.07 |

Manual Integration/User Assign Peak Report

TestAmerica Irvine

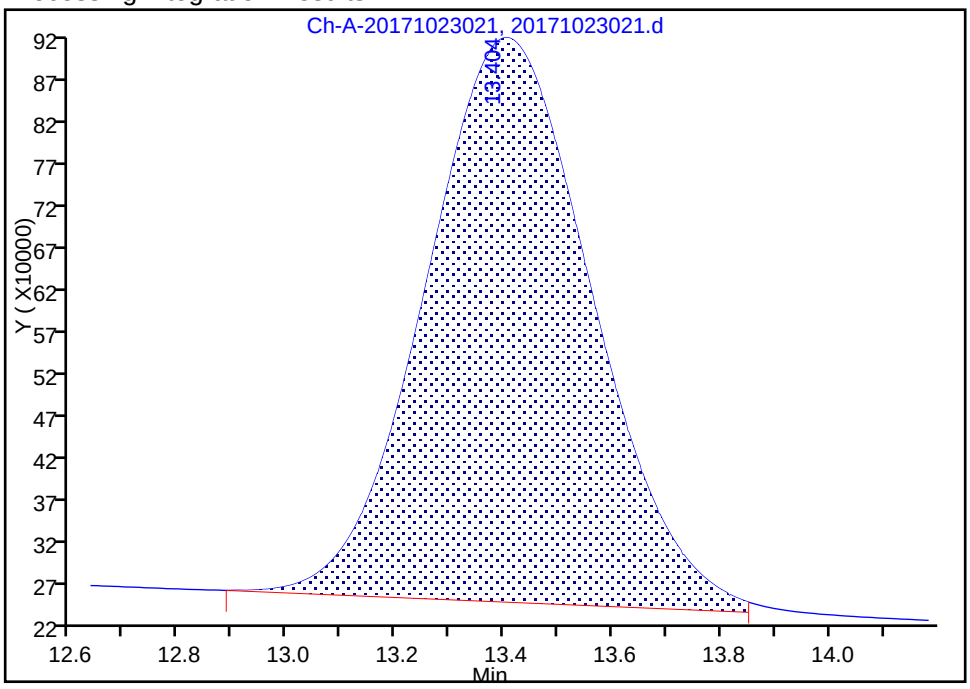
Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023021.d
Injection Date: 23-Oct-2017 16:18:36 Instrument ID: IC-11
Lims ID: CCB
Client ID:
Operator ID: IRVINSTWET4 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C11 Limit Group: IC-300.1_14D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## $ 6 Dichloroacetic acid(Surr), CAS: 79-43-6

Signal: 1

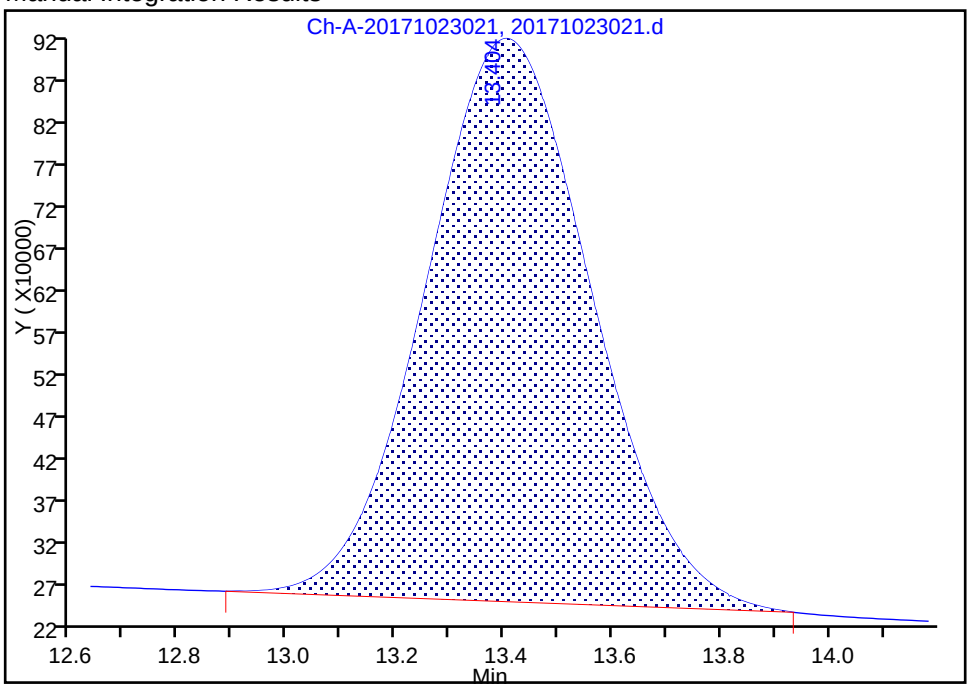
Processing Integration Results

RT: 13.40
Area: 14320851
Amount: 1009.1711
Amount Units: ug/l




Manual Integration Results

RT: 13.40
Area: 14251667
Amount: 1004.2958
Amount Units: ug/l




Reviewer: zakhrabovy, 24-Oct-2017 04:47:12
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-436781/33

Matrix: Solid | Lab File ID: 20171023033.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 22:56

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023033.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 23-Oct-2017 22:56:52 | ALS Bottle#: | 0 | Worklist Smp#: | 33 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-033 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 08:49:42 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 06:31:49 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.258 | 13.557 | -0.299 | 14269427 | 993.7 | 1005.5 | |
| $ 1 Dichloroacetic acid | 13.258 | 14.113 | -0.855 | 14269427 | | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

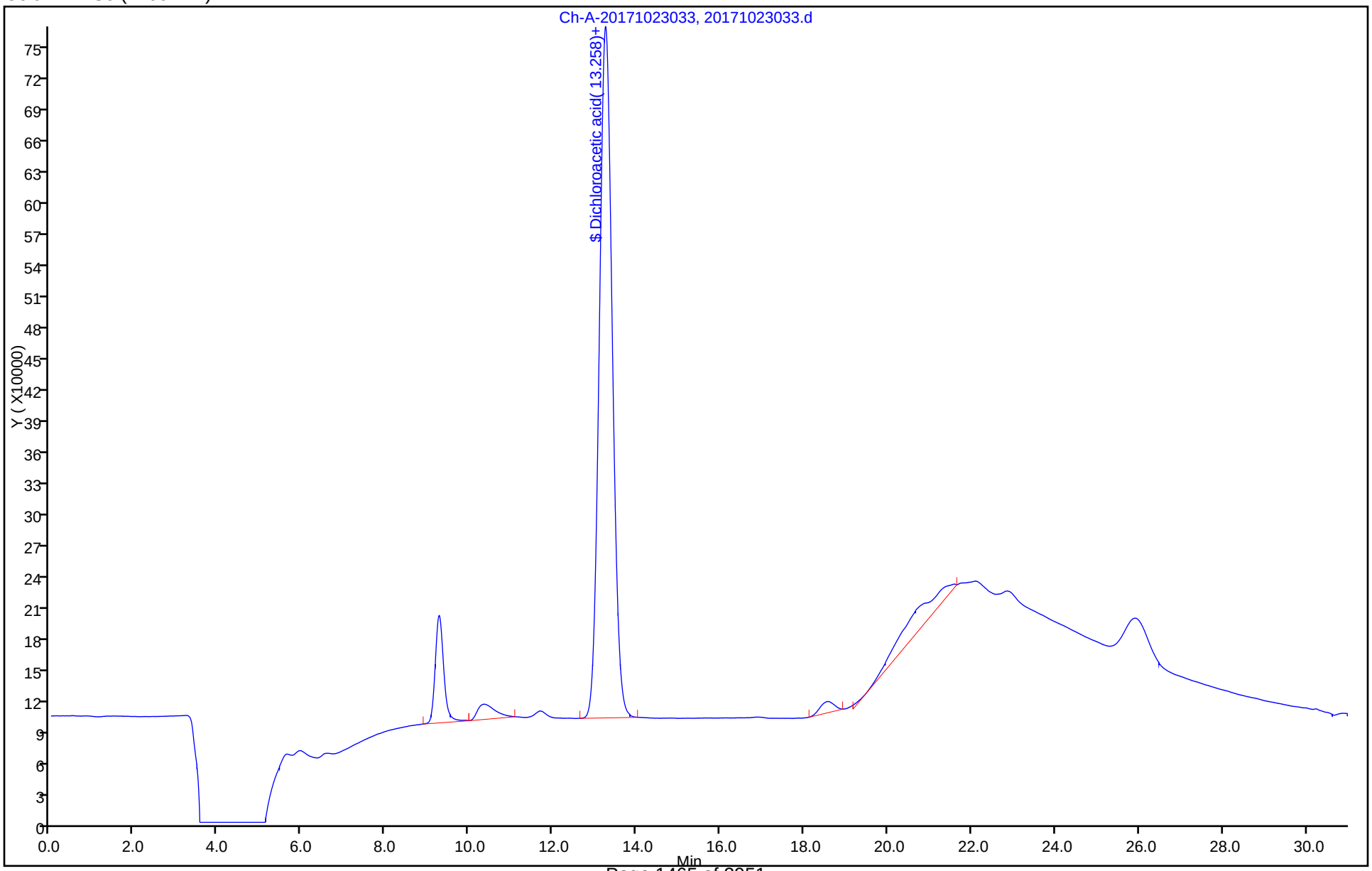
Report Date: 24-Oct-2017 08:49:50 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023033.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 22:56:52 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 33 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023033.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 23-Oct-2017 22:56:52 | ALS Bottle#: | 0 | Worklist Smp#: | 33 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-033 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 08:49:42 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 06:31:49 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1005.5 | 101.19 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-436781/41

Matrix: Solid | Lab File ID: 20171023041.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 05:56

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023041.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 24-Oct-2017 05:56:54 ALS Bottle#: 0 Worklist Smp#: 41
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095116-041
Misc. Info.: Study: 95116 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11

Method: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 24-Oct-2017 08:50:15 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK049

First Level Reviewer: zakhrabovy Date: 24-Oct-2017 06:29:49

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.280 | 13.557 | -0.277 | 14274895 | 993.7 | 1005.9 | |
| $ 1 Dichloroacetic acid | 13.280 | 14.113 | -0.833 | 14274895 | | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

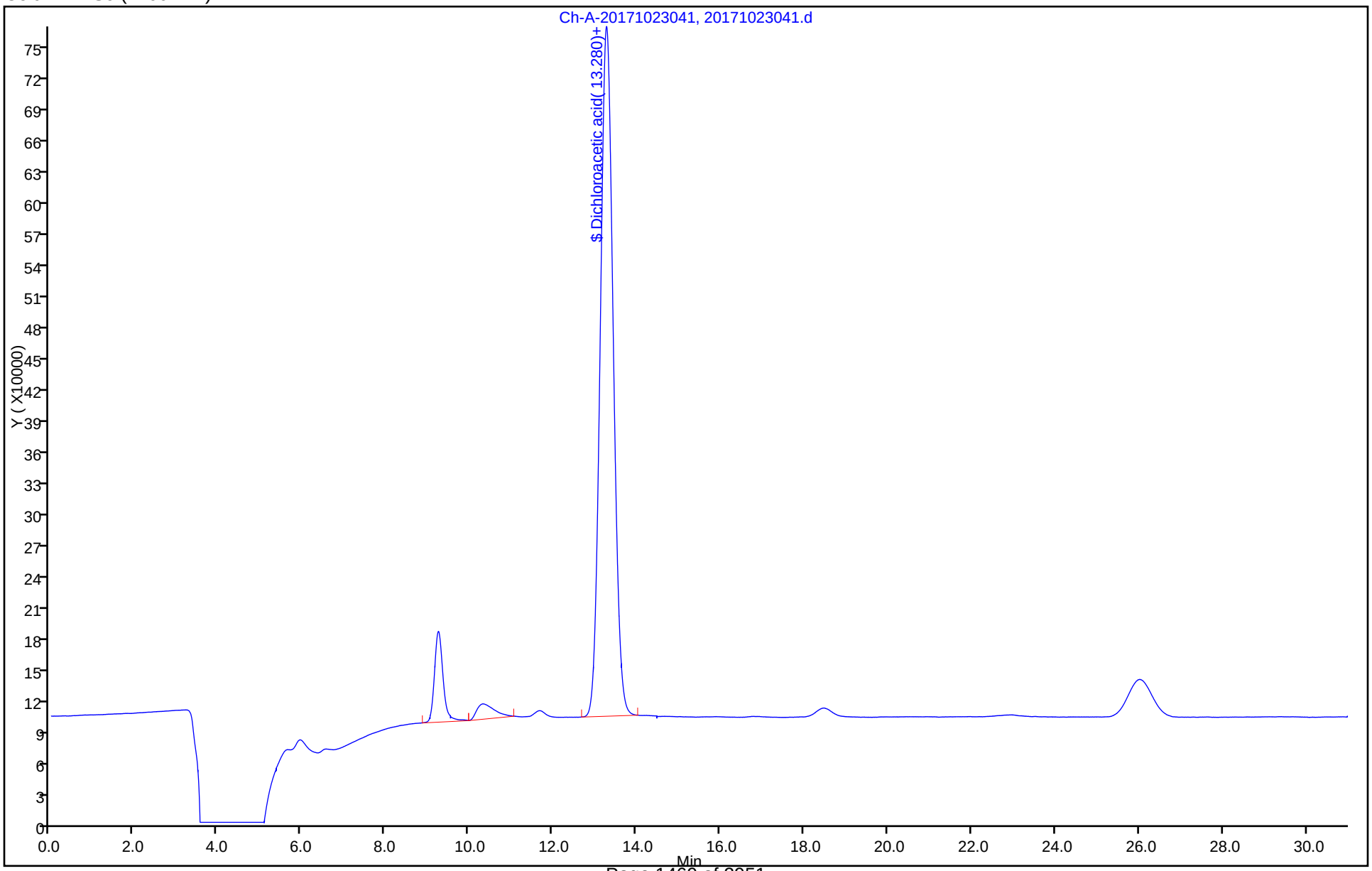
Report Date: 24-Oct-2017 08:50:23 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023041.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 05:56:54 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 41 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023041.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 24-Oct-2017 05:56:54 | ALS Bottle#: | 0 | Worklist Smp#: | 41 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-041 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 08:50:15 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 06:29:49 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1005.9 | 101.23 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-436781/53

Matrix: Solid | Lab File ID: 20171023053.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 12:44

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 99 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023053.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 24-Oct-2017 12:44:30 ALS Bottle#: 0 Worklist Smp#: 53
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095116-047
Misc. Info.: Study: 95116 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11

Method: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 24-Oct-2017 13:29:13 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK049

First Level Reviewer: zakhrabovy Date: 24-Oct-2017 13:29:26

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.423 | 13.557 | -0.135 | 13940518 | 993.7 | 982.4 | |
| $ 1 Dichloroacetic acid | 13.423 | 14.113 | -0.691 | 13940518 | | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

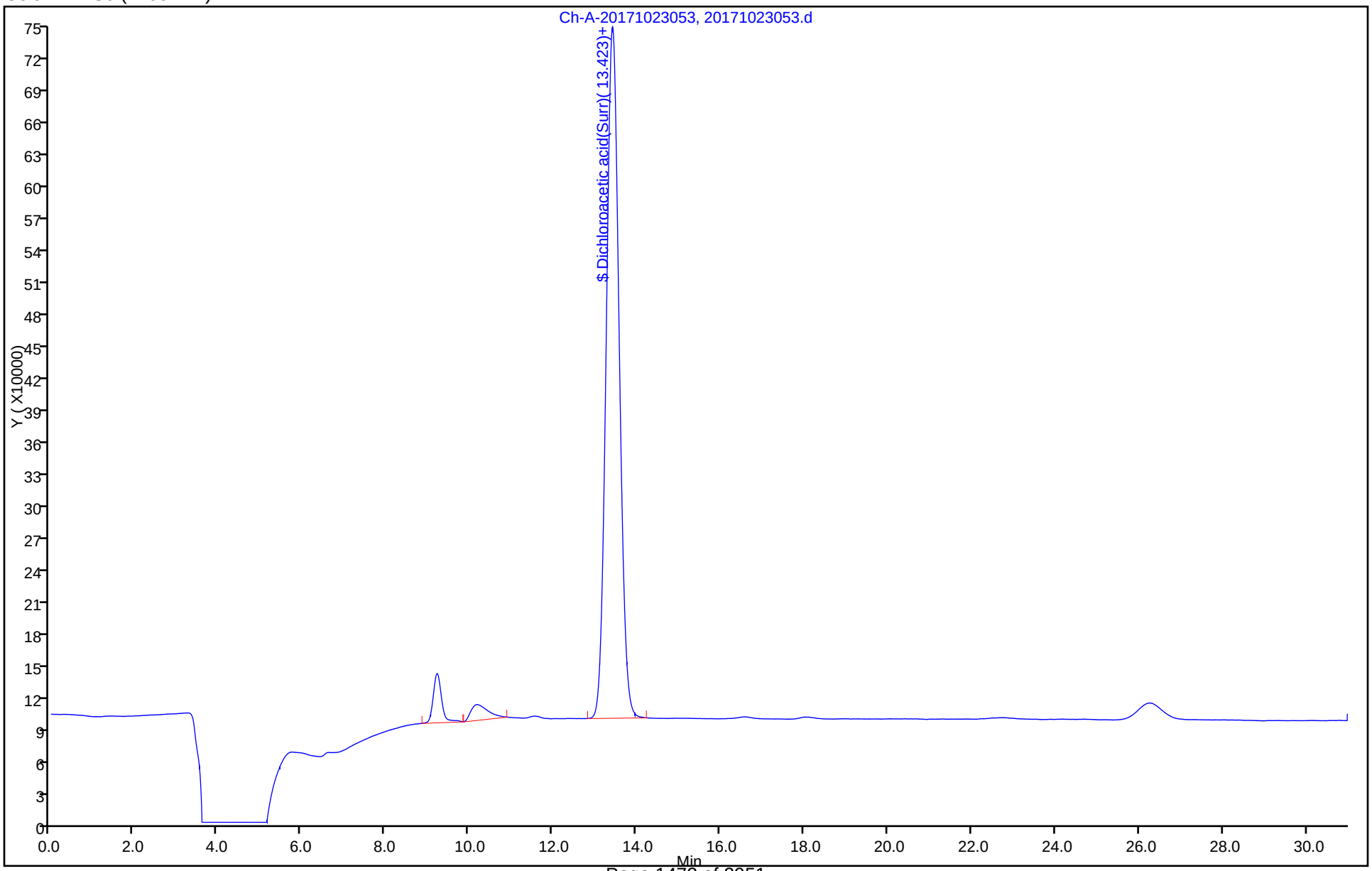
Report Date: 24-Oct-2017 13:29:26 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023053.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 12:44:30 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 53 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023053.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 24-Oct-2017 12:44:30 ALS Bottle#: 0 Worklist Smp#: 53
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095116-047
Misc. Info.: Study: 95116 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11

Method: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 24-Oct-2017 13:29:13 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK049

First Level Reviewer: zakhrabovy Date: 24-Oct-2017 13:29:26

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 982.4 | 98.86 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-436781/65

Matrix: Solid | Lab File ID: 20171023065.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 19:22

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 99 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023065.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 24-Oct-2017 19:22:46 | ALS Bottle#: | 0 | Worklist Smp#: | 65 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-065 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:35:50 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.436 | 13.557 | -0.121 | 13988143 | 993.7 | 985.7 | |
| $ 1 Dichloroacetic acid | 13.436 | 14.113 | -0.677 | 13988143 | | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

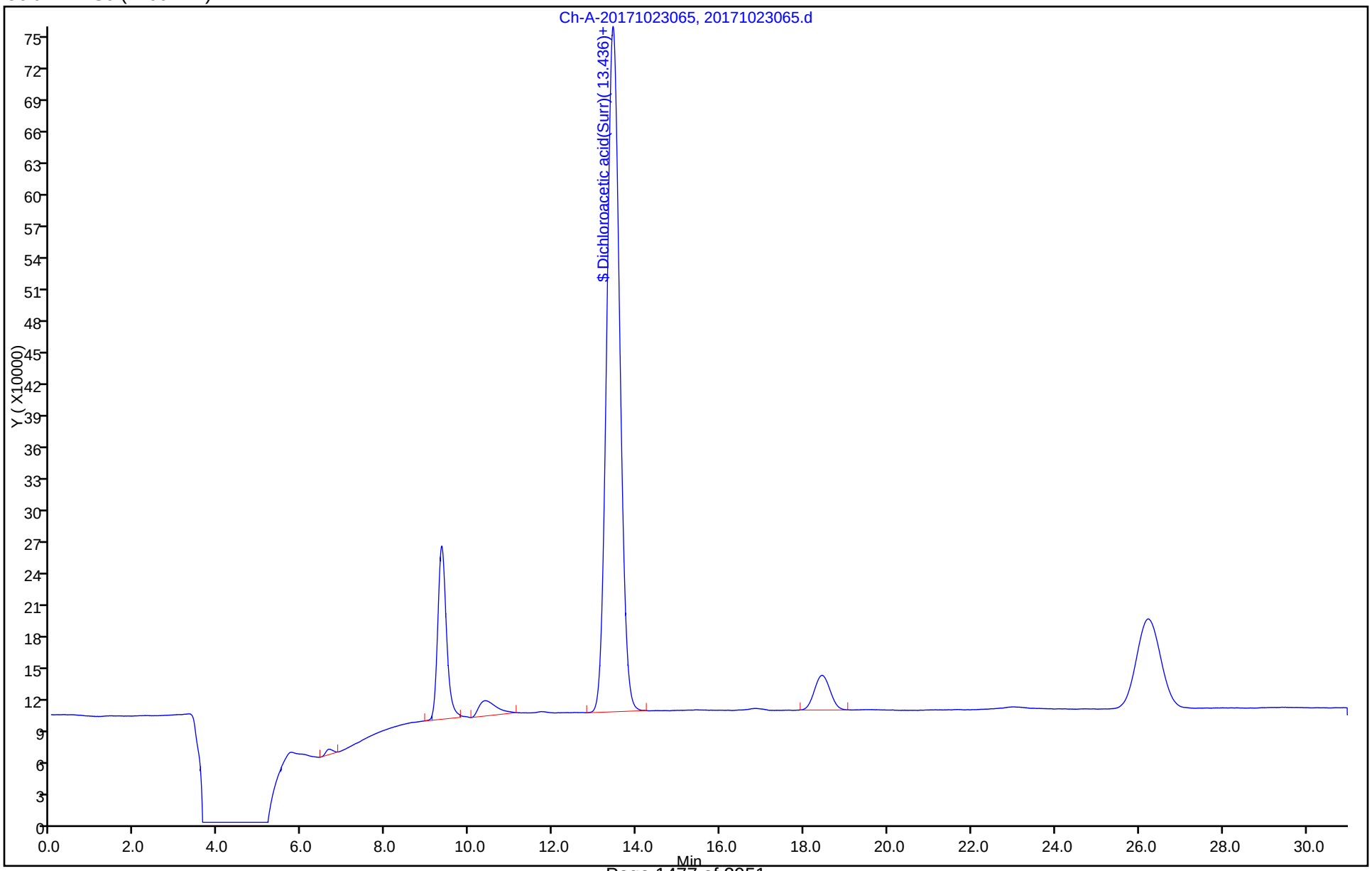
Report Date: 25-Oct-2017 03:35:52 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023065.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 19:22:46 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 65 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023065.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 24-Oct-2017 19:22:46 | ALS Bottle#: | 0 | Worklist Smp#: | 65 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-065 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 03:35:50 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 985.7 | 99.20 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437026/2

Matrix: Water | Lab File ID: 440-0095168-002.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 05:34

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437026 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

Report Date: 24-Oct-2017 07:21:39 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-002.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 24-Oct-2017 05:34:00 | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-002 | | | | |
| Misc. Info.: | 2 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 06:59:09 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 07:12:08 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.475 | 13.592 | -0.117 | 81419714 | 993.7 | 1011.6 | |
| $ 1 Dichloroacetic acid | 13.475 | 13.759 | -0.284 | 81419714 | | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

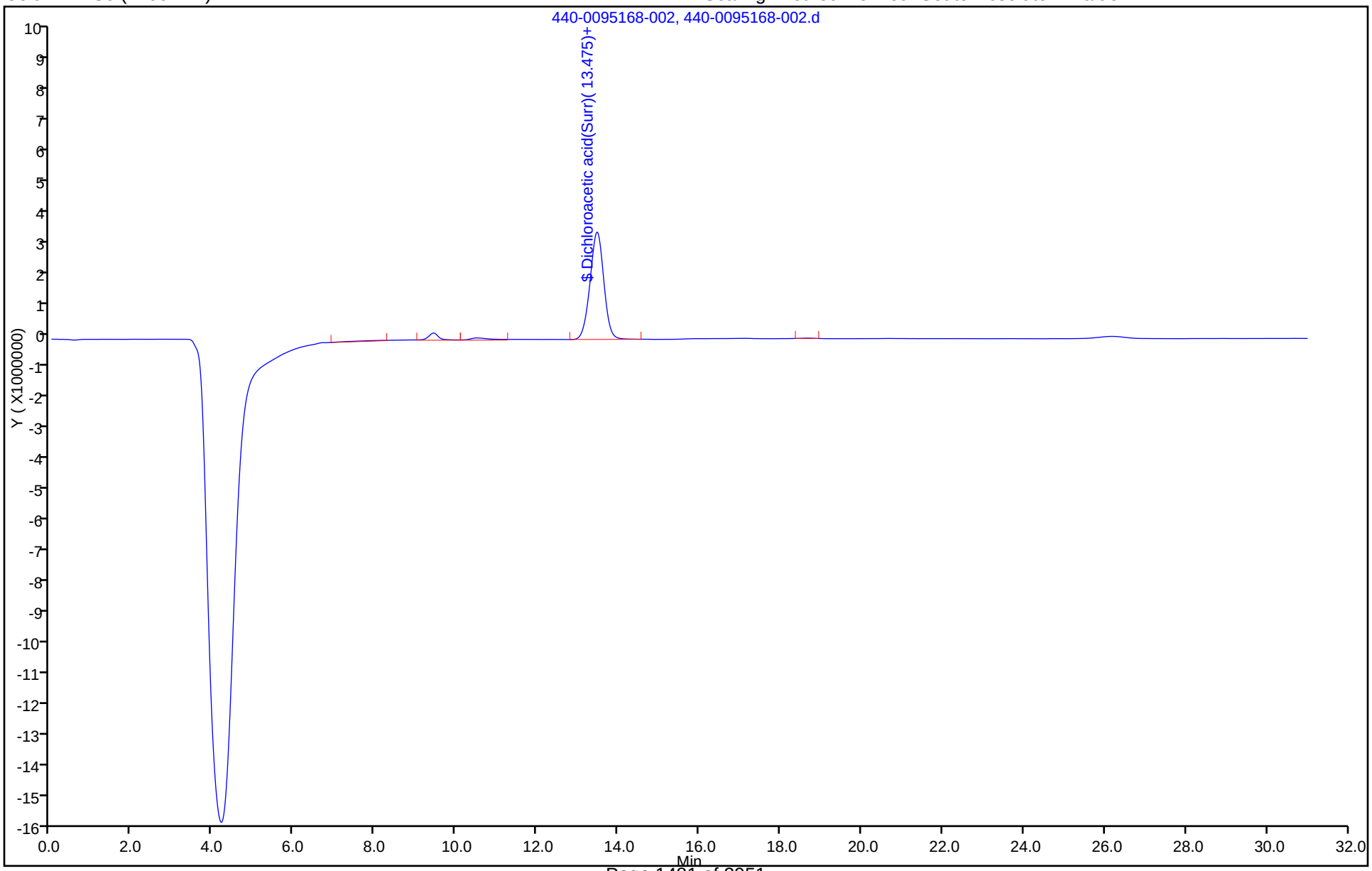
Report Date: 24-Oct-2017 07:21:40 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-002.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 05:34:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | CCB | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 24-Oct-2017 07:21:40 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-002.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 24-Oct-2017 05:34:00 | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-002 | | | | |
| Misc. Info.: | 2 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 06:59:09 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 07:12:08 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1011.6 | 101.80 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437026/14

Matrix: Water | Lab File ID: 440-0095168-014.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 12:49

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437026 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-014.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 24-Oct-2017 12:49:00 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-014 | | | | |
| Misc. Info.: | 14 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 13:28:49 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 13:28:49 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.492 | 13.592 | -0.100 | 81020889 | 993.7 | 1006.7 | |
| $ 1 Dichloroacetic acid | 13.492 | 13.759 | -0.267 | 81020889 | | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

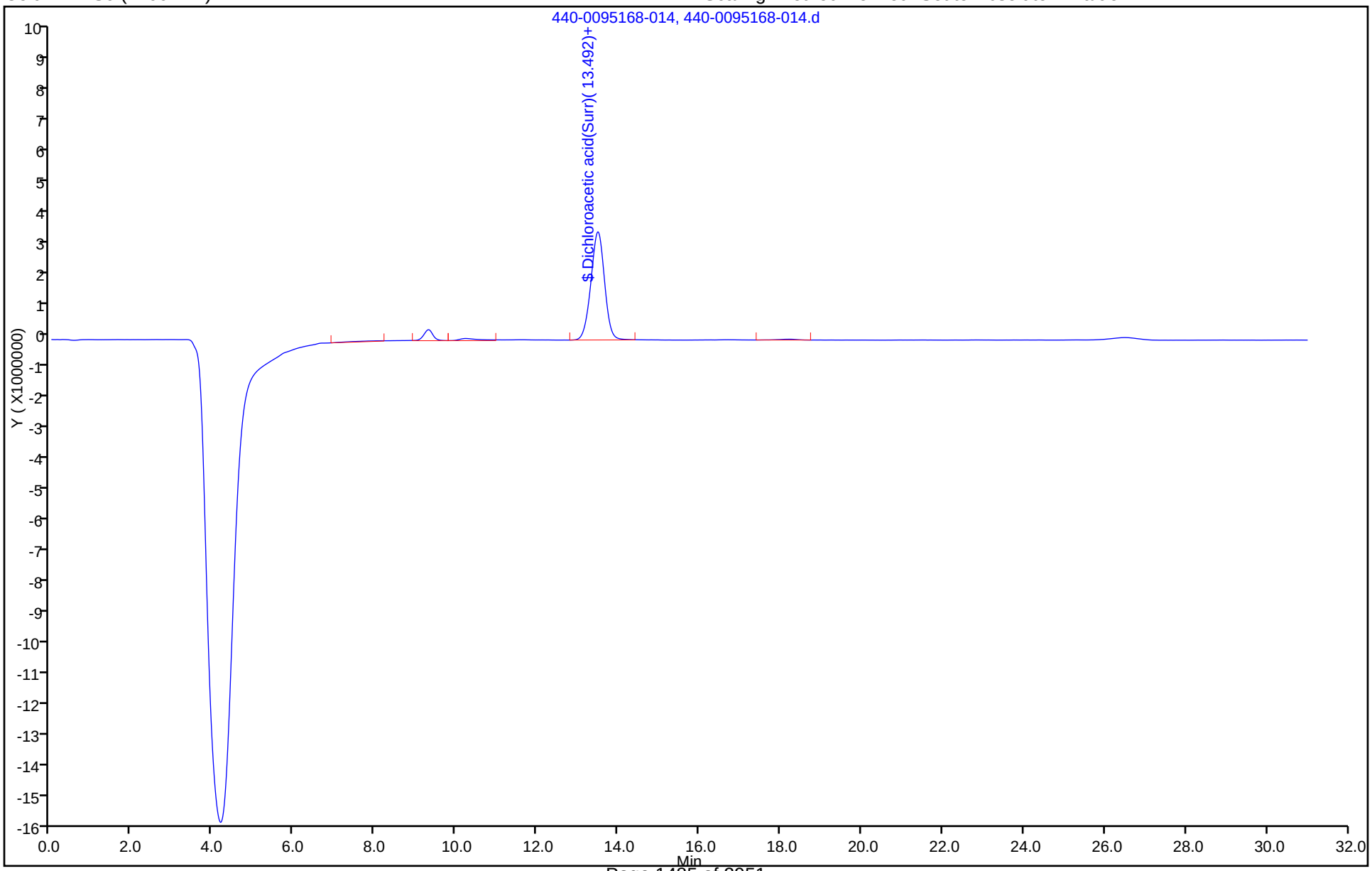
Report Date: 24-Oct-2017 13:28:50 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-014.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 12:49:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | CCB | | | Worklist Smp#: | 14 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 24-Oct-2017 13:28:50 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-014.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 24-Oct-2017 12:49:00 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-014 | | | | |
| Misc. Info.: | 14 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 13:28:49 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 13:28:49 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1006.7 | 101.30 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437026/26

Matrix: Water | Lab File ID: 440-0095168-026.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 20:04

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437026 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-026.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 24-Oct-2017 20:04:00 | ALS Bottle#: | 0 | Worklist Smp#: | 26 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-026 | | | | |
| Misc. Info.: | 26 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 04:06:03 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 04:01:47 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.475 | 13.592 | -0.117 | 81467321 | 993.7 | 1012.2 | |
| $ 1 Dichloroacetic acid | 13.475 | 13.759 | -0.284 | 81467321 | | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

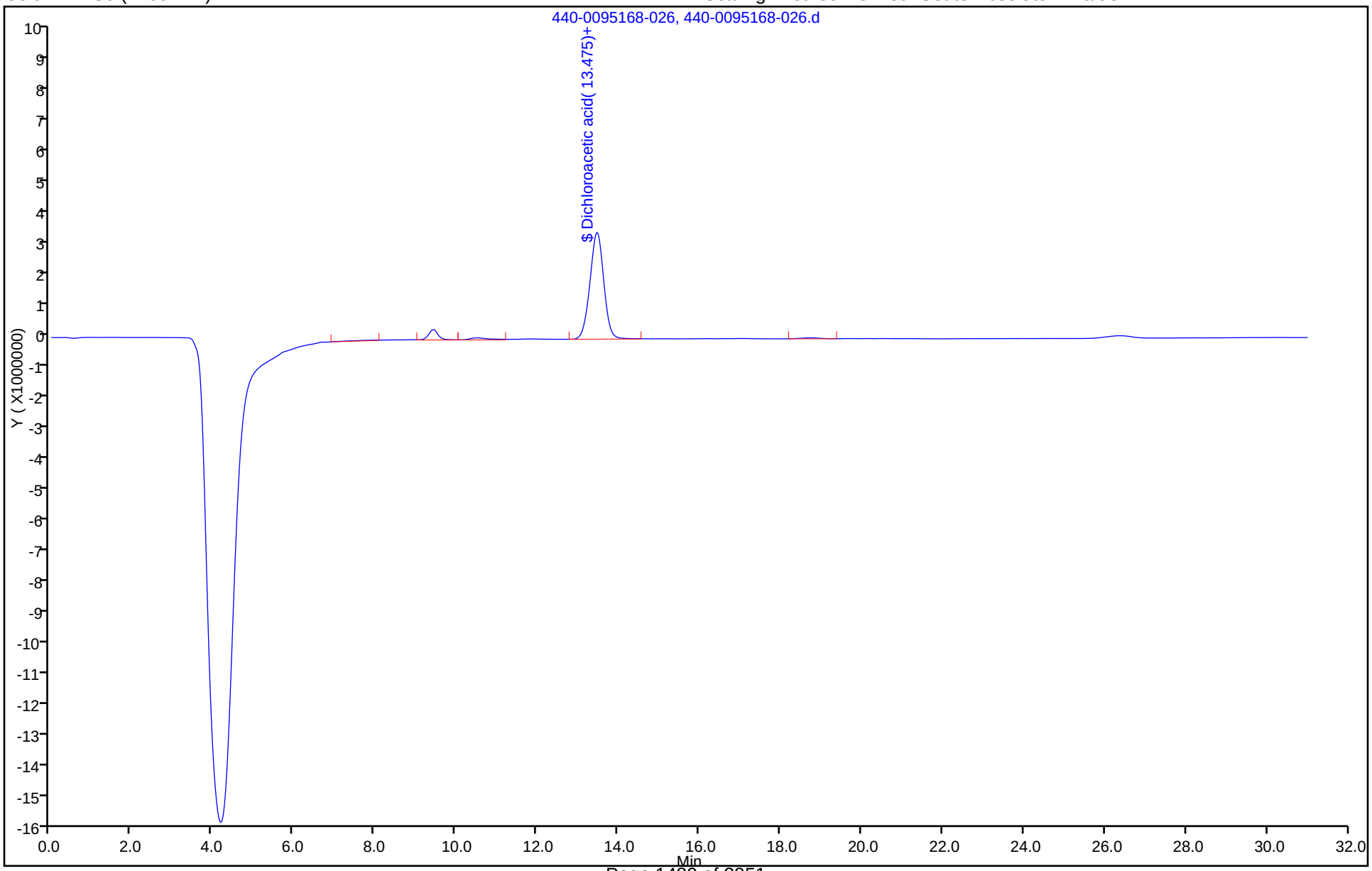
Report Date: 25-Oct-2017 04:06:04 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-026.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 20:04:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | CCB | | | Worklist Smp#: | 26 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 25-Oct-2017 04:06:04 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-026.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 24-Oct-2017 20:04:00 | ALS Bottle#: | 0 | Worklist Smp#: | 26 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-026 | | | | |
| Misc. Info.: | 26 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 04:06:03 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 04:01:47 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1012.2 | 101.86 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-437027/2

Matrix: Water  Lab File ID: 440-0095168-002.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 10/24/2017 05:34

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 437027  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

Report Date: 24-Oct-2017 07:21:40 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-002.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 24-Oct-2017 05:34:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095168-002
Misc. Info.: 2 EB
Operator ID: Instrument ID: IC-8

Method: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 24-Oct-2017 06:59:09 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK049

First Level Reviewer: zakhrabovy Date: 24-Oct-2017 07:12:08

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.475 | 13.592 | -0.117 | 81419714 | 993.7 | 1011.6 | |
| $ 1 Dichloroacetic acid | 13.475 | 13.759 | -0.284 | 81419714 | | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

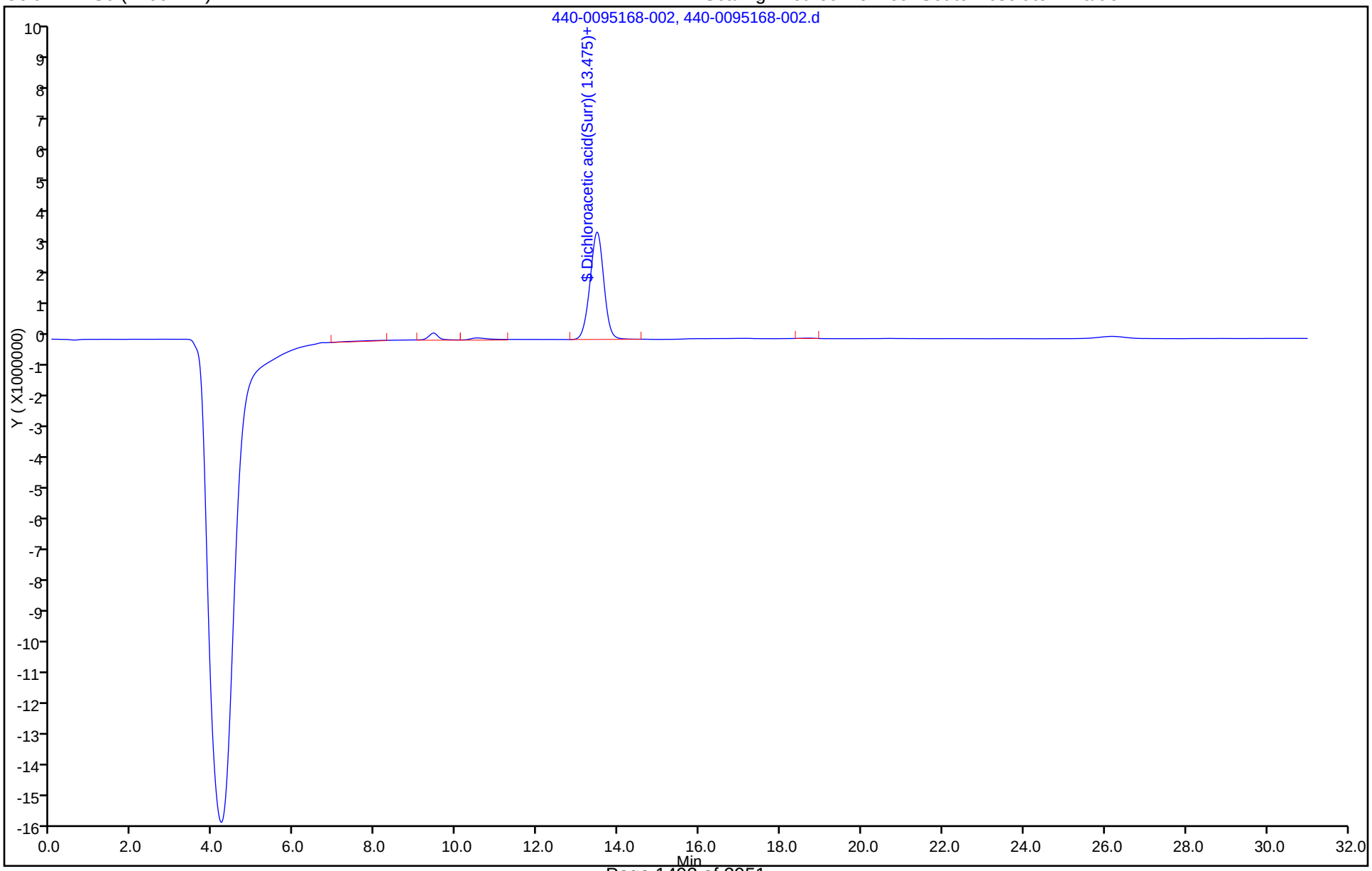
Report Date: 24-Oct-2017 07:21:40 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-002.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 05:34:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | CCB | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 24-Oct-2017 07:21:40 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-002.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 24-Oct-2017 05:34:00 | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-002 | | | | |
| Misc. Info.: | 2 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 06:59:09 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 07:12:08 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1011.6 | 101.80 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-437027/14

Matrix: Water  Lab File ID: 440-0095168-014.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 10/24/2017 12:49

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 437027  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-014.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 24-Oct-2017 12:49:00 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-014 | | | | |
| Misc. Info.: | 14 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 13:28:49 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 13:28:49 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.492 | 13.592 | -0.100 | 81020889 | 993.7 | 1006.7 | |
| $ 1 Dichloroacetic acid | 13.492 | 13.759 | -0.267 | 81020889 | | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

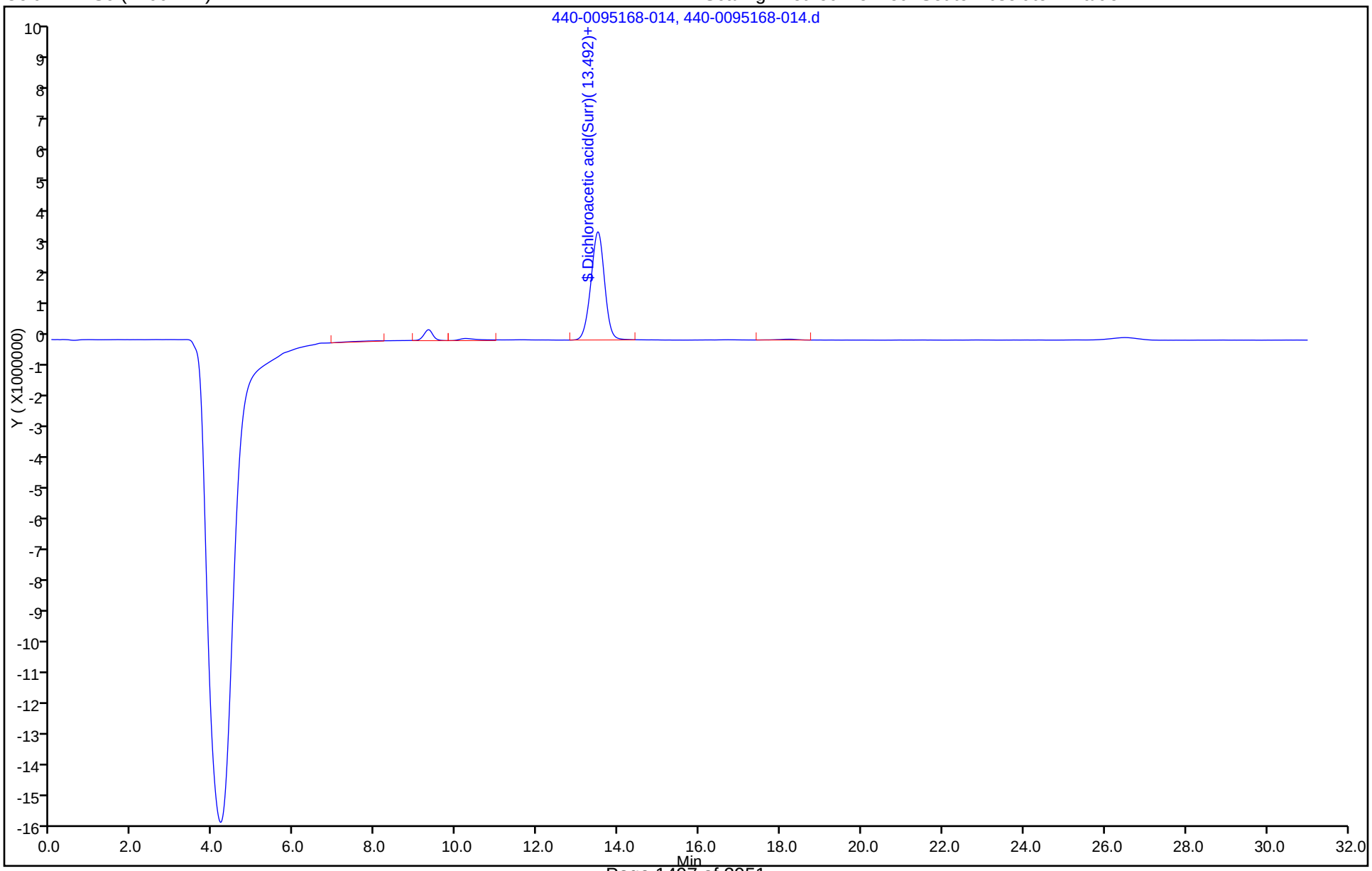
Report Date: 24-Oct-2017 13:28:50 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-014.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 12:49:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | CCB | | | Worklist Smp#: | 14 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-014.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 24-Oct-2017 12:49:00 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-014 | | | | |
| Misc. Info.: | 14 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 13:28:49 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 13:28:49 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1006.7 | 101.30 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437027/26

Matrix: Water | Lab File ID: 440-0095168-026.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 20:04

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437027 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-026.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 24-Oct-2017 20:04:00 | ALS Bottle#: | 0 | Worklist Smp#: | 26 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-026 | | | | |
| Misc. Info.: | 26 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 04:06:03 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 04:01:47 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.475 | 13.592 | -0.117 | 81467321 | 993.7 | 1012.2 | |
| $ 1 Dichloroacetic acid | 13.475 | 13.759 | -0.284 | 81467321 | | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

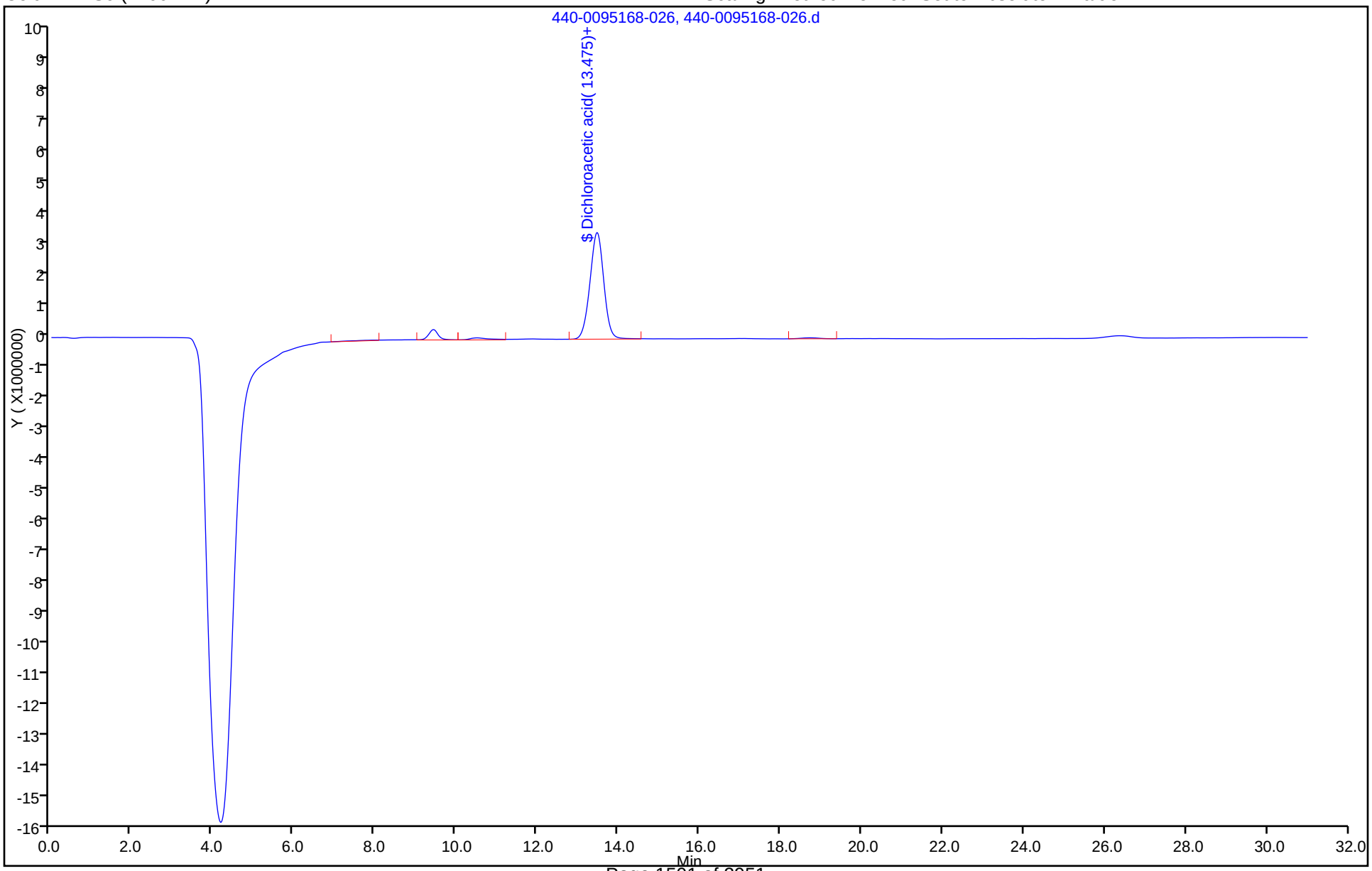
Report Date: 25-Oct-2017 04:06:04 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-026.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 20:04:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | CCB | | | Worklist Smp#: | 26 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-026.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 24-Oct-2017 20:04:00 | ALS Bottle#: | 0 | Worklist Smp#: | 26 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-026 | | | | |
| Misc. Info.: | 26 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 04:06:03 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 04:01:47 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1012.2 | 101.86 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437272/35

Matrix: Solid | Lab File ID: 20171025035.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/26/2017 05:40

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437272 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025035.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 26-Oct-2017 05:40:57 | ALS Bottle#: | 0 | Worklist Smp#: | 35 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-023 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 08:29:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 06:23:10 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.589 | 13.557 | 0.032 | 14310484 | 993.7 | 1008.4 | |
| $ 1 Dichloroacetic acid | 13.589 | 14.113 | -0.524 | 14310484 | | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

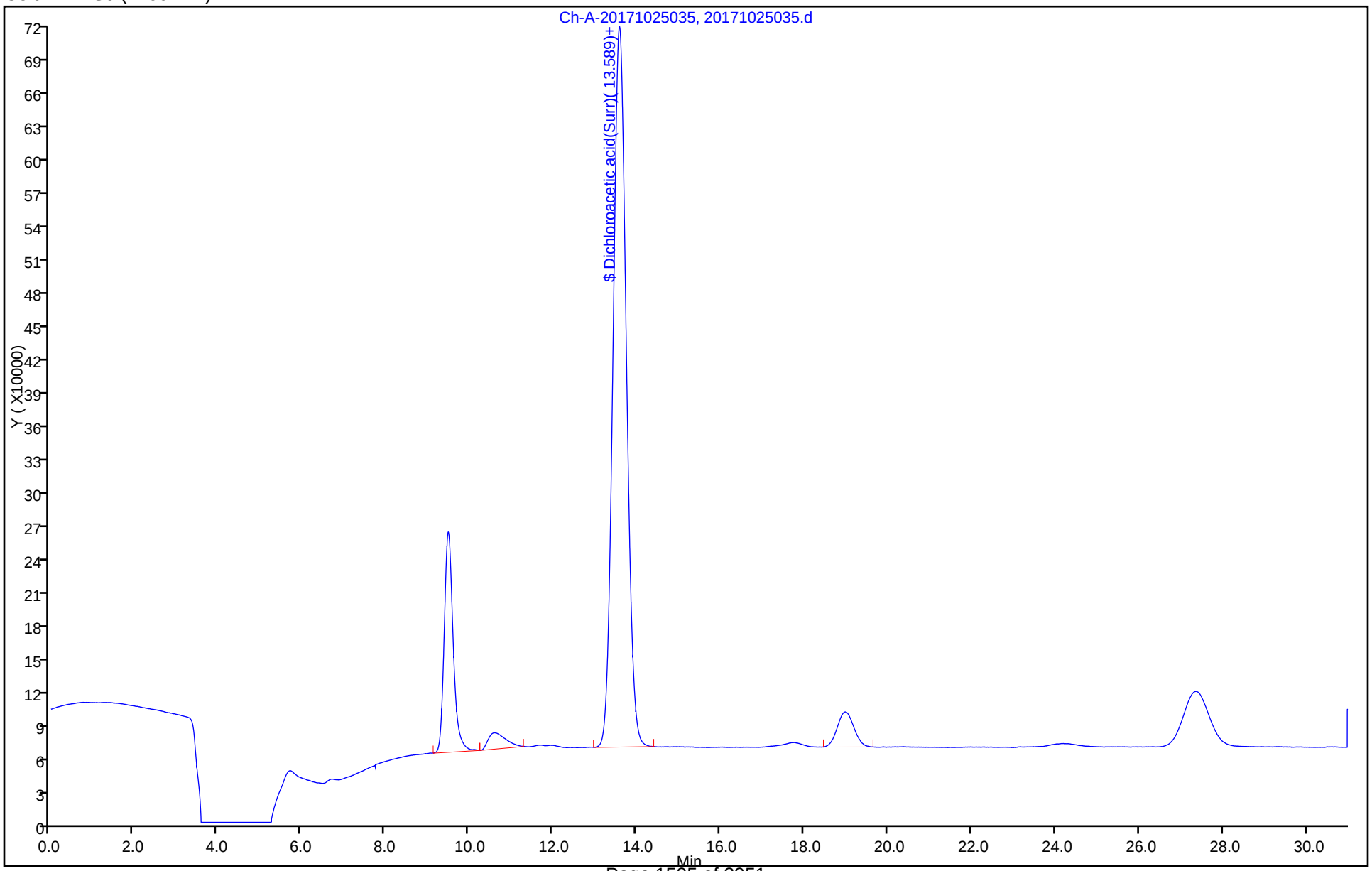
Report Date: 26-Oct-2017 08:29:45 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025035.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 05:40:57 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 35 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025035.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 26-Oct-2017 05:40:57 | ALS Bottle#: | 0 | Worklist Smp#: | 35 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-023 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 08:29:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 06:23:10 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1008.4 | 101.48 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437272/43

Matrix: Solid | Lab File ID: 20171025043.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/26/2017 10:06

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437272 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025043.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 26-Oct-2017 10:06:28 | ALS Bottle#: | 0 | Worklist Smp#: | 43 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-043 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 11:39:14 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 10:47:51 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.624 | 13.557 | 0.067 | 14451954 | 993.7 | 1018.4 | |
| $ 1 Dichloroacetic acid | 13.624 | 14.113 | -0.489 | 14451954 | | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

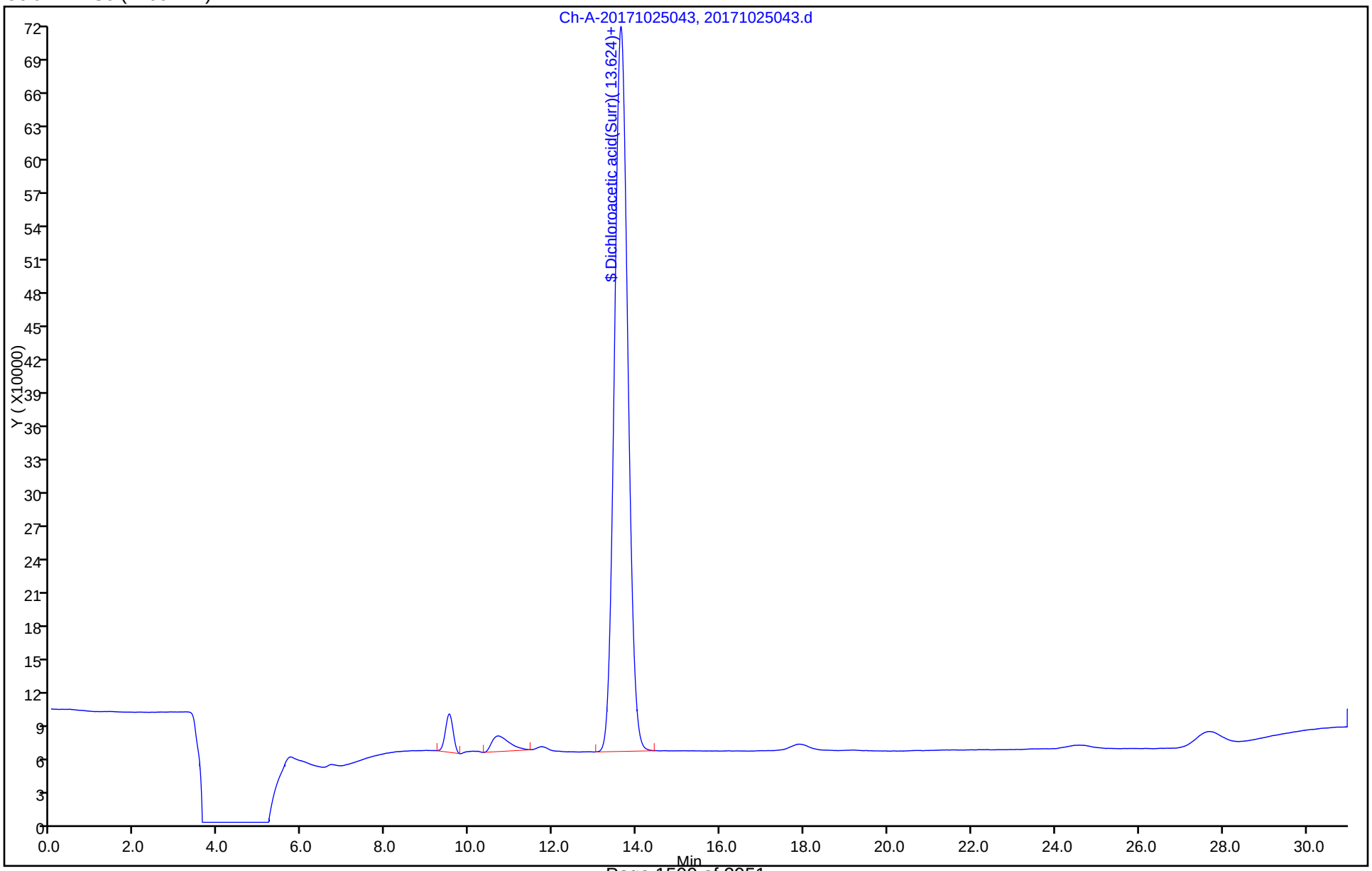
Report Date: 26-Oct-2017 10:47:52 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025043.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 10:06:28 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 43 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025043.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 26-Oct-2017 10:06:28 | ALS Bottle#: | 0 | Worklist Smp#: | 43 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-043 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 11:39:14 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 10:47:51 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1018.4 | 102.49 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-437275/2

Matrix: Water  Lab File ID: 440-0095228-002.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 10/25/2017 04:50

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 437275  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-002.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 25-Oct-2017 04:50:00 | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095228-002 | | | | |
| Misc. Info.: | 2 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 07:03:34 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 06:18:09 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.467 | 13.592 | -0.125 | 82364371 | 993.7 | 1023.4 | |
| $ 1 Dichloroacetic acid | 13.467 | 13.759 | -0.292 | 82364371 | | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

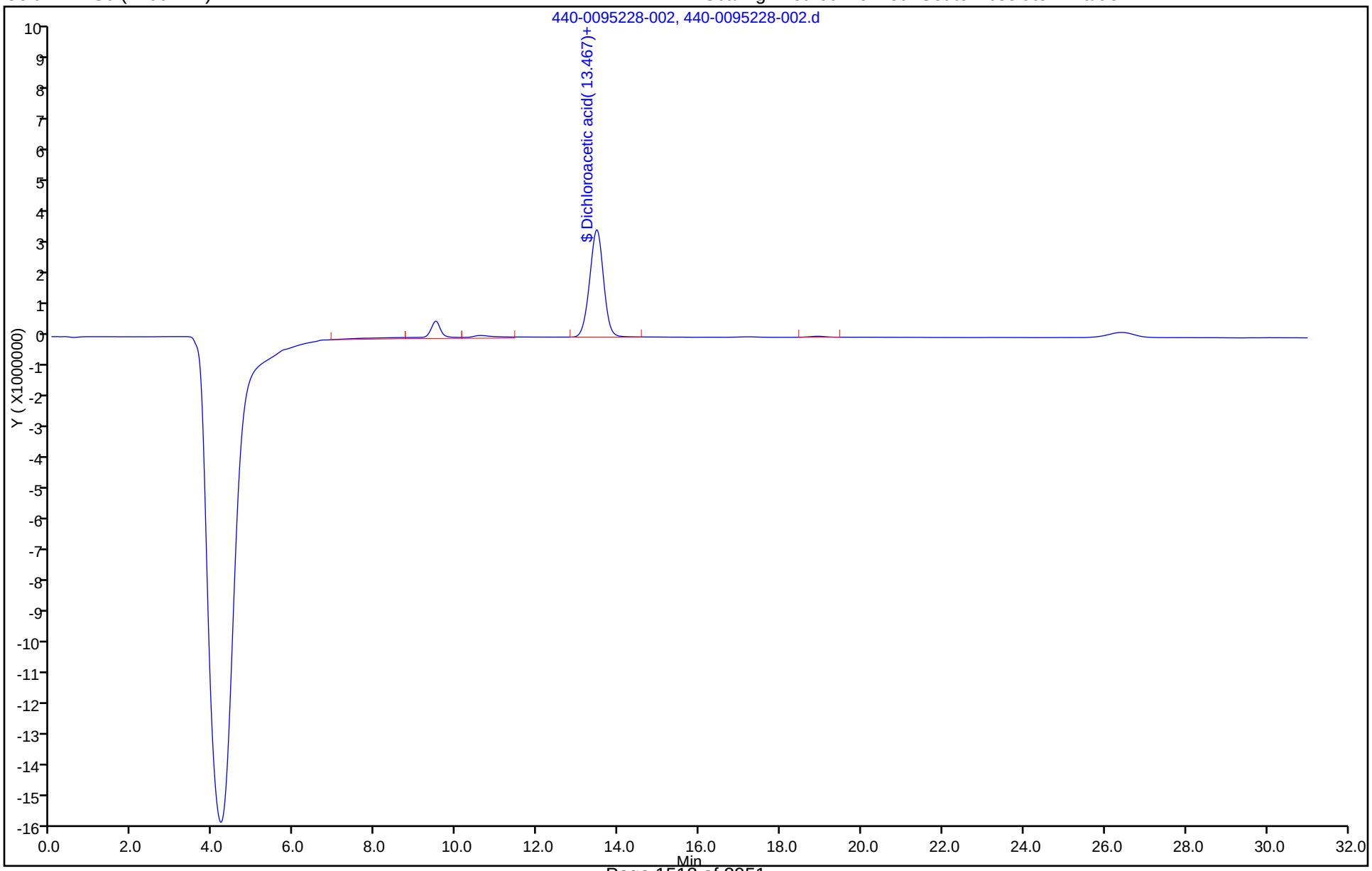
Report Date: 25-Oct-2017 07:03:38 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-002.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Oct-2017 04:50:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | CCB | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 25-Oct-2017 07:03:38 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-002.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 25-Oct-2017 04:50:00 | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095228-002 | | | | |
| Misc. Info.: | 2 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 07:03:34 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 06:18:09 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1023.4 | 102.98 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437275/14

Matrix: Water | Lab File ID: 440-0095228-014.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/25/2017 12:40

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437275 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 111 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-014.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 25-Oct-2017 12:40:00 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095228-014 | | | | |
| Misc. Info.: | 14 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 03:36:41 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 03:35:25 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.734 | 13.592 | 0.142 | 88494758 | 993.7 | 1099.5 | |
| $ 1 Dichloroacetic acid | 13.734 | 13.759 | -0.025 | 88494758 | | NC | |
| 2 Chlorate | 17.234 | 17.400 | -0.166 | 428317 | | NC | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

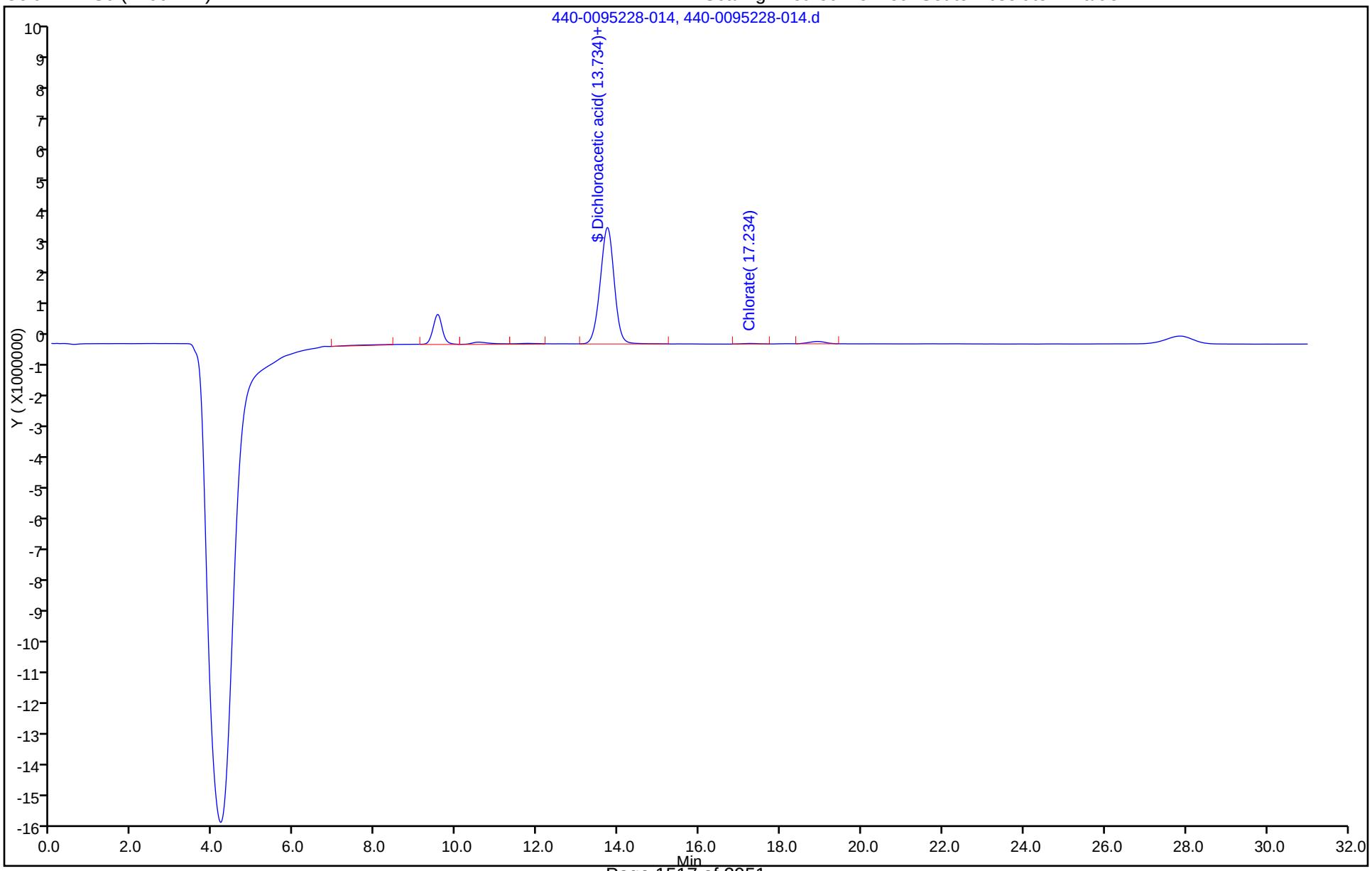
Report Date: 26-Oct-2017 03:36:43 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-014.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Oct-2017 12:40:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | CCB | | | Worklist Smp#: | 14 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-014.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 25-Oct-2017 12:40:00 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095228-014 | | | | |
| Misc. Info.: | 14 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 03:36:41 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 03:35:25 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1099.5 | 110.65 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437275/26

Matrix: Water | Lab File ID: 440-0095228-026.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/25/2017 19:55

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437275 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

Report Date: 26-Oct-2017 04:28:44 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-026.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 25-Oct-2017 19:55:00 | ALS Bottle#: | 0 | Worklist Smp#: | 26 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095228-026 | | | | |
| Misc. Info.: | 26 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 04:28:17 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 03:32:09 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.725 | 13.592 | 0.133 | 80794228 | 993.7 | 1003.9 | |
| $ 1 Dichloroacetic acid | 13.725 | 13.759 | -0.034 | 80794228 | | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

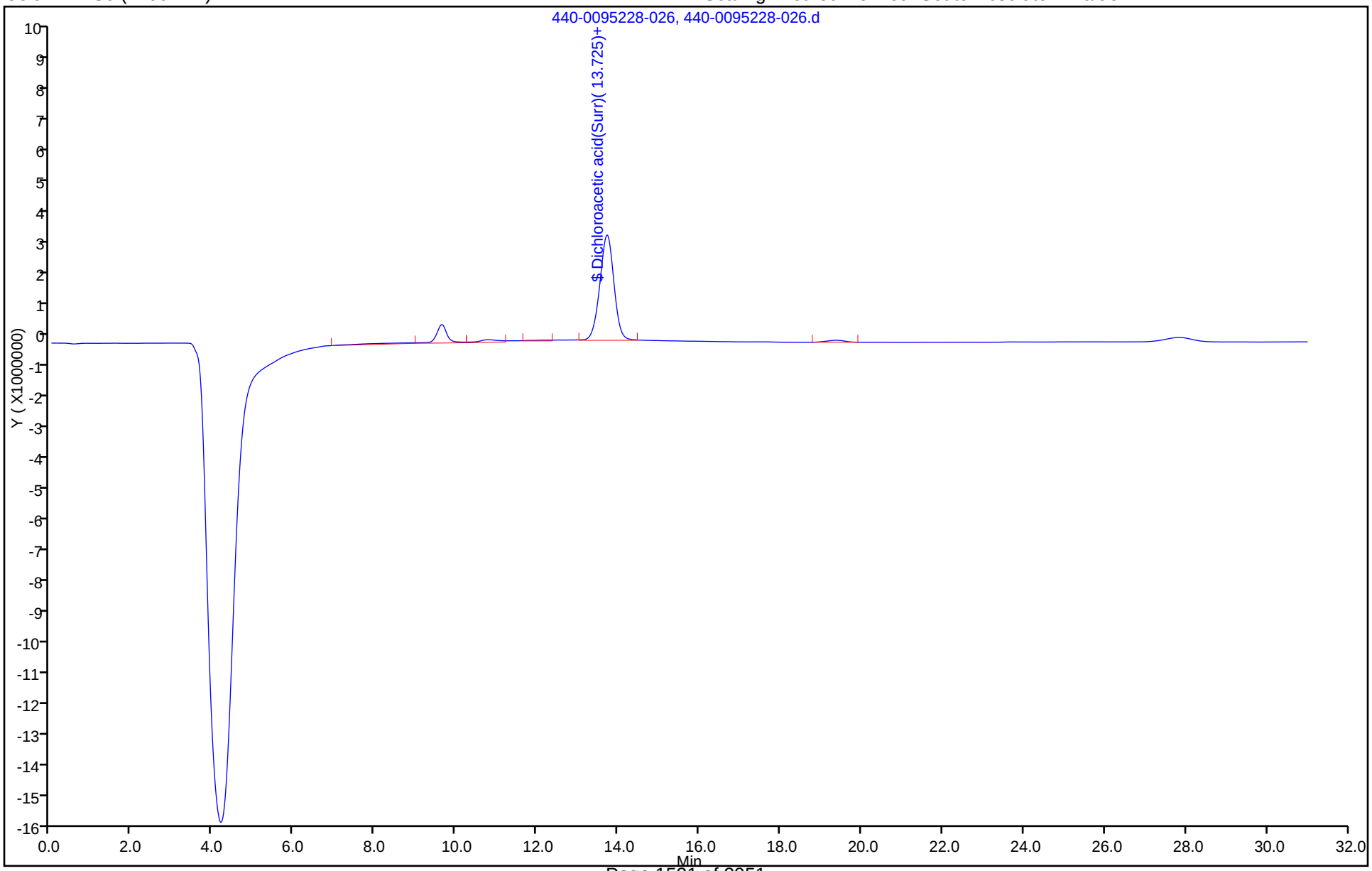
Report Date: 26-Oct-2017 04:28:44 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-026.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Oct-2017 19:55:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | CCB | | | Worklist Smp#: | 26 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 26-Oct-2017 04:28:44 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-026.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 25-Oct-2017 19:55:00 | ALS Bottle#: | 0 | Worklist Smp#: | 26 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095228-026 | | | | |
| Misc. Info.: | 26 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 04:28:17 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 03:32:09 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1003.9 | 101.02 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437778/35

Matrix: Solid | Lab File ID: 20171027035.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/28/2017 02:54

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437778 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\20171027035.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 28-Oct-2017 02:54:39 | ALS Bottle#: | 0 | Worklist Smp#: | 35 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095341-035 | | | | |
| Misc. Info.: | Study: 95341 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 28-Oct-2017 04:55:39 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK048 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.840 | 13.557 | 0.283 | 14417738 | 993.7 | 1018.6 | |
| $ 1 Dichloroacetic acid | 13.840 | 14.113 | -0.273 | 14417738 | | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

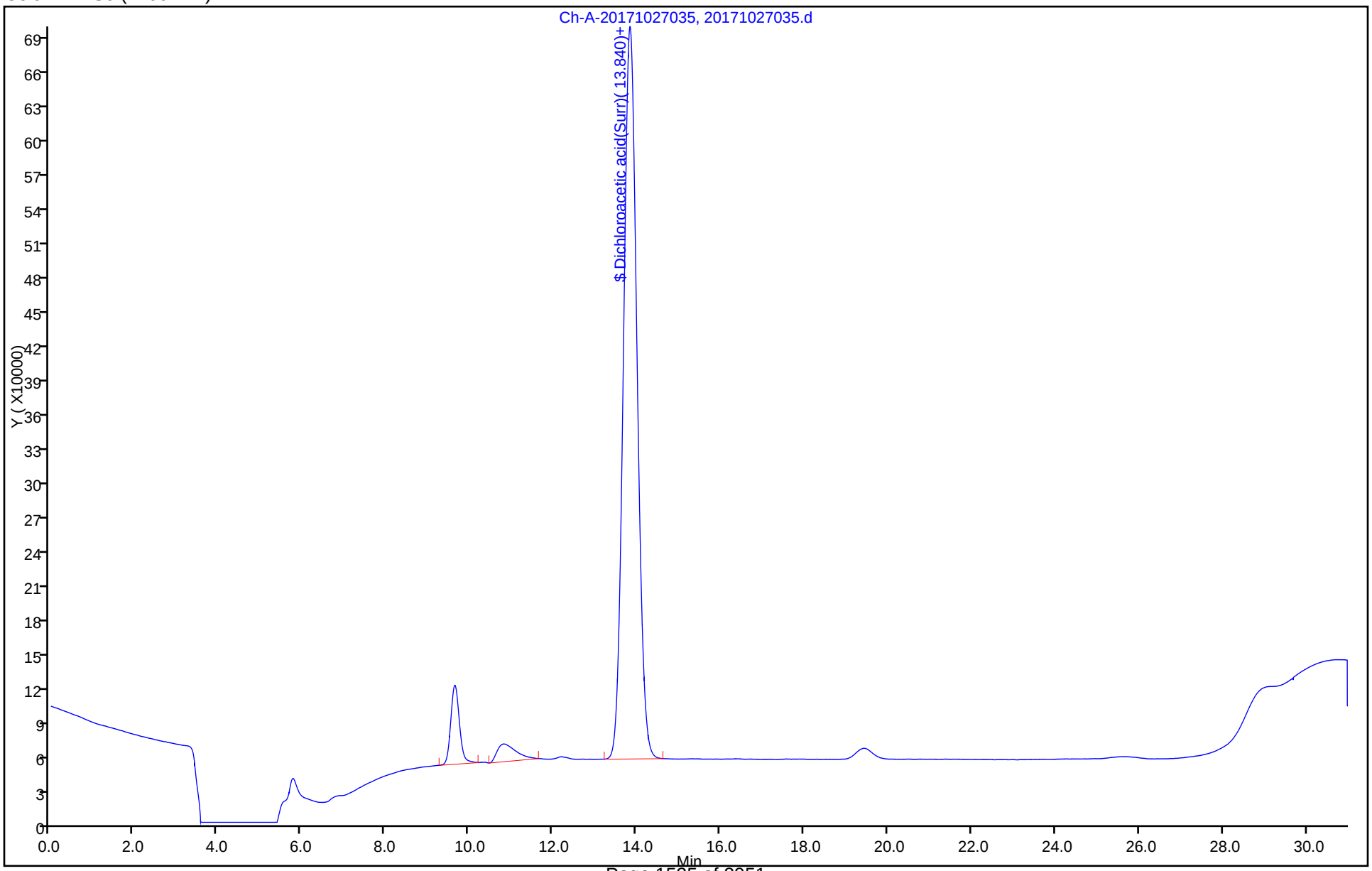
Report Date: 28-Oct-2017 04:55:40 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\20171027035.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 02:54:39 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 35 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\20171027035.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 28-Oct-2017 02:54:39 | ALS Bottle#: | 0 | Worklist Smp#: | 35 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095341-035 | | | | |
| Misc. Info.: | Study: 95341 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 28-Oct-2017 04:55:39 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK048 | | | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1018.6 | 102.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437778/47

Matrix: Solid | Lab File ID: 20171027047.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/28/2017 09:48

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437778 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\20171027047.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 28-Oct-2017 09:48:00 ALS Bottle#: 0 Worklist Smp#: 47
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095341-035
Misc. Info.: Study: 95341 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11

Method: \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\300.1_C11.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 28-Oct-2017 10:23:08 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK048

First Level Reviewer: zakhrabovy Date: 28-Oct-2017 10:23:23

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.853 | 13.557 | 0.296 | 14376927 | 993.7 | 1015.7 | |
| $ 1 Dichloroacetic acid | 13.853 | 14.113 | -0.260 | 14376927 | | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

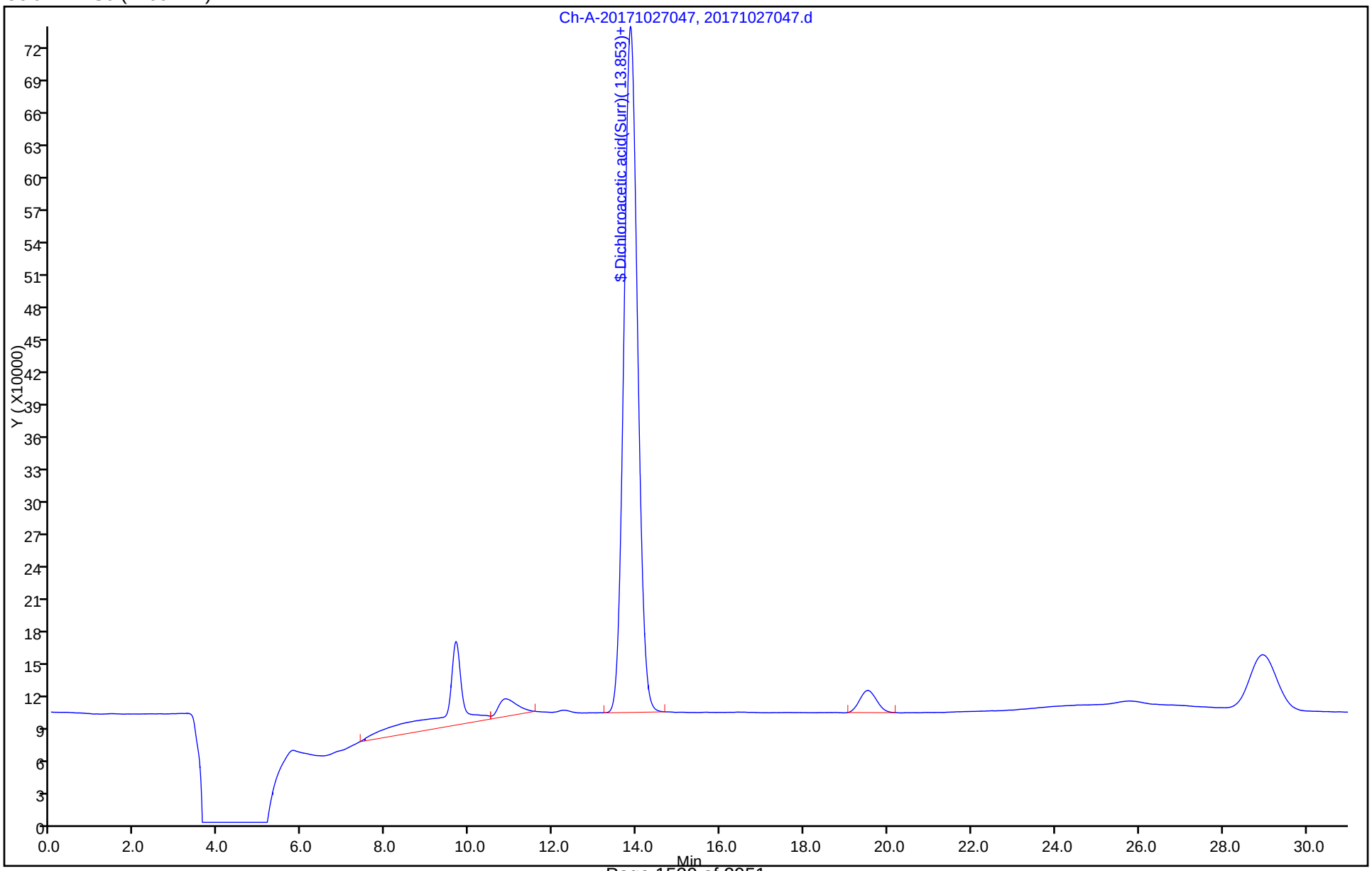
Report Date: 28-Oct-2017 10:23:23 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\20171027047.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 09:48:00 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 47 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\20171027047.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 28-Oct-2017 09:48:00 ALS Bottle#: 0 Worklist Smp#: 47
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095341-035
Misc. Info.: Study: 95341 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11

Method: \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\300.1_C11.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 28-Oct-2017 10:23:08 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK048

First Level Reviewer: zakhrabovy Date: 28-Oct-2017 10:23:23

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1015.7 | 102.21 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-436671/1-A

Matrix: Solid (Soluble) | Lab File ID: 20171023011.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 10:46

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436780 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 1000 | | 200 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023011.d | | | | |
| Lims ID: | LCS 440-436671/1-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 23-Oct-2017 10:46:43 | ALS Bottle#: | 0 | Worklist Smp#: | 11 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-011 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 14:31:28 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 13:04:48 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.233 | 7.332 | -0.100 | 2631236 | NC | NC | |
| 3 Bromate | 8.253 | 8.378 | -0.125 | 363680 | 25.0 | 23.4 | |
| $ 6 Dichloroacetic acid(Surr) | 13.371 | 13.557 | -0.186 | 13996524 | 993.7 | 988.8 | |
| 4 Bromide | 15.651 | 15.991 | -0.340 | 6528406 | 250.0 | 250.0 | |
| 2 Chlorate | 16.952 | 17.362 | -0.410 | 2441359 | 100.0 | 100.2 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

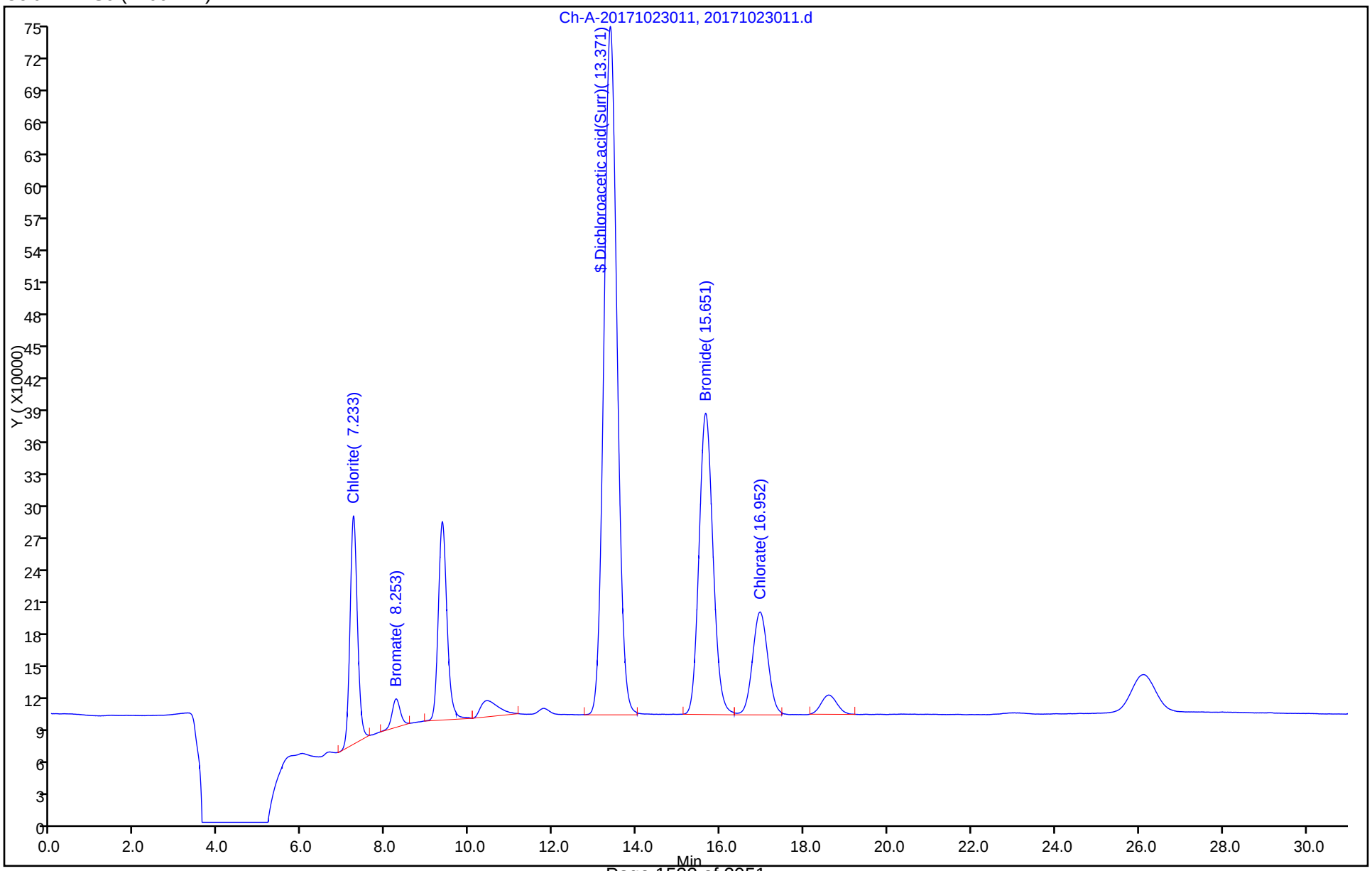
Report Date: 23-Oct-2017 13:48:11 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023011.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 10:46:43 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | LCS 440-436671/1-A | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023011.d | | | | |
| Lims ID: | LCS 440-436671/1-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 23-Oct-2017 10:46:43 | ALS Bottle#: | 0 | Worklist Smp#: | 11 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-011 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 14:31:28 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 13:04:48 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 988.8 | 99.51 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-436671/1-A

Matrix: Solid (Soluble) | Lab File ID: 20171023011.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 10:46

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 954 | | 200 | 40 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 440-436671/1-A

Matrix: Solid (Soluble) Lab File ID: 20171023011.d

Analysis Method: 300.1B Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 10/23/2017 10:46

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: AS14 ID: 4(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 99 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023011.d | | | | |
| Lims ID: | LCS 440-436671/1-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 23-Oct-2017 10:46:43 | ALS Bottle#: | 0 | Worklist Smp#: | 11 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-011 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 14:31:28 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 13:04:48 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.233 | 7.332 | -0.100 | 2631236 | 100.0 | 95.6 | |
| 3 Bromate | 8.253 | 8.378 | -0.125 | 363680 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.371 | 13.557 | -0.186 | 13996524 | 993.7 | 986.3 | |
| 4 Bromide | 15.651 | 15.991 | -0.340 | 6528406 | NC | NC | |
| 2 Chlorate | 16.952 | 17.362 | -0.410 | 2441359 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

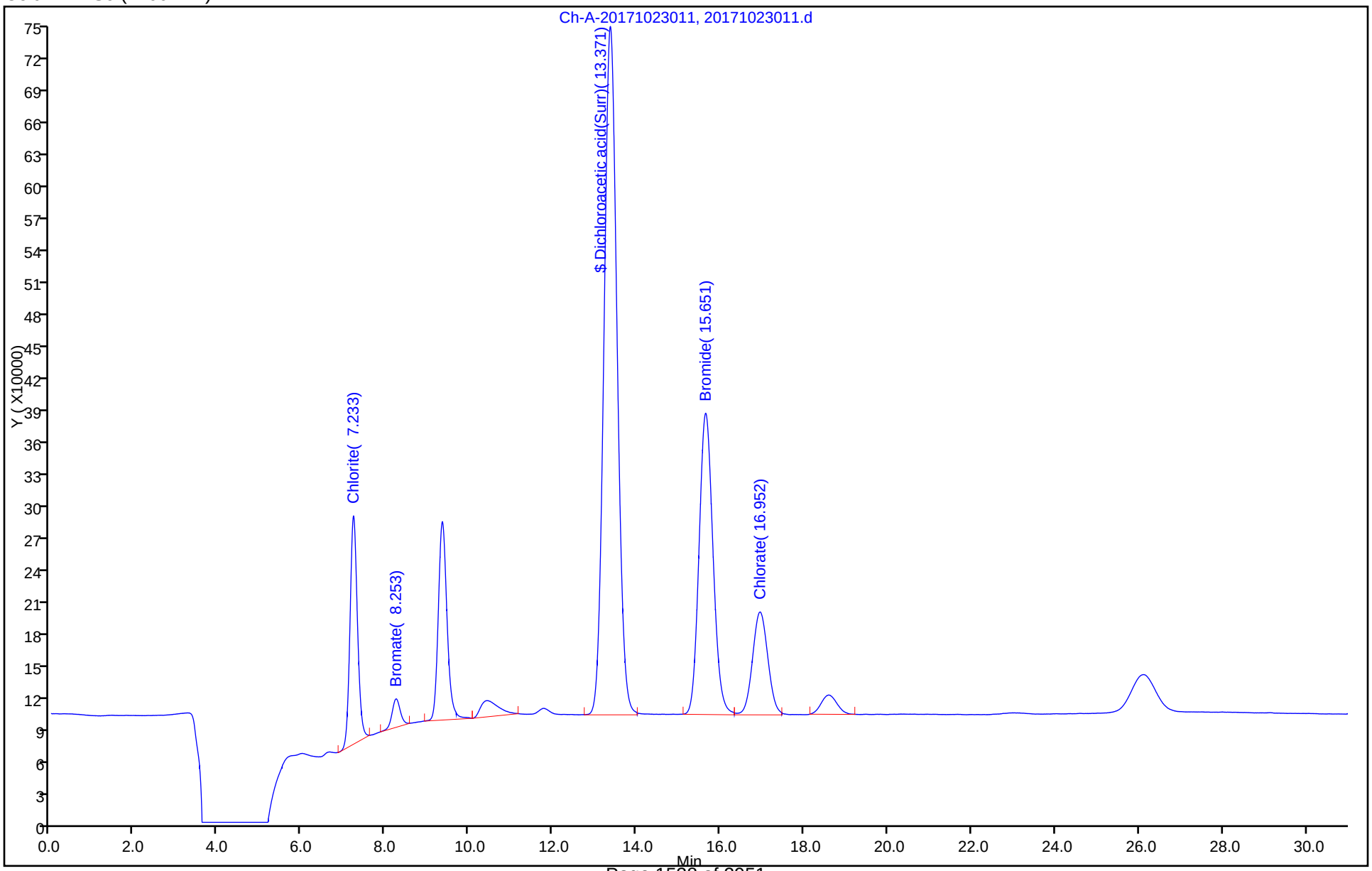
Report Date: 23-Oct-2017 13:48:10 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023011.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 10:46:43 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | LCS 440-436671/1-A | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023011.d
Lims ID: LCS 440-436671/1-A
Client ID:
Sample Type: LCS
Inject. Date: 23-Oct-2017 10:46:43 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095116-011
Misc. Info.: Study: 95116 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11

Method: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 23-Oct-2017 14:31:28 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK052

First Level Reviewer: zakhrabovy Date: 23-Oct-2017 13:04:48

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 986.3 | 99.26 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-437026/4

Matrix: Water | Lab File ID: 440-0095168-004.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 06:46

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437026 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 104 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 24-Oct-2017 06:46:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095168-004
Misc. Info.: 4 EB
Operator ID: Instrument ID: IC-8

Method: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 24-Oct-2017 08:45:42 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK049

First Level Reviewer: zakhrabovy Date: 24-Oct-2017 08:45:42

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.292 | 7.192 | 0.100 | 14753783 | NC | NC | M |
| 3 Bromate | 8.317 | 8.250 | 0.067 | 2078957 | 25.0 | 26.0 | M |
| $ 6 Dichloroacetic acid(Surr) | 13.467 | 13.592 | -0.125 | 82409825 | 993.7 | 1023.9 | |
| 4 Bromide | 15.808 | 15.967 | -0.159 | 37320353 | 250.0 | 251.7 | |
| 2 Chlorate | 17.092 | 17.400 | -0.308 | 13909593 | 100.0 | 104.2 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00054 Amount Added: 125.00 Units: uL
WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

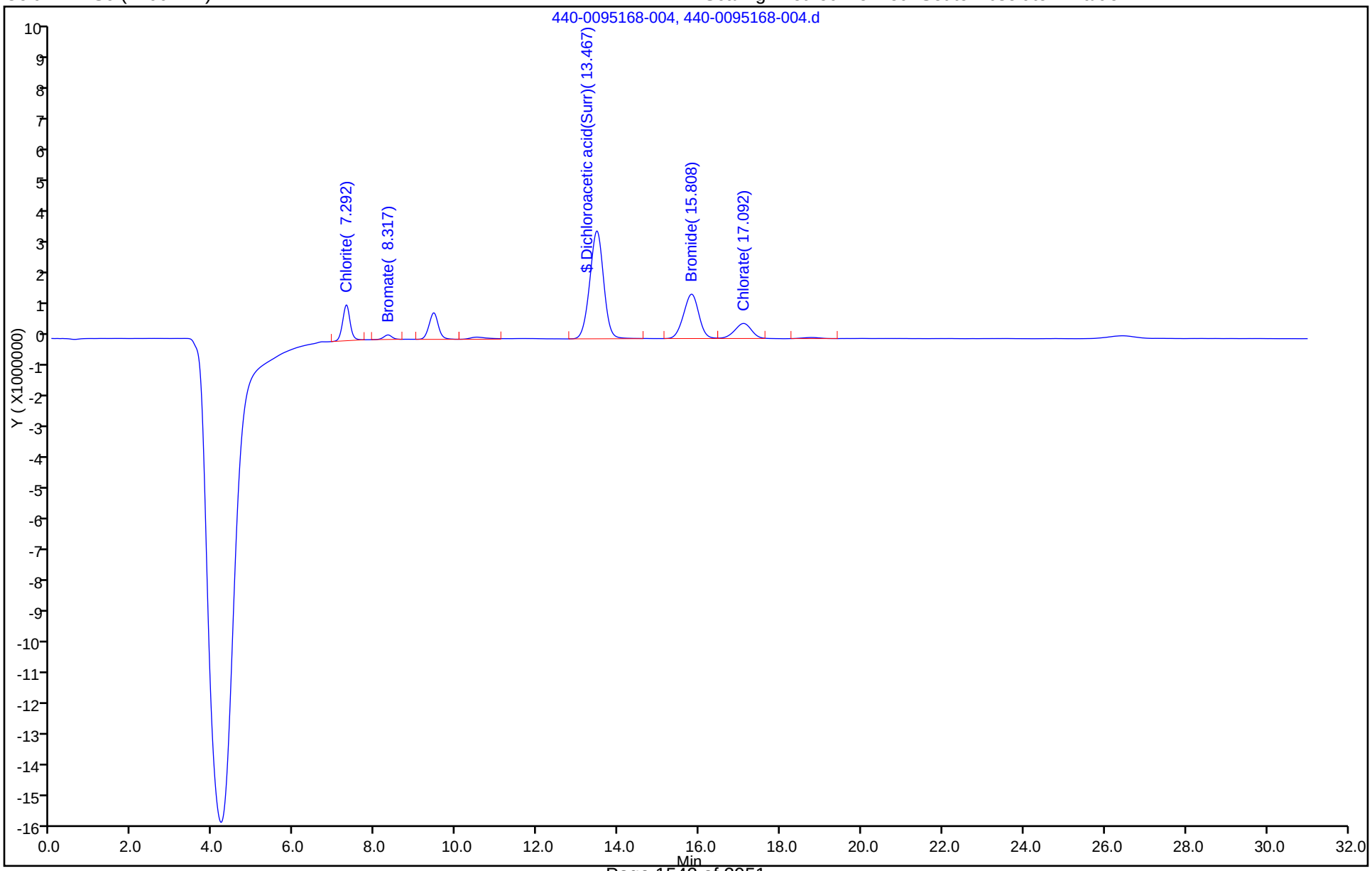
Report Date: 24-Oct-2017 08:45:44 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-004.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 06:46:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | LCS | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 24-Oct-2017 08:45:44 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-004.d | | | | |
| Lims ID: | LCS | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 24-Oct-2017 06:46:00 | ALS Bottle#: | 0 | Worklist Smp#: | 4 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-004 | | | | |
| Misc. Info.: | 4 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 08:45:42 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 08:45:42 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1023.9 | 103.04 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-437027/4

Matrix: Water | Lab File ID: 440-0095168-004.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 06:46

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437027 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 98.5 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 24-Oct-2017 06:46:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095168-004
Misc. Info.: 4 EB
Operator ID: Instrument ID: IC-8

Method: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 24-Oct-2017 08:45:42 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK049

First Level Reviewer: zakhrabovy Date: 24-Oct-2017 08:45:42

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.292 | 7.192 | 0.100 | 14753783 | 100.0 | 98.5 | M |
| 3 Bromate | 8.317 | 8.250 | 0.067 | 2078957 | NC | NC | M |
| $ 6 Dichloroacetic acid(Surr) | 13.467 | 13.592 | -0.125 | 82409825 | 993.7 | 1023.9 | |
| 4 Bromide | 15.808 | 15.967 | -0.159 | 37320353 | NC | NC | |
| 2 Chlorate | 17.092 | 17.400 | -0.308 | 13909593 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00054 Amount Added: 125.00 Units: uL
WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

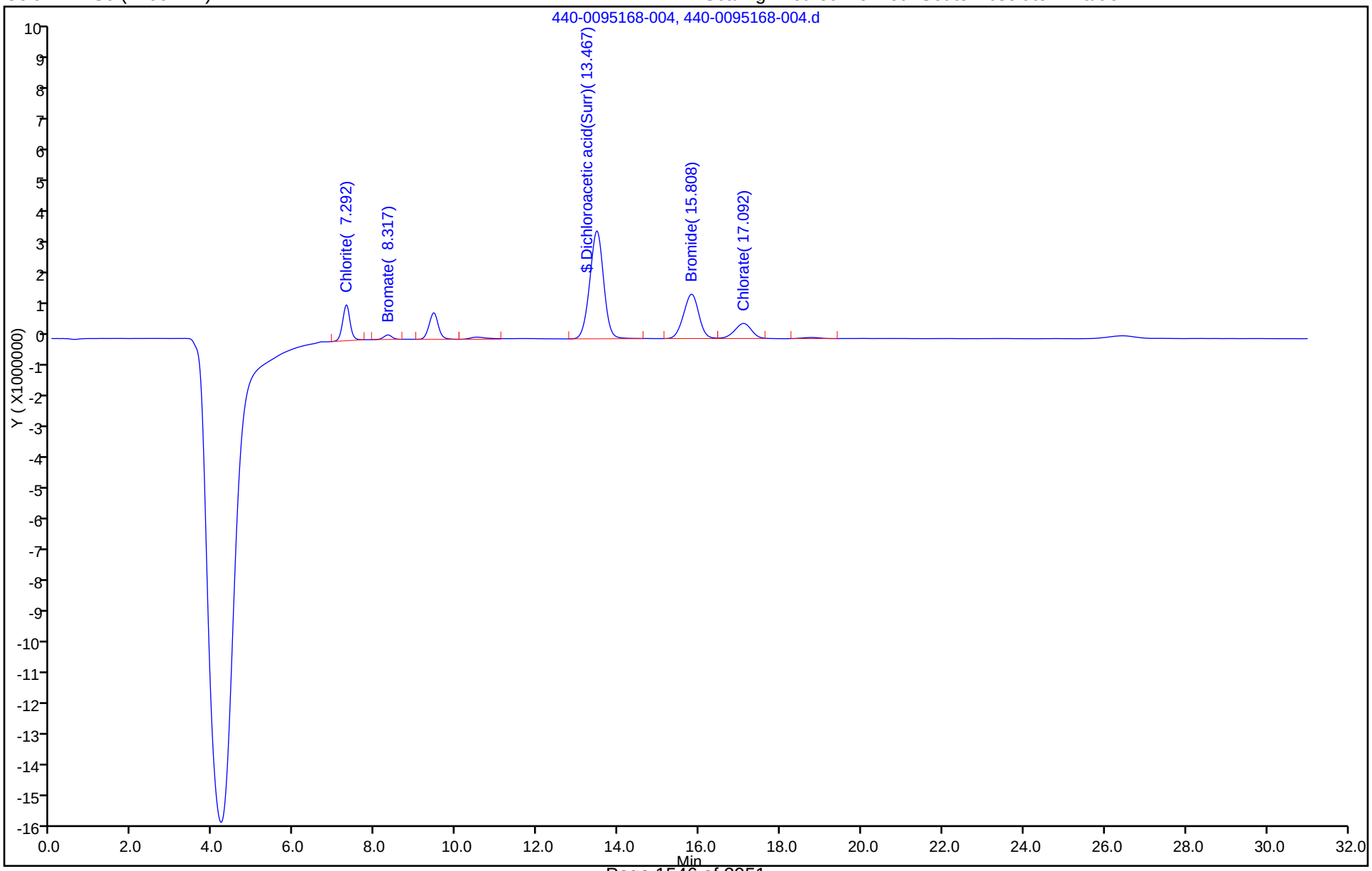
Report Date: 24-Oct-2017 08:45:45 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-004.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 06:46:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | LCS | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Recovery Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 24-Oct-2017 06:46:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095168-004
Misc. Info.: 4 EB
Operator ID: Instrument ID: IC-8

Method: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 24-Oct-2017 08:45:42 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK049

First Level Reviewer: zakhrabovy Date: 24-Oct-2017 08:45:42

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1023.9 | 103.04 |

Manual Integration/User Assign Peak Report

TestAmerica Irvine

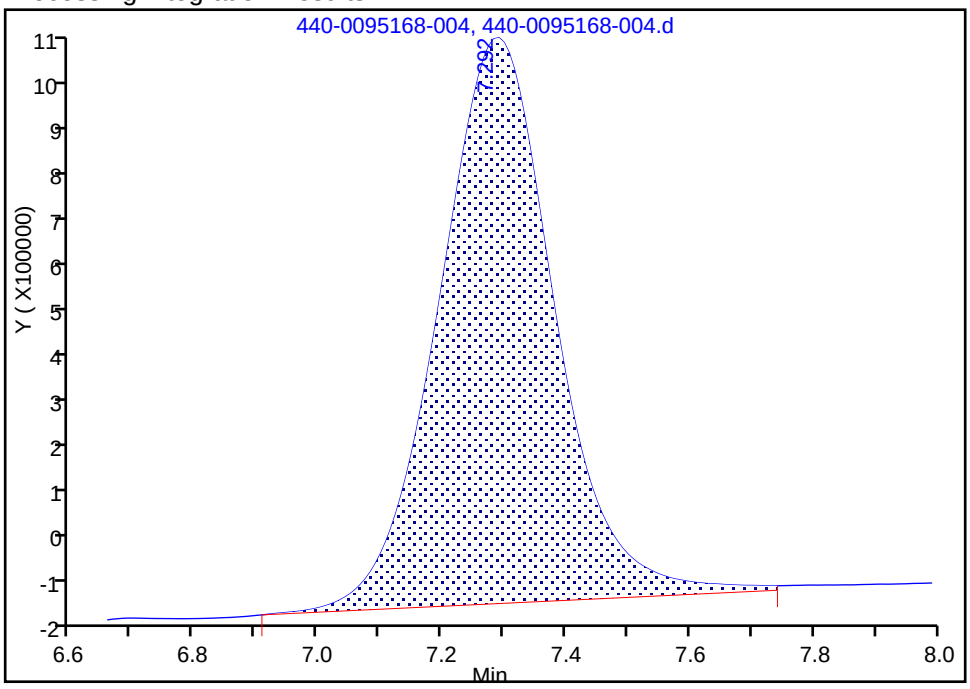
Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-004.d
Injection Date: 24-Oct-2017 06:46:00 Instrument ID: IC-8
Lims ID: LCS
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C8 Limit Group: IC-300.1_14D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## 5 Chlorite, CAS: 14998-27-7

Signal: 1

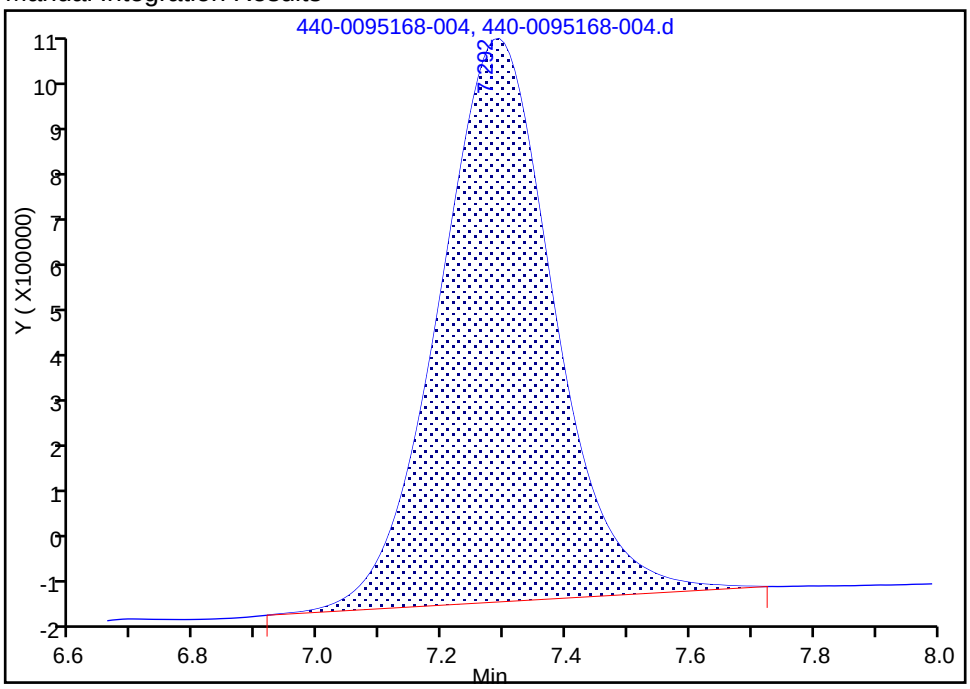
Processing Integration Results

RT: 7.29
Area: 15026850
Amount: 0
Amount Units: ug/l




Manual Integration Results

RT: 7.29
Area: 14753783
Amount: 98.468157
Amount Units: ug/l




Reviewer: zakhrabovy, 24-Oct-2017 08:45:37
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-437275/4

Matrix: Water | Lab File ID: 440-0095228-004.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/25/2017 06:19

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437275 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 107 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 104 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 25-Oct-2017 06:19:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095228-004
Misc. Info.: 4 EB
Operator ID: Instrument ID: IC-8

Method: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\300.1_C8.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 25-Oct-2017 07:03:34 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK047

First Level Reviewer: zakhrabovy Date: 25-Oct-2017 07:03:26

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.300 | 7.192 | 0.108 | 16019427 | 100.0 | 106.7 | |
| 3 Bromate | 8.325 | 8.250 | 0.075 | 2189843 | NC | NC | M |
| $ 6 Dichloroacetic acid(Surr) | 13.484 | 13.592 | -0.108 | 83547132 | 993.7 | 1038.1 | |
| 4 Bromide | 15.817 | 15.967 | -0.150 | 38356682 | NC | NC | |
| 2 Chlorate | 17.092 | 17.400 | -0.308 | 14527825 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00054 Amount Added: 125.00 Units: uL
WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

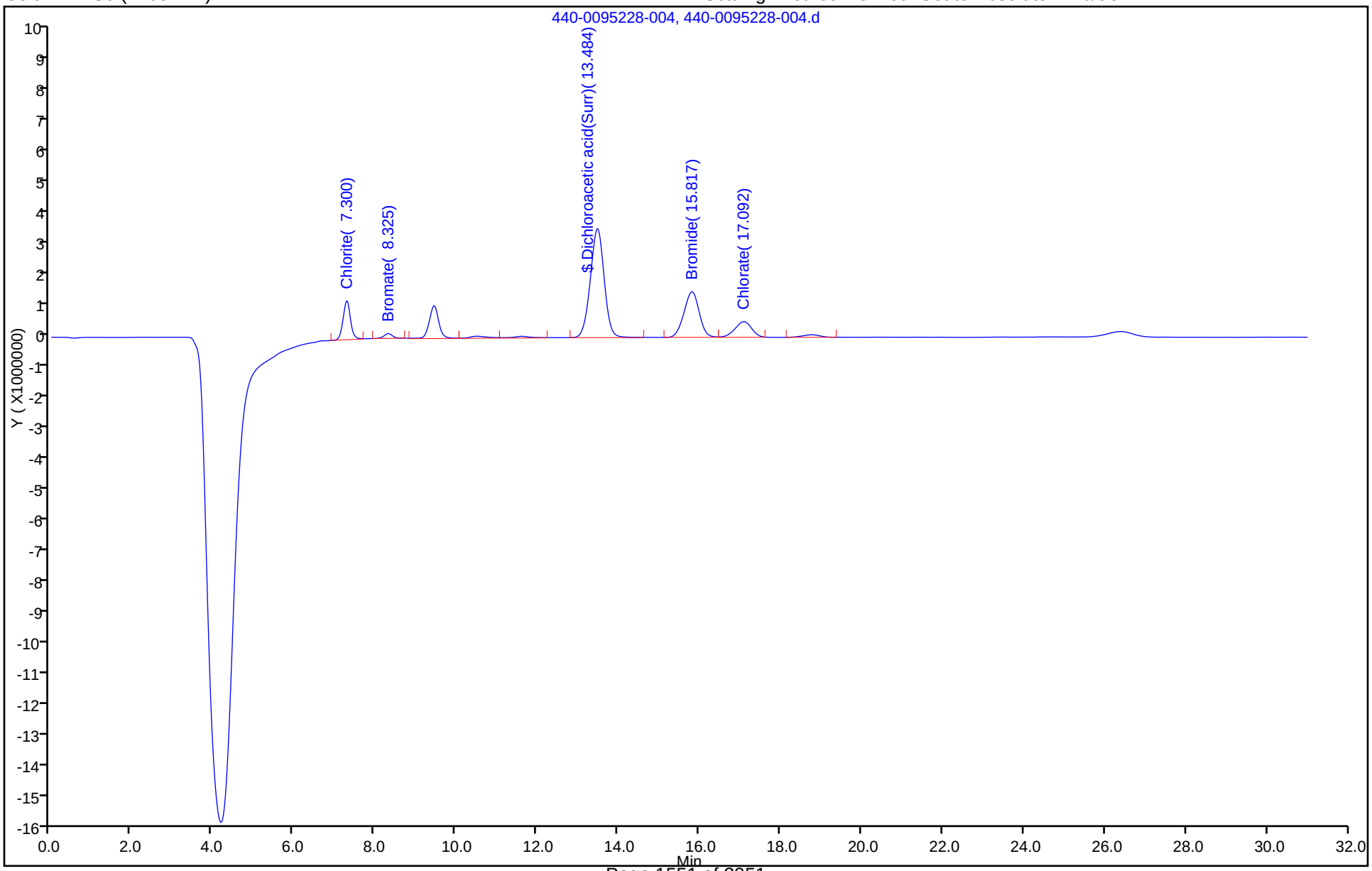
Report Date: 25-Oct-2017 07:03:40 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-004.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Oct-2017 06:19:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | LCS | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-004.d | | | | |
| Lims ID: | LCS | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 25-Oct-2017 06:19:00 | ALS Bottle#: | 0 | Worklist Smp#: | 4 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095228-004 | | | | |
| Misc. Info.: | 4 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 07:03:34 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 07:03:26 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1038.1 | 104.46 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-436780/10

Matrix: Solid | Lab File ID: 20171023010.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 10:13

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436780 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 18.5 | J | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023010.d | | | | |
| Lims ID: | MRL | | | | |
| Client ID: | | | | | |
| Sample Type: | MRL | | | | |
| Inject. Date: | 23-Oct-2017 10:13:32 | ALS Bottle#: | 0 | Worklist Smp#: | 10 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-010 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 13:25:06 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 10:54:20 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.161 | 7.332 | -0.171 | 380638 | NC | NC | |
| 3 Bromate | 8.183 | 8.378 | -0.195 | 67493 | 5.00 | 3.83 | |
| $ 6 Dichloroacetic acid(Surr) | 13.274 | 13.557 | -0.283 | 14155052 | 993.7 | 1000.0 | |
| $ 1 Dichloroacetic acid | 13.274 | 14.113 | -0.839 | 14155052 | | NC | |
| 4 Bromide | 15.578 | 15.991 | -0.413 | 1226051 | 50.0 | 35.4 | |
| 2 Chlorate | 16.862 | 17.362 | -0.500 | 460236 | 20.0 | 18.5 | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

| | | | |
|---|---|---|---|
| WCDCA_00050 | Amount Added: | 10.00 | Units: uL |
| WC3001LCS_00054 | Amount Added: | 25.00 | Units: uL |

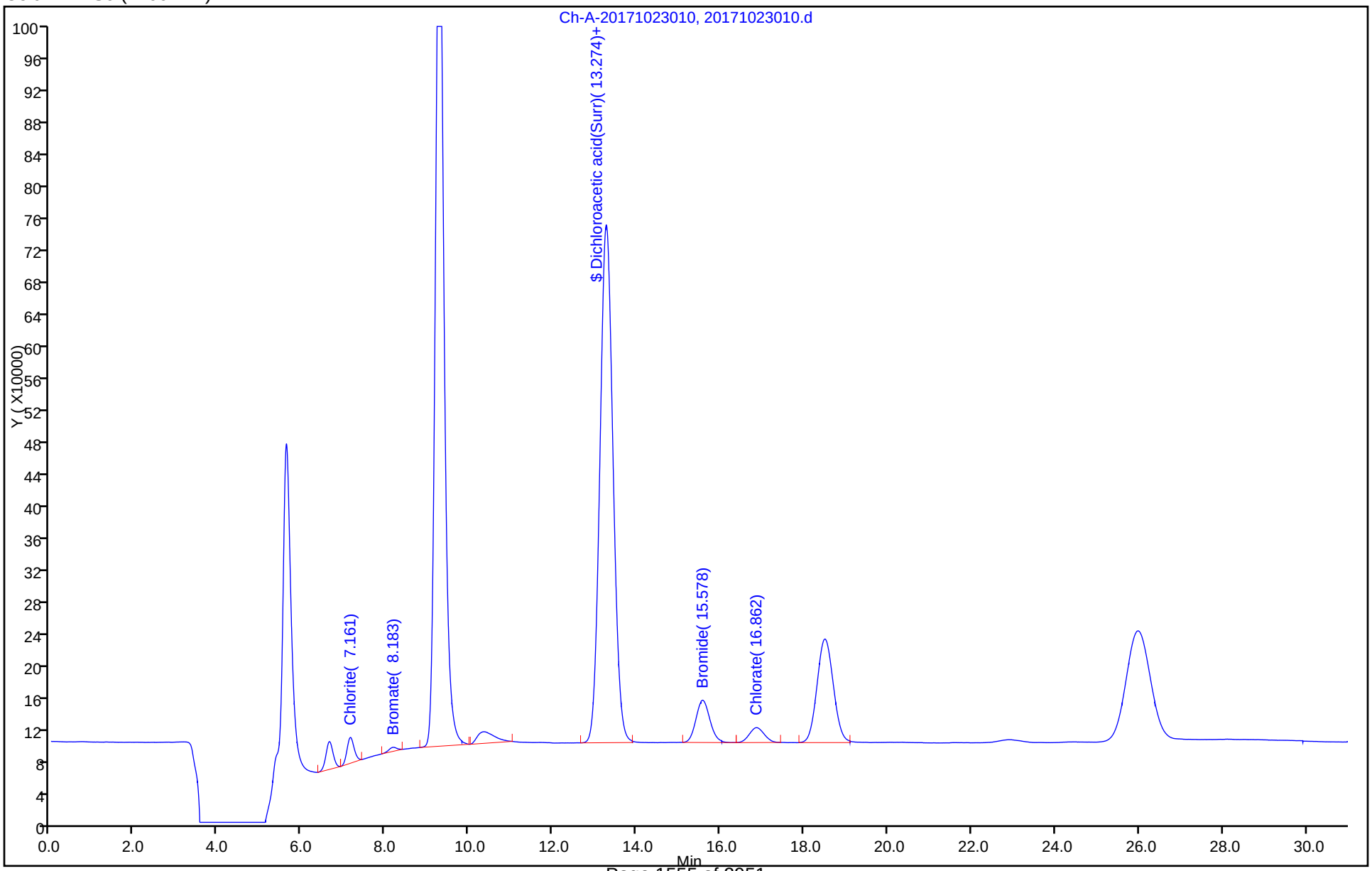
Report Date: 23-Oct-2017 12:47:29 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023010.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 10:13:32 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | MRL | | | Worklist Smp#: | 10 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023010.d | | | | |
| Lims ID: | MRL | | | | |
| Client ID: | | | | | |
| Sample Type: | MRL | | | | |
| Inject. Date: | 23-Oct-2017 10:13:32 | ALS Bottle#: | 0 | Worklist Smp#: | 10 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-010 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 13:25:06 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 10:54:20 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1000.0 | 100.63 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-436781/10

Matrix: Solid | Lab File ID: 20171023010.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 10:13

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 15.2 | J | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023010.d | | | | |
| Lims ID: | MRL | | | | |
| Client ID: | | | | | |
| Sample Type: | MRL | | | | |
| Inject. Date: | 23-Oct-2017 10:13:32 | ALS Bottle#: | 0 | Worklist Smp#: | 10 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-010 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 13:25:06 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 10:54:20 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.161 | 7.332 | -0.171 | 380638 | 20.0 | 15.2 | |
| 3 Bromate | 8.183 | 8.378 | -0.195 | 67493 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.274 | 13.557 | -0.283 | 14155052 | 993.7 | 997.5 | |
| $ 1 Dichloroacetic acid | 13.274 | 14.113 | -0.839 | 14155052 | | NC | |
| 4 Bromide | 15.578 | 15.991 | -0.413 | 1226051 | NC | NC | |
| 2 Chlorate | 16.862 | 17.362 | -0.500 | 460236 | NC | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

| | | | |
|---|---|---|---|
| WCDCA_00050 | Amount Added: | 10.00 | Units: uL |
| WC3001LCS_00054 | Amount Added: | 25.00 | Units: uL |

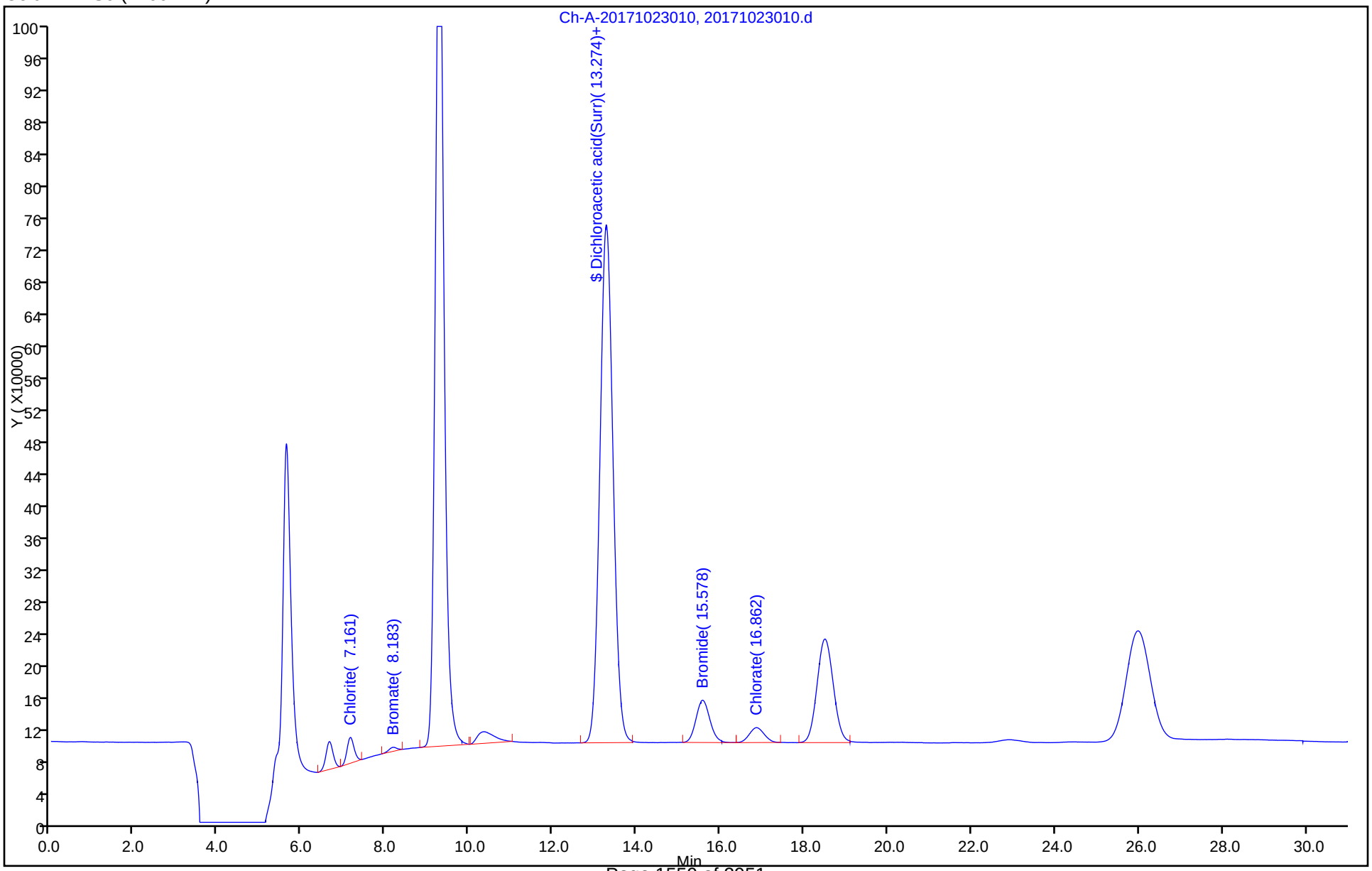
Report Date: 23-Oct-2017 12:47:28 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023010.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 10:13:32 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | MRL | | | Worklist Smp#: | 10 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023010.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 23-Oct-2017 10:13:32 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095116-010
Misc. Info.: Study: 95116 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11

Method: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 23-Oct-2017 13:25:06 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK052

First Level Reviewer: zakhrabovy Date: 23-Oct-2017 10:54:20

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 997.5 | 100.38 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-437026/3

Matrix: Water | Lab File ID: 440-0095168-003.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 06:10

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437026 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 20.6 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 24-Oct-2017 06:10:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095168-003
Misc. Info.: 3 EB
Operator ID: Instrument ID: IC-8

Method: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 24-Oct-2017 06:59:09 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK049

First Level Reviewer: zakhrabovy Date: 24-Oct-2017 06:57:24

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.275 | 7.192 | 0.083 | 2626875 | NC | NC | |
| 3 Bromate | 8.317 | 8.250 | 0.067 | 362793 | 5.00 | 5.14 | M |
| $ 6 Dichloroacetic acid(Surr) | 13.442 | 13.592 | -0.150 | 79699643 | 993.7 | 990.3 | |
| $ 1 Dichloroacetic acid | 13.442 | 13.759 | -0.317 | 79699643 | | NC | |
| 4 Bromide | 15.800 | 15.967 | -0.167 | 6638225 | 50.0 | 52.3 | M |
| 2 Chlorate | 17.075 | 17.400 | -0.325 | 2476965 | 20.0 | 20.6 | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00054 Amount Added: 25.00 Units: uL
WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

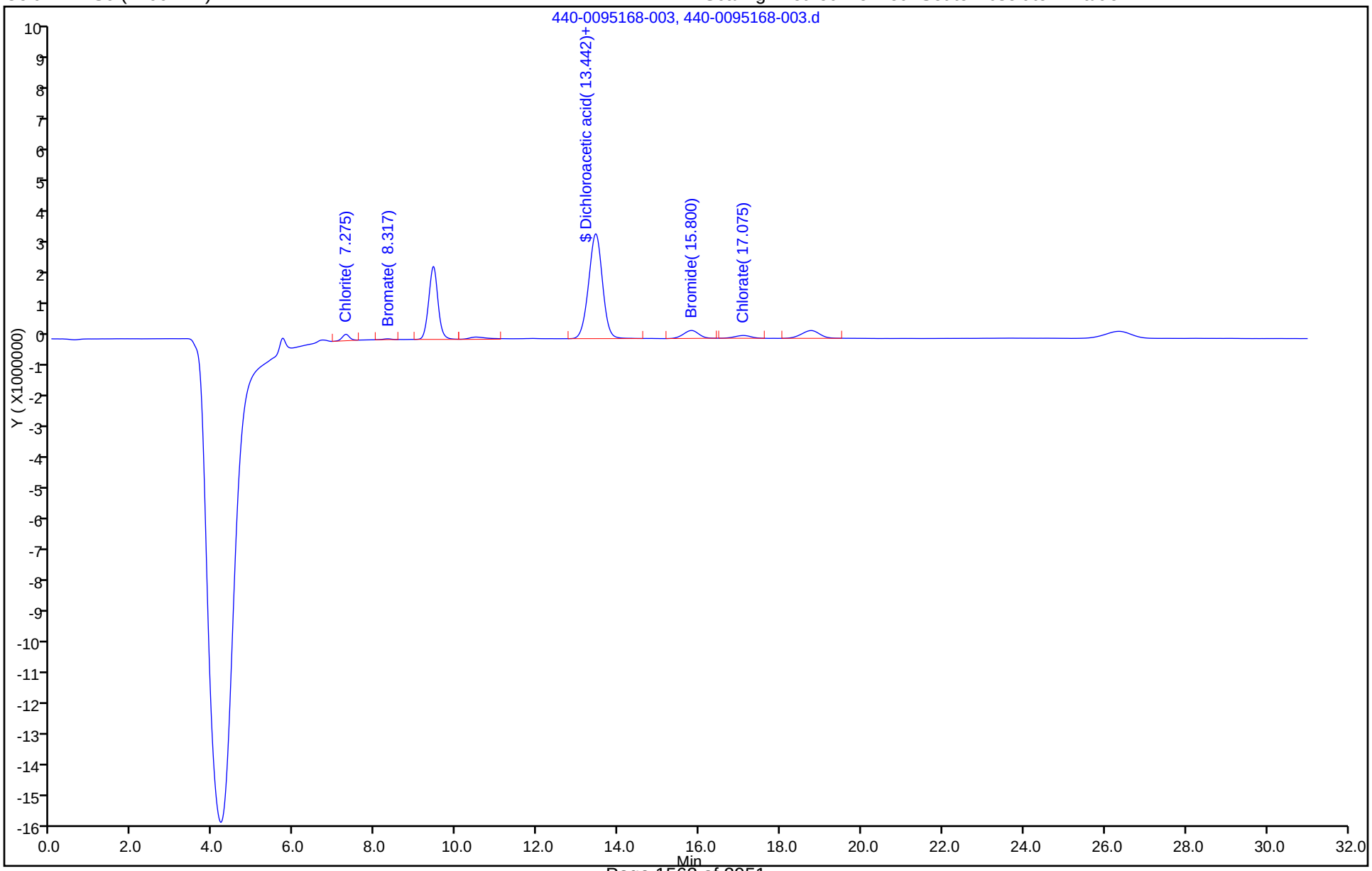
Report Date: 24-Oct-2017 06:59:11 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-003.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 06:10:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | MRL | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 24-Oct-2017 06:59:11 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-003.d | | | | |
| Lims ID: | MRL | | | | |
| Client ID: | | | | | |
| Sample Type: | MRL | | | | |
| Inject. Date: | 24-Oct-2017 06:10:00 | ALS Bottle#: | 0 | Worklist Smp#: | 3 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-003 | | | | |
| Misc. Info.: | 3 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 06:59:09 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 06:57:24 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 990.3 | 99.65 |

Manual Integration/User Assign Peak Report

TestAmerica Irvine

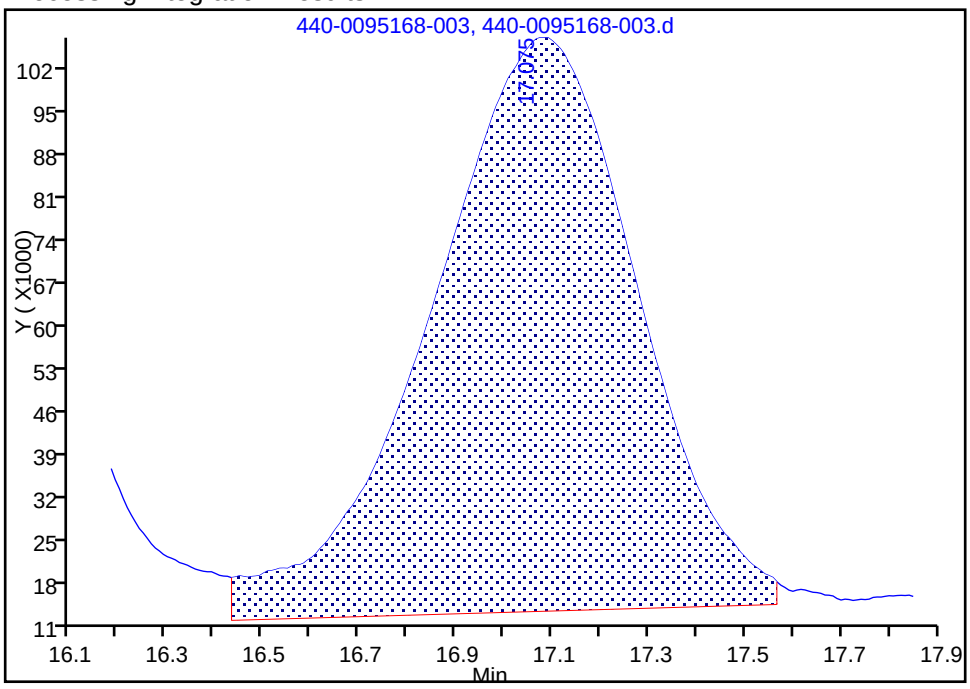
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-003.d | | | | |
| Injection Date: | 24-Oct-2017 06:10:00 | Instrument ID: | IC-8 | | |
| Lims ID: | MRL | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 0 | Worklist Smp#: | 3 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |
| Column: | AS9 ( 4.00 mm) | Detector | Ch-A-20110816009 | | |

## 2 Chlorate, CAS: 7790-93-4

Signal: 1

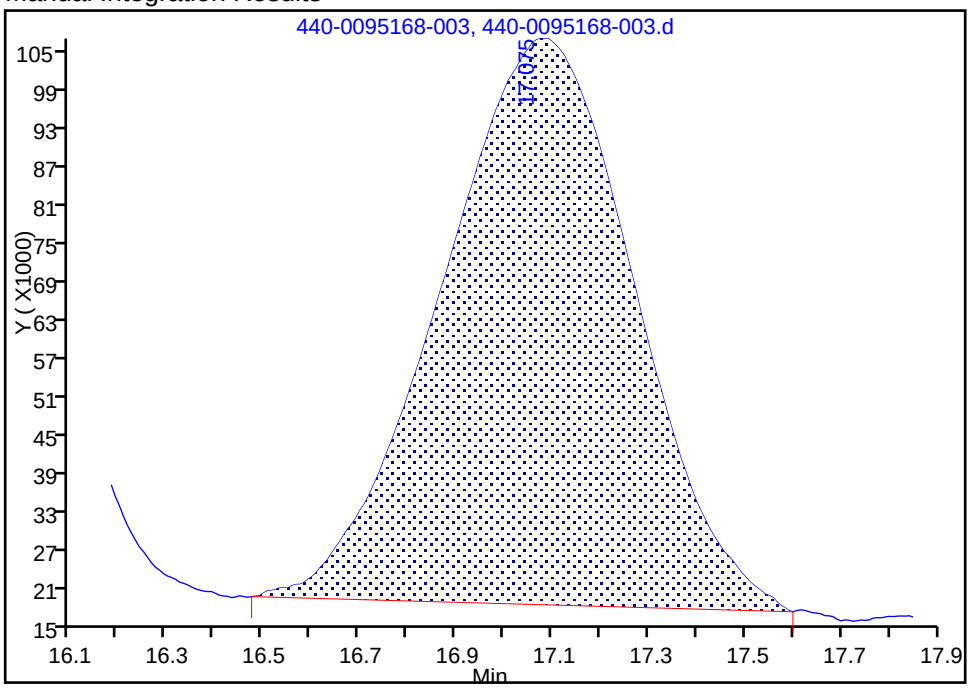
Processing Integration Results

RT: 17.08
Area: 2796196
Amount: 22.887845
Amount Units: ug/l




Manual Integration Results

RT: 17.08
Area: 2476965
Amount: 20.552625
Amount Units: ug/l




Reviewer: zakhrabovy, 24-Oct-2017 06:57:14

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-437027/3

Matrix: Water | Lab File ID: 440-0095168-003.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 06:10

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437027 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 19.2 | J | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 24-Oct-2017 06:10:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095168-003
Misc. Info.: 3 EB
Operator ID: Instrument ID: IC-8

Method: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 24-Oct-2017 06:59:09 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK049

First Level Reviewer: zakhrabovy Date: 24-Oct-2017 06:57:24

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.275 | 7.192 | 0.083 | 2626875 | 20.0 | 19.2 | |
| 3 Bromate | 8.317 | 8.250 | 0.067 | 362793 | NC | NC | M |
| $ 6 Dichloroacetic acid(Surr) | 13.442 | 13.592 | -0.150 | 79699643 | 993.7 | 990.3 | |
| $ 1 Dichloroacetic acid | 13.442 | 13.759 | -0.317 | 79699643 | | NC | |
| 4 Bromide | 15.800 | 15.967 | -0.167 | 6638225 | NC | NC | M |
| 2 Chlorate | 17.075 | 17.400 | -0.325 | 2476965 | NC | NC | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00054 Amount Added: 25.00 Units: uL
WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

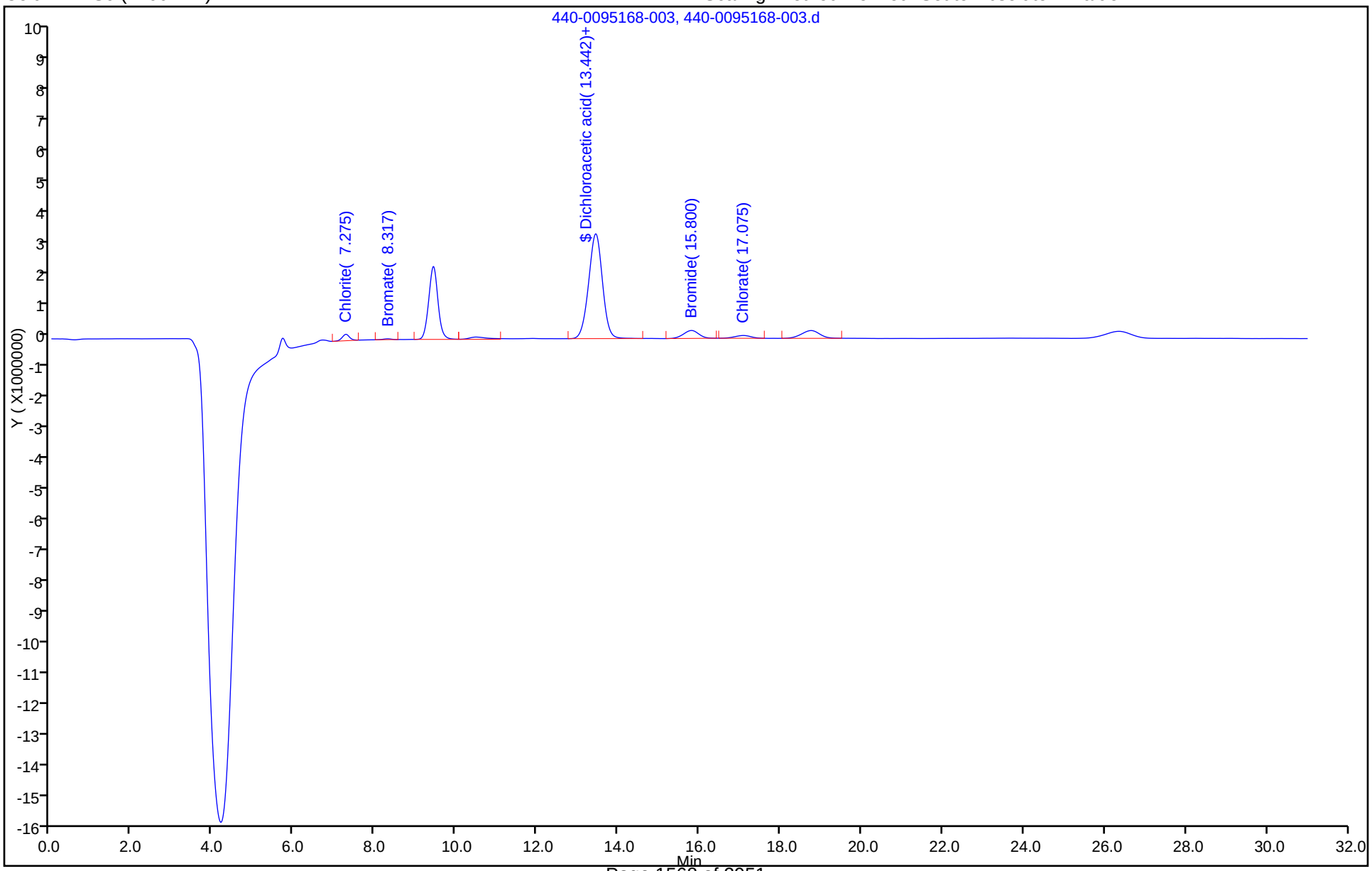
Report Date: 24-Oct-2017 06:59:11 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-003.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 06:10:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | MRL | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-003.d | | | | |
| Lims ID: | MRL | | | | |
| Client ID: | | | | | |
| Sample Type: | MRL | | | | |
| Inject. Date: | 24-Oct-2017 06:10:00 | ALS Bottle#: | 0 | Worklist Smp#: | 3 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095168-003 | | | | |
| Misc. Info.: | 3 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 06:59:09 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 06:57:24 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 990.3 | 99.65 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-437272/36

Matrix: Solid | Lab File ID: 20171025036.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/26/2017 06:14

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437272 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 17.8 | J | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025036.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 26-Oct-2017 06:14:08 ALS Bottle#: 0 Worklist Smp#: 36
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095227-024
Misc. Info.: Study: 95227 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11

Method: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 26-Oct-2017 08:29:43 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK034

First Level Reviewer: zakhrabovy Date: 26-Oct-2017 08:28:16

| | Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 Chlorite | 7.246 | 7.332 | -0.086 | 455269 | 20.0 | 17.8 | |
| | 3 Bromate | 8.291 | 8.378 | -0.087 | 72683 | NC | NC | M |
| $ | 6 Dichloroacetic acid(Surr) | 13.497 | 13.557 | -0.060 | 14303010 | 993.7 | 1007.9 | |
| $ | 1 Dichloroacetic acid | 13.497 | 14.113 | -0.616 | 14303010 | | NC | |
| | 4 Bromide | 15.899 | 15.991 | -0.092 | 1216753 | NC | NC | |
| | 2 Chlorate | 17.213 | 17.362 | -0.149 | 534364 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00054 Amount Added: 25.00 Units: uL
WCDCA_00050 Amount Added: 10.00 Units: uL

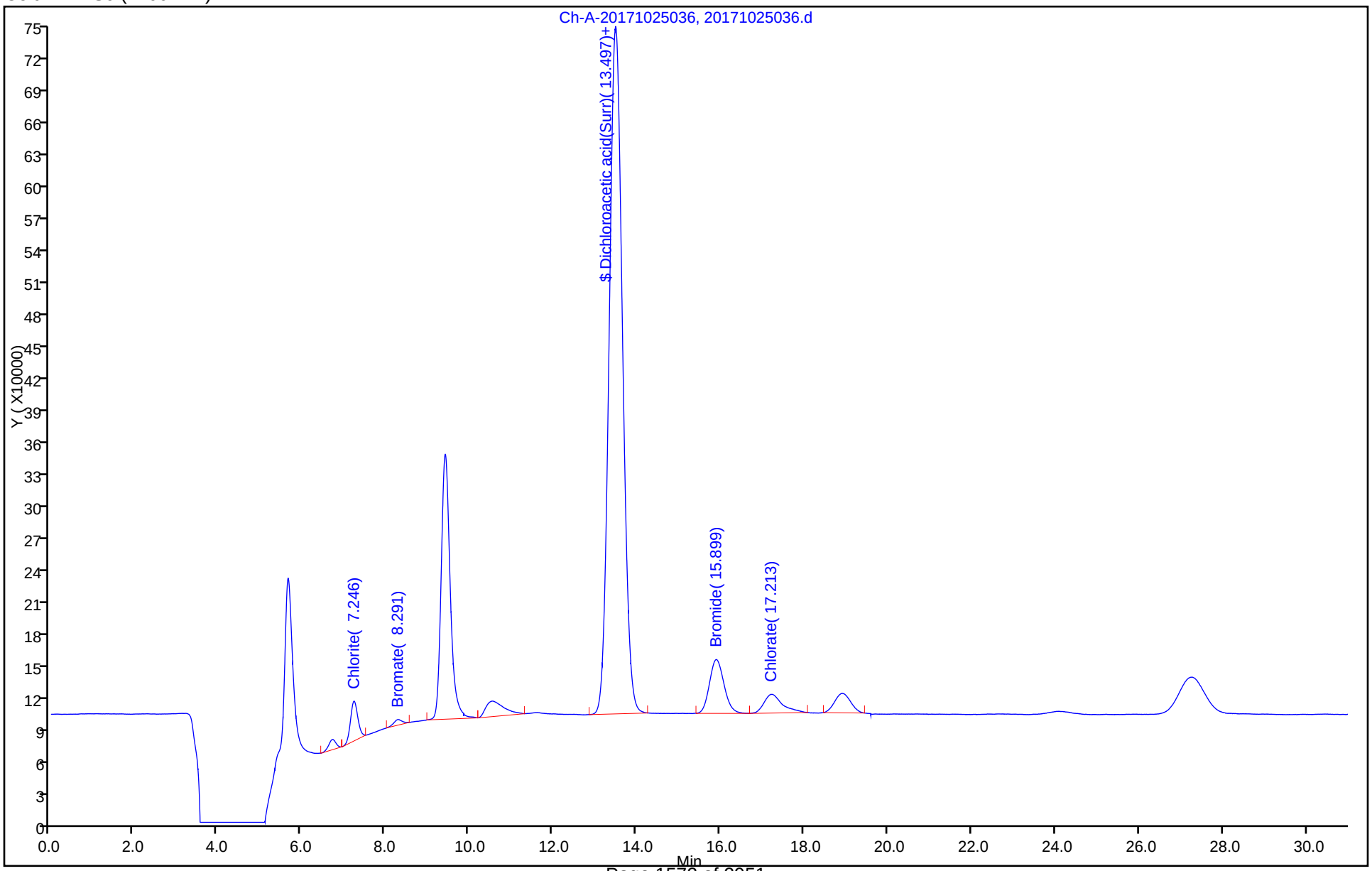
Report Date: 26-Oct-2017 08:29:47 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025036.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 06:14:08 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | MRL | | | Worklist Smp#: | 36 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025036.d | | | | |
| Lims ID: | MRL | | | | |
| Client ID: | | | | | |
| Sample Type: | MRL | | | | |
| Inject. Date: | 26-Oct-2017 06:14:08 | ALS Bottle#: | 0 | Worklist Smp#: | 36 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-024 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 08:29:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 08:28:16 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1007.9 | 101.43 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-437275/3

Matrix: Water | Lab File ID: 440-0095228-003.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/25/2017 05:27

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437275 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 17.2 | J | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 25-Oct-2017 05:27:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095228-003
Misc. Info.: 3 EB
Operator ID: Instrument ID: IC-8

Method: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\300.1_C8.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 25-Oct-2017 08:33:12 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK047

First Level Reviewer: zakhrabovy Date: 25-Oct-2017 08:05:03

| | Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 Chlorite | 7.300 | 7.192 | 0.108 | 2330134 | 20.0 | 17.2 | M |
| | 3 Bromate | 8.342 | 8.250 | 0.092 | 375066 | NC | NC | M |
| $ | 6 Dichloroacetic acid(Surr) | 13.475 | 13.592 | -0.117 | 81835883 | 993.7 | 1016.8 | |
| $ | 1 Dichloroacetic acid | 13.475 | 13.759 | -0.284 | 81835883 | | NC | |
| | 4 Bromide | 15.834 | 15.967 | -0.133 | 6834198 | NC | NC | M |
| | 2 Chlorate | 17.109 | 17.400 | -0.291 | 2663698 | NC | NC | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00054 Amount Added: 25.00 Units: uL
WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

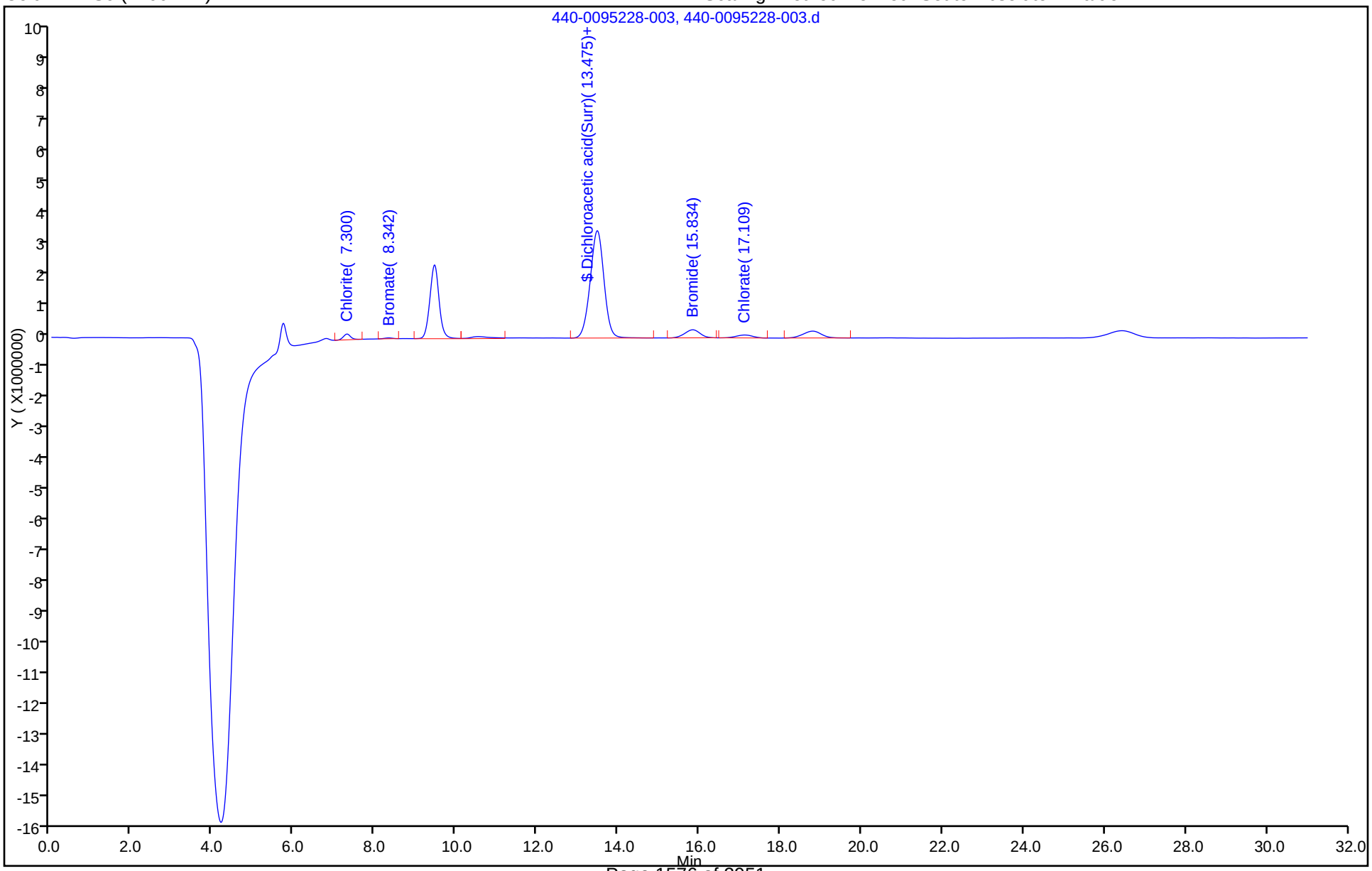
Report Date: 25-Oct-2017 08:05:08 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-003.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Oct-2017 05:27:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | MRL | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 25-Oct-2017 08:05:07 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-003.d | | | | |
| Lims ID: | MRL | | | | |
| Client ID: | | | | | |
| Sample Type: | MRL | | | | |
| Inject. Date: | 25-Oct-2017 05:27:00 | ALS Bottle#: | 0 | Worklist Smp#: | 3 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095228-003 | | | | |
| Misc. Info.: | 3 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 08:33:12 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 08:05:03 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1016.8 | 102.32 |

Manual Integration/User Assign Peak Report

TestAmerica Irvine

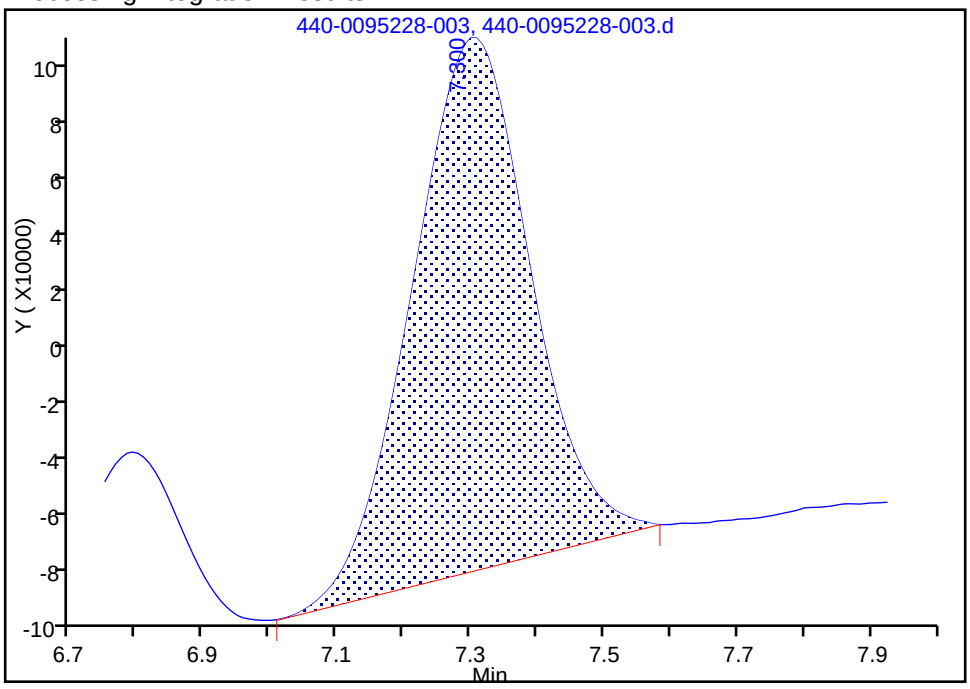
Data File: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-003.d
Injection Date: 25-Oct-2017 05:27:00 Instrument ID: IC-8
Lims ID: MRL
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C8 Limit Group: IC-300.1_14D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## 5 Chlorite, CAS: 14998-27-7

Signal: 1

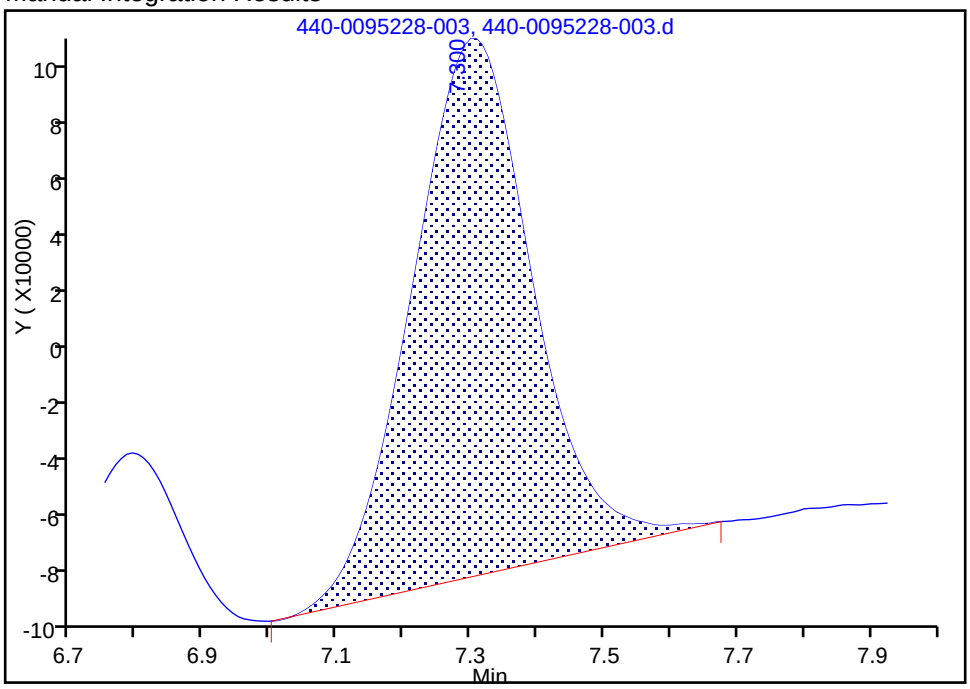
Processing Integration Results

RT: 7.30
Area: 2273129
Amount: 16.849250
Amount Units: ug/l




Manual Integration Results

RT: 7.30
Area: 2330134
Amount: 17.222042
Amount Units: ug/l




Reviewer: zakhrabovy, 25-Oct-2017 06:18:55
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-437778/12

Matrix: Solid | Lab File ID: 20171027012.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/27/2017 14:11

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437778 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 19.6 | J | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\20171027012.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 27-Oct-2017 14:11:18 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095341-012
Misc. Info.: Study: 95341 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11

Method: \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\300.1_C11.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 28-Oct-2017 04:54:29 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK048

First Level Reviewer: zakhrabovy Date: 28-Oct-2017 04:49:48

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.381 | 7.332 | 0.049 | 285786 | NC | NC | |
| 3 Bromate | 8.444 | 8.378 | 0.066 | 68055 | 5.00 | 3.86 | |
| $ 6 Dichloroacetic acid(Surr) | 13.773 | 13.557 | 0.215 | 14554856 | 993.7 | 1028.2 | |
| $ 1 Dichloroacetic acid | 13.773 | 14.113 | -0.341 | 14554856 | | NC | |
| 4 Bromide | 16.166 | 15.991 | 0.175 | 1241051 | 50.0 | 36.0 | |
| 2 Chlorate | 17.516 | 17.362 | 0.154 | 488321 | 20.0 | 19.6 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL
WC3001LCS_00054 Amount Added: 25.00 Units: uL

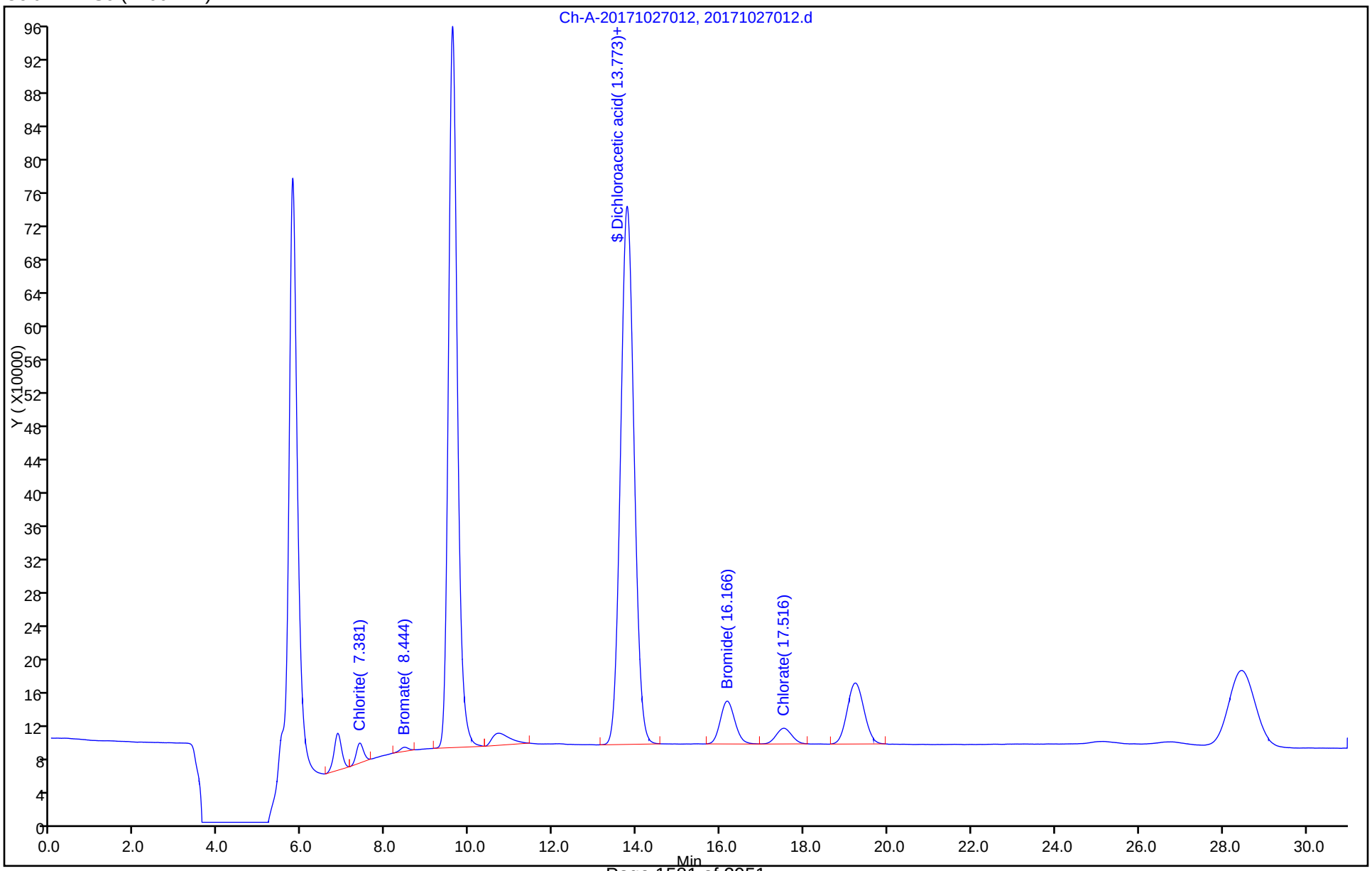
Report Date: 28-Oct-2017 04:55:21 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\20171027012.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 14:11:18 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | MRL | | | Worklist Smp#: | 12 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\20171027012.d | | | | |
| Lims ID: | MRL | | | | |
| Client ID: | | | | | |
| Sample Type: | MRL | | | | |
| Inject. Date: | 27-Oct-2017 14:11:18 | ALS Bottle#: | 0 | Worklist Smp#: | 12 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095341-012 | | | | |
| Misc. Info.: | Study: 95341 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171027-95341.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 28-Oct-2017 04:54:29 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK048 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 28-Oct-2017 04:49:48 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1028.2 | 103.48 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-20.0-20171020 MS | Lab Sample ID: 440-194754-6 MS

Matrix: Solid (Soluble) | Lab File ID: 20171023014.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 07:55

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 12:26

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436780 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 2460 | | 220 | 56 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023014.d | | | | |
| Lims ID: | 440-194754-A-6-B MS | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 23-Oct-2017 12:26:17 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-014 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 07:11:45 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 07:11:44 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.218 | 7.332 | -0.114 | 2041555 | 100.0 | 74.5 | M |
| 3 Bromate | 8.240 | 8.378 | -0.138 | 371337 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.385 | 13.557 | -0.172 | 14243685 | 993.7 | 1003.7 | |
| $ 1 Dichloroacetic acid | 13.385 | 14.113 | -0.728 | 14243685 | | NC | |
| 4 Bromide | 15.597 | 15.991 | -0.394 | 5897357 | NC | NC | |
| 2 Chlorate | 16.911 | 17.362 | -0.451 | 5318924 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023014.d | | | | |
| Lims ID: | 440-194754-A-6-B MS | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 23-Oct-2017 12:26:17 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-014 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 07:11:45 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 07:11:44 | | |

| | Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 Chlorite | 7.218 | 7.332 | -0.114 | 2041555 | NC | NC | M |
| | 3 Bromate | 8.240 | 8.378 | -0.138 | 371337 | 25.0 | 23.9 | |
| $ | 6 Dichloroacetic acid(Surr) | 13.385 | 13.557 | -0.172 | 14243685 | 993.7 | 1006.3 | |
| $ | 1 Dichloroacetic acid | 13.385 | 14.113 | -0.728 | 14243685 | | NC | |
| | 4 Bromide | 15.597 | 15.991 | -0.394 | 5897357 | 250.0 | 224.4 | |
| | 2 Chlorate | 16.911 | 17.362 | -0.451 | 5318924 | 100.0 | 219.0 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

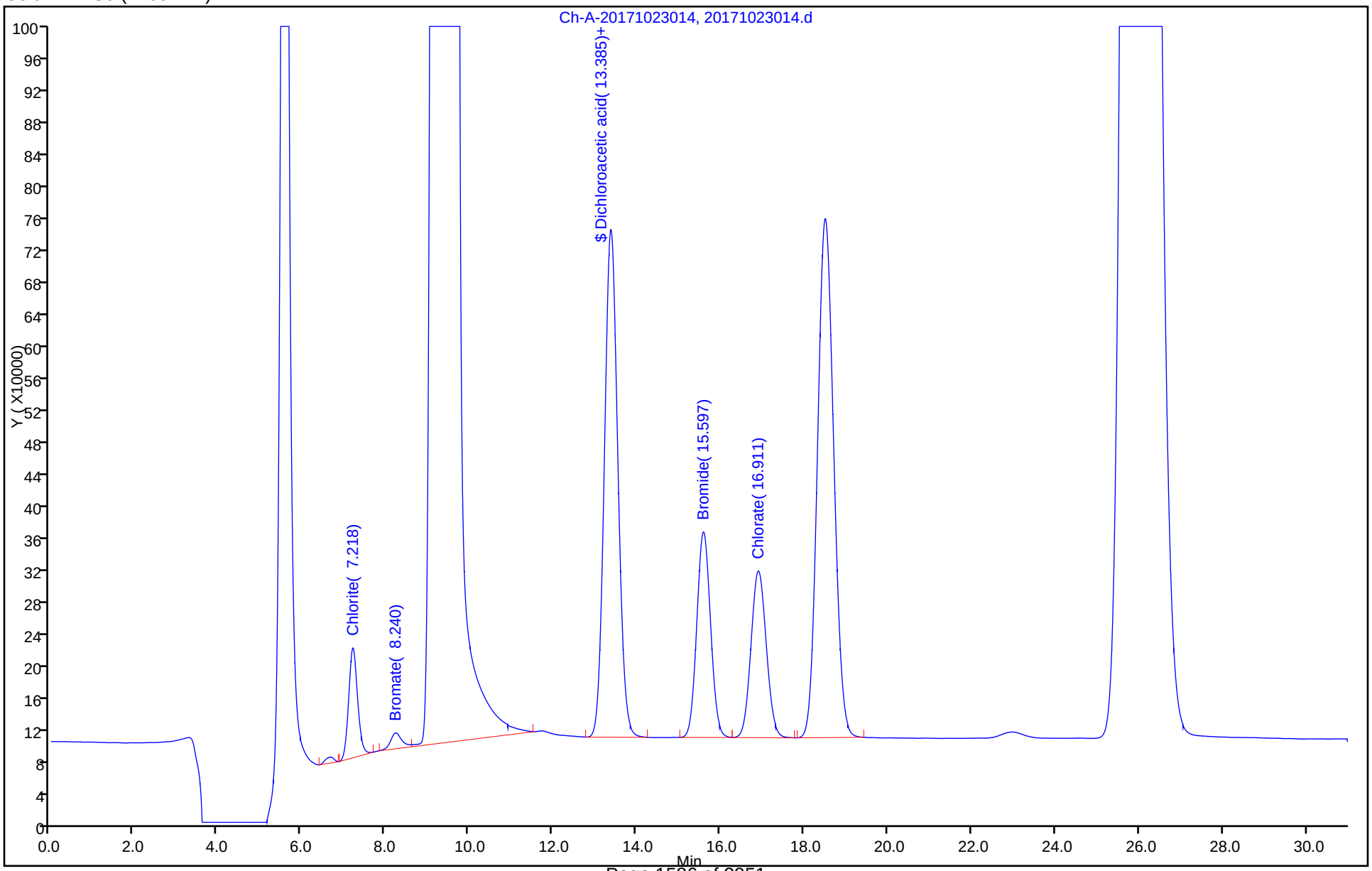
Report Date: 25-Oct-2017 07:11:46 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023014.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 12:26:17 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-6-B MS | | | Worklist Smp#: | 14 |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



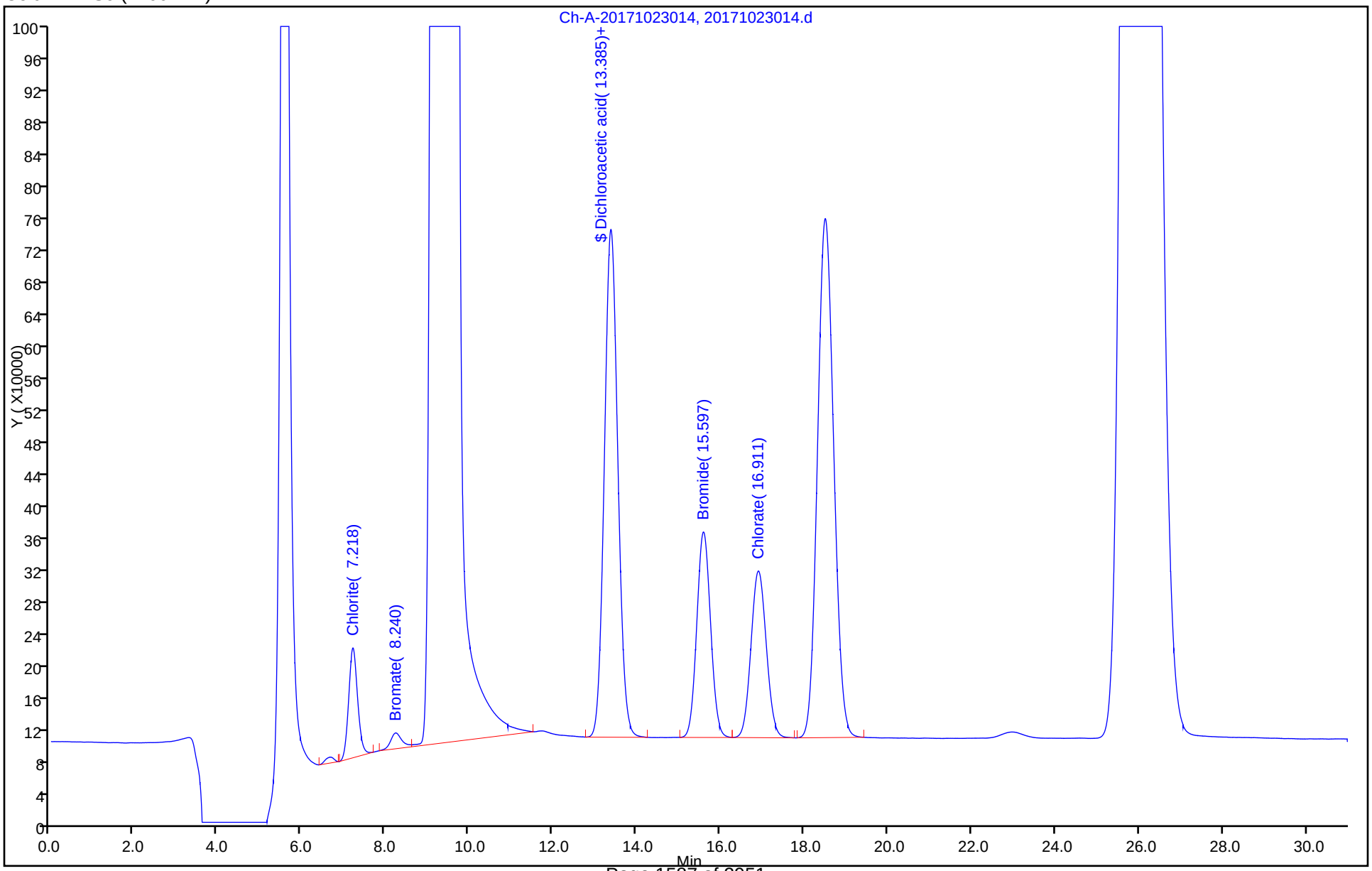
Report Date: 25-Oct-2017 07:11:46 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023014.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 12:26:17 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-6-B MS | | | Worklist Smp#: | 14 |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023014.d | | | | |
| Lims ID: | 440-194754-A-6-B MS | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 23-Oct-2017 12:26:17 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-014 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 07:11:45 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 07:11:44 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1003.7 | 101.01 |

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023014.d | | | | |
| Lims ID: | 440-194754-A-6-B MS | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 23-Oct-2017 12:26:17 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-014 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 07:11:45 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 07:11:44 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1006.3 | 101.26 |

Manual Integration/User Assign Peak Report

TestAmerica Irvine

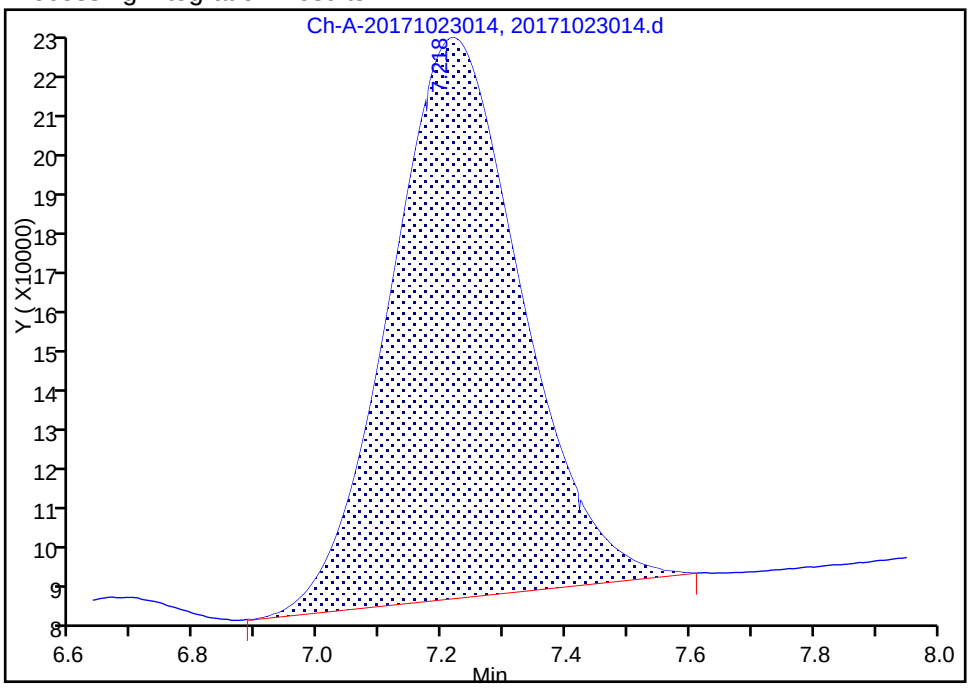
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023014.d | | | | |
| Injection Date: | 23-Oct-2017 12:26:17 | Instrument ID: | IC-11 | | |
| Lims ID: | 440-194754-A-6-B MS | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Operator ID: | IRVINSTWET4 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |
| Column: | AS9 ( 4.00 mm) | Detector | Ch-A-20110816009 | | |

## 5 Chlorite, CAS: 14998-27-7

Signal: 1

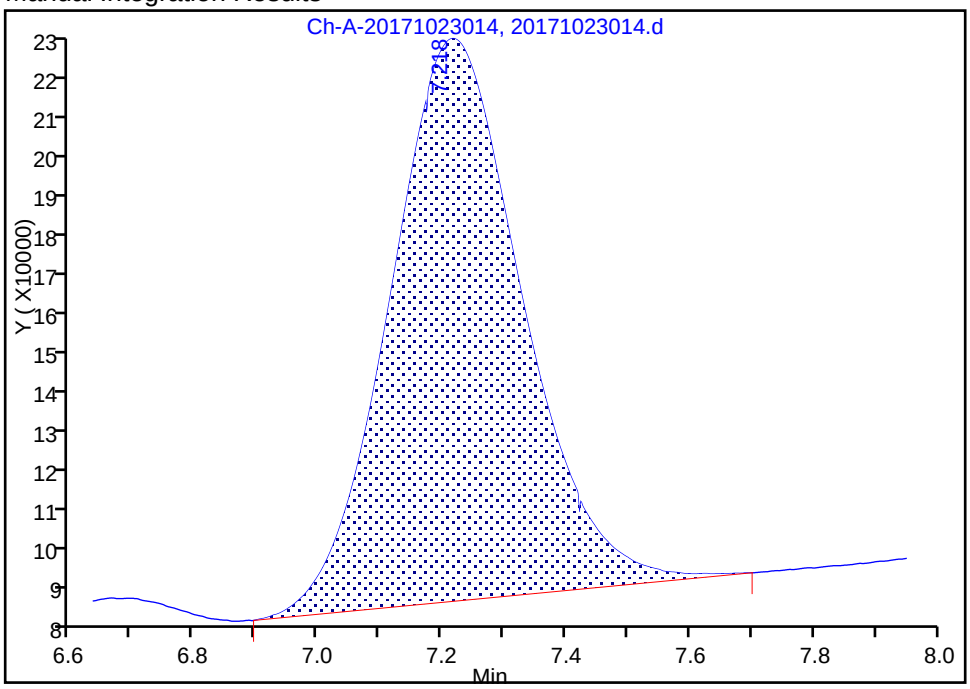
Processing Integration Results

RT: 7.22
Area: 2019250
Amount: 73.741041
Amount Units: ug/l




Manual Integration Results

RT: 7.22
Area: 2041555
Amount: 74.538518
Amount Units: ug/l




Reviewer: zakhrabovy, 25-Oct-2017 07:11:39

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-20.0-20171020 MS | Lab Sample ID: 440-194754-6 MS

Matrix: Solid (Soluble) | Lab File ID: 20171023014.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 07:55

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 12:26

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 837 | | 220 | 45 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-20.0-20171020 MS | Lab Sample ID: 440-194754-6 MS

Matrix: Solid (Soluble) | Lab File ID: 20171023014.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 07:55

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 12:26

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 | Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023014.d | | | | |
| Lims ID: | 440-194754-A-6-B MS | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 23-Oct-2017 12:26:17 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-014 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 07:11:45 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 07:11:44 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.218 | 7.332 | -0.114 | 2041555 | 100.0 | 74.5 | M |
| 3 Bromate | 8.240 | 8.378 | -0.138 | 371337 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.385 | 13.557 | -0.172 | 14243685 | 993.7 | 1003.7 | |
| $ 1 Dichloroacetic acid | 13.385 | 14.113 | -0.728 | 14243685 | | NC | |
| 4 Bromide | 15.597 | 15.991 | -0.394 | 5897357 | NC | NC | |
| 2 Chlorate | 16.911 | 17.362 | -0.451 | 5318924 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023014.d | | | | |
| Lims ID: | 440-194754-A-6-B MS | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 23-Oct-2017 12:26:17 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-014 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 07:11:45 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 07:11:44 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.218 | 7.332 | -0.114 | 2041555 | NC | NC | M |
| 3 Bromate | 8.240 | 8.378 | -0.138 | 371337 | 25.0 | 23.9 | |
| $ 6 Dichloroacetic acid(Surr) | 13.385 | 13.557 | -0.172 | 14243685 | 993.7 | 1006.3 | |
| $ 1 Dichloroacetic acid | 13.385 | 14.113 | -0.728 | 14243685 | | NC | |
| 4 Bromide | 15.597 | 15.991 | -0.394 | 5897357 | 250.0 | 224.4 | |
| 2 Chlorate | 16.911 | 17.362 | -0.451 | 5318924 | 100.0 | 219.0 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

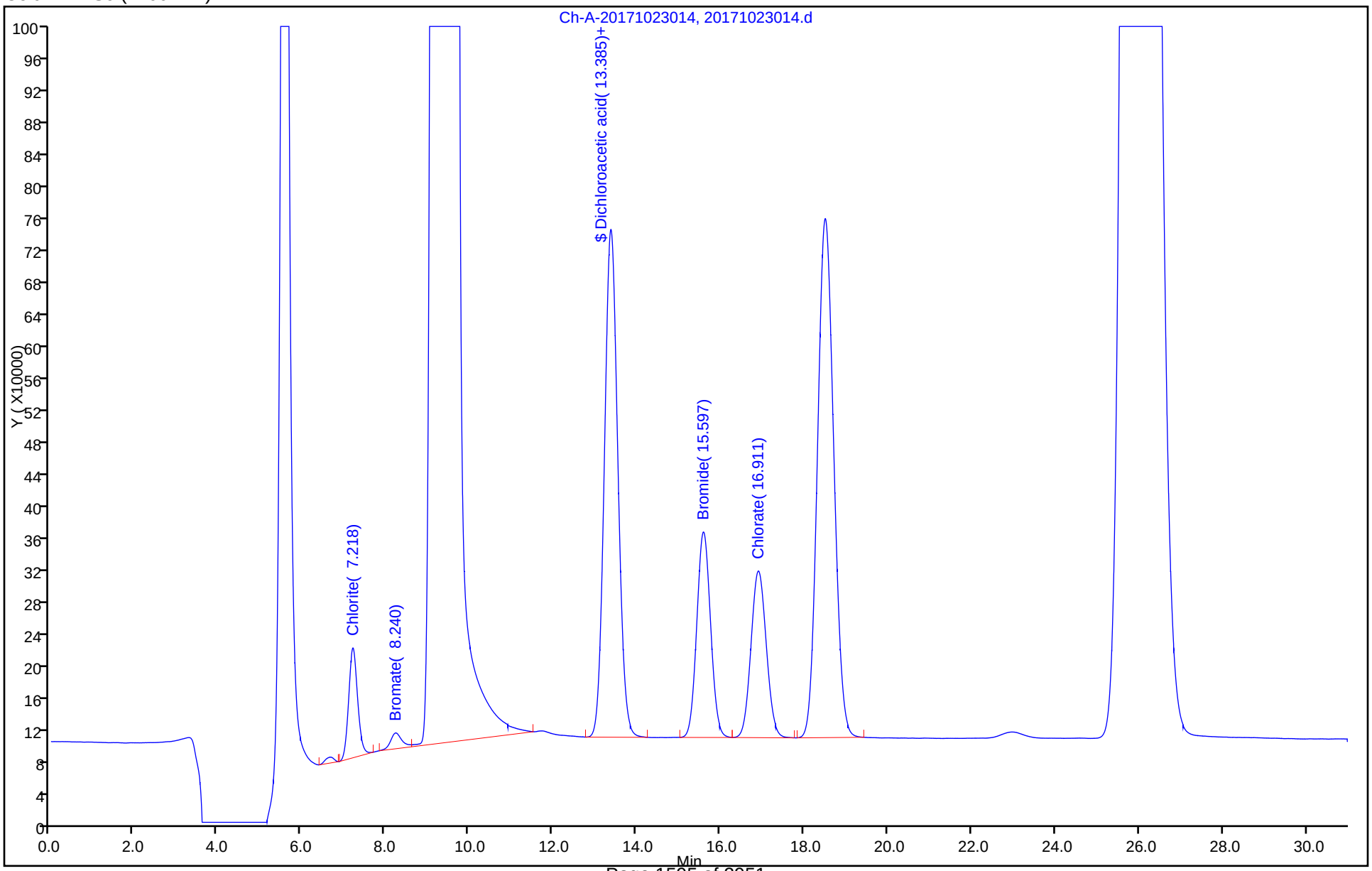
Report Date: 25-Oct-2017 07:11:46 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023014.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 12:26:17 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-6-B MS | | | Worklist Smp#: | 14 |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



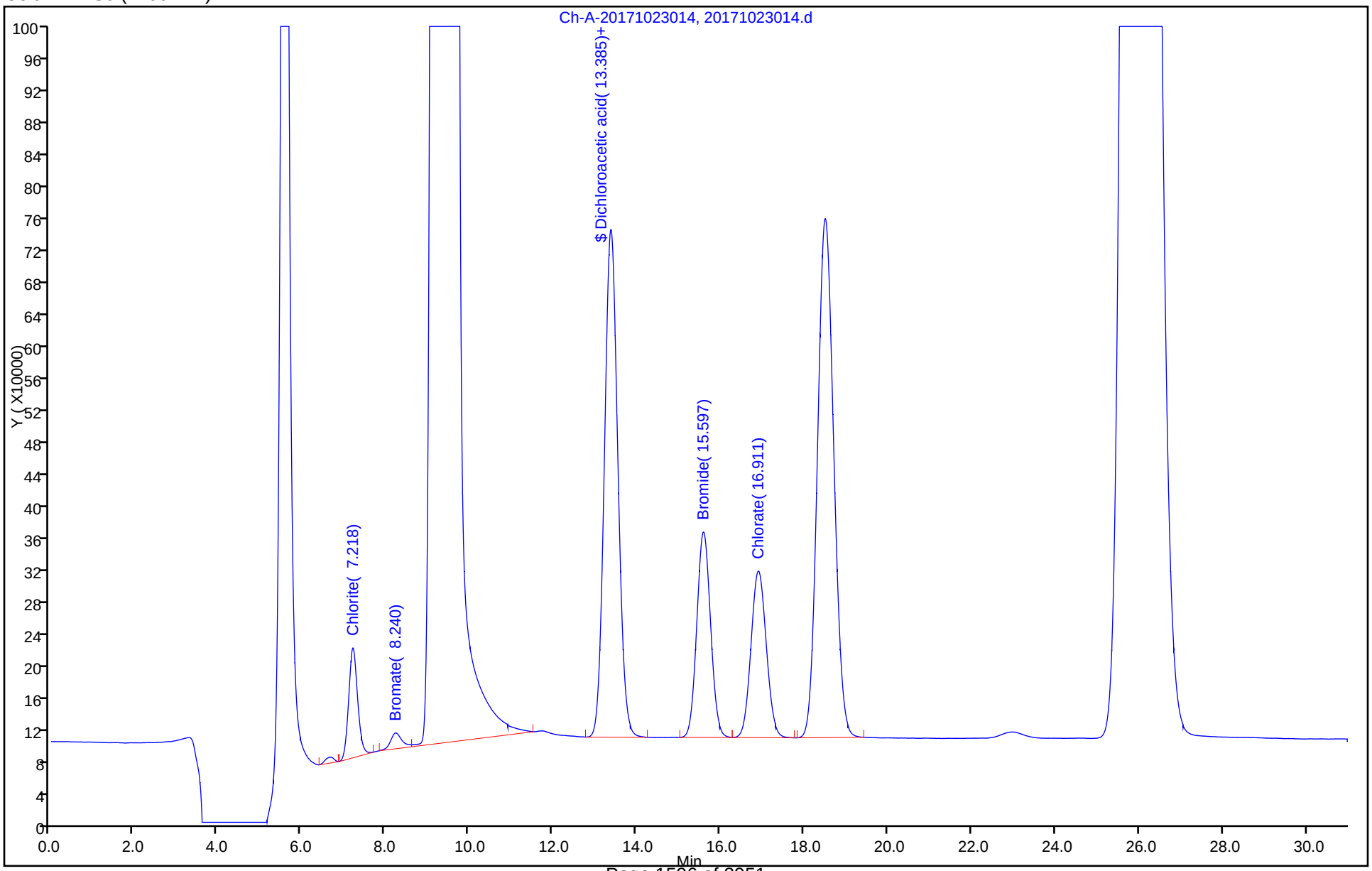
Report Date: 25-Oct-2017 07:11:46 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023014.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 12:26:17 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-6-B MS | | | Worklist Smp#: | 14 |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023014.d | | | | |
| Lims ID: | 440-194754-A-6-B MS | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 23-Oct-2017 12:26:17 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-014 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 07:11:45 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 07:11:44 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1003.7 | 101.01 |

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023014.d | | | | |
| Lims ID: | 440-194754-A-6-B MS | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 23-Oct-2017 12:26:17 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-014 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 07:11:45 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 07:11:44 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1006.3 | 101.26 |

Manual Integration/User Assign Peak Report

TestAmerica Irvine

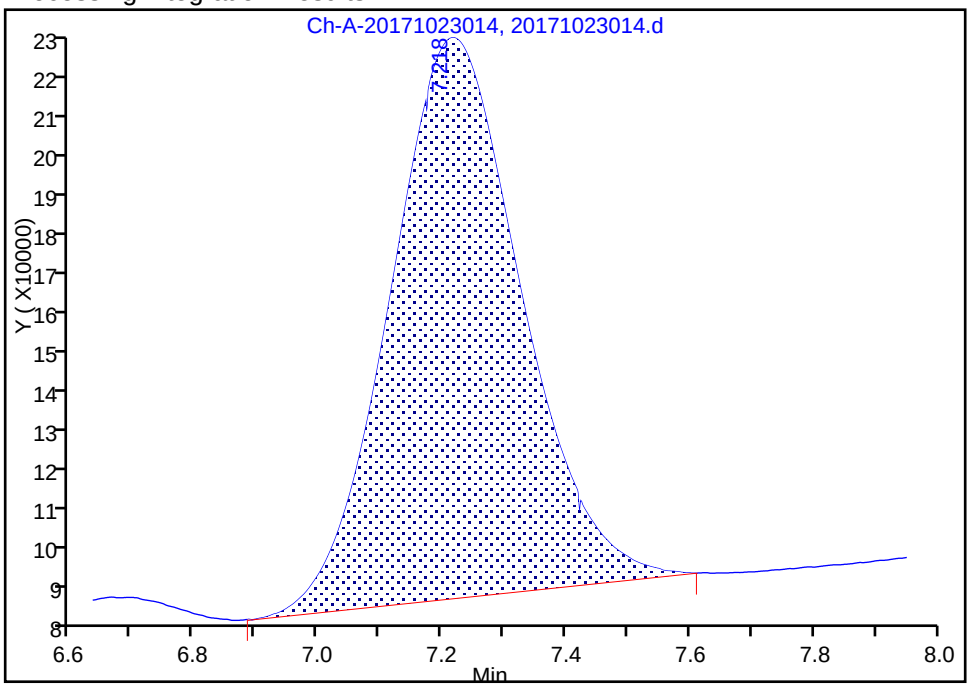
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023014.d | | | | |
| Injection Date: | 23-Oct-2017 12:26:17 | Instrument ID: | IC-11 | | |
| Lims ID: | 440-194754-A-6-B MS | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Operator ID: | IRVINSTWET4 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |
| Column: | AS9 ( 4.00 mm) | Detector | Ch-A-20110816009 | | |

## 5 Chlorite, CAS: 14998-27-7

Signal: 1

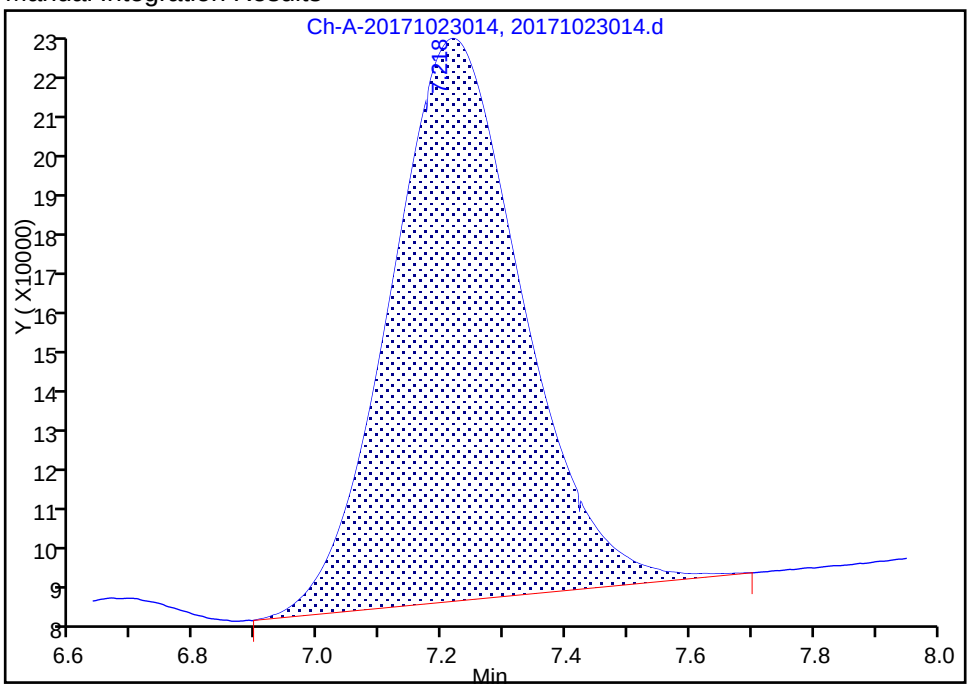
Processing Integration Results

RT: 7.22
Area: 2019250
Amount: 73.741041
Amount Units: ug/l




Manual Integration Results

RT: 7.22
Area: 2041555
Amount: 74.538518
Amount Units: ug/l




Reviewer: zakhrabovy, 25-Oct-2017 07:11:39

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-194791-A-2 MS

Matrix: Water | Lab File ID: 440-0095168-017.d

Analysis Method: 300.1B | Date Collected: 10/22/2017 08:33

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 14:38

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437026 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 459 | | 100 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 104 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-017.d
Lims ID: 440-194791-A-2 MS
Client ID:
Sample Type: MS
Inject. Date: 24-Oct-2017 14:38:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 1.0 ul Dil. Factor: 5.0000
Sample Info: 440-0095168-017
Misc. Info.: 17 EB
Operator ID: Instrument ID: IC-8

Method: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 25-Oct-2017 04:05:55 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK047

First Level Reviewer: zakhrabovy Date: 25-Oct-2017 03:58:58

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.267 | 7.192 | 0.075 | 5777639 | NC | NC | |
| 3 Bromate | 8.242 | 8.250 | -0.008 | 733907 | 10.0 | 9.64 | |
| $ 6 Dichloroacetic acid(Surr) | 13.492 | 13.592 | -0.100 | 82832523 | 198.7 | 1029.2 | |
| $ 1 Dichloroacetic acid | 13.492 | 13.759 | -0.267 | 82832523 | | NC | |
| 4 Bromide | 15.283 | 15.967 | -0.684 | 17874623 | 100.0 | 125.3 | |
| 2 Chlorate | 16.650 | 17.400 | -0.750 | 12210376 | 40.0 | 91.8 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WC3001LCS_00054 Amount Added: 250.00 Units: uL
WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

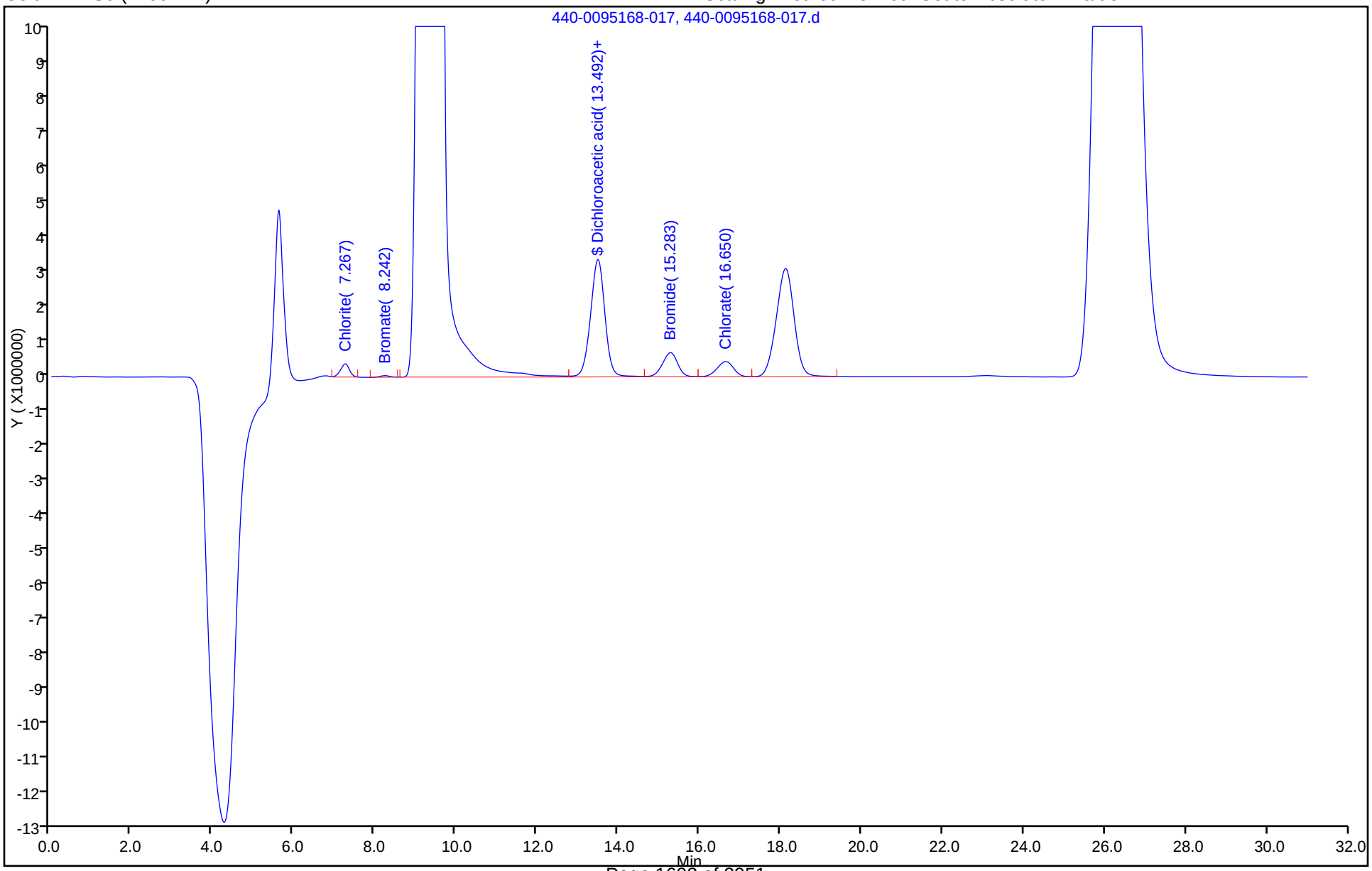
Report Date: 25-Oct-2017 04:05:57 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-017.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 14:38:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | 440-194791-A-2 MS | | | Worklist Smp#: | 17 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 5.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 25-Oct-2017 04:05:57 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-017.d | | | | |
| Lims ID: | 440-194791-A-2 MS | | | | |
| Client ID: | | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 24-Oct-2017 14:38:00 | ALS Bottle#: | 0 | Worklist Smp#: | 17 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 5.0000 | | |
| Sample Info: | 440-0095168-017 | | | | |
| Misc. Info.: | 17 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 04:05:55 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:58:58 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1029.2 | 517.85 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-194791-A-2 MS

Matrix: Water | Lab File ID: 440-0095168-017.d

Analysis Method: 300.1B | Date Collected: 10/22/2017 08:33

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 14:38

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437027 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 199 | | 100 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 104 | | 90-115 |

Report Date: 25-Oct-2017 04:05:57 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-017.d | | | | |
| Lims ID: | 440-194791-A-2 MS | | | | |
| Client ID: | | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 24-Oct-2017 14:38:00 | ALS Bottle#: | 0 | Worklist Smp#: | 17 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 5.0000 | | |
| Sample Info: | 440-0095168-017 | | | | |
| Misc. Info.: | 17 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 04:05:55 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:58:58 | | |

| | Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 Chlorite | 7.267 | 7.192 | 0.075 | 5777639 | 40.0 | 39.8 | |
| | 3 Bromate | 8.242 | 8.250 | -0.008 | 733907 | NC | NC | |
| $ | 6 Dichloroacetic acid(Surr) | 13.492 | 13.592 | -0.100 | 82832523 | 198.7 | 1029.2 | |
| $ | 1 Dichloroacetic acid | 13.492 | 13.759 | -0.267 | 82832523 | | NC | |
| | 4 Bromide | 15.283 | 15.967 | -0.684 | 17874623 | NC | NC | |
| | 2 Chlorate | 16.650 | 17.400 | -0.750 | 12210376 | NC | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

| | | | |
|---|---|---|---|
| WC3001LCS_00054 | Amount Added: 250.00 | Units: uL | |
| WCDCA_00050 | Amount Added: 10.00 | Units: uL | Run Reagent |

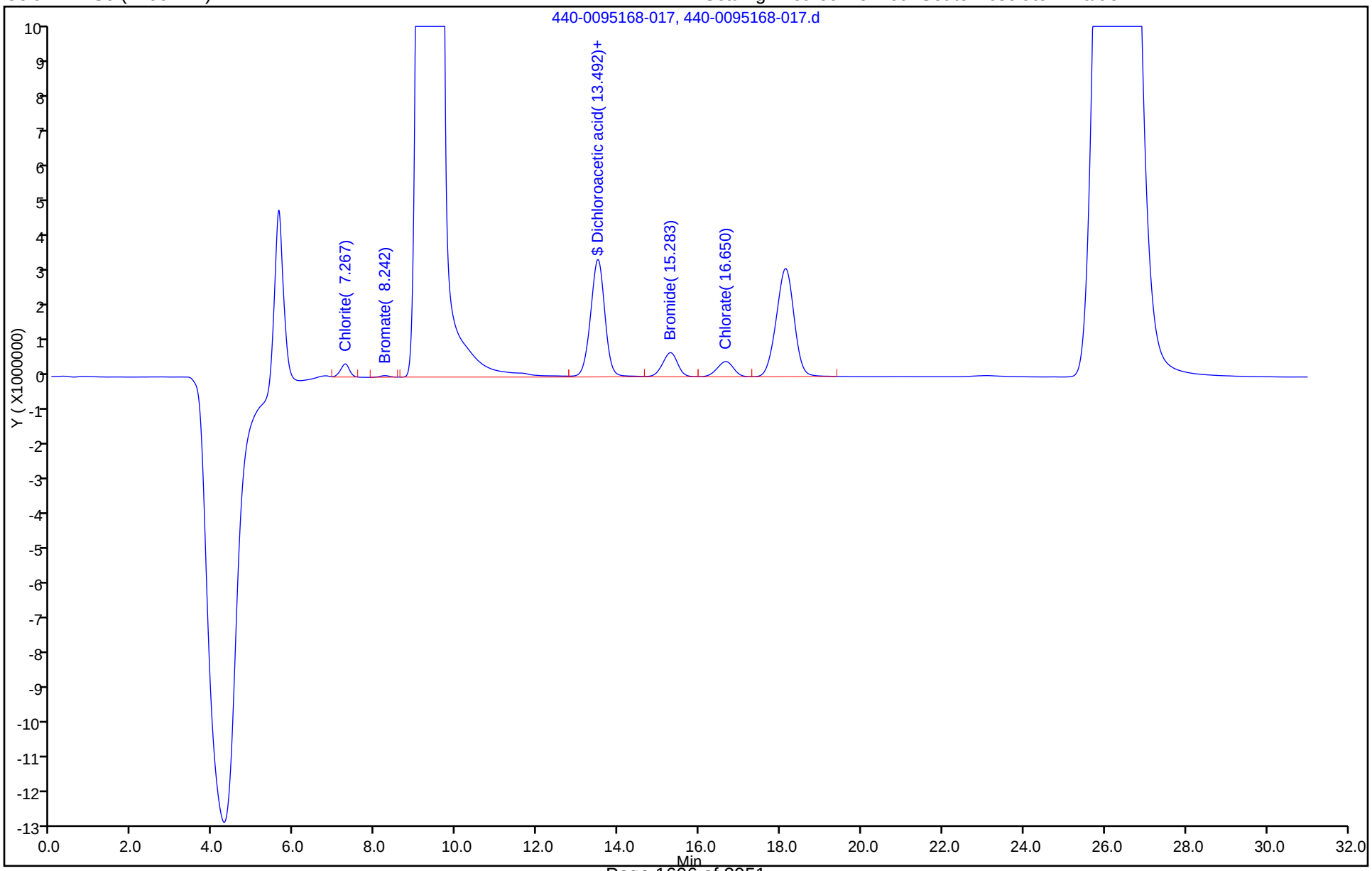
Report Date: 25-Oct-2017 04:05:57 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-017.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 14:38:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | 440-194791-A-2 MS | | | Worklist Smp#: | 17 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 5.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-017.d | | | | |
| Lims ID: | 440-194791-A-2 MS | | | | |
| Client ID: | | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 24-Oct-2017 14:38:00 | ALS Bottle#: | 0 | Worklist Smp#: | 17 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 5.0000 | | |
| Sample Info: | 440-0095168-017 | | | | |
| Misc. Info.: | 17 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 04:05:55 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:58:58 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1029.2 | 517.85 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-194791-A-3 MS

Matrix: Water | Lab File ID: 440-0095228-011.d

Analysis Method: 300.1B | Date Collected: 10/23/2017 07:51

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/25/2017 10:51

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437275 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 193 | | 100 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-011.d | | | | |
| Lims ID: | 440-194791-A-3 MS | | | | |
| Client ID: | | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 25-Oct-2017 10:51:00 | ALS Bottle#: | 0 | Worklist Smp#: | 11 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 5.0000 | | |
| Sample Info: | 440-0095228-011 | | | | |
| Misc. Info.: | 11 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 03:36:24 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 03:35:54 | | |

| | Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 Chlorite | 7.392 | 7.192 | 0.200 | 5599569 | 40.0 | 38.6 | |
| | 3 Bromate | 8.450 | 8.250 | 0.200 | 793441 | NC | NC | |
| $ | 6 Dichloroacetic acid(Surr) | 13.742 | 13.592 | 0.150 | 81391244 | 198.7 | 1011.3 | |
| $ | 1 Dichloroacetic acid | 13.742 | 13.759 | -0.017 | 81391244 | | NC | |
| | 4 Bromide | 16.117 | 15.967 | 0.150 | 17527955 | NC | NC | |
| | 2 Chlorate | 17.442 | 17.400 | 0.042 | 12053049 | NC | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

| | | | |
|---|---|---|---|
| WC3001LCS_00054 | Amount Added: 250.00 | Units: uL | |
| WCDCA_00050 | Amount Added: 10.00 | Units: uL | Run Reagent |

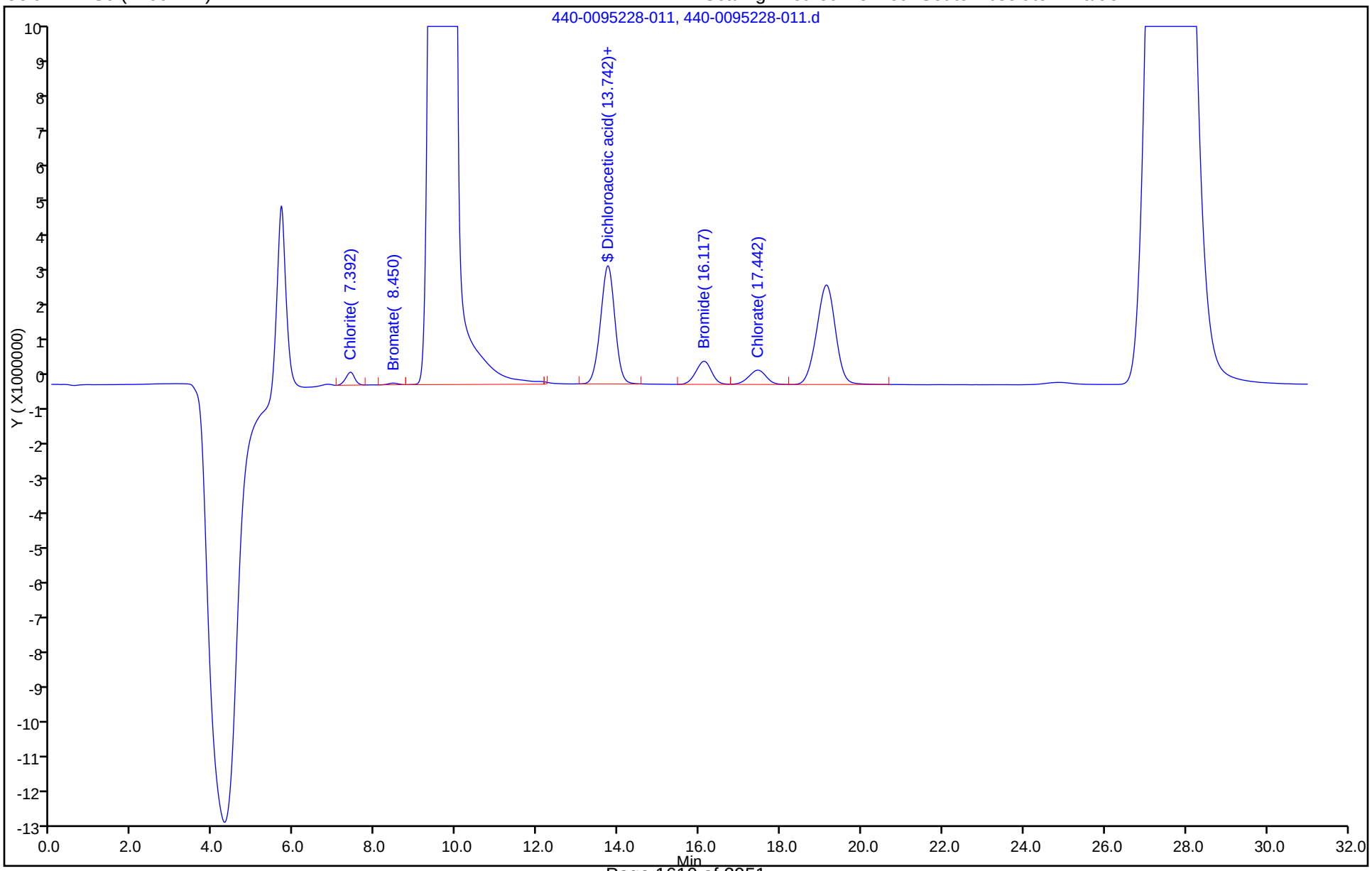
Report Date: 26-Oct-2017 03:36:41 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-011.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Oct-2017 10:51:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | 440-194791-A-3 MS | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 5.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-011.d | | | | |
| Lims ID: | 440-194791-A-3 MS | | | | |
| Client ID: | | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 25-Oct-2017 10:51:00 | ALS Bottle#: | 0 | Worklist Smp#: | 11 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 5.0000 | | |
| Sample Info: | 440-0095228-011 | | | | |
| Misc. Info.: | 11 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 03:36:24 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 03:35:54 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1011.3 | 508.84 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-20.0-20171020 MSD | Lab Sample ID: 440-194754-6 MSD

Matrix: Solid (Soluble) | Lab File ID: 20171023015.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 07:55

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 12:59

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436780 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 2700 | | 220 | 56 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023015.d | | | | |
| Lims ID: | 440-194754-A-6-C MSD | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 23-Oct-2017 12:59:28 | ALS Bottle#: | 0 | Worklist Smp#: | 15 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-015 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 14:31:28 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 13:48:23 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.181 | 7.332 | -0.151 | 2301862 | 100.0 | 83.8 | |
| 3 Bromate | 8.194 | 8.378 | -0.184 | 406350 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.338 | 13.557 | -0.219 | 14122435 | 993.7 | 995.2 | |
| $ 1 Dichloroacetic acid | 13.338 | 14.113 | -0.775 | 14122435 | | NC | |
| 4 Bromide | 15.440 | 15.991 | -0.551 | 6686725 | NC | NC | |
| 2 Chlorate | 16.766 | 17.362 | -0.596 | 5851413 | NC | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023015.d | | | | |
| Lims ID: | 440-194754-A-6-C MSD | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 23-Oct-2017 12:59:28 | ALS Bottle#: | 0 | Worklist Smp#: | 15 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-015 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 14:31:28 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 13:48:23 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.181 | 7.332 | -0.151 | 2301862 | NC | NC | |
| 3 Bromate | 8.194 | 8.378 | -0.184 | 406350 | 25.0 | 26.2 | |
| $ 6 Dichloroacetic acid(Surr) | 13.338 | 13.557 | -0.219 | 14122435 | 993.7 | 997.7 | |
| $ 1 Dichloroacetic acid | 13.338 | 14.113 | -0.775 | 14122435 | | NC | |
| 4 Bromide | 15.440 | 15.991 | -0.551 | 6686725 | 250.0 | 256.4 | |
| 2 Chlorate | 16.766 | 17.362 | -0.596 | 5851413 | 100.0 | 241.0 | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

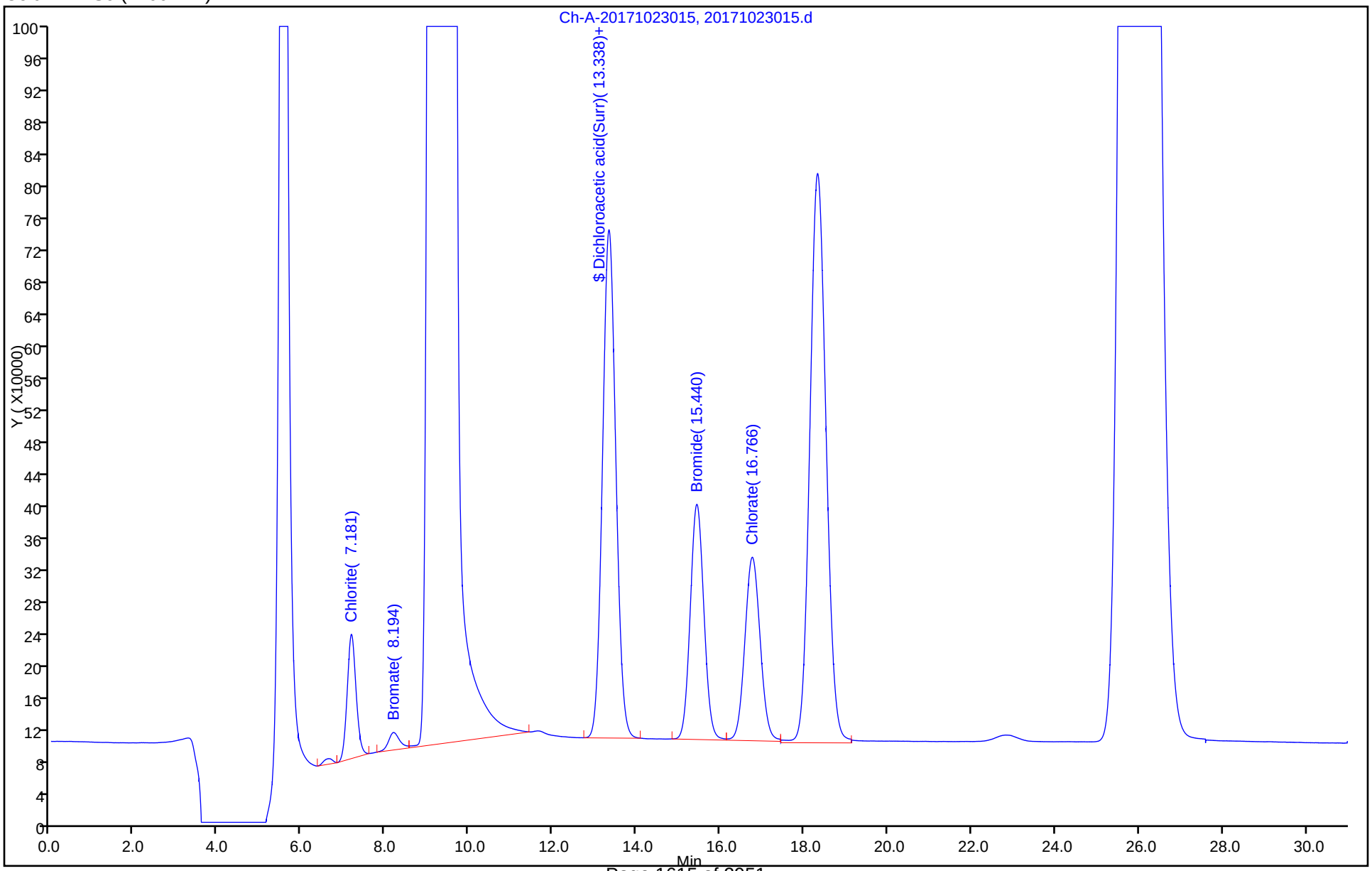
Report Date: 23-Oct-2017 13:48:25 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023015.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 12:59:28 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-6-C MSD | | | Worklist Smp#: | 15 |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



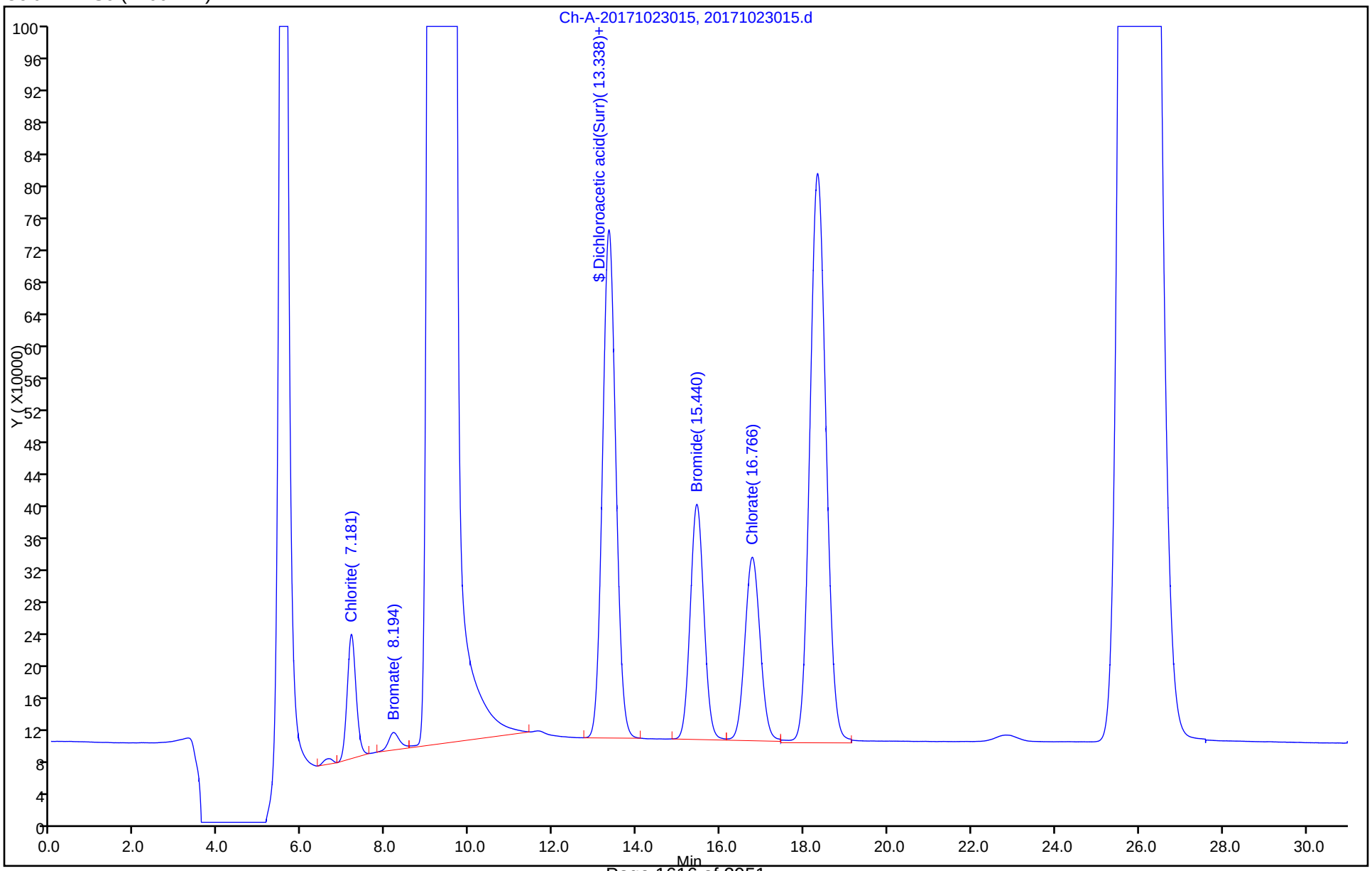
Report Date: 23-Oct-2017 13:48:24 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023015.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 12:59:28 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-6-C MSD | | | Worklist Smp#: | 15 |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023015.d | | | | |
| Lims ID: | 440-194754-A-6-C MSD | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 23-Oct-2017 12:59:28 | ALS Bottle#: | 0 | Worklist Smp#: | 15 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-015 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 14:31:28 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 13:48:23 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 995.2 | 100.15 |

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023015.d | | | | |
| Lims ID: | 440-194754-A-6-C MSD | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 23-Oct-2017 12:59:28 | ALS Bottle#: | 0 | Worklist Smp#: | 15 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-015 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 14:31:28 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 13:48:23 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 997.7 | 100.40 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-20.0-20171020 MSD | Lab Sample ID: 440-194754-6 MSD

Matrix: Solid (Soluble) | Lab File ID: 20171023015.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 07:55

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 12:59

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 939 | | 220 | 45 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-20.0-20171020 MSD Lab Sample ID: 440-194754-6 MSD

Matrix: Solid (Soluble) Lab File ID: 20171023015.d

Analysis Method: 300.1B Date Collected: 10/20/2017 07:55

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 10/23/2017 12:59

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: AS14 ID: 4(mm)

% Moisture: 11.2 GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023015.d | | | | |
| Lims ID: | 440-194754-A-6-C MSD | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 23-Oct-2017 12:59:28 | ALS Bottle#: | 0 | Worklist Smp#: | 15 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-015 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 14:31:28 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 13:48:23 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.181 | 7.332 | -0.151 | 2301862 | 100.0 | 83.8 | |
| 3 Bromate | 8.194 | 8.378 | -0.184 | 406350 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.338 | 13.557 | -0.219 | 14122435 | 993.7 | 995.2 | |
| $ 1 Dichloroacetic acid | 13.338 | 14.113 | -0.775 | 14122435 | | NC | |
| 4 Bromide | 15.440 | 15.991 | -0.551 | 6686725 | NC | NC | |
| 2 Chlorate | 16.766 | 17.362 | -0.596 | 5851413 | NC | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023015.d | | | | |
| Lims ID: | 440-194754-A-6-C MSD | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 23-Oct-2017 12:59:28 | ALS Bottle#: | 0 | Worklist Smp#: | 15 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-015 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 14:31:28 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 13:48:23 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.181 | 7.332 | -0.151 | 2301862 | NC | NC | |
| 3 Bromate | 8.194 | 8.378 | -0.184 | 406350 | 25.0 | 26.2 | |
| $ 6 Dichloroacetic acid(Surr) | 13.338 | 13.557 | -0.219 | 14122435 | 993.7 | 997.7 | |
| $ 1 Dichloroacetic acid | 13.338 | 14.113 | -0.775 | 14122435 | | NC | |
| 4 Bromide | 15.440 | 15.991 | -0.551 | 6686725 | 250.0 | 256.4 | |
| 2 Chlorate | 16.766 | 17.362 | -0.596 | 5851413 | 100.0 | 241.0 | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

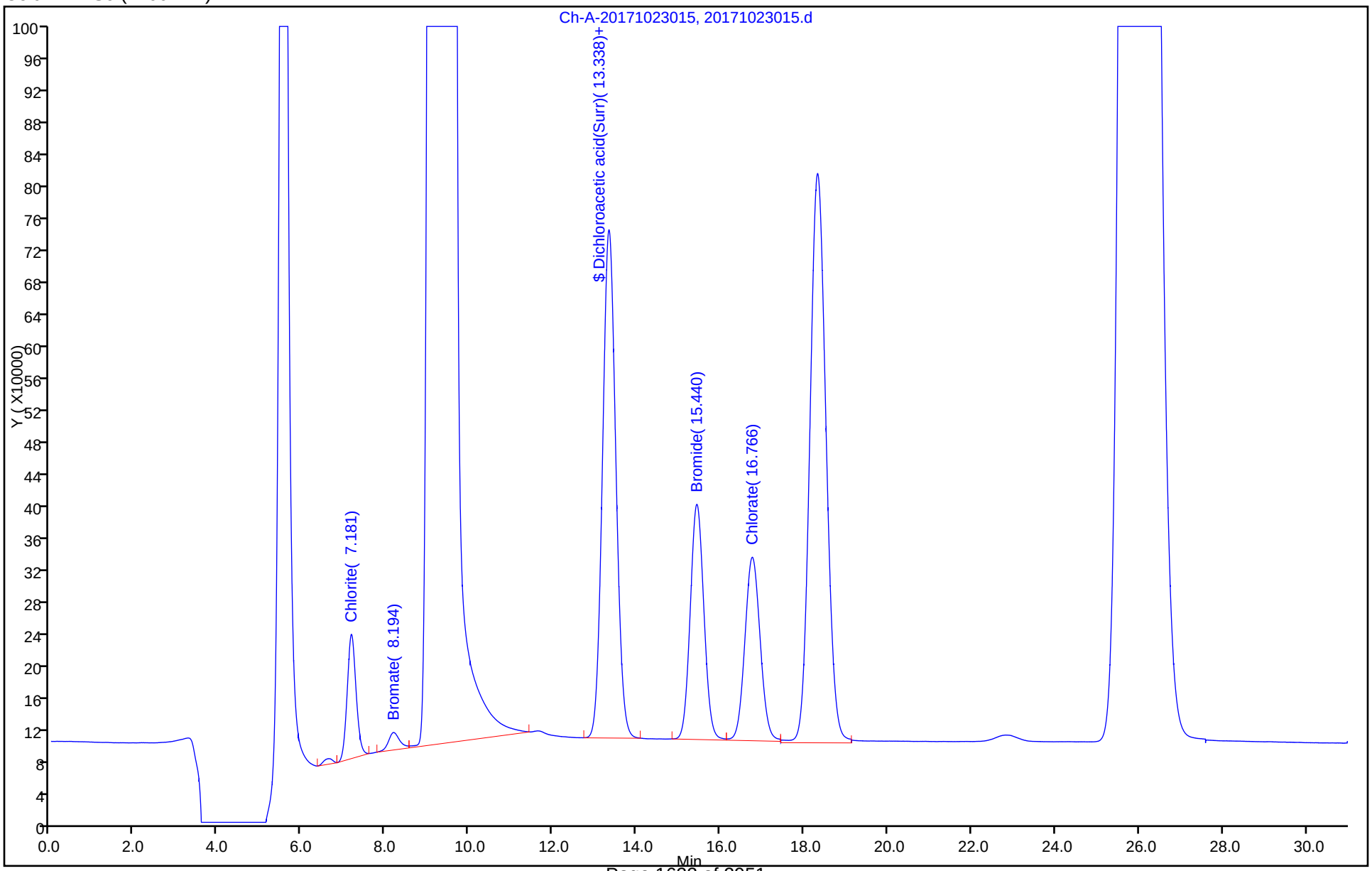
Report Date: 23-Oct-2017 13:48:25 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023015.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 12:59:28 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-6-C MSD | | | Worklist Smp#: | 15 |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



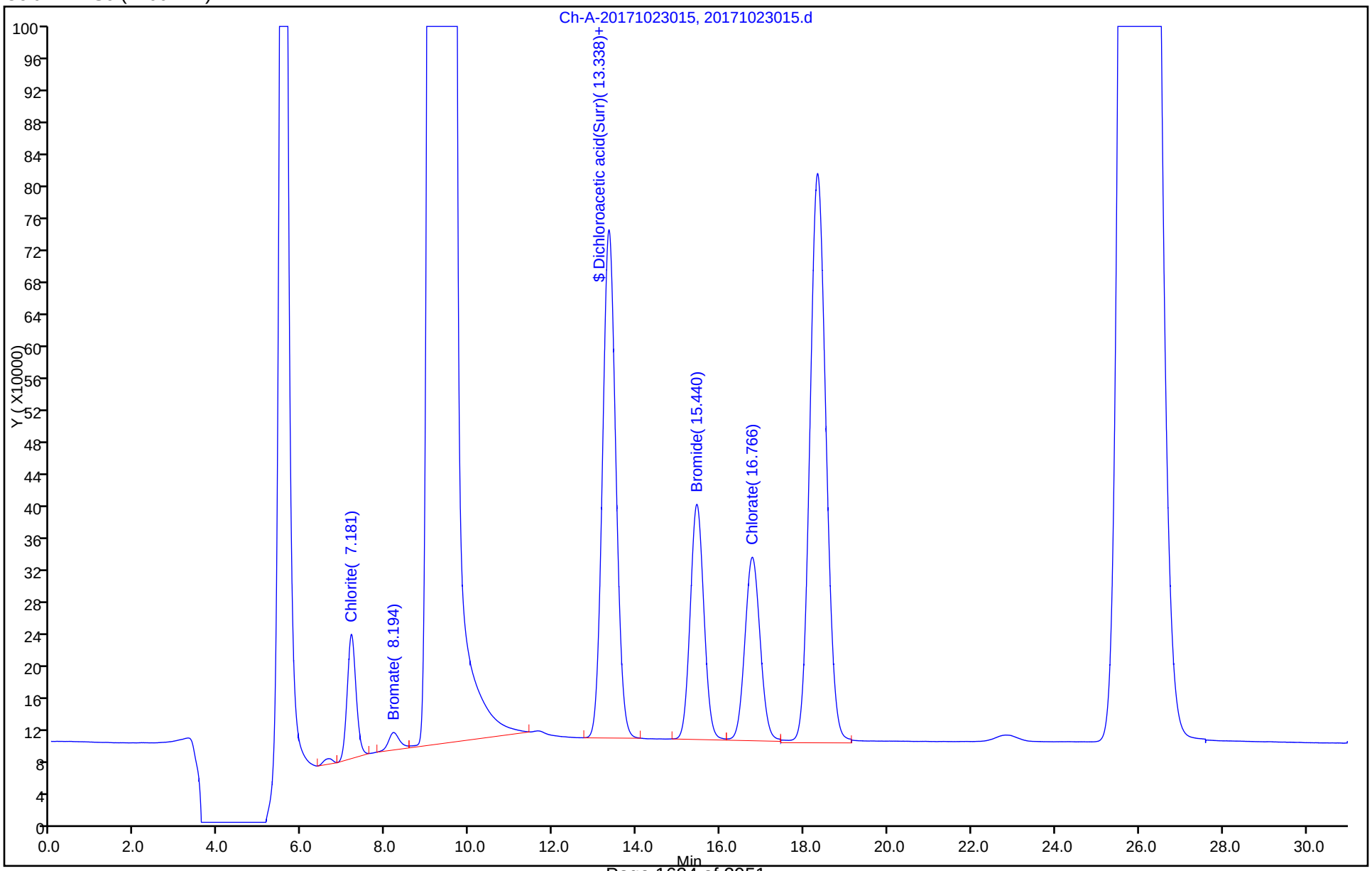
Report Date: 23-Oct-2017 13:48:24 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023015.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 12:59:28 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-6-C MSD | | | Worklist Smp#: | 15 |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023015.d | | | | |
| Lims ID: | 440-194754-A-6-C MSD | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 23-Oct-2017 12:59:28 | ALS Bottle#: | 0 | Worklist Smp#: | 15 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-015 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 14:31:28 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 13:48:23 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 995.2 | 100.15 |

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023015.d | | | | |
| Lims ID: | 440-194754-A-6-C MSD | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 23-Oct-2017 12:59:28 | ALS Bottle#: | 0 | Worklist Smp#: | 15 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-015 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 14:31:28 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 13:48:23 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 997.7 | 100.40 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-194791-A-2 MSD

Matrix: Water | Lab File ID: 440-0095168-018.d

Analysis Method: 300.1B | Date Collected: 10/22/2017 08:33

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 15:14

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437026 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 447 | | 100 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

Report Date: 25-Oct-2017 04:05:58 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-018.d
Lims ID: 440-194791-A-2 MSD
Client ID:
Sample Type: MSD
Inject. Date: 24-Oct-2017 15:14:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 1.0 ul Dil. Factor: 5.0000
Sample Info: 440-0095168-018
Misc. Info.: 18 EB
Operator ID: Instrument ID: IC-8

Method: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 25-Oct-2017 04:05:55 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK047

First Level Reviewer: zakhrabovy Date: 25-Oct-2017 03:59:10

| | Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 Chlorite | 7.250 | 7.192 | 0.058 | 5685983 | NC | NC | |
| | 3 Bromate | 8.217 | 8.250 | -0.033 | 745104 | 10.0 | 9.78 | |
| $ | 6 Dichloroacetic acid(Surr) | 13.450 | 13.592 | -0.142 | 80006654 | 198.7 | 994.1 | |
| $ | 1 Dichloroacetic acid | 13.450 | 13.759 | -0.309 | 80006654 | | NC | |
| | 4 Bromide | 15.200 | 15.967 | -0.767 | 16848538 | 100.0 | 118.6 | |
| | 2 Chlorate | 16.567 | 17.400 | -0.833 | 11891588 | 40.0 | 89.4 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WC3001LCS_00054 Amount Added: 250.00 Units: uL
WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

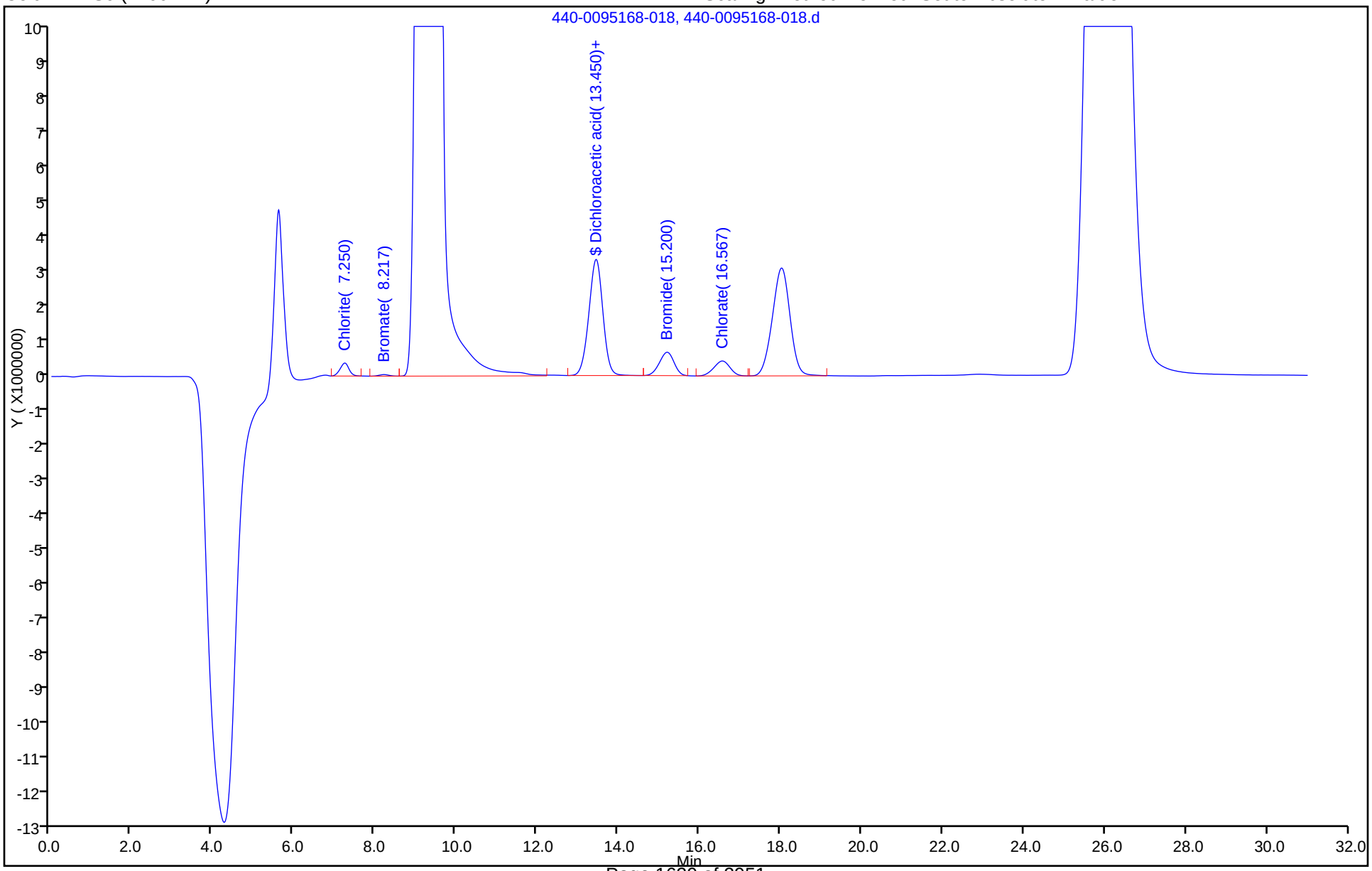
Report Date: 25-Oct-2017 04:05:58 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-018.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 15:14:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | 440-194791-A-2 MSD | | | Worklist Smp#: | 18 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 5.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 25-Oct-2017 04:05:58 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine
Recovery Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-018.d
Lims ID: 440-194791-A-2 MSD
Client ID:
Sample Type: MSD
Inject. Date: 24-Oct-2017 15:14:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 1.0 ul Dil. Factor: 5.0000
Sample Info: 440-0095168-018
Misc. Info.: 18 EB
Operator ID: Instrument ID: IC-8

Method: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 25-Oct-2017 04:05:55 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK047

First Level Reviewer: zakhrabovy Date: 25-Oct-2017 03:59:10

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 994.1 | 500.18 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-194791-A-2 MSD

Matrix: Water | Lab File ID: 440-0095168-018.d

Analysis Method: 300.1B | Date Collected: 10/22/2017 08:33

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/24/2017 15:14

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437027 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 196 | | 100 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-018.d | | | | |
| Lims ID: | 440-194791-A-2 MSD | | | | |
| Client ID: | | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 24-Oct-2017 15:14:00 | ALS Bottle#: | 0 | Worklist Smp#: | 18 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 5.0000 | | |
| Sample Info: | 440-0095168-018 | | | | |
| Misc. Info.: | 18 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 04:05:55 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:59:10 | | |

| | Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 Chlorite | 7.250 | 7.192 | 0.058 | 5685983 | 40.0 | 39.2 | |
| | 3 Bromate | 8.217 | 8.250 | -0.033 | 745104 | NC | NC | |
| $ | 6 Dichloroacetic acid(Surr) | 13.450 | 13.592 | -0.142 | 80006654 | 198.7 | 994.1 | |
| $ | 1 Dichloroacetic acid | 13.450 | 13.759 | -0.309 | 80006654 | | NC | |
| | 4 Bromide | 15.200 | 15.967 | -0.767 | 16848538 | NC | NC | |
| | 2 Chlorate | 16.567 | 17.400 | -0.833 | 11891588 | NC | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

| | | | |
|---|---|---|---|
| WC3001LCS_00054 | Amount Added: 250.00 | Units: uL | |
| WCDCA_00050 | Amount Added: 10.00 | Units: uL | Run Reagent |

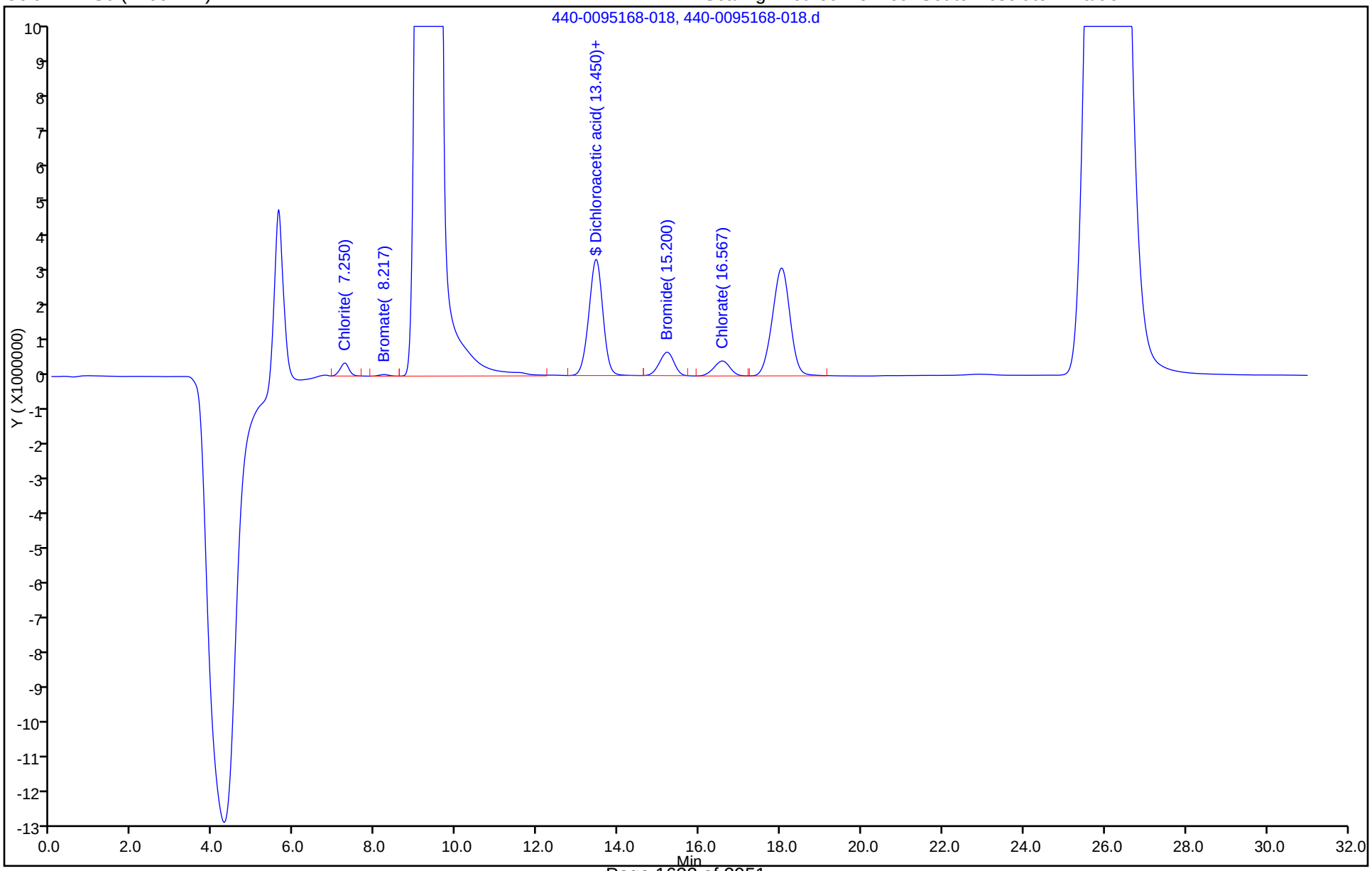
Report Date: 25-Oct-2017 04:05:58 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-018.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 15:14:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | 440-194791-A-2 MSD | | | Worklist Smp#: | 18 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 5.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 25-Oct-2017 04:05:58 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\440-0095168-018.d | | | | |
| Lims ID: | 440-194791-A-2 MSD | | | | |
| Client ID: | | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 24-Oct-2017 15:14:00 | ALS Bottle#: | 0 | Worklist Smp#: | 18 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 5.0000 | | |
| Sample Info: | 440-0095168-018 | | | | |
| Misc. Info.: | 18 EB | | | | |
| Operator ID: | | Instrument ID: | IC-8 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC8\20171024-95168.b\300.1_C8.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 04:05:55 | Calib Date: | 14-Aug-2017 08:29:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 03:59:10 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 994.1 | 500.18 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-194791-A-3 MSD

Matrix: Water | Lab File ID: 440-0095228-012.d

Analysis Method: 300.1B | Date Collected: 10/23/2017 07:51

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/25/2017 11:27

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437275 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 208 | | 100 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-012.d
Lims ID: 440-194791-A-3 MSD
Client ID:
Sample Type: MSD
Inject. Date: 25-Oct-2017 11:27:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 5.0000
Sample Info: 440-0095228-012
Misc. Info.: 12 EB
Operator ID: Instrument ID: IC-8

Method: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\300.1_C8.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 26-Oct-2017 03:36:24 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK034

First Level Reviewer: zakhrabovy Date: 26-Oct-2017 03:35:49

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.342 | 7.192 | 0.150 | 6058211 | 40.0 | 41.6 | |
| 3 Bromate | 8.383 | 8.250 | 0.133 | 830829 | NC | NC | M |
| $ 6 Dichloroacetic acid(Surr) | 13.667 | 13.592 | 0.075 | 79773160 | 198.7 | 991.2 | |
| $ 1 Dichloroacetic acid | 13.667 | 13.759 | -0.092 | 79773160 | | NC | |
| 4 Bromide | 15.950 | 15.967 | -0.017 | 18455730 | NC | NC | |
| 2 Chlorate | 17.283 | 17.400 | -0.117 | 12284779 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00054 Amount Added: 250.00 Units: uL
WCDCA_00050 Amount Added: 10.00 Units: uL Run Reagent

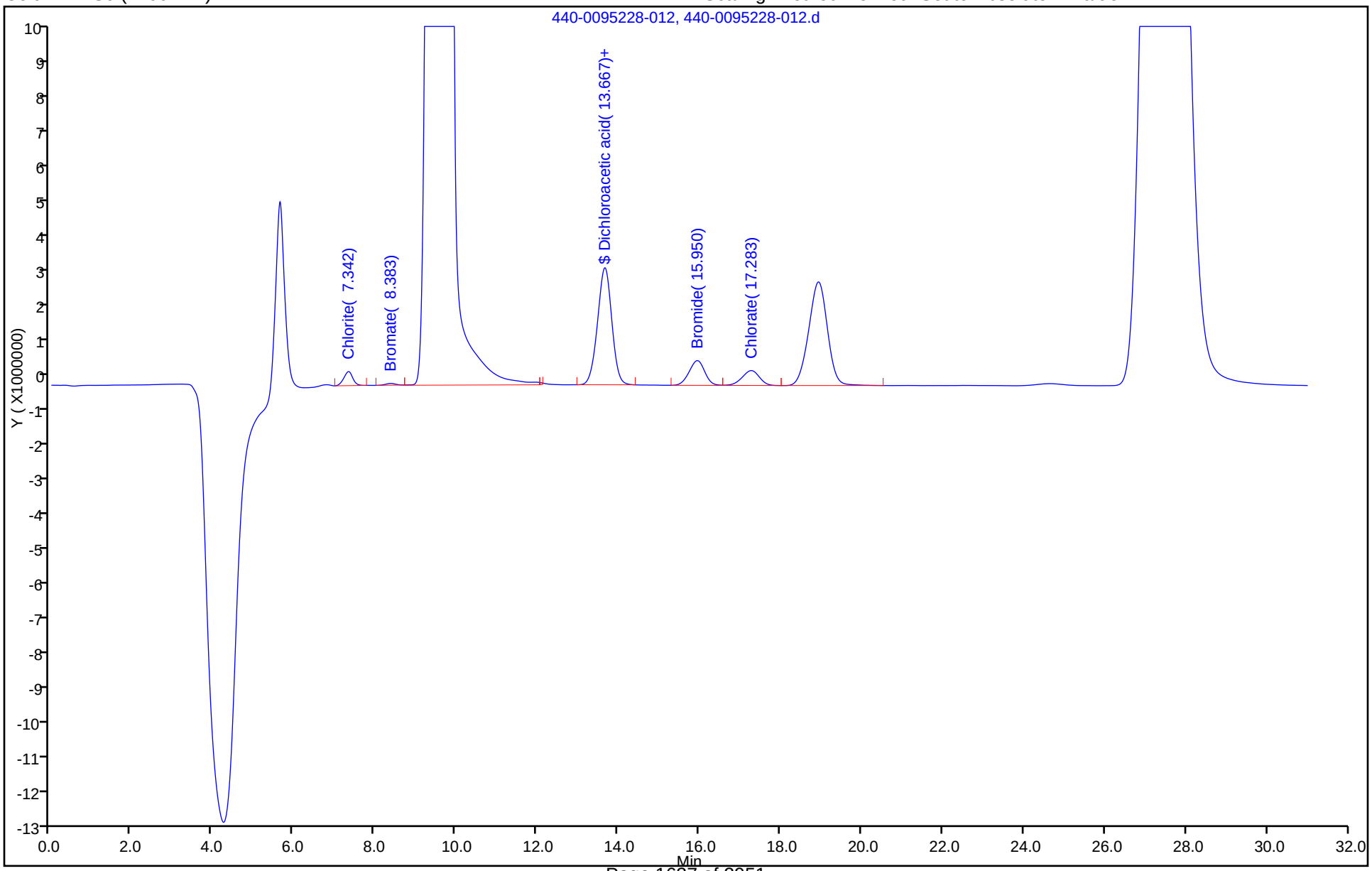
Report Date: 26-Oct-2017 03:36:41 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-012.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Oct-2017 11:27:00 | Instrument ID: | IC-8 | Operator ID: | |
| Lims ID: | 440-194791-A-3 MSD | | | Worklist Smp#: | 12 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 5.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C8 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Report Date: 26-Oct-2017 03:36:41 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine
Recovery Report

Data File: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\440-0095228-012.d
Lims ID: 440-194791-A-3 MSD
Client ID:
Sample Type: MSD
Inject. Date: 25-Oct-2017 11:27:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 5.0000
Sample Info: 440-0095228-012
Misc. Info.: 12 EB
Operator ID: Instrument ID: IC-8

Method: \\ChromNA\Irvine\ChromData\IC8\20171025-95228.b\300.1_C8.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 26-Oct-2017 03:36:24 Calib Date: 14-Aug-2017 08:29:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC8\20170814-92153.b\440-0092153-007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK034

First Level Reviewer: zakhrabovy Date: 26-Oct-2017 03:35:49

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 991.2 | 498.72 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-8 Start Date: 08/14/2017 04:52

Analysis Batch Number: 423009 End Date: 08/15/2017 09:39

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 08/14/2017 04:52 | 1 | | AS14 4(mm) |
| STD0 440-423009/2 IC | | 08/14/2017 05:28 | 1 | 440-0092153-002.d | AS14 4(mm) |
| STD1 440-423009/3 IC | | 08/14/2017 06:04 | 1 | 440-0092153-003.d | AS14 4(mm) |
| STD2 440-423009/4 IC | | 08/14/2017 06:40 | 1 | 440-0092153-004.d | AS14 4(mm) |
| STD3 440-423009/5 IC | | 08/14/2017 07:17 | 1 | 440-0092153-005.d | AS14 4(mm) |
| STD4 440-423009/6 IC | | 08/14/2017 07:53 | 1 | 440-0092153-006.d | AS14 4(mm) |
| STD5 440-423009/7 IC | | 08/14/2017 08:29 | 1 | 440-0092153-007.d | AS14 4(mm) |
| ICV 440-423009/8 | | 08/14/2017 09:17 | 1 | 440-0092153-008.d | AS14 4(mm) |
| ICB 440-423009/9 | | 08/14/2017 09:53 | 1 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 11:16 | 1 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 11:57 | 1 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 12:33 | 1 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 13:09 | 5 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 13:46 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 14:22 | 5 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 14:58 | 5 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 15:34 | 10000 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 16:11 | 10000 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 16:47 | 10000 | | AS14 4(mm) |
| CCV 440-423009/20 | | 08/14/2017 17:23 | 1 | | AS14 4(mm) |
| CCB 440-423009/21 | | 08/14/2017 17:59 | 1 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 18:36 | 5 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 19:12 | 5 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 19:48 | 5 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 20:24 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 21:01 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 21:37 | 10000 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 22:13 | 10000 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 22:49 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 23:26 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 08/15/2017 00:02 | 10000 | | AS14 4(mm) |
| CCV 440-423009/32 | | 08/15/2017 00:38 | 1 | | AS14 4(mm) |
| CCB 440-423009/33 | | 08/15/2017 01:14 | 1 | | AS14 4(mm) |
| ZZZZZ | | 08/15/2017 01:51 | 20000 | | AS14 4(mm) |
| ZZZZZ | | 08/15/2017 02:27 | 20000 | | AS14 4(mm) |
| ZZZZZ | | 08/15/2017 03:03 | 20000 | | AS14 4(mm) |
| ZZZZZ | | 08/15/2017 03:39 | 50 | | AS14 4(mm) |
| ZZZZZ | | 08/15/2017 04:16 | 20000 | | AS14 4(mm) |
| ZZZZZ | | 08/15/2017 04:52 | 20000 | | AS14 4(mm) |
| ZZZZZ | | 08/15/2017 05:28 | 20000 | | AS14 4(mm) |
| ZZZZZ | | 08/15/2017 06:04 | 20000 | | AS14 4(mm) |
| ZZZZZ | | 08/15/2017 06:41 | 100 | | AS14 4(mm) |

300.1B

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-8 Start Date: 08/14/2017 04:52

Analysis Batch Number: 423009 End Date: 08/15/2017 09:39

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 08/15/2017 07:17 | 1000 | | AS14 4(mm) |
| CCV 440-423009/44 | | 08/15/2017 08:19 | 1 | | AS14 4(mm) |
| CCB 440-423009/45 | | 08/15/2017 09:39 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-8 Start Date: 08/14/2017 04:52

Analysis Batch Number: 423010 End Date: 08/15/2017 09:39

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 08/14/2017 04:52 | 1 | | AS14 4(mm) |
| STD0 440-423010/2 IC | | 08/14/2017 05:28 | 1 | 440-0092153-002.d | AS14 4(mm) |
| STD1 440-423010/3 IC | | 08/14/2017 06:04 | 1 | 440-0092153-003.d | AS14 4(mm) |
| STD2 440-423010/4 IC | | 08/14/2017 06:40 | 1 | 440-0092153-004.d | AS14 4(mm) |
| STD3 440-423010/5 IC | | 08/14/2017 07:17 | 1 | 440-0092153-005.d | AS14 4(mm) |
| STD4 440-423010/6 IC | | 08/14/2017 07:53 | 1 | 440-0092153-006.d | AS14 4(mm) |
| STD5 440-423010/7 IC | | 08/14/2017 08:29 | 1 | 440-0092153-007.d | AS14 4(mm) |
| ICV 440-423010/8 | | 08/14/2017 09:17 | 1 | 440-0092153-008.d | AS14 4(mm) |
| ICB 440-423010/9 | | 08/14/2017 09:53 | 1 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 11:16 | 1 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 11:57 | 1 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 12:33 | 1 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 13:09 | 5 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 14:22 | 5 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 14:58 | 5 | | AS14 4(mm) |
| CCV 440-423010/20 | | 08/14/2017 17:23 | 1 | | AS14 4(mm) |
| CCB 440-423010/21 | | 08/14/2017 17:59 | 1 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 18:36 | 5 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 19:12 | 5 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 19:48 | 5 | | AS14 4(mm) |
| CCV 440-423010/32 | | 08/15/2017 00:38 | 1 | | AS14 4(mm) |
| CCB 440-423010/33 | | 08/15/2017 01:14 | 1 | | AS14 4(mm) |
| CCV 440-423010/44 | | 08/15/2017 08:19 | 1 | | AS14 4(mm) |
| CCB 440-423010/45 | | 08/15/2017 09:39 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-11 Start Date: 09/26/2017 08:29

Analysis Batch Number: 431296 End Date: 09/27/2017 13:43

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 09/26/2017 08:29 | 1 | | AS14 4(mm) |
| STD0 440-431296/2 IC | | 09/26/2017 09:02 | 1 | 20170926002.d | AS14 4(mm) |
| STD1 440-431296/3 IC | | 09/26/2017 09:36 | 1 | 20170926003.d | AS14 4(mm) |
| STD2 440-431296/4 IC | | 09/26/2017 10:09 | 1 | 20170926004.d | AS14 4(mm) |
| STD3 440-431296/5 IC | | 09/26/2017 10:42 | 1 | 20170926005.d | AS14 4(mm) |
| STD4 440-431296/6 IC | | 09/26/2017 11:15 | 1 | 20170926006.d | AS14 4(mm) |
| STD5 440-431296/7 IC | | 09/26/2017 11:48 | 1 | 20170926007.d | AS14 4(mm) |
| ICV 440-431296/8 | | 09/26/2017 12:33 | 1 | 20170926008.d | AS14 4(mm) |
| ICB 440-431296/9 | | 09/26/2017 13:06 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 13:39 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 14:12 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 14:46 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 15:19 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 15:52 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 16:25 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 16:58 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 17:32 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 18:05 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 18:38 | 1 | | AS14 4(mm) |
| CCV 440-431296/20 | | 09/26/2017 19:11 | 1 | | AS14 4(mm) |
| CCB 440-431296/21 | | 09/26/2017 19:44 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 20:18 | 5 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 20:51 | 5 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 21:24 | 5 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 21:57 | 5 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 22:30 | 5 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 23:03 | 5 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 23:37 | 5 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 00:10 | 5 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 00:43 | 5 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 01:16 | 5 | | AS14 4(mm) |
| CCV 440-431296/32 | | 09/27/2017 01:49 | 1 | | AS14 4(mm) |
| CCB 440-431296/33 | | 09/27/2017 02:23 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 02:56 | 5 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 04:53 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 05:26 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 05:59 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 06:32 | 50 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 07:38 | 100 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 08:11 | 100 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 08:44 | 100 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 09:17 | 100 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 09:50 | 100 | | AS14 4(mm) |
| CCV 440-431296/44 | | 09/27/2017 10:24 | 1 | | AS14 4(mm) |
| CCB 440-431296/45 | | 09/27/2017 10:57 | 1 | | AS14 4(mm) |

# HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-11 Start Date: 09/26/2017 08:29

Analysis Batch Number: 431296 End Date: 09/27/2017 13:43

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 09/27/2017 11:30 | 100 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 12:03 | 100 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 12:36 | 100 | | AS14 4(mm) |
| CCV 440-431296/49 | | 09/27/2017 13:10 | 1 | | AS14 4(mm) |
| CCB 440-431296/50 | | 09/27/2017 13:43 | 1 | | AS14 4(mm) |

# HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-11  Start Date: 09/26/2017 08:29

Analysis Batch Number: 431297  End Date: 09/27/2017 10:57

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 09/26/2017 08:29 | 1 | | AS14 4(mm) |
| STD0 440-431297/2 IC | | 09/26/2017 09:02 | 1 | 20170926002.d | AS14 4(mm) |
| STD1 440-431297/3 IC | | 09/26/2017 09:36 | 1 | 20170926003.d | AS14 4(mm) |
| STD2 440-431297/4 IC | | 09/26/2017 10:09 | 1 | 20170926004.d | AS14 4(mm) |
| STD3 440-431297/5 IC | | 09/26/2017 10:42 | 1 | 20170926005.d | AS14 4(mm) |
| STD4 440-431297/6 IC | | 09/26/2017 11:15 | 1 | 20170926006.d | AS14 4(mm) |
| STD5 440-431297/7 IC | | 09/26/2017 11:48 | 1 | 20170926007.d | AS14 4(mm) |
| ICV 440-431297/8 | | 09/26/2017 12:33 | 1 | 20170926008.d | AS14 4(mm) |
| ICB 440-431297/9 | | 09/26/2017 13:06 | 1 | | AS14 4(mm) |
| CCV 440-431297/44 | | 09/27/2017 10:24 | 1 | | AS14 4(mm) |
| CCB 440-431297/45 | | 09/27/2017 10:57 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-11 Start Date: 10/23/2017 05:14

Analysis Batch Number: 436780 End Date: 10/24/2017 21:35

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-436780/1 | | 10/23/2017 05:14 | 1 | | AS14 4(mm) |
| CCB 440-436780/2 | | 10/23/2017 05:48 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 06:21 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 06:54 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 07:27 | 500 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 08:00 | 500 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 08:33 | 500 | | AS14 4(mm) |
| CCV 440-436780/8 | | 10/23/2017 09:07 | 1 | 20171023008.d | AS14 4(mm) |
| CCB 440-436780/9 | | 10/23/2017 09:40 | 1 | 20171023009.d | AS14 4(mm) |
| MRL 440-436780/10 | | 10/23/2017 10:13 | 1 | 20171023010.d | AS14 4(mm) |
| LCS 440-436671/1-A | | 10/23/2017 10:46 | 1 | 20171023011.d | AS14 4(mm) |
| MB 440-436671/2-A | | 10/23/2017 11:19 | 1 | 20171023012.d | AS14 4(mm) |
| 440-194754-6 | | 10/23/2017 11:53 | 1 | 20171023013.d | AS14 4(mm) |
| 440-194754-6 MS | | 10/23/2017 12:26 | 1 | 20171023014.d | AS14 4(mm) |
| 440-194754-6 MSD | | 10/23/2017 12:59 | 1 | 20171023015.d | AS14 4(mm) |
| 440-194754-2 | | 10/23/2017 13:32 | 1 | 20171023016.d | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 14:05 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 14:39 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 15:12 | 50 | | AS14 4(mm) |
| CCV 440-436780/20 | | 10/23/2017 15:45 | 1 | 20171023020.d | AS14 4(mm) |
| CCB 440-436780/21 | | 10/23/2017 16:18 | 1 | 20171023021.d | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 16:51 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 17:24 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 17:58 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 18:31 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 19:04 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 19:37 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 20:10 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 20:44 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 21:17 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 21:50 | 50 | | AS14 4(mm) |
| CCV 440-436780/32 | | 10/23/2017 22:23 | 1 | | AS14 4(mm) |
| CCB 440-436780/33 | | 10/23/2017 22:56 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 23:30 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 00:03 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 00:36 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 01:09 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 01:42 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 02:16 | 1 | | AS14 4(mm) |
| CCV 440-436780/40 | | 10/24/2017 05:23 | 1 | 20171023040.d | AS14 4(mm) |
| CCB 440-436780/41 | | 10/24/2017 05:56 | 1 | 20171023041.d | AS14 4(mm) |
| 440-194754-8 | | 10/24/2017 06:30 | 500 | 20171023042.d | AS14 4(mm) |
| 440-194754-10 | | 10/24/2017 07:03 | 500 | 20171023043.d | AS14 4(mm) |
| 440-194754-3 | | 10/24/2017 07:36 | 2 | 20171023044.d | AS14 4(mm) |
| 440-194754-4 | | 10/24/2017 08:09 | 2 | 20171023045.d | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-11 Start Date: 10/23/2017 05:14

Analysis Batch Number: 436780 End Date: 10/24/2017 21:35

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 10/24/2017 08:42 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 09:16 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 09:49 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 10:22 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 11:04 | 50 | | AS14 4(mm) |
| 440-194754-7 | | 10/24/2017 11:38 | 10 | 20171023051.d | AS14 4(mm) |
| CCV 440-436780/52 | | 10/24/2017 12:11 | 1 | 20171023052.d | AS14 4(mm) |
| CCB 440-436780/53 | | 10/24/2017 12:44 | 1 | 20171023053.d | AS14 4(mm) |
| 440-194754-5 | | 10/24/2017 13:17 | 1 | 20171023054.d | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 13:50 | 10 | | AS14 4(mm) |
| 440-194754-15 | | 10/24/2017 14:24 | 10 | 20171023056.d | AS14 4(mm) |
| 440-194754-16 | | 10/24/2017 14:57 | 10 | 20171023057.d | AS14 4(mm) |
| 440-194754-17 | | 10/24/2017 15:30 | 1 | 20171023058.d | AS14 4(mm) |
| 440-194754-18 | | 10/24/2017 16:03 | 1 | 20171023059.d | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 16:36 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 17:10 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 17:43 | 5 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 18:16 | 500 | | AS14 4(mm) |
| CCV 440-436780/64 | | 10/24/2017 18:49 | 1 | 20171023064.d | AS14 4(mm) |
| CCB 440-436780/65 | | 10/24/2017 19:22 | 1 | 20171023065.d | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 19:55 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 20:29 | 1000 | | AS14 4(mm) |
| CCV 440-436780/68 | | 10/24/2017 21:02 | 1 | | AS14 4(mm) |
| CCB 440-436780/69 | | 10/24/2017 21:35 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-11 Start Date: 10/23/2017 05:14

Analysis Batch Number: 436781 End Date: 10/24/2017 19:22

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-436781/1 | | 10/23/2017 05:14 | 1 | | AS14 4(mm) |
| CCB 440-436781/2 | | 10/23/2017 05:48 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 06:21 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 06:54 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 08:33 | 500 | | AS14 4(mm) |
| CCV 440-436781/8 | | 10/23/2017 09:07 | 1 | 20171023008.d | AS14 4(mm) |
| CCB 440-436781/9 | | 10/23/2017 09:40 | 1 | 20171023009.d | AS14 4(mm) |
| MRL 440-436781/10 | | 10/23/2017 10:13 | 1 | 20171023010.d | AS14 4(mm) |
| LCS 440-436671/1-A | | 10/23/2017 10:46 | 1 | 20171023011.d | AS14 4(mm) |
| MB 440-436671/2-A | | 10/23/2017 11:19 | 1 | 20171023012.d | AS14 4(mm) |
| 440-194754-6 | | 10/23/2017 11:53 | 1 | 20171023013.d | AS14 4(mm) |
| 440-194754-6 MS | | 10/23/2017 12:26 | 1 | 20171023014.d | AS14 4(mm) |
| 440-194754-6 MSD | | 10/23/2017 12:59 | 1 | 20171023015.d | AS14 4(mm) |
| 440-194754-2 | | 10/23/2017 13:32 | 1 | 20171023016.d | AS14 4(mm) |
| 440-194754-3 | | 10/23/2017 14:05 | 1 | 20171023017.d | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 14:39 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 15:12 | 50 | | AS14 4(mm) |
| CCV 440-436781/20 | | 10/23/2017 15:45 | 1 | 20171023020.d | AS14 4(mm) |
| CCB 440-436781/21 | | 10/23/2017 16:18 | 1 | 20171023021.d | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 17:24 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 17:58 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 18:31 | 1 | | AS14 4(mm) |
| 440-194754-4 | | 10/23/2017 19:37 | 1 | 20171023027.d | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 20:10 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 20:44 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 21:17 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 21:50 | 50 | | AS14 4(mm) |
| CCV 440-436781/32 | | 10/23/2017 22:23 | 1 | 20171023032.d | AS14 4(mm) |
| CCB 440-436781/33 | | 10/23/2017 22:56 | 1 | 20171023033.d | AS14 4(mm) |
| 440-194754-8 | | 10/23/2017 23:30 | 1 | 20171023034.d | AS14 4(mm) |
| 440-194754-10 | | 10/24/2017 00:03 | 1 | 20171023035.d | AS14 4(mm) |
| 440-194754-11 | | 10/24/2017 00:36 | 1 | 20171023036.d | AS14 4(mm) |
| 440-194754-12 | | 10/24/2017 01:09 | 1 | 20171023037.d | AS14 4(mm) |
| 440-194754-13 | | 10/24/2017 01:42 | 1 | 20171023038.d | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 02:16 | 1 | | AS14 4(mm) |
| CCV 440-436781/40 | | 10/24/2017 05:23 | 1 | 20171023040.d | AS14 4(mm) |
| CCB 440-436781/41 | | 10/24/2017 05:56 | 1 | 20171023041.d | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 06:30 | 500 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 07:03 | 500 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 07:36 | 2 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 08:09 | 2 | | AS14 4(mm) |
| 440-194754-7 | | 10/24/2017 11:38 | 10 | 20171023051.d | AS14 4(mm) |
| CCV 440-436781/52 | | 10/24/2017 12:11 | 1 | 20171023052.d | AS14 4(mm) |
| CCB 440-436781/53 | | 10/24/2017 12:44 | 1 | 20171023053.d | AS14 4(mm) |
| 440-194754-5 | | 10/24/2017 13:17 | 1 | 20171023054.d | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-11 Start Date: 10/23/2017 05:14

Analysis Batch Number: 436781 End Date: 10/24/2017 19:22

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 10/24/2017 13:50 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 14:24 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 14:57 | 10 | | AS14 4(mm) |
| 440-194754-17 | | 10/24/2017 15:30 | 1 | 20171023058.d | AS14 4(mm) |
| 440-194754-18 | | 10/24/2017 16:03 | 1 | 20171023059.d | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 16:36 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 17:10 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 17:43 | 5 | | AS14 4(mm) |
| CCV 440-436781/64 | | 10/24/2017 18:49 | 1 | 20171023064.d | AS14 4(mm) |
| CCB 440-436781/65 | | 10/24/2017 19:22 | 1 | 20171023065.d | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-8 Start Date: 10/24/2017 04:58

Analysis Batch Number: 437026 End Date: 10/25/2017 03:19

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-437026/1 | | 10/24/2017 04:58 | 1 | 440-0095168-001.d | AS14 4(mm) |
| CCB 440-437026/2 | | 10/24/2017 05:34 | 1 | 440-0095168-002.d | AS14 4(mm) |
| MRL 440-437026/3 | | 10/24/2017 06:10 | 1 | 440-0095168-003.d | AS14 4(mm) |
| LCS 440-437026/4 | | 10/24/2017 06:46 | 1 | 440-0095168-004.d | AS14 4(mm) |
| MB 440-437026/5 | | 10/24/2017 07:23 | 1 | 440-0095168-005.d | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 07:59 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 08:35 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 09:11 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 10:24 | 5 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 11:00 | 5 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 11:36 | 5 | | AS14 4(mm) |
| CCV 440-437026/13 | | 10/24/2017 12:13 | 1 | 440-0095168-013.d | AS14 4(mm) |
| CCB 440-437026/14 | | 10/24/2017 12:49 | 1 | 440-0095168-014.d | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 14:01 | 5 | | AS14 4(mm) |
| 440-194791-A-2 MS | | 10/24/2017 14:38 | 5 | 440-0095168-017.d | AS14 4(mm) |
| 440-194791-A-2 MSD | | 10/24/2017 15:14 | 5 | 440-0095168-018.d | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 15:50 | 5 | | AS14 4(mm) |
| 440-194754-14 | | 10/24/2017 16:26 | 1 | 440-0095168-020.d | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 17:03 | 1000 | | AS14 4(mm) |
| 440-194754-9 | | 10/24/2017 17:39 | 2000 | 440-0095168-022.d | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 18:51 | 10000 | | AS14 4(mm) |
| CCV 440-437026/25 | | 10/24/2017 19:28 | 1 | 440-0095168-025.d | AS14 4(mm) |
| CCB 440-437026/26 | | 10/24/2017 20:04 | 1 | 440-0095168-026.d | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 20:40 | 20000 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 21:16 | 20000 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 21:53 | 20000 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 22:29 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 23:05 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 23:41 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 00:18 | 100 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 00:54 | 100 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 01:30 | 100 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 02:06 | 1 | | AS14 4(mm) |
| CCV 440-437026/37 | | 10/25/2017 02:43 | 1 | | AS14 4(mm) |
| CCB 440-437026/38 | | 10/25/2017 03:19 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-8 Start Date: 10/24/2017 04:58

Analysis Batch Number: 437027 End Date: 10/25/2017 03:19

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-437027/1 | | 10/24/2017 04:58 | 1 | 440-0095168-001.d | AS14 4(mm) |
| CCB 440-437027/2 | | 10/24/2017 05:34 | 1 | 440-0095168-002.d | AS14 4(mm) |
| MRL 440-437027/3 | | 10/24/2017 06:10 | 1 | 440-0095168-003.d | AS14 4(mm) |
| LCS 440-437027/4 | | 10/24/2017 06:46 | 1 | 440-0095168-004.d | AS14 4(mm) |
| MB 440-437027/5 | | 10/24/2017 07:23 | 1 | 440-0095168-005.d | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 09:48 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 11:00 | 5 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 11:36 | 5 | | AS14 4(mm) |
| CCV 440-437027/13 | | 10/24/2017 12:13 | 1 | 440-0095168-013.d | AS14 4(mm) |
| CCB 440-437027/14 | | 10/24/2017 12:49 | 1 | 440-0095168-014.d | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 13:25 | 1 | | AS14 4(mm) |
| 440-194791-A-2 MS | | 10/24/2017 14:38 | 5 | 440-0095168-017.d | AS14 4(mm) |
| 440-194791-A-2 MSD | | 10/24/2017 15:14 | 5 | 440-0095168-018.d | AS14 4(mm) |
| 440-194754-14 | | 10/24/2017 16:26 | 1 | 440-0095168-020.d | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 17:03 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 17:39 | 2000 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 18:15 | 1000 | | AS14 4(mm) |
| CCV 440-437027/25 | | 10/24/2017 19:28 | 1 | 440-0095168-025.d | AS14 4(mm) |
| CCB 440-437027/26 | | 10/24/2017 20:04 | 1 | 440-0095168-026.d | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 22:29 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 23:05 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 23:41 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 02:06 | 1 | | AS14 4(mm) |
| CCV 440-437027/37 | | 10/25/2017 02:43 | 1 | | AS14 4(mm) |
| CCB 440-437027/38 | | 10/25/2017 03:19 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-11 Start Date: 10/25/2017 05:18

Analysis Batch Number: 437272 End Date: 10/26/2017 10:06

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-437272/1 | | 10/25/2017 05:18 | 1 | | AS14 4(mm) |
| CCB 440-437272/2 | | 10/25/2017 05:51 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 06:24 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 07:31 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 08:04 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 08:44 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 09:18 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 09:51 | 5 | | AS14 4(mm) |
| CCV 440-437272/10 | | 10/25/2017 10:24 | 1 | | AS14 4(mm) |
| CCV 440-437272/11 | | 10/25/2017 10:57 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 11:30 | 1 | | AS14 4(mm) |
| CCB 440-437272/13 | | 10/25/2017 12:04 | 1 | | AS14 4(mm) |
| CCB 440-437272/14 | | 10/25/2017 12:37 | 1 | | AS14 4(mm) |
| CCV 440-437272/34 | | 10/26/2017 05:03 | 1 | 20171025034.d | AS14 4(mm) |
| CCB 440-437272/35 | | 10/26/2017 05:40 | 1 | 20171025035.d | AS14 4(mm) |
| MRL 440-437272/36 | | 10/26/2017 06:14 | 1 | 20171025036.d | AS14 4(mm) |
| 440-194754-15 | | 10/26/2017 07:20 | 1 | 20171025038.d | AS14 4(mm) |
| 440-194754-16 | | 10/26/2017 07:53 | 1 | 20171025039.d | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 08:26 | 1 | | AS14 4(mm) |
| CCV 440-437272/42 | | 10/26/2017 09:33 | 1 | 20171025042.d | AS14 4(mm) |
| CCB 440-437272/43 | | 10/26/2017 10:06 | 1 | 20171025043.d | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-8 Start Date: 10/25/2017 04:15

Analysis Batch Number: 437275 End Date: 10/26/2017 09:58

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-437275/1 | | 10/25/2017 04:15 | 1 | 440-0095228-001.d | AS14 4(mm) |
| CCB 440-437275/2 | | 10/25/2017 04:50 | 1 | 440-0095228-002.d | AS14 4(mm) |
| MRL 440-437275/3 | | 10/25/2017 05:27 | 1 | 440-0095228-003.d | AS14 4(mm) |
| LCS 440-437275/4 | | 10/25/2017 06:19 | 1 | 440-0095228-004.d | AS14 4(mm) |
| MB 440-437275/5 | | 10/25/2017 06:55 | 1 | 440-0095228-005.d | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 08:56 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 09:39 | 1 | | AS14 4(mm) |
| 440-194791-A-3 MS | | 10/25/2017 10:51 | 5 | 440-0095228-011.d | AS14 4(mm) |
| 440-194791-A-3 MSD | | 10/25/2017 11:27 | 5 | 440-0095228-012.d | AS14 4(mm) |
| CCV 440-437275/13 | | 10/25/2017 12:04 | 1 | 440-0095228-013.d | AS14 4(mm) |
| CCB 440-437275/14 | | 10/25/2017 12:40 | 1 | 440-0095228-014.d | AS14 4(mm) |
| 440-194754-9 | | 10/25/2017 13:52 | 100 | 440-0095228-016.d | AS14 4(mm) |
| CCV 440-437275/25 | | 10/25/2017 19:19 | 1 | 440-0095228-025.d | AS14 4(mm) |
| CCB 440-437275/26 | | 10/25/2017 19:55 | 1 | 440-0095228-026.d | AS14 4(mm) |
| CCV 440-437275/35 | | 10/26/2017 01:21 | 1 | | AS14 4(mm) |
| CCB 440-437275/36 | | 10/26/2017 01:57 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 02:34 | 20 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 03:29 | 50 | | AS14 4(mm) |
| CCV 440-437275/47 | | 10/26/2017 09:22 | 1 | | AS14 4(mm) |
| CCB 440-437275/48 | | 10/26/2017 09:58 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-11 Start Date: 10/27/2017 08:03

Analysis Batch Number: 437778 End Date: 10/28/2017 09:48

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-437778/1 | | 10/27/2017 08:03 | 1 | | AS14 4(mm) |
| CCB 440-437778/2 | | 10/27/2017 08:36 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 09:09 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 09:45 | 100 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 10:18 | 100 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 10:52 | 20 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 11:25 | 20 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 11:58 | 100 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 12:31 | 200 | | AS14 4(mm) |
| CCV 440-437778/10 | | 10/27/2017 13:04 | 1 | | AS14 4(mm) |
| CCB 440-437778/11 | | 10/27/2017 13:38 | 1 | | AS14 4(mm) |
| MRL 440-437778/12 | | 10/27/2017 14:11 | 1 | 20171027012.d | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 14:44 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 15:17 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 15:50 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 16:24 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 16:57 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 17:30 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 18:03 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 18:36 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 19:10 | 10 | | AS14 4(mm) |
| CCV 440-437778/22 | | 10/27/2017 19:43 | 1 | | AS14 4(mm) |
| CCB 440-437778/23 | | 10/27/2017 20:16 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 20:49 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 21:22 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 21:55 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 22:29 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 23:02 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 23:35 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/28/2017 00:08 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/28/2017 00:41 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/28/2017 01:15 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/28/2017 01:48 | 50 | | AS14 4(mm) |
| CCV 440-437778/34 | | 10/28/2017 02:21 | 1 | 20171027034.d | AS14 4(mm) |
| CCB 440-437778/35 | | 10/28/2017 02:54 | 1 | 20171027035.d | AS14 4(mm) |
| 440-194754-11 | | 10/28/2017 03:27 | 1000 | 20171027036.d | AS14 4(mm) |
| 440-194754-12 | | 10/28/2017 04:01 | 1000 | 20171027037.d | AS14 4(mm) |
| 440-194754-13 | | 10/28/2017 04:34 | 100 | 20171027038.d | AS14 4(mm) |
| ZZZZZ | | 10/28/2017 05:07 | 200 | | AS14 4(mm) |
| ZZZZZ | | 10/28/2017 05:40 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 10/28/2017 06:13 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/28/2017 06:46 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/28/2017 07:20 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/28/2017 07:53 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/28/2017 08:26 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-11 Start Date: 10/27/2017 08:03

Analysis Batch Number: 437778 End Date: 10/28/2017 09:48

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-437778/46 | | 10/28/2017 09:14 | 1 | 20171027046.d | AS14 4(mm) |
| CCB 440-437778/47 | | 10/28/2017 09:48 | 1 | 20171027047.d | AS14 4(mm) |

# HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Batch Number: 436671  Batch Start Date: 10/21/17 12:56  Batch Analyst: Zakhrabov, Yuriy

Batch Method: DI Leach  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | WC3001LCS 00054 | WCDCA 00050 | | |
|---|---|---|---|---|---|---|---|---|---|
| LCS 440-436671/1 | | DI Leach, 300.1B | | 4.01 g | 40 mL | 1000 uL | 80 uL | | |
| MB 440-436671/2 | | DI Leach, 300.1B | | 4.01 g | 40 mL | | 80 uL | | |
| 440-194754-A-6 | VER-01D-20.0-201 71020 | DI Leach, 300.1B | S | 4.02 g | 40 mL | | 80 uL | | |
| 440-194754-A-6 MS | VER-01D-20.0-201 71020 | DI Leach, 300.1B | S | 4.01 g | 40 mL | 1000 uL | 80 uL | | |
| 440-194754-A-6 MSD | VER-01D-20.0-201 71020 | DI Leach, 300.1B | S | 4.02 g | 40 mL | 1000 uL | 80 uL | | |
| 440-194754-A-2 | VER-01D-5.0-2017 1020 | DI Leach, 300.1B | S | 3.99 g | 40 mL | | 80 uL | | |
| 440-194754-A-3 | VER-01D-10.0-201 71020 | DI Leach, 300.1B | S | 3.99 g | 40 mL | | 80 uL | | |
| 440-194754-A-4 | VER-01D-10.0-201 71020-FD | DI Leach, 300.1B | S | 4.00 g | 40 mL | | 80 uL | | |
| 440-194754-A-5 | VER-01D-15.0-201 71020 | DI Leach, 300.1B | S | 4.01 g | 40 mL | | 80 uL | | |
| 440-194754-A-7 | VER-01D-25.0-201 71020 | DI Leach, 300.1B | S | 4.01 g | 40 mL | | 80 uL | | |
| 440-194754-A-8 | VER-01D-30.0-201 71020 | DI Leach, 300.1B | S | 4.02 g | 40 mL | | 80 uL | | |
| 440-194754-A-10 | VER-01D-40.0-201 71020 | DI Leach, 300.1B | S | 3.98 g | 40 mL | | 80 uL | | |
| 440-194754-A-11 | VER-01D-50.0-201 71020 | DI Leach, 300.1B | S | 3.98 g | 40 mL | | 80 uL | | |
| 440-194754-A-12 | VER-01D-60.0-201 71020 | DI Leach, 300.1B | S | 3.97 g | 40 mL | | 80 uL | | |
| 440-194754-A-13 | VER-01D-70.0-201 71020 | DI Leach, 300.1B | S | 3.99 g | 40 mL | | 80 uL | | |
| 440-194754-A-15 | VER-01D-80.0-201 71020 | DI Leach, 300.1B | S | 4.00 g | 40 mL | | 80 uL | | |
| 440-194754-A-16 | VER-01D-100.0-20 171020 | DI Leach, 300.1B | S | 4.01 g | 40 mL | | 80 uL | | |
| 440-194754-A-17 | VER-01D-110.0-20 171020 | DI Leach, 300.1B | S | 4.02 g | 40 mL | | 80 uL | | |
| 440-194754-A-18 | VER-01D-110.0-20 171020-FD | DI Leach, 300.1B | S | 4.01 g | 40 mL | | 80 uL | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Batch Number: 436671  Batch Start Date: 10/21/17 12:56  Batch Analyst: Zakhrabov, Yuriy

Batch Method: DI Leach  Batch End Date:

| Batch Notes | |
|---|---|
| Balance ID | 67 |
| Blank Soil Lot Number | D1069103 |
| Final Room Temperature | 24 Degrees C |
| Initial Room Temperature | 24 Degrees C |
| Room Temperature Thermometer ID | P-121 |
| Uncorrected Final Room Temperature | 23 Degrees C |
| Uncorrected Initial Room Temperature | 23 Degrees C |

| Basis | Basis Description |
|---|---|
| S | Soluble |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Method 314

## Perchlorate (IC) by Method 314

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Matrix: Solid (Soluble) Level: Low Lab File ID: 440-0095301-053_53_ECD_1.d

Lab ID: LCS 440-437240/2-A Client ID:

| COMPOUND | SPIKE ADDED (mg/Kg) | LCS CONCENTRATION (mg/Kg) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 0.499 | 0.455 | 91 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Matrix: Solid (Soluble) Level: Low Lab File ID: 440-0095381-019_19_ECD_1.d

Lab ID: LCS 440-437390/2-A Client ID:

| COMPOUND | SPIKE ADDED (mg/Kg) | LCS CONCENTRATION (mg/Kg) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 0.500 | 0.492 | 98 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0095301-007_7_ECD_1.d

Lab ID: MRL 440-437568/7 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 4.00 | 3.99 J | 100 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0095381-007_7_ECD_1.d

Lab ID: MRL 440-437935/7 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 4.00 | 4.27 | 107 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0095381-050_50_ECD_1.d

Lab ID: MRL 440-437935/50 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 4.00 | 4.05 | 101 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Matrix: Solid (Soluble) Level: Low Lab File ID: 440-0095381-021_21_ECD_1.d

Lab ID: 440-194754-6 MS Client ID: VER-01D-20.0-20171020 MS

| COMPOUND | SPIKE ADDED (mg/Kg) | SAMPLE CONCENTRATION (mg/Kg) | MS CONCENTRATION (mg/Kg) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Perchlorate | 0.563 | 24 | 28.4 | 870 | 80-120 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 314.0

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Matrix: Solid (Soluble) Level: Low Lab File ID: 440-0095301-084_84_ECD_1.d

Lab ID: 440-194623-A-4-H MS Client ID:

| COMPOUND | SPIKE ADDED (mg/Kg) | SAMPLE CONCENTRATION (mg/Kg) | MS CONCENTRATION (mg/Kg) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Perchlorate | 0.550 | 0.21 | 0.629 | 76 | 80-120 | F1 |

# Column to be used to flag recovery and RPD values

FORM III 314.0

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Matrix: Solid (Soluble) Level: Low Lab File ID: 440-0095381-022_22_ECD_1.d

Lab ID: 440-194754-6 MSD Client ID: VER-01D-20.0-20171020 MSD

| COMPOUND | SPIKE ADDED (mg/Kg) | MSD CONCENTRATION (mg/Kg) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Perchlorate | 0.564 | 27.9 | 766 | 2 | 20 | 80-120 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 314.0

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Matrix: Solid (Soluble) Level: Low Lab File ID: 440-0095301-085_85_ECD_1.d

Lab ID: 440-194623-A-4-I MSD Client ID:

| COMPOUND | SPIKE ADDED (mg/Kg) | MSD CONCENTRATION (mg/Kg) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Perchlorate | 0.551 | 0.661 | 82 | 5 | 20 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0

FORM III
HPLC/IC LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0095301-006_6_ECD_1.d

Lab ID: INF 440-437568/6 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | INF CONCENTRATION (ug/L) | INF % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 25.0 | 25.0 | 100 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0

FORM III
HPLC/IC LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0095381-006_6_ECD_1.d

Lab ID: INF 440-437935/6 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | INF CONCENTRATION (ug/L) | INF % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 25.0 | 25.6 | 103 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0

FORM III
HPLC/IC LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0095381-049_49_ECD_1.d

Lab ID: INF 440-437935/49 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | INF CONCENTRATION (ug/L) | INF % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 25.0 | 25.5 | 102 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab File ID: 440-0095301-052_52_ECD_1.d Lab Sample ID: MB 440-437240/1-A

Matrix: Solid (Soluble) Date Extracted:

Instrument ID: IC-25 Date Analyzed: 10/26/2017 23:32

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-437568/3 | 440-0095301-003_3_ECD_1.d | 10/26/2017 09:21 |
| | CCB 440-437568/15 | 440-0095301-015_15_ECD_1.d | 10/26/2017 12:54 |
| | CCB 440-437568/51 | 440-0095301-051_51_ECD_1.d | 10/26/2017 23:15 |
| | LCS 440-437240/2-A | 440-0095301-053_53_ECD_1.d | 10/26/2017 23:48 |
| | CCB 440-437568/63 | 440-0095301-063_63_ECD_1.d | 10/27/2017 02:37 |
| | CCB 440-437568/70 | 440-0095301-070_70_ECD_1.d | 10/27/2017 04:35 |
| VER-01D-10.0-20171020 | 440-194754-3 | 440-0095301-077_77_ECD_1.d | 10/27/2017 06:33 |
| VER-01D-10.0-20171020-FD | 440-194754-4 | 440-0095301-078_78_ECD_1.d | 10/27/2017 06:50 |
| VER-01D-15.0-20171020 | 440-194754-5 | 440-0095301-079_79_ECD_1.d | 10/27/2017 07:07 |
| | CCB 440-437568/82 | 440-0095301-082_82_ECD_1.d | 10/27/2017 08:04 |
| | 440-194623-A-4-H MS | 440-0095301-084_84_ECD_1.d | 10/27/2017 09:00 |
| | 440-194623-A-4-I MSD | 440-0095301-085_85_ECD_1.d | 10/27/2017 09:17 |
| VER-01D-5.0-20171020 | 440-194754-2 | 440-0095301-091_91_ECD_1.d | 10/27/2017 11:03 |
| | CCB 440-437568/93 | 440-0095301-093_93_ECD_1.d | 10/27/2017 11:51 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab File ID: 440-0095381-018_18_ECD_1.d Lab Sample ID: MB 440-437390/1-A

Matrix: Solid (Soluble) Date Extracted:

Instrument ID: IC-25 Date Analyzed: 10/27/2017 21:49

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-437935/3 | 440-0095381-003_3_ECD_1.d | 10/27/2017 16:33 |
| | CCB 440-437935/15 | 440-0095381-015_15_ECD_1.d | 10/27/2017 20:58 |
| | LCS 440-437390/2-A | 440-0095381-019_19_ECD_1.d | 10/27/2017 22:05 |
| VER-01D-20.0-20171020 | 440-194754-6 | 440-0095381-020_20_ECD_1.d | 10/27/2017 22:22 |
| VER-01D-20.0-20171020 MS | 440-194754-6 MS | 440-0095381-021_21_ECD_1.d | 10/27/2017 22:39 |
| VER-01D-20.0-20171020 MSD | 440-194754-6 MSD | 440-0095381-022_22_ECD_1.d | 10/27/2017 22:56 |
| VER-01D-25.0-20171020 | 440-194754-7 | 440-0095381-023_23_ECD_1.d | 10/27/2017 23:13 |
| | CCB 440-437935/27 | 440-0095381-027_27_ECD_1.d | 10/28/2017 00:20 |
| VER-01D-70.0-20171020 | 440-194754-13 | 440-0095381-030_30_ECD_1.d | 10/28/2017 01:11 |
| | CCB 440-437935/36 | 440-0095381-036_36_ECD_1.d | 10/28/2017 02:52 |
| | CCB 440-437935/46 | 440-0095381-046_46_ECD_1.d | 10/28/2017 05:41 |
| | CCB 440-437935/58 | 440-0095381-058_58_ECD_1.d | 10/28/2017 12:26 |
| | CCB 440-437935/90 | 440-0095381-090_90_ECD_1.d | 10/28/2017 21:50 |
| VER-01D-30.0-20171020 | 440-194754-8 | 440-0095381-091_91_ECD_1.d | 10/28/2017 22:07 |
| VER-01D-50.0-20171020 | 440-194754-11 | 440-0095381-092_92_ECD_1.d | 10/28/2017 22:24 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab File ID: 440-0095381-018_18_ECD_1.d Lab Sample ID: MB 440-437390/1-A

Matrix: Solid (Soluble) Date Extracted:

Instrument ID: IC-25 Date Analyzed: 10/27/2017 21:49

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| VER-01D-60.0-20171020 | 440-194754-12 | 440-0095381-093_93_ECD_1.d | 10/28/2017 22:41 |
| VER-01D-80.0-20171020 | 440-194754-15 | 440-0095381-094_94_ECD_1.d | 10/28/2017 22:58 |
| VER-01D-100.0-20171020 | 440-194754-16 | 440-0095381-096_96_ECD_1.d | 10/28/2017 23:31 |
| VER-01D-110.0-20171020 | 440-194754-17 | 440-0095381-097_97_ECD_1.d | 10/28/2017 23:48 |
| VER-01D-110.0-20171020-FD | 440-194754-18 | 440-0095381-098_98_ECD_1.d | 10/29/2017 00:05 |
| | CCB 440-437935/100 | 440-0095381-100_100_ECD_1.d | 10/29/2017 00:39 |
| VER-01D-40.0-20171020 | 440-194754-10 | 440-0095480-039_39_ECD_1.d | 10/30/2017 21:27 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-5.0-20171020 | Lab Sample ID: 440-194754-2

Matrix: Solid (Soluble) | Lab File ID: 440-0095301-091_91_ECD_1.d

Analysis Method: 314.0 | Date Collected: 10/20/2017 07:30

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 11:03

Con. Extract Vol.: | Dilution Factor: 200

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: 11.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 76 | | 9.0 | 2.1 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-091_91_ECD_1.d | | | | |
| Lims ID: | 440-194754-A-2-C | | | | |
| Client ID: | VER-01D-5.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 27-Oct-2017 11:03:00 | ALS Bottle#: | 0 | Worklist Smp#: | 91 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 200.0000 | | |
| Sample Info: | 440-0095301-091 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 12:47:11 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK007 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.537 | 11.527 | 0.010 | 4302512 | 33.8 | |

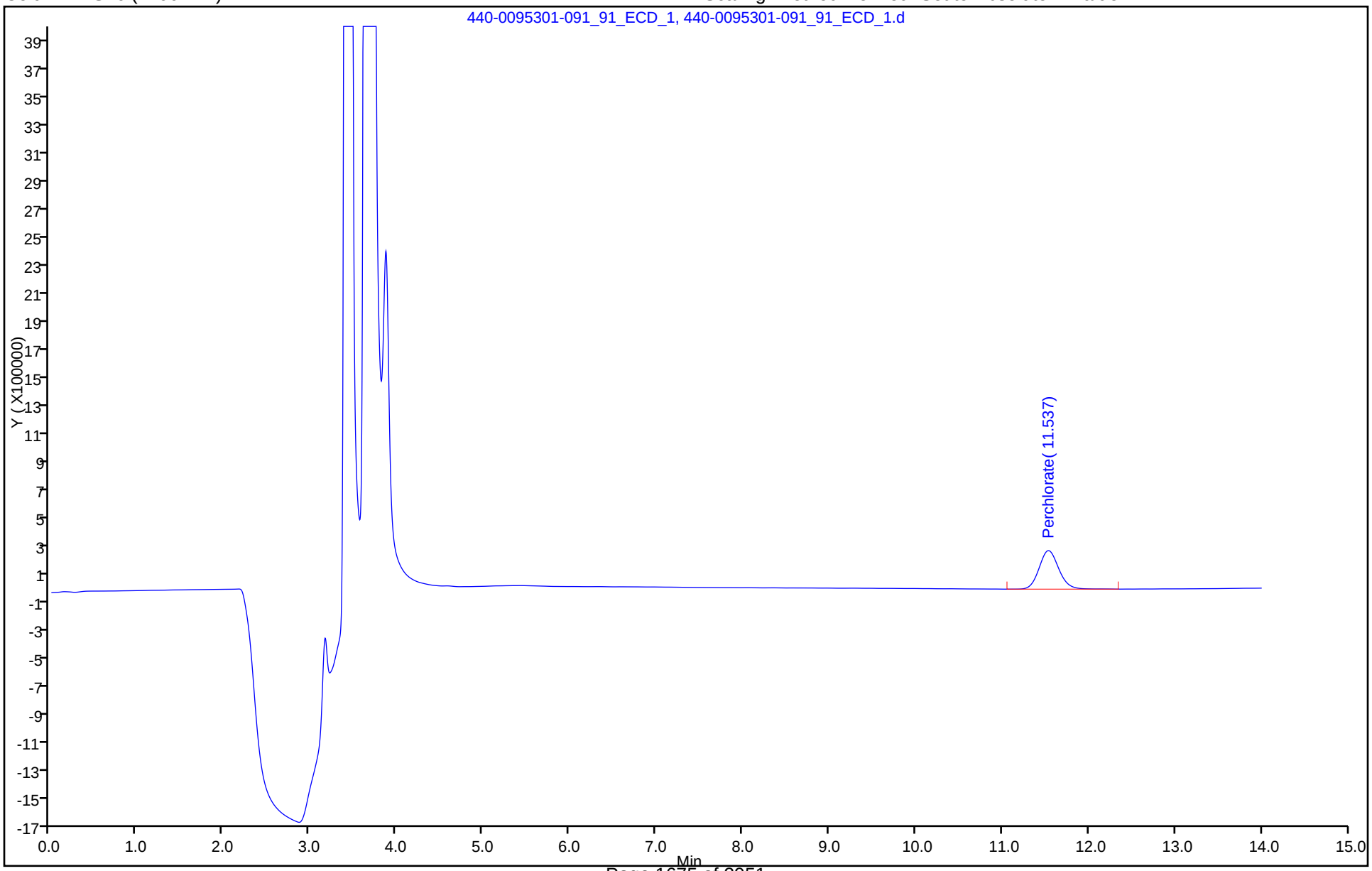
Report Date: 27-Oct-2017 11:47:33 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-091_91_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 11:03:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | 440-194754-A-2-C | Lab Sample ID: | 440-194754-2 | Worklist Smp#: | 91 |
| Client ID: | VER-01D-5.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 200.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-10.0-20171020 | Lab Sample ID: 440-194754-3

Matrix: Solid (Soluble) | Lab File ID: 440-0095301-077_77_ECD_1.d

Analysis Method: 314.0 | Date Collected: 10/20/2017 07:40

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 06:33

Con. Extract Vol.: | Dilution Factor: 50

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: 10.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 49 | | 2.2 | 0.53 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-077_77_ECD_1.d | | | | |
| Lims ID: | 440-194754-A-3-C | | | | |
| Client ID: | VER-01D-10.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 27-Oct-2017 06:33:00 | ALS Bottle#: | 0 | Worklist Smp#: | 77 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 50.0000 | | |
| Sample Info: | 440-0095301-077 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 08:33:24 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK033 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.324 | 10.331 | -0.007 | 11923927 | 87.8 | |

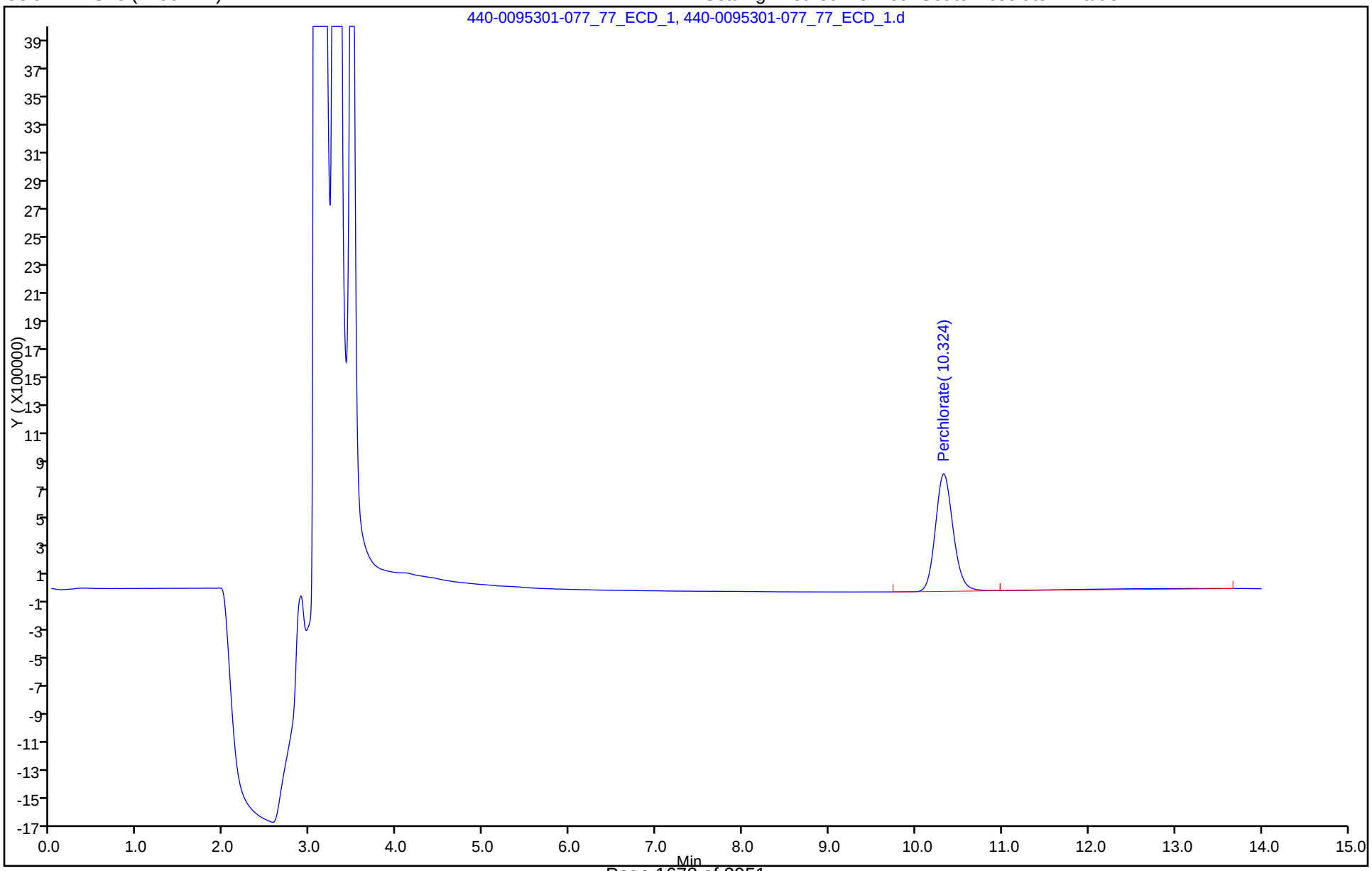
Report Date: 27-Oct-2017 08:33:36 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-077_77_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 06:33:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | 440-194754-A-3-C | Lab Sample ID: | 440-194754-3 | Worklist Smp#: | 77 |
| Client ID: | VER-01D-10.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 50.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-10.0-20171020-FD | Lab Sample ID: 440-194754-4

Matrix: Solid (Soluble) | Lab File ID: 440-0095301-078_78_ECD_1.d

Analysis Method: 314.0 | Date Collected: 10/20/2017 07:40

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 06:50

Con. Extract Vol.: | Dilution Factor: 50

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: 9.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 55 | | 2.2 | 0.52 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-078_78_ECD_1.d | | | | |
| Lims ID: | 440-194754-A-4-C | | | | |
| Client ID: | VER-01D-10.0-20171020-FD | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 27-Oct-2017 06:50:00 | ALS Bottle#: | 0 | Worklist Smp#: | 78 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 50.0000 | | |
| Sample Info: | 440-0095301-078 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 08:33:24 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK033 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.321 | 10.331 | -0.010 | 13679344 | 99.3 | |

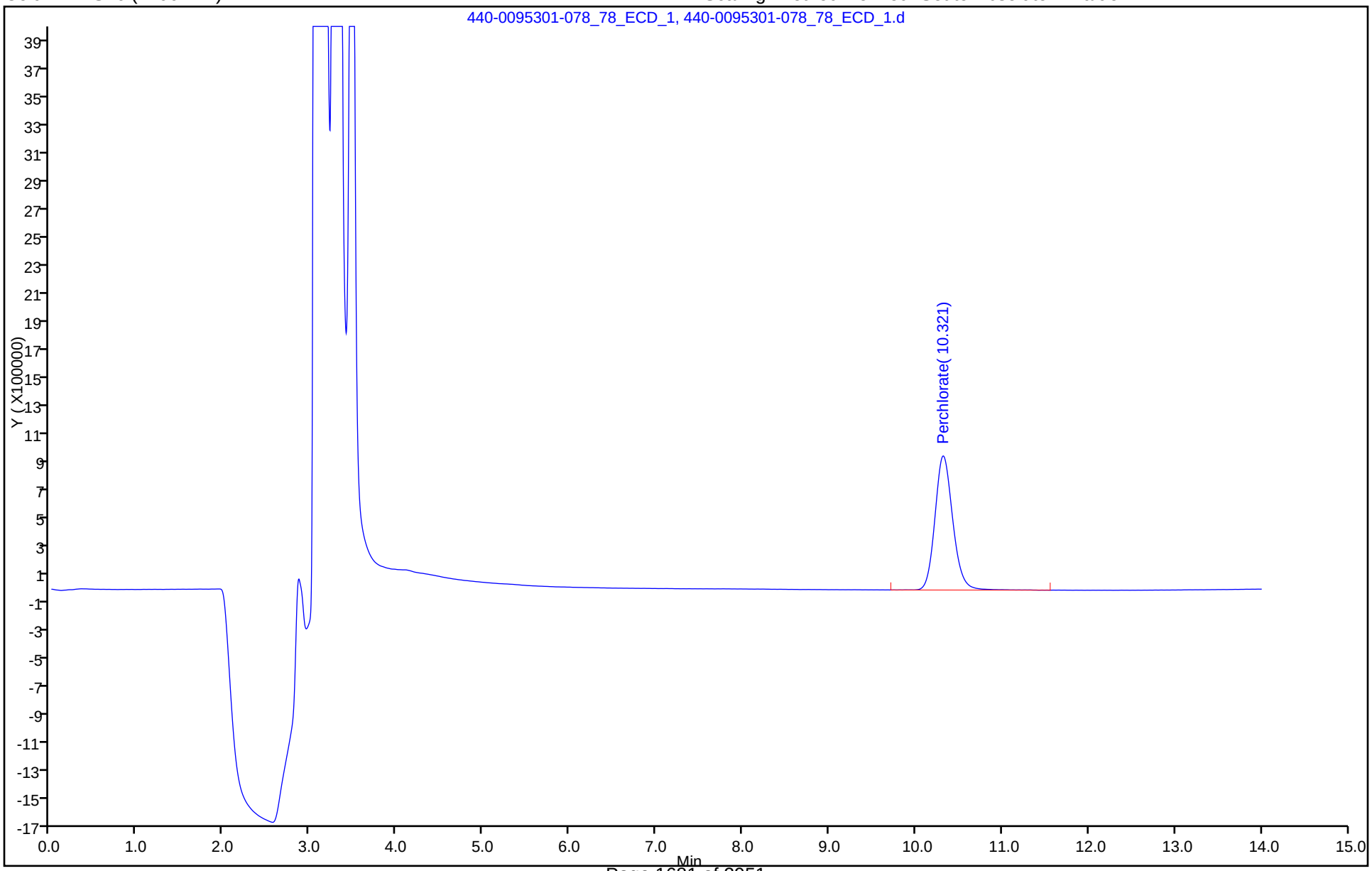
Report Date: 27-Oct-2017 08:33:38 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-078_78_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 06:50:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | 440-194754-A-4-C | Lab Sample ID: | 440-194754-4 | Worklist Smp#: | 78 |
| Client ID: | VER-01D-10.0-20171020-FD | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 50.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-15.0-20171020 | Lab Sample ID: 440-194754-5

Matrix: Solid (Soluble) | Lab File ID: 440-0095301-079_79_ECD_1.d

Analysis Method: 314.0 | Date Collected: 10/20/2017 07:45

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 07:07

Con. Extract Vol.: | Dilution Factor: 50

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: 8.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 23 | | 2.2 | 0.52 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-079_79_ECD_1.d | | | | |
| Lims ID: | 440-194754-A-5-C | | | | |
| Client ID: | VER-01D-15.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 27-Oct-2017 07:07:00 | ALS Bottle#: | 0 | Worklist Smp#: | 79 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 50.0000 | | |
| Sample Info: | 440-0095301-079 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 08:33:24 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK033 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.334 | 10.331 | 0.003 | 5461580 | 42.5 | |

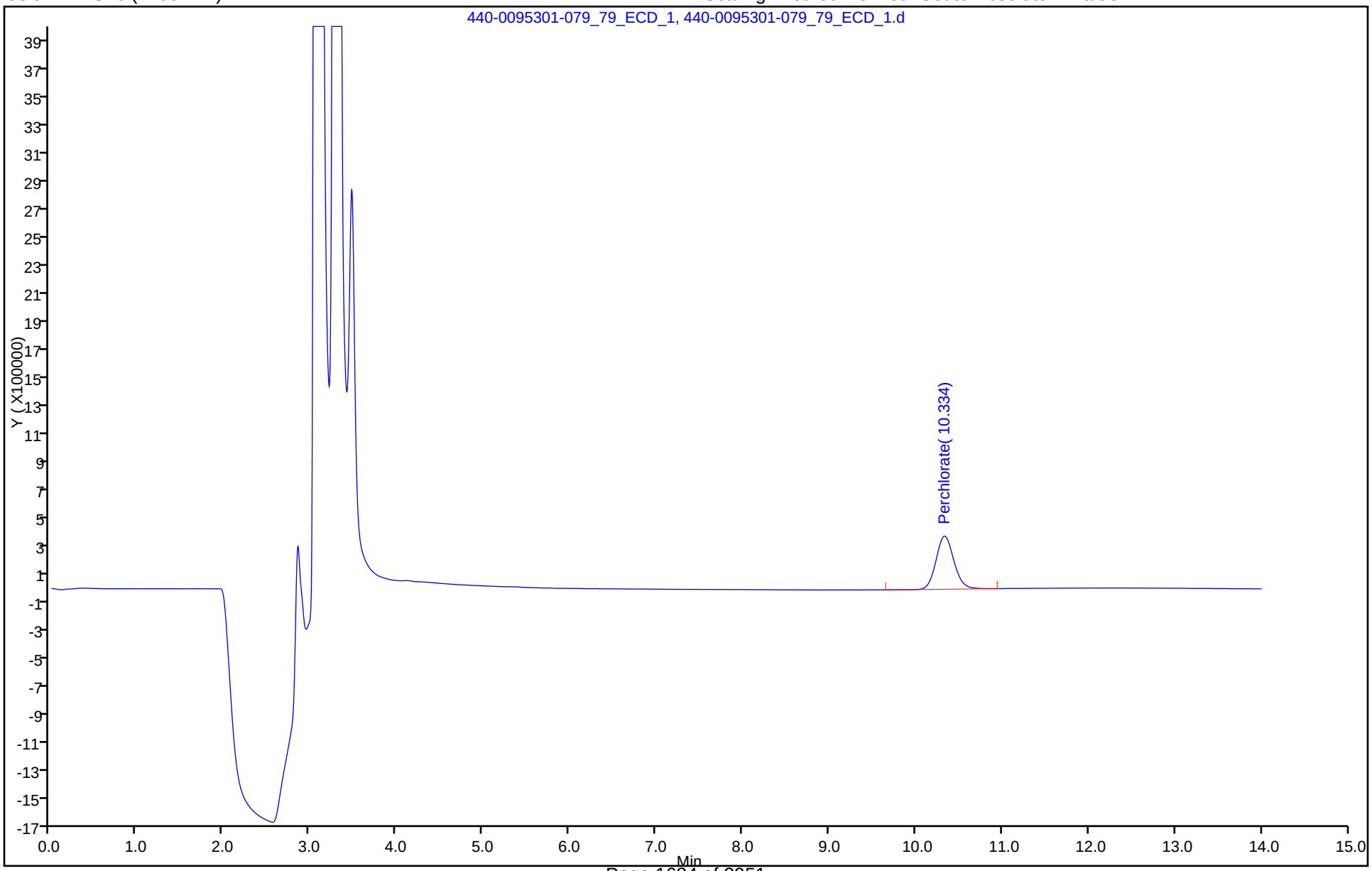
Report Date: 27-Oct-2017 08:33:39 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-079_79_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 07:07:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | 440-194754-A-5-C | Lab Sample ID: | 440-194754-5 | Worklist Smp#: | 79 |
| Client ID: | VER-01D-15.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 50.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-20.0-20171020 | Lab Sample ID: 440-194754-6

Matrix: Solid (Soluble) | Lab File ID: 440-0095381-020_20_ECD_1.d

Analysis Method: 314.0 | Date Collected: 10/20/2017 07:55

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 22:22

Con. Extract Vol.: | Dilution Factor: 50

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: 11.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 24 | | 2.3 | 0.54 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-020_20_ECD_1.d | | | | |
| Lims ID: | 440-194754-A-6-G | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 27-Oct-2017 22:22:00 | ALS Bottle#: | 0 | Worklist Smp#: | 20 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 50.0000 | | |
| Sample Info: | 440-0095381-020 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 28-Oct-2017 09:06:33 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.437 | 11.444 | -0.007 | 5359176 | 41.7 | |

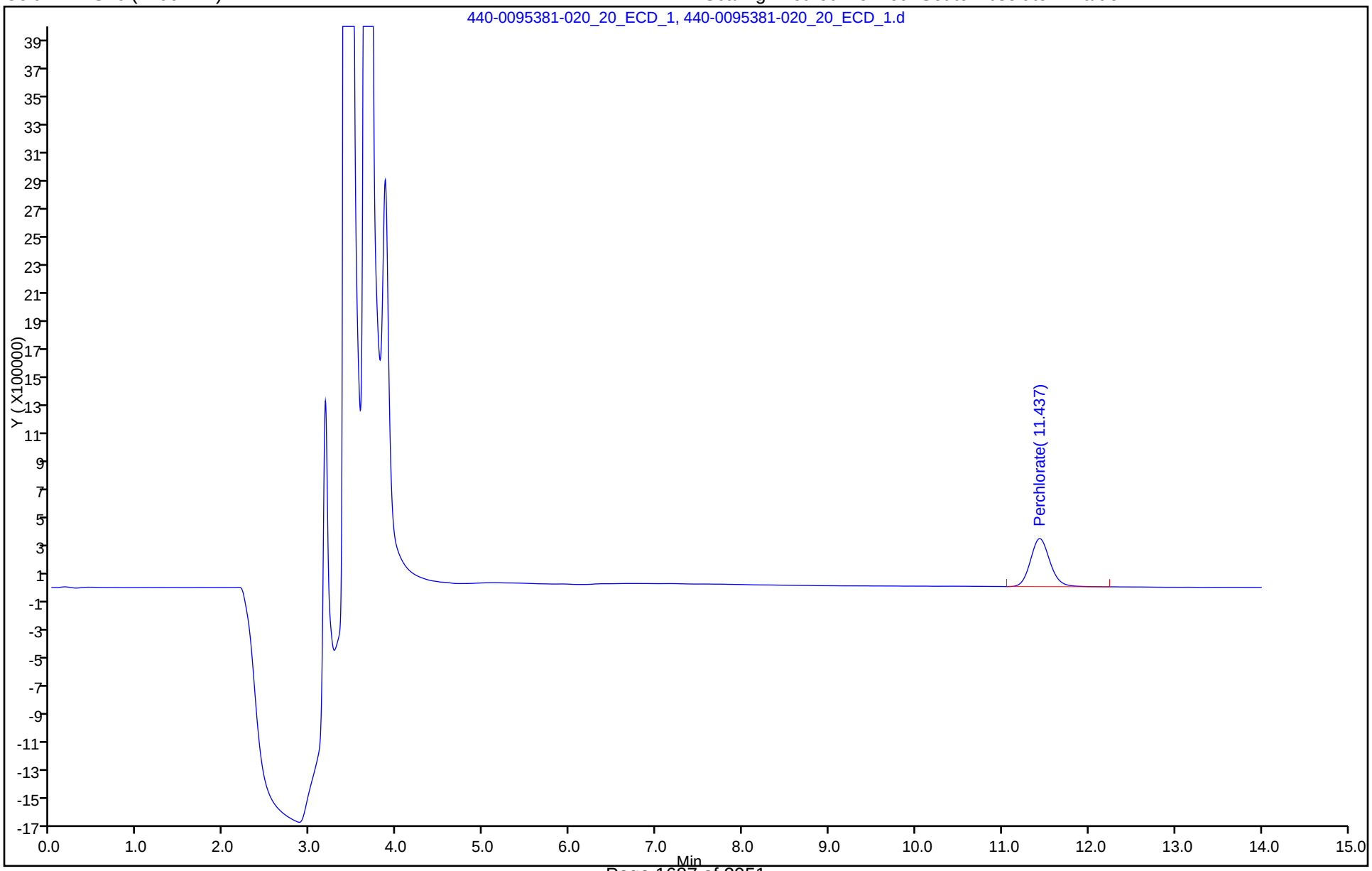
Report Date: 28-Oct-2017 09:06:38 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-020_20_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 22:22:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | 440-194754-A-6-G | Lab Sample ID: | 440-194754-6 | Worklist Smp#: | 20 |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 50.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-25.0-20171020 | Lab Sample ID: 440-194754-7

Matrix: Solid (Soluble) | Lab File ID: 440-0095381-023_23_ECD_1.d

Analysis Method: 314.0 | Date Collected: 10/20/2017 08:05

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 23:13

Con. Extract Vol.: | Dilution Factor: 50

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: 8.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 11 | | 2.2 | 0.52 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-023_23_ECD_1.d | | | | |
| Lims ID: | 440-194754-A-7-C | | | | |
| Client ID: | VER-01D-25.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 27-Oct-2017 23:13:00 | ALS Bottle#: | 0 | Worklist Smp#: | 23 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 50.0000 | | |
| Sample Info: | 440-0095381-023 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 28-Oct-2017 09:06:33 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.427 | 11.444 | -0.017 | 2544588 | 20.4 | |

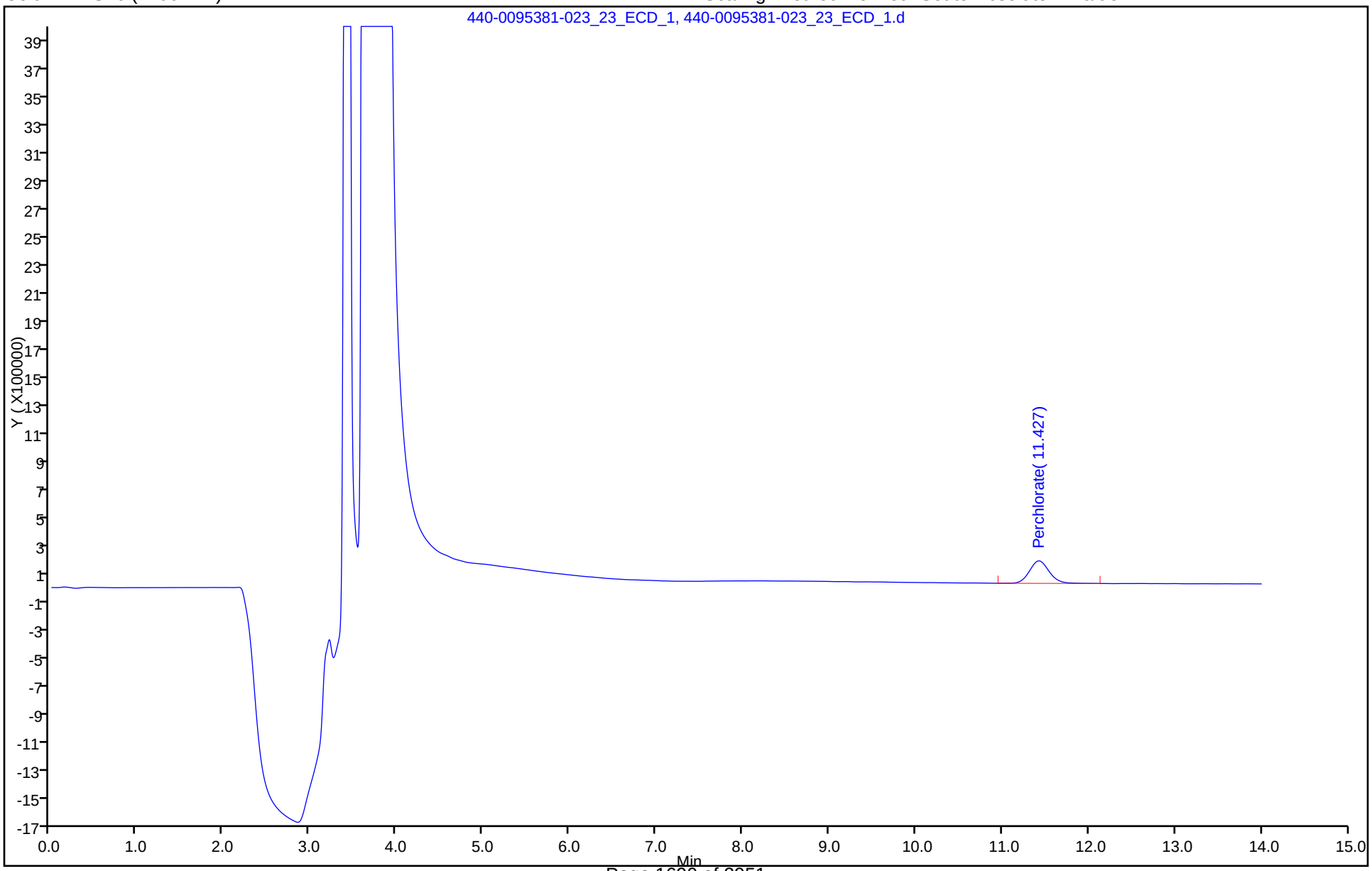
Report Date: 28-Oct-2017 09:06:40 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-023_23_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 23:13:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | 440-194754-A-7-C | Lab Sample ID: | 440-194754-7 | Worklist Smp#: | 23 |
| Client ID: | VER-01D-25.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 50.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-30.0-20171020 | Lab Sample ID: 440-194754-8

Matrix: Solid (Soluble) | Lab File ID: 440-0095381-091_91_ECD_1.d

Analysis Method: 314.0 | Date Collected: 10/20/2017 08:15

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/28/2017 22:07

Con. Extract Vol.: | Dilution Factor: 1000

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: 36.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 400 | | 62 | 15 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-091_91_ECD_1.d | | | | |
| Lims ID: | 440-194754-A-8-C | | | | |
| Client ID: | VER-01D-30.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 28-Oct-2017 22:07:00 | ALS Bottle#: | 0 | Worklist Smp#: | 91 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1000.0000 | | |
| Sample Info: | 440-0095381-091 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 29-Oct-2017 07:19:03 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.507 | 11.491 | 0.016 | 3224391 | 25.6 | |

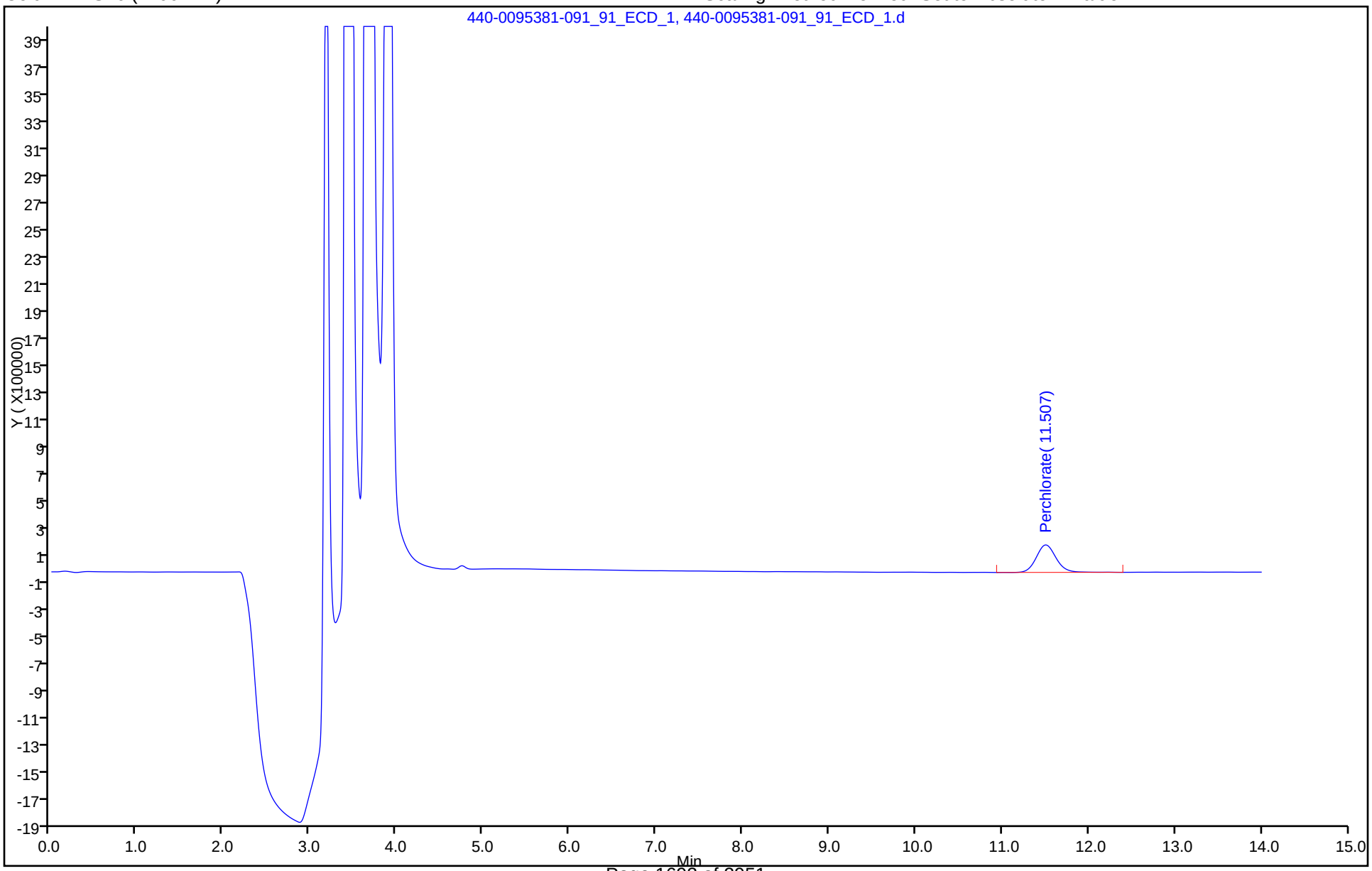
Report Date: 29-Oct-2017 07:19:06 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-091_91_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 22:07:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | 440-194754-A-8-C | Lab Sample ID: | 440-194754-8 | Worklist Smp#: | 91 |
| Client ID: | VER-01D-30.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1000.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-40.0-20171020 | Lab Sample ID: 440-194754-10

Matrix: Solid (Soluble) | Lab File ID: 440-0095480-039_39_ECD_1.d

Analysis Method: 314.0 | Date Collected: 10/20/2017 09:50

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/30/2017 21:27

Con. Extract Vol.: | Dilution Factor: 1000

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: 40.8 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 438239 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 450 | | 68 | 16 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC23\20171030-95480.b\440-0095480-039_39_ECD_1.d | | | | |
| Lims ID: | 440-194754-A-10-C | | | | |
| Client ID: | VER-01D-40.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 30-Oct-2017 21:27:00 | ALS Bottle#: | 0 | Worklist Smp#: | 39 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1000.0000 | | |
| Sample Info: | 440-0095480-039 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-23 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC23\20171030-95480.b\314_23PERC.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 31-Oct-2017 14:46:09 | Calib Date: | 25-Oct-2017 19:38:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-008_08_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK005 | | | | |
| First Level Reviewer: saraubonp | | Date: | 31-Oct-2017 14:47:54 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.698 | 10.674 | 0.024 | 4477763 | 26.3 | |

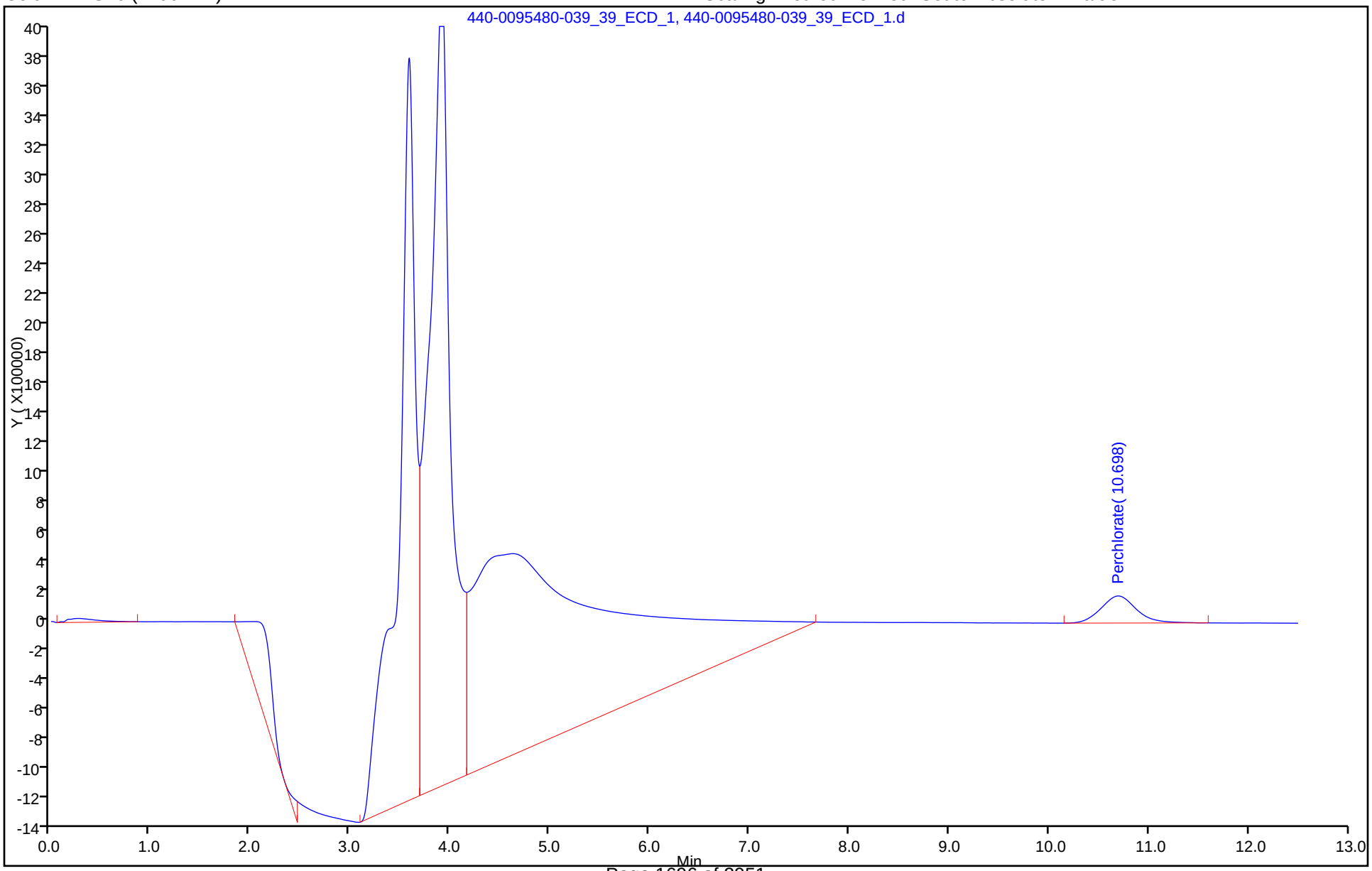
Report Date: 31-Oct-2017 14:47:54 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC23\20171030-95480.b\440-0095480-039_39_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Oct-2017 21:27:00 | Instrument ID: | IC-23 | Operator ID: | |
| Lims ID: | 440-194754-A-10-C | Lab Sample ID: | 440-194754-10 | Worklist Smp#: | 39 |
| Client ID: | VER-01D-40.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1000.0000 | ALS Bottle#: | 0 |
| Method: | 314_23PERC | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-50.0-20171020 | Lab Sample ID: 440-194754-11

Matrix: Solid (Soluble) | Lab File ID: 440-0095381-092_92_ECD_1.d

Analysis Method: 314.0 | Date Collected: 10/20/2017 10:15

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/28/2017 22:24

Con. Extract Vol.: | Dilution Factor: 1000

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: 50.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 550 | | 81 | 19 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-092_92_ECD_1.d | | | | |
| Lims ID: | 440-194754-A-11-C | | | | |
| Client ID: | VER-01D-50.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 28-Oct-2017 22:24:00 | ALS Bottle#: | 0 | Worklist Smp#: | 92 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1000.0000 | | |
| Sample Info: | 440-0095381-092 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 29-Oct-2017 07:19:03 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.507 | 11.491 | 0.016 | 3461560 | 27.4 | |

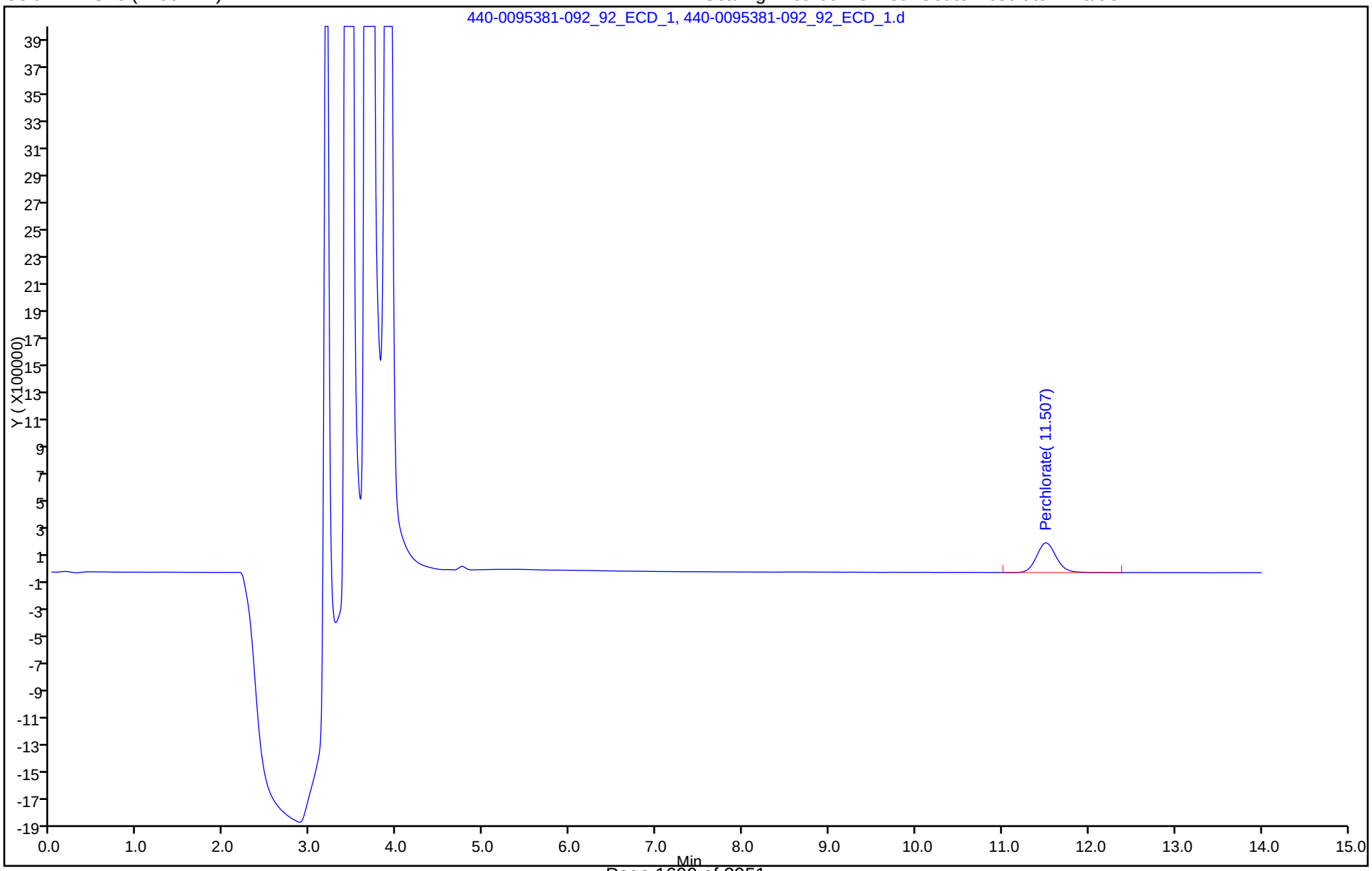
Report Date: 29-Oct-2017 07:19:08 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-092_92_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 22:24:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | 440-194754-A-11-C | Lab Sample ID: | 440-194754-11 | Worklist Smp#: | 92 |
| Client ID: | VER-01D-50.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1000.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-60.0-20171020 | Lab Sample ID: 440-194754-12

Matrix: Solid (Soluble) | Lab File ID: 440-0095381-093_93_ECD_1.d

Analysis Method: 314.0 | Date Collected: 10/20/2017 10:35

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/28/2017 22:41

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: 19.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 260 | | 25 | 5.9 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-093_93_ECD_1.d | | | | |
| Lims ID: | 440-194754-A-12-C | | | | |
| Client ID: | VER-01D-60.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 28-Oct-2017 22:41:00 | ALS Bottle#: | 0 | Worklist Smp#: | 93 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 500.0000 | | |
| Sample Info: | 440-0095381-093 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 29-Oct-2017 07:19:03 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.504 | 11.491 | 0.013 | 5405066 | 42.0 | |

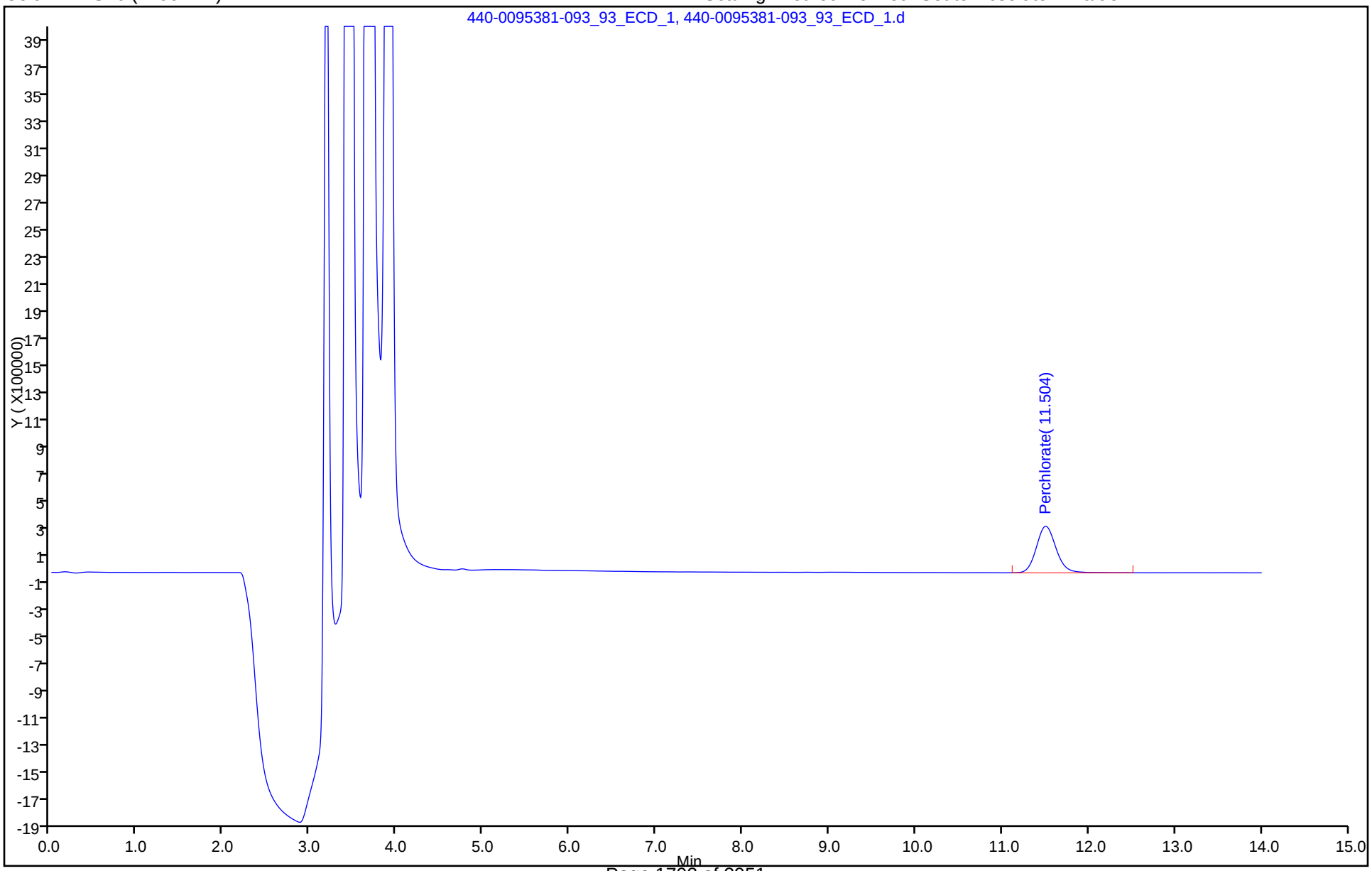
Report Date: 29-Oct-2017 07:19:10 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-093_93_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 22:41:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | 440-194754-A-12-C | Lab Sample ID: | 440-194754-12 | Worklist Smp#: | 93 |
| Client ID: | VER-01D-60.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 500.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-70.0-20171020 | Lab Sample ID: 440-194754-13

Matrix: Solid (Soluble) | Lab File ID: 440-0095381-030_30_ECD_1.d

Analysis Method: 314.0 | Date Collected: 10/20/2017 10:55

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/28/2017 01:11

Con. Extract Vol.: | Dilution Factor: 50

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: 39.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 15 | | 3.3 | 0.78 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-030_30_ECD_1.d | | | | |
| Lims ID: | 440-194754-A-13-C | | | | |
| Client ID: | VER-01D-70.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 28-Oct-2017 01:11:00 | ALS Bottle#: | 0 | Worklist Smp#: | 30 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 50.0000 | | |
| Sample Info: | 440-0095381-030 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 28-Oct-2017 09:06:42 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.441 | 11.424 | 0.017 | 2287799 | 18.3 | |

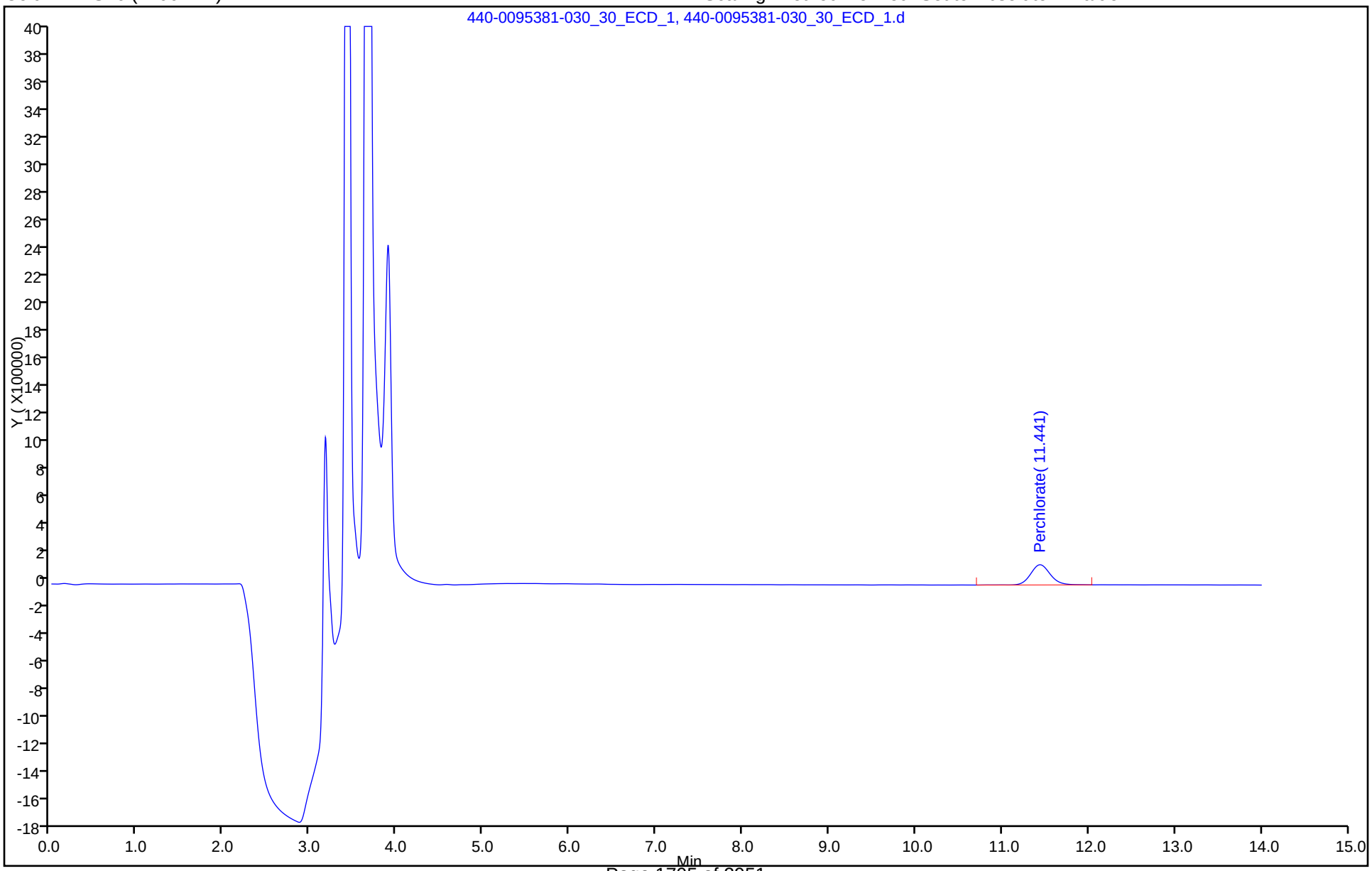
Report Date: 28-Oct-2017 09:06:45 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-030_30_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 01:11:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | 440-194754-A-13-C | Lab Sample ID: | 440-194754-13 | Worklist Smp#: | 30 |
| Client ID: | VER-01D-70.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 50.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-80.0-20171020 | Lab Sample ID: 440-194754-15

Matrix: Solid (Soluble) | Lab File ID: 440-0095381-094_94_ECD_1.d

Analysis Method: 314.0 | Date Collected: 10/20/2017 11:25

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/28/2017 22:58

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: 32.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1.8 | | 0.29 | 0.070 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-094_94_ECD_1.d | | | | |
| Lims ID: | 440-194754-A-15-C | | | | |
| Client ID: | VER-01D-80.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 28-Oct-2017 22:58:00 | ALS Bottle#: | 0 | Worklist Smp#: | 94 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 5.0000 | | |
| Sample Info: | 440-0095381-094 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 29-Oct-2017 07:19:03 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.504 | 11.491 | 0.013 | 2983308 | 23.8 | |

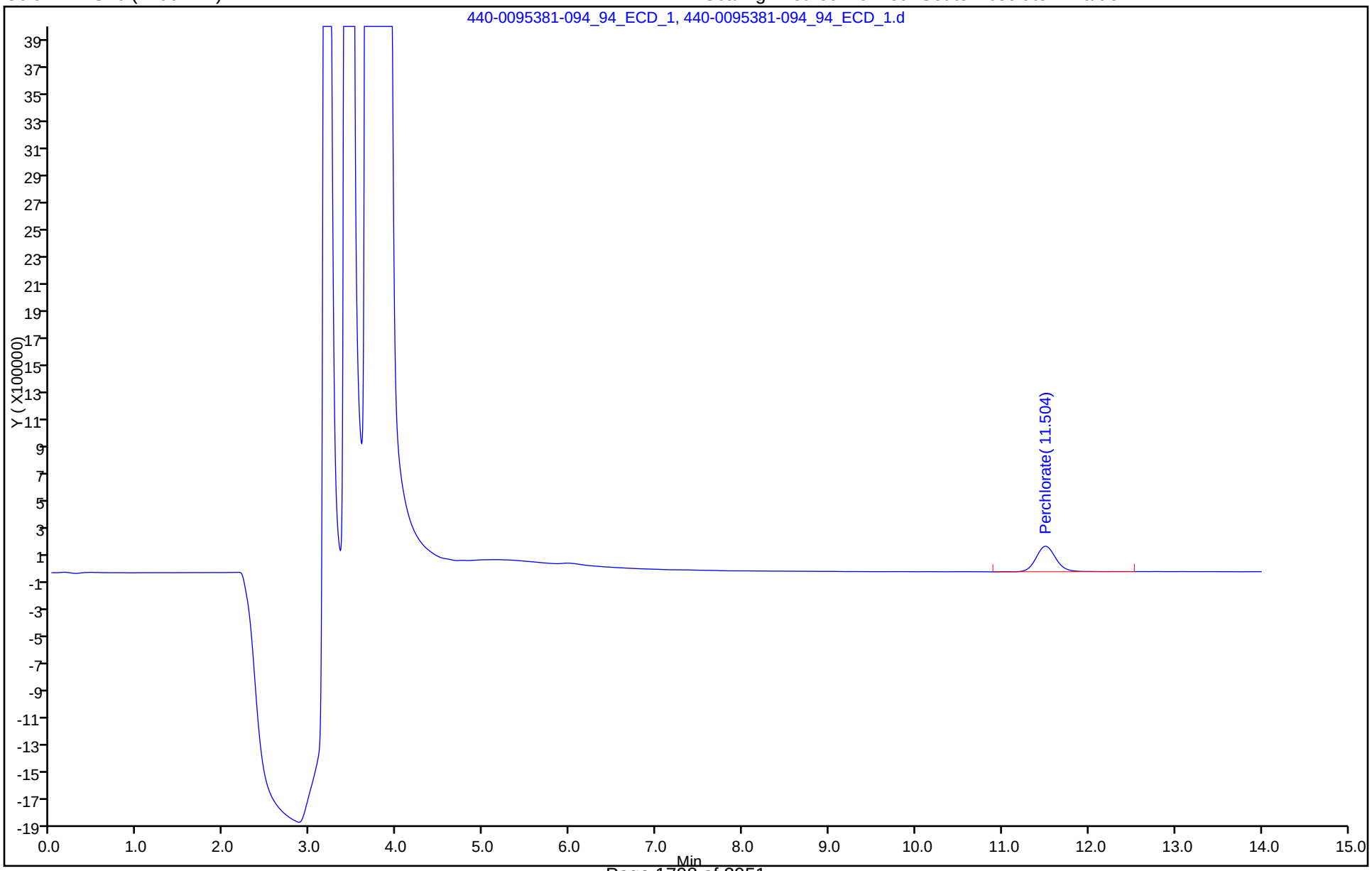
Report Date: 29-Oct-2017 07:19:11 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-094_94_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 22:58:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | 440-194754-A-15-C | Lab Sample ID: | 440-194754-15 | Worklist Smp#: | 94 |
| Client ID: | VER-01D-80.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 5.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-100.0-20171020 | Lab Sample ID: 440-194754-16

Matrix: Solid (Soluble) | Lab File ID: 440-0095381-096_96_ECD_1.d

Analysis Method: 314.0 | Date Collected: 10/20/2017 12:20

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/28/2017 23:31

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: 21.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 0.34 | | 0.051 | 0.012 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-096_96_ECD_1.d | | | | |
| Lims ID: | 440-194754-A-16-C | | | | |
| Client ID: | VER-01D-100.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 28-Oct-2017 23:31:00 | ALS Bottle#: | 0 | Worklist Smp#: | 96 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-096 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 29-Oct-2017 07:19:03 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.501 | 11.491 | 0.010 | 3355344 | 26.6 | |

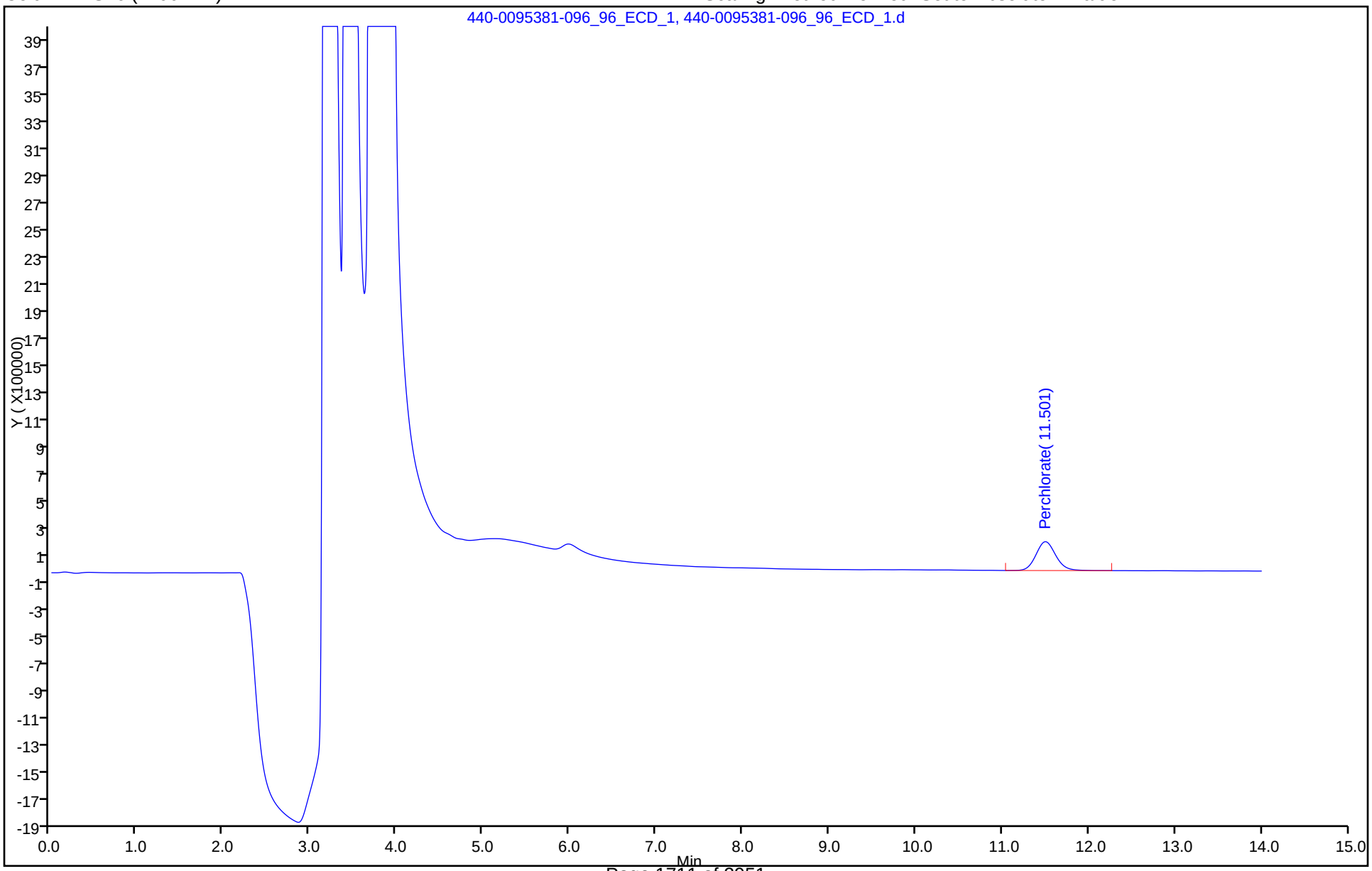
Report Date: 29-Oct-2017 07:19:13 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-096_96_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 23:31:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | 440-194754-A-16-C | Lab Sample ID: | 440-194754-16 | Worklist Smp#: | 96 |
| Client ID: | VER-01D-100.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-110.0-20171020 | Lab Sample ID: 440-194754-17

Matrix: Solid (Soluble) | Lab File ID: 440-0095381-097_97_ECD_1.d

Analysis Method: 314.0 | Date Collected: 10/20/2017 13:00

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/28/2017 23:48

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: 41.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 0.15 | | 0.068 | 0.016 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-097_97_ECD_1.d | | | | |
| Lims ID: | 440-194754-A-17-C | | | | |
| Client ID: | VER-01D-110.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 28-Oct-2017 23:48:00 | ALS Bottle#: | 0 | Worklist Smp#: | 97 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-097 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 29-Oct-2017 07:19:03 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.501 | 11.491 | 0.010 | 1113956 | 9.06 | |

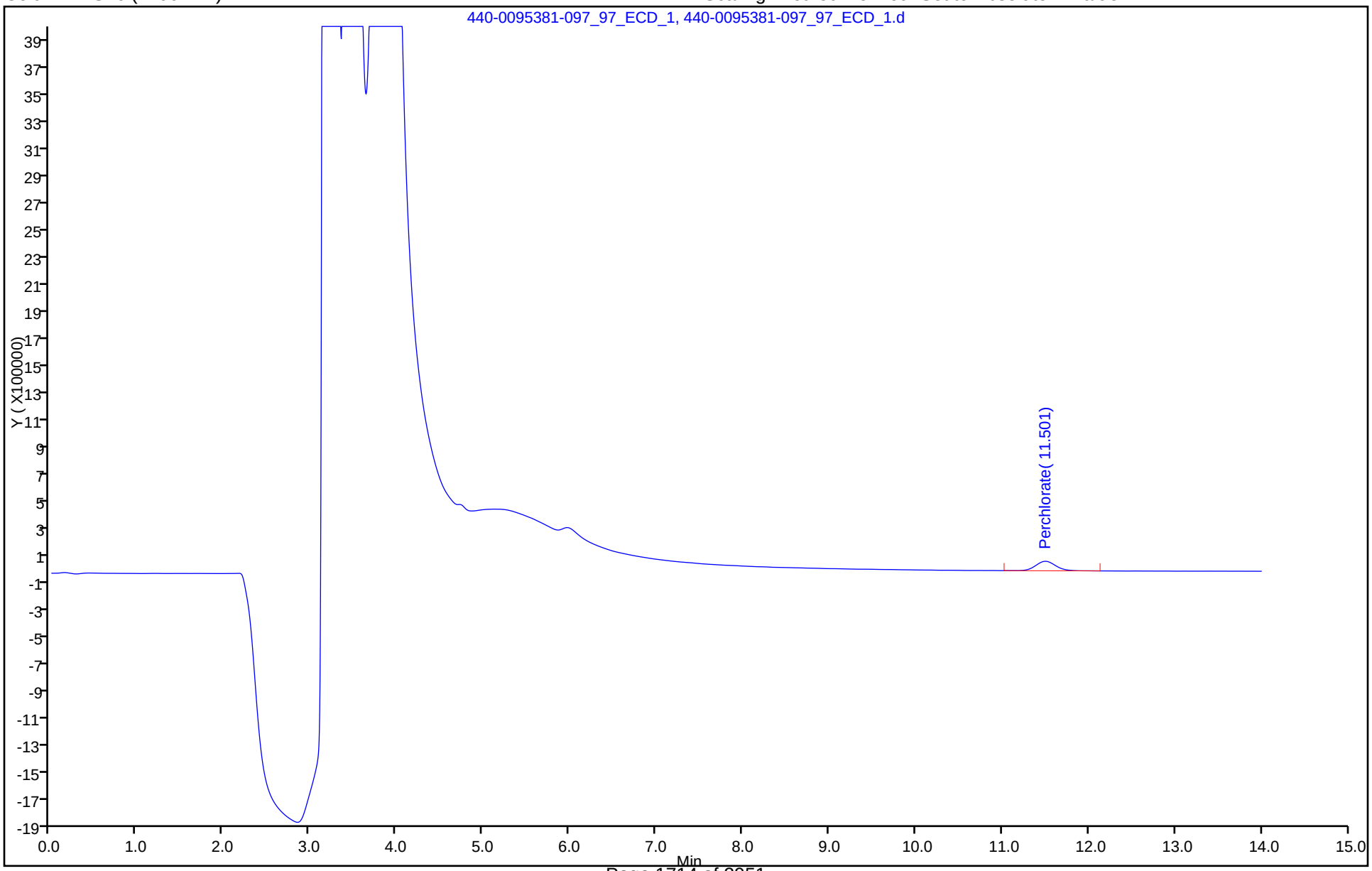
Report Date: 29-Oct-2017 07:19:14 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-097_97_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 23:48:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | 440-194754-A-17-C | Lab Sample ID: | 440-194754-17 | Worklist Smp#: | 97 |
| Client ID: | VER-01D-110.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-110.0-20171020-FD Lab Sample ID: 440-194754-18

Matrix: Solid (Soluble) Lab File ID: 440-0095381-098_98_ECD_1.d

Analysis Method: 314.0 Date Collected: 10/20/2017 13:00

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 10/29/2017 00:05

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: AS7 A ID: 4(mm)

% Moisture: 46.4 GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 0.22 | | 0.075 | 0.018 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-098_98_ECD_1.d | | | | |
| Lims ID: | 440-194754-A-18-C | | | | |
| Client ID: | VER-01D-110.0-20171020-FD | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 29-Oct-2017 00:05:00 | ALS Bottle#: | 0 | Worklist Smp#: | 98 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-098 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 29-Oct-2017 07:19:03 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.501 | 11.491 | 0.010 | 1450462 | 11.7 | |

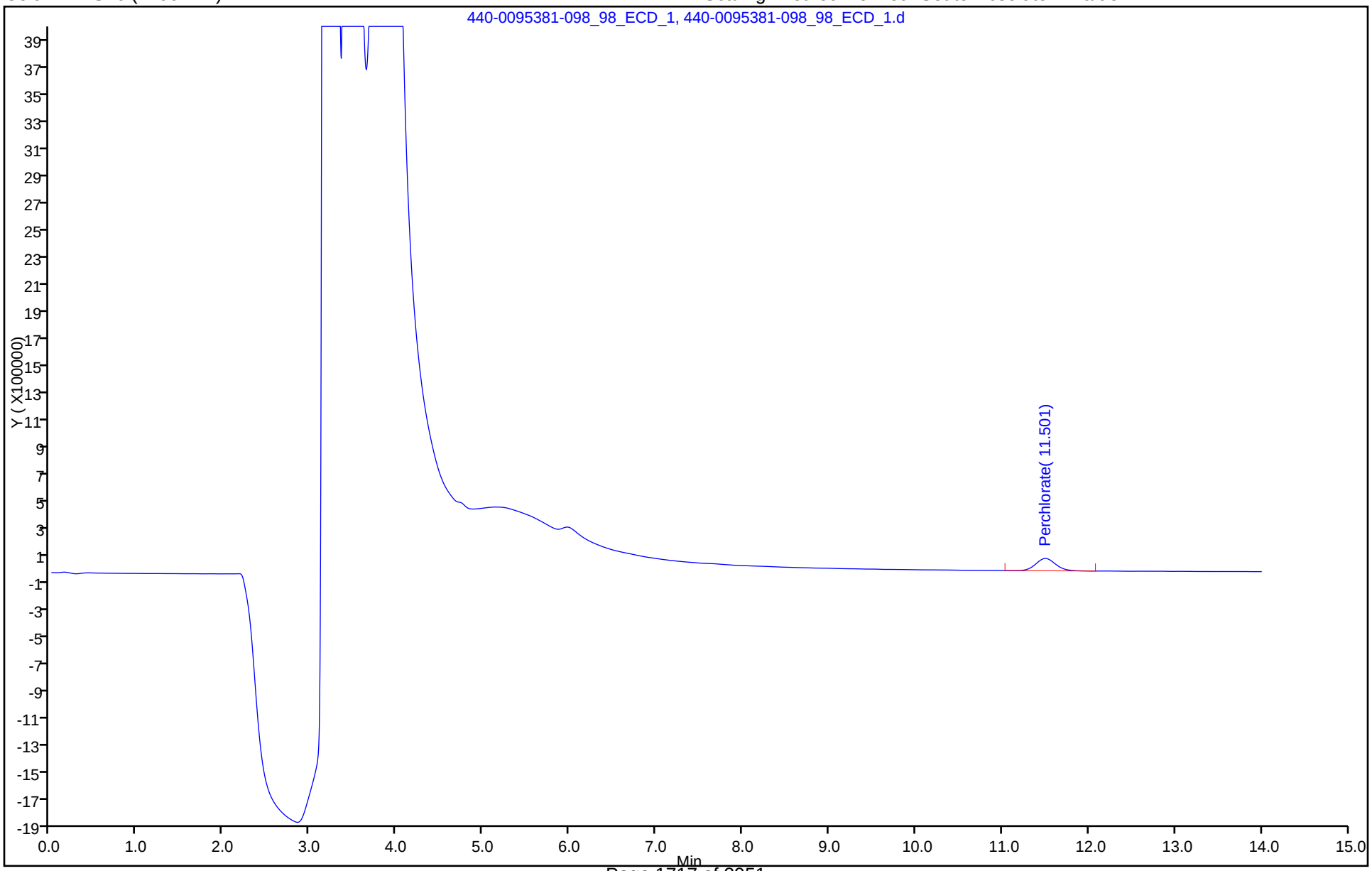
Report Date: 29-Oct-2017 07:19:15 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-098_98_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 29-Oct-2017 00:05:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | 440-194754-A-18-C | Lab Sample ID: | 440-194754-18 | Worklist Smp#: | 98 |
| Client ID: | VER-01D-110.0-20171020-FD | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1 Analy Batch No.: 437411

SDG No.:

Instrument ID: IC-23 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/25/2017 17:34 Calibration End Date: 10/25/2017 19:38 Calibration ID: 17784

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-437411/1 | 440-0095262-001_01_ECD_1.d |
| Level 2 | STD1 440-437411/2 | 440-0095262-002_02_ECD_1.d |
| Level 3 | STD2 440-437411/3 | 440-0095262-003_03_ECD_1.d |
| Level 4 | STD3 440-437411/4 | 440-0095262-004_04_ECD_1.d |
| Level 5 | STD4 440-437411/5 | 440-0095262-005_05_ECD_1.d |
| Level 6 | STD5 440-437411/6 | 440-0095262-006_06_ECD_1.d |
| Level 7 | STD6 440-437411/7 | 440-0095262-007_07_ECD_1.d |
| Level 8 | STD7 440-437411/8 | 440-0095262-008_08_ECD_1.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | LVL 8 | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | | 10.714 | 10.726 | 10.732 | 10.736 | 10.728 | 10.739 | 10.727 | | | 0.000 - 0.000 | 10.729 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-194754-1 Analy Batch No.: 437411

SDG No.:

Instrument ID: IC-23 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/25/2017 17:34 Calibration End Date: 10/25/2017 19:38 Calibration ID: 17784

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-437411/1 | 440-0095262-001_01_ECD_1.d |
| Level 2 | STD1 440-437411/2 | 440-0095262-002_02_ECD_1.d |
| Level 3 | STD2 440-437411/3 | 440-0095262-003_03_ECD_1.d |
| Level 4 | STD3 440-437411/4 | 440-0095262-004_04_ECD_1.d |
| Level 5 | STD4 440-437411/5 | 440-0095262-005_05_ECD_1.d |
| Level 6 | STD5 440-437411/6 | 440-0095262-006_06_ECD_1.d |
| Level 7 | STD6 440-437411/7 | 440-0095262-007_07_ECD_1.d |
| Level 8 | STD7 440-437411/8 | 440-0095262-008_08_ECD_1.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4<br>LVL 8 | | B | M1 | M2 | | | | | | | | |
| Perchlorate | 173328 | 115162<br>164667 | 122643<br>165903 | 169128<br>174397 | Lin | -88147.645 | 173577.626 | | | | | | | 0.9990 | | 0.9950 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1 | Analy Batch No.: 437411

SDG No.:

Instrument ID: IC-23 | GC Column: AS7 A | ID: 4(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 10/25/2017 17:34 | Calibration End Date: 10/25/2017 19:38 | Calibration ID: 17784

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-437411/1 | 440-0095262-001_01_ECD_1.d |
| Level 2 | STD1 440-437411/2 | 440-0095262-002_02_ECD_1.d |
| Level 3 | STD2 440-437411/3 | 440-0095262-003_03_ECD_1.d |
| Level 4 | STD3 440-437411/4 | 440-0095262-004_04_ECD_1.d |
| Level 5 | STD4 440-437411/5 | 440-0095262-005_05_ECD_1.d |
| Level 6 | STD5 440-437411/6 | 440-0095262-006_06_ECD_1.d |
| Level 7 | STD6 440-437411/7 | 440-0095262-007_07_ECD_1.d |
| Level 8 | STD7 440-437411/8 | 440-0095262-008_08_ECD_1.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 |
| Perchlorate | Lin | 4116682 | 115162<br>8295148 | 245286<br>17439659 | 676510 | 1733276 | 0.000000<br>25.0 | 1.00<br>50.0 | 2.00<br>100 | 4.00 | 10.0 |

Curve Type Legend:
Lin = Linear

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-001_01_ECD_1.d | | | | |
| Lims ID: | std0 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 0 | | |
| Inject. Date: | 25-Oct-2017 17:34:00 | ALS Bottle#: | 0 | Worklist Smp#: | 1 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095262-001 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-23 | | |
| Sublist: | chrom-314_23PERC*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\314_23PERC.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 26-Oct-2017 09:09:06 | Calib Date: | 25-Oct-2017 19:38:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-008_08_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK012 | | | | |
| First Level Reviewer: nickloffn | | Date: | 26-Oct-2017 09:07:24 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

## Reagents:

WCCLO41st-10_00011 Amount Added: 0.00 Units: uL

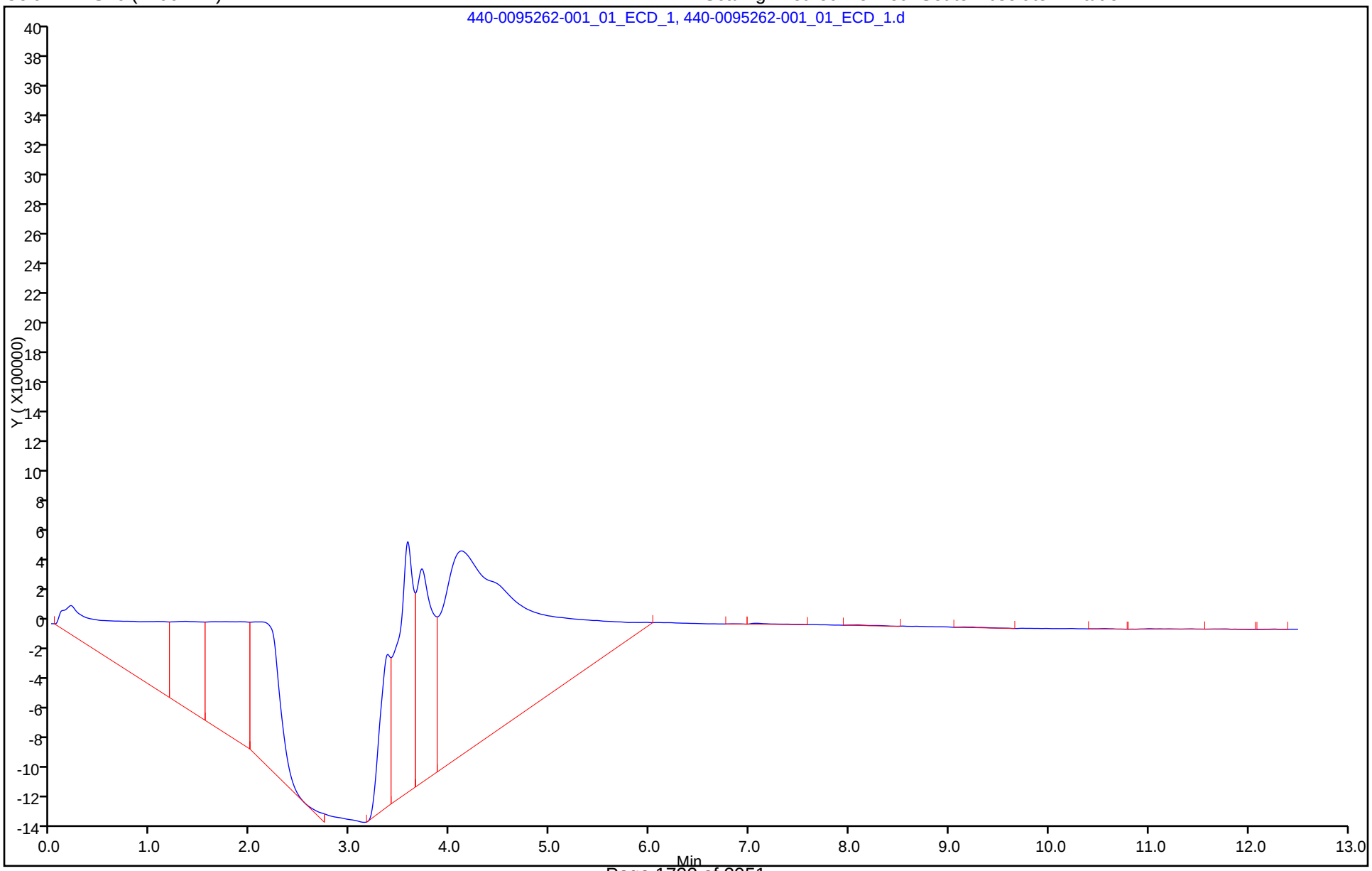
Report Date: 26-Oct-2017 09:09:07 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-001_01_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Oct-2017 17:34:00 | Instrument ID: | IC-23 | Operator ID: | |
| Lims ID: | std0 | | | Worklist Smp#: | 1 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_23PERC | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-002_02_ECD_1.d | | | | |
| Lims ID: | std1 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 1 | | |
| Inject. Date: | 25-Oct-2017 17:51:00 | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095262-002 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-23 | | |
| Sublist: | chrom-314_23PERC*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\314_23PERC.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 26-Oct-2017 09:09:07 | Calib Date: | 25-Oct-2017 19:38:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-008_08_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK012 | | | | |
| First Level Reviewer: hoangch | | Date: | 26-Oct-2017 08:02:15 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.714 | 10.714 | 0.000 | 115162 | 1.00 | 1.17 | M |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

WCCLO41st-10_00011 Amount Added: 10.00 Units: uL

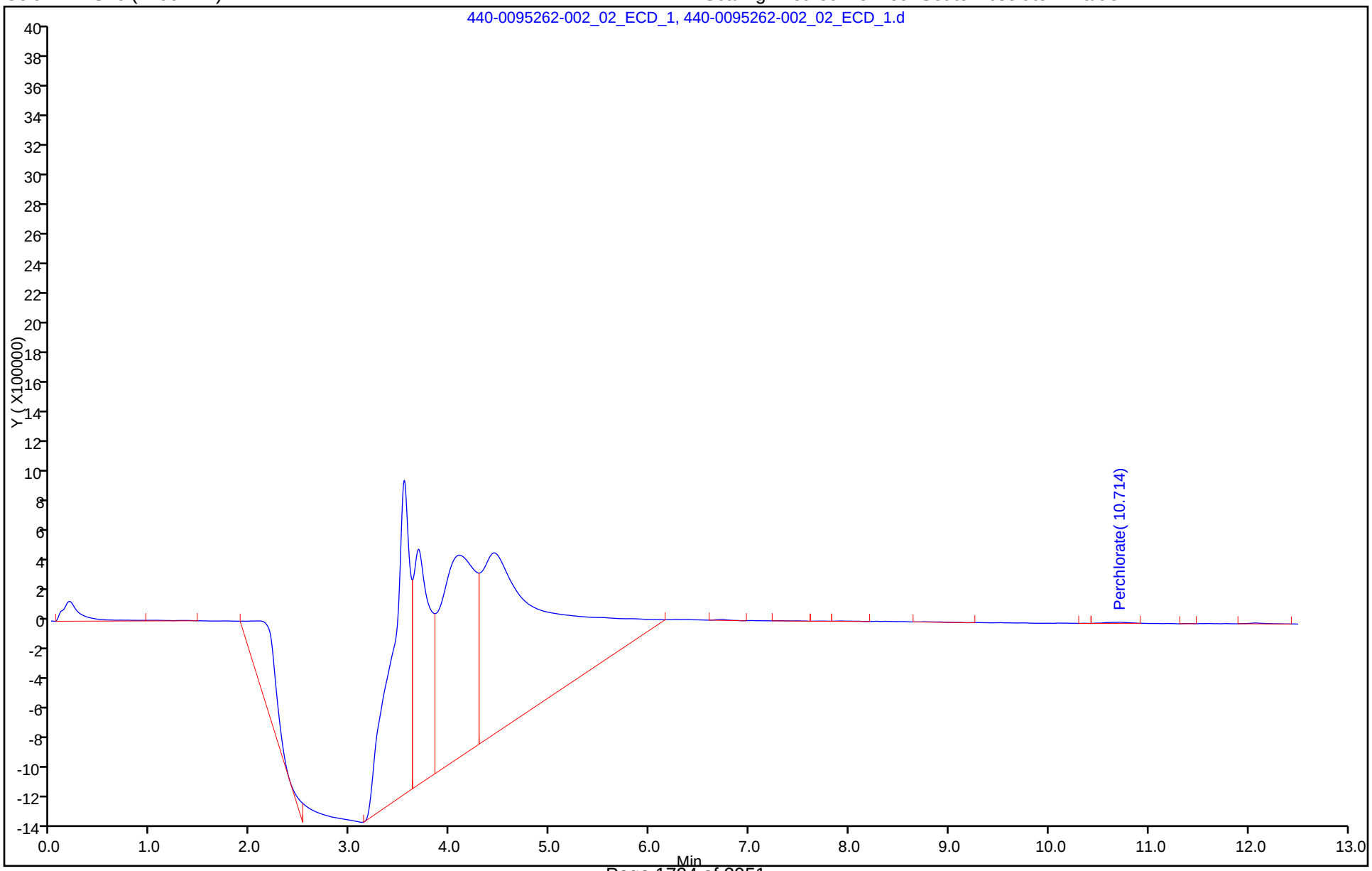
Report Date: 26-Oct-2017 09:09:07 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-002_02_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Oct-2017 17:51:00 | Instrument ID: | IC-23 | Operator ID: | |
| Lims ID: | std1 | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_23PERC | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

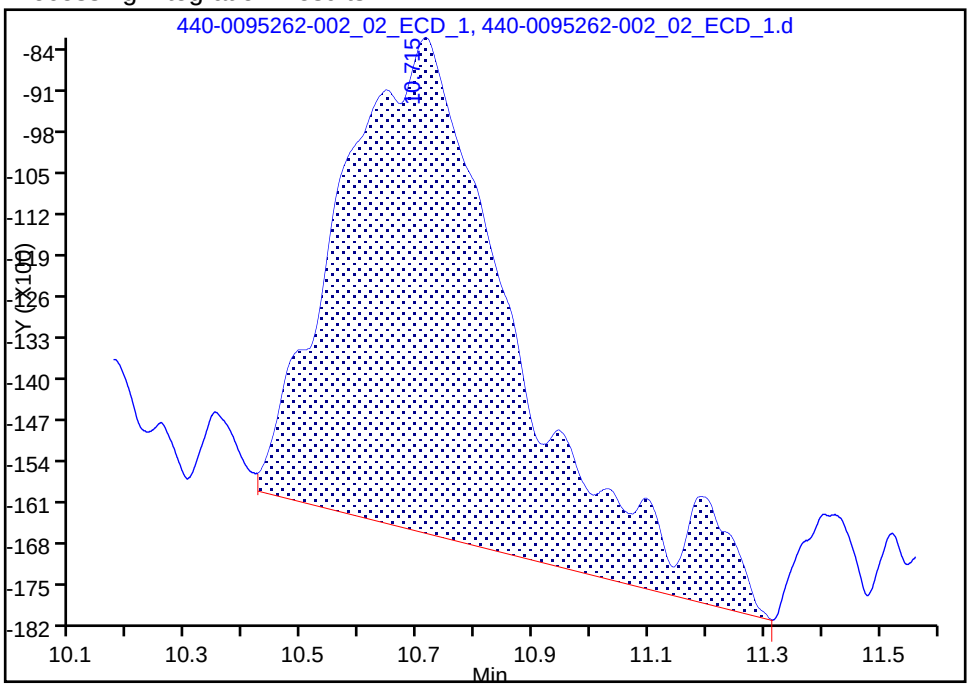
Data File: \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-002_02_ECD_1.d
Injection Date: 25-Oct-2017 17:51:00 Instrument ID: IC-23
Lims ID: std1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 314_23PERC Limit Group: IC-314
Column: AS16 ( 4.00 mm) Detector Ch-A-20111003029

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

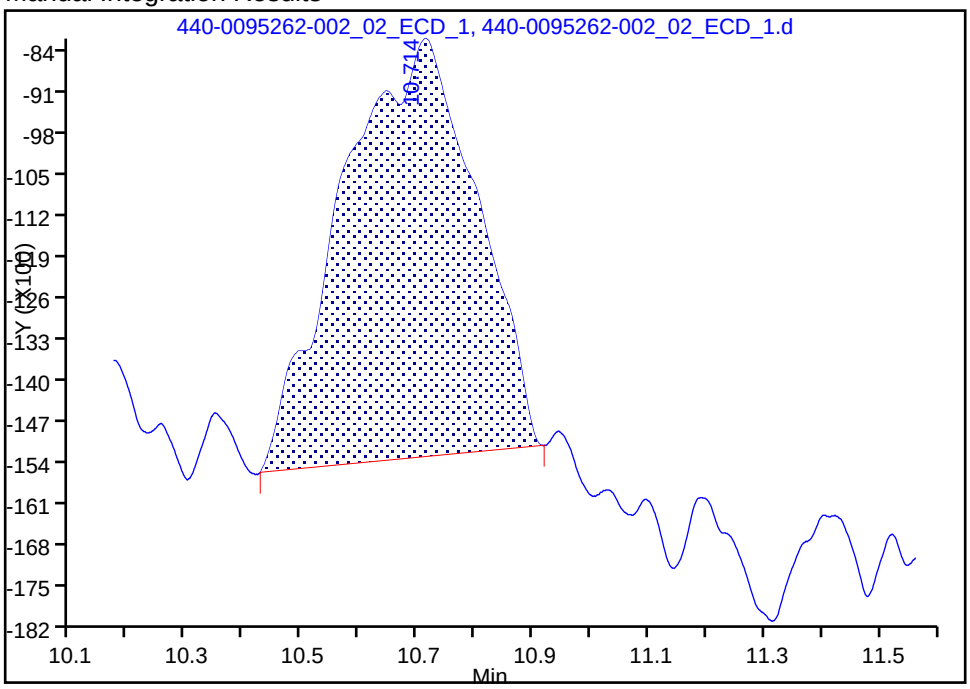
Processing Integration Results

RT: 10.72
Area: 180507
Amount: 1.453629
Amount Units: ug/l




Manual Integration Results

RT: 10.71
Area: 115162
Amount: 1.171289
Amount Units: ug/l




Reviewer: hoangch, 26-Oct-2017 08:02:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-003_03_ECD_1.d
Lims ID: std2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 25-Oct-2017 18:09:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095262-003
Misc. Info.: ch
Operator ID: Instrument ID: IC-23
Sublist: chrom-314_23PERC*sub1

Method: \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\314_23PERC.m
Limit Group: IC-314
Method Label: PERCHLORATE
Last Update: 26-Oct-2017 09:09:08 Calib Date: 25-Oct-2017 19:38:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-008_08_ECD_1.d

Column 1 : AS16 ( 4.00 mm) Det: Ch-A-20111003029
Process Host: XAWRK012

First Level Reviewer: hoangch Date: 26-Oct-2017 08:00:50

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.726 | 10.714 | 0.012 | 245286 | 2.00 | 1.92 | M |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

WCCLO41st-10_00011 Amount Added: 20.00 Units: uL

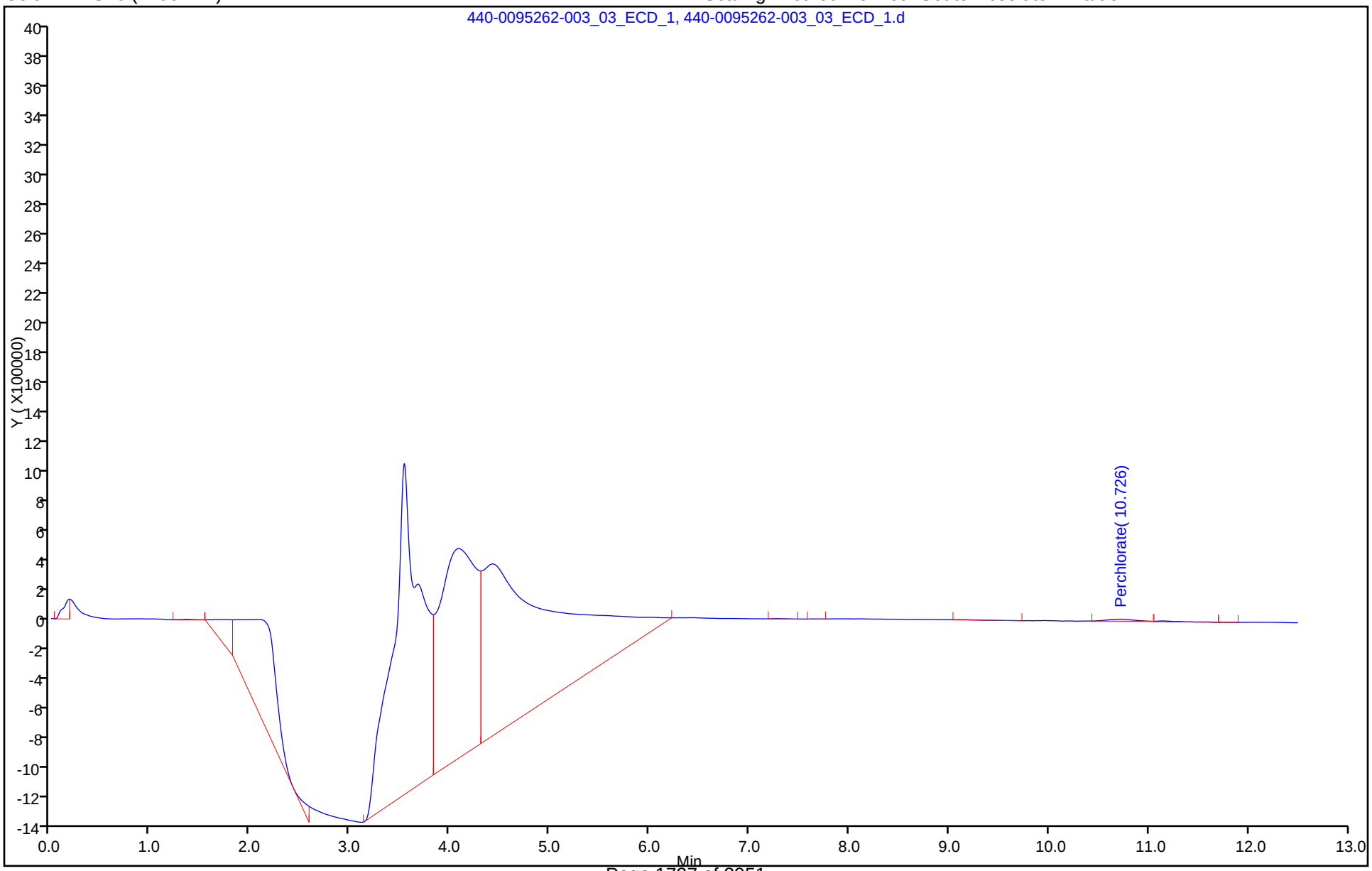
Report Date: 26-Oct-2017 09:09:08 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-003_03_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Oct-2017 18:09:00 | Instrument ID: | IC-23 | Operator ID: | |
| Lims ID: | std2 | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_23PERC | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

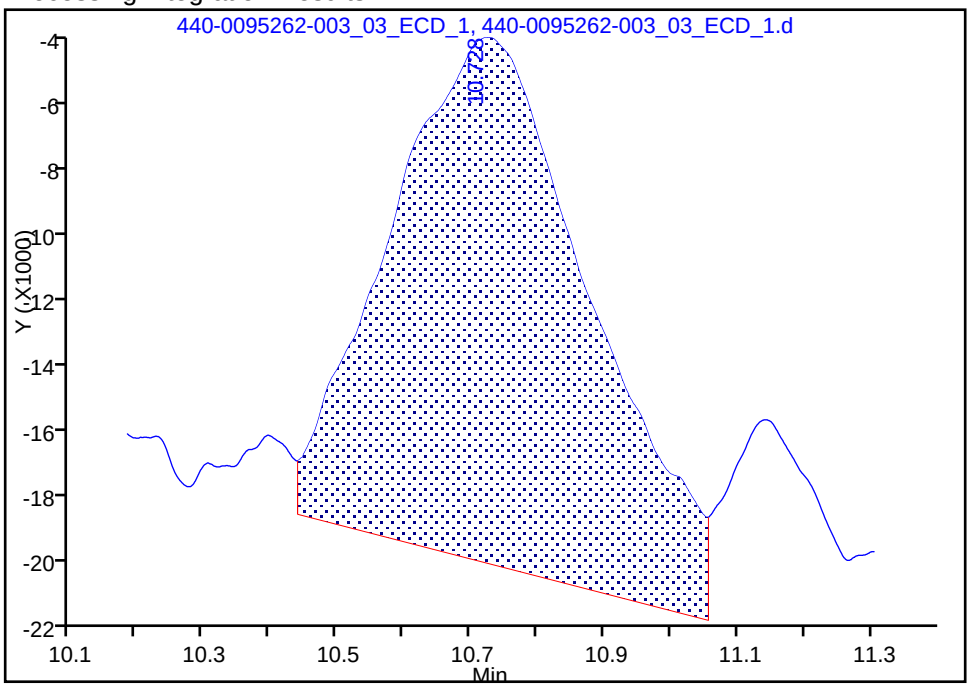
Data File: \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-003_03_ECD_1.d
Injection Date: 25-Oct-2017 18:09:00 Instrument ID: IC-23
Lims ID: std2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 314_23PERC Limit Group: IC-314
Column: AS16 ( 4.00 mm) Detector Ch-A-20111003029

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

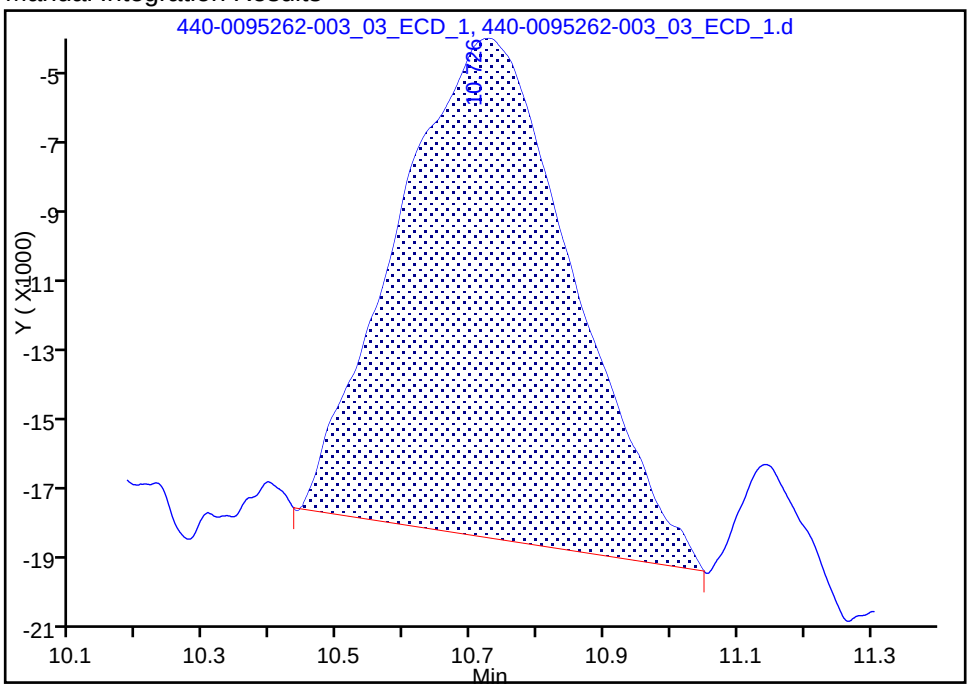
Processing Integration Results

RT: 10.73
Area: 333779
Amount: 2.245753
Amount Units: ug/l




Manual Integration Results

RT: 10.73
Area: 245286
Amount: 1.920948
Amount Units: ug/l




Reviewer: hoangch, 26-Oct-2017 08:00:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-004_04_ECD_1.d
Lims ID: std3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 25-Oct-2017 18:27:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095262-004
Misc. Info.: ch
Operator ID: Instrument ID: IC-23
Sublist: chrom-314_23PERC*sub1

Method: \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\314_23PERC.m
Limit Group: IC-314
Method Label: PERCHLORATE
Last Update: 26-Oct-2017 09:09:09 Calib Date: 25-Oct-2017 19:38:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-008_08_ECD_1.d

Column 1 : AS16 ( 4.00 mm) Det: Ch-A-20111003029
Process Host: XAWRK012

First Level Reviewer: nguyent Date: 26-Oct-2017 09:05:48

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.732 | 10.714 | 0.018 | 676510 | 4.00 | 4.41 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 40.00 Units: uL

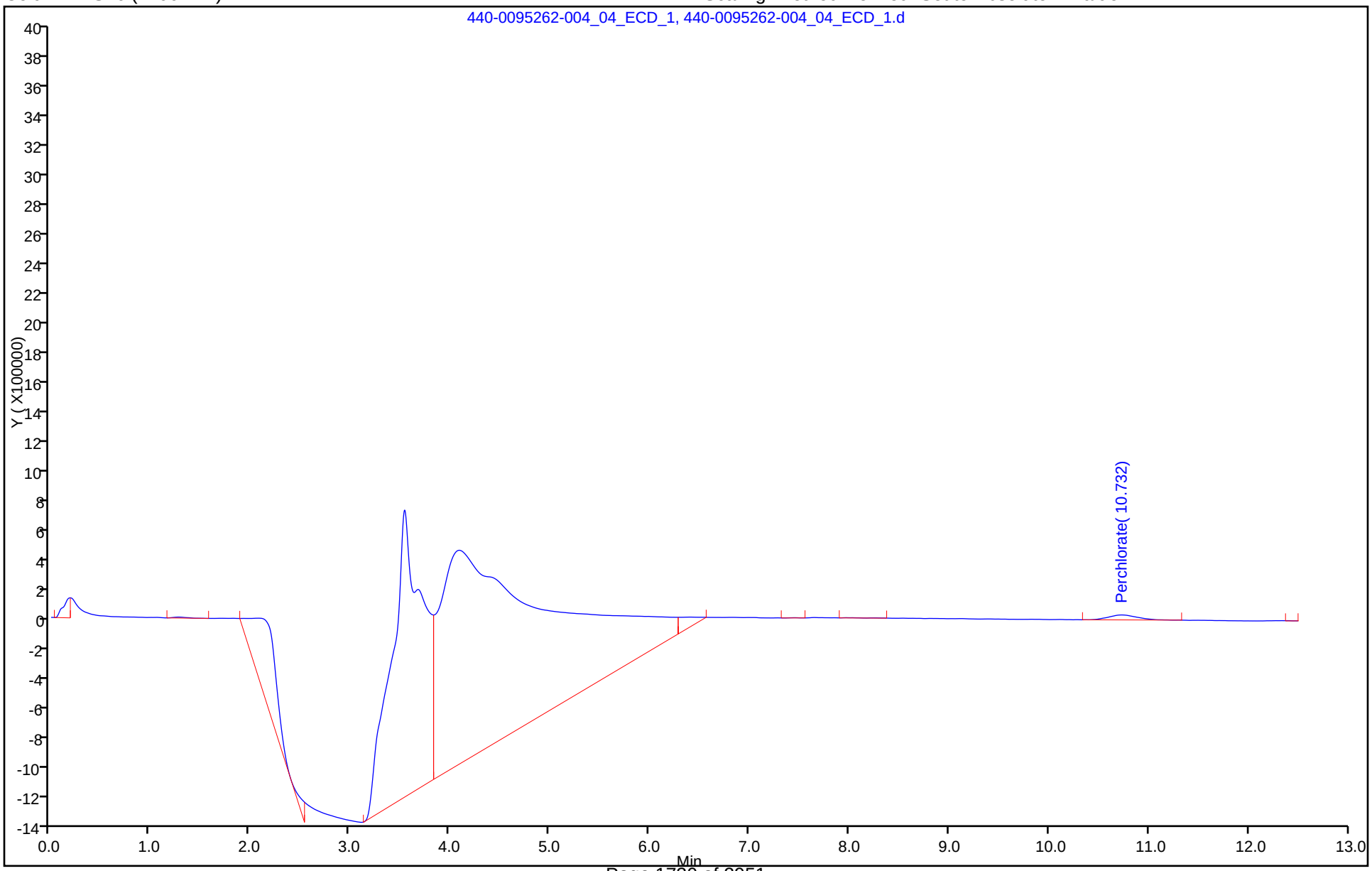
Report Date: 26-Oct-2017 09:09:09 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-004_04_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Oct-2017 18:27:00 | Instrument ID: | IC-23 | Operator ID: | |
| Lims ID: | std3 | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_23PERC | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-005_05_ECD_1.d | | | | |
| Lims ID: | std4 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 4 | | |
| Inject. Date: | 25-Oct-2017 18:45:00 | ALS Bottle#: | 0 | Worklist Smp#: | 5 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095262-005 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-23 | | |
| Sublist: | chrom-314_23PERC*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\314_23PERC.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 26-Oct-2017 09:09:09 | Calib Date: | 25-Oct-2017 19:38:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-008_08_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK012 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.736 | 10.714 | 0.022 | 1733276 | 10.0 | 10.5 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 100.00 Units: uL

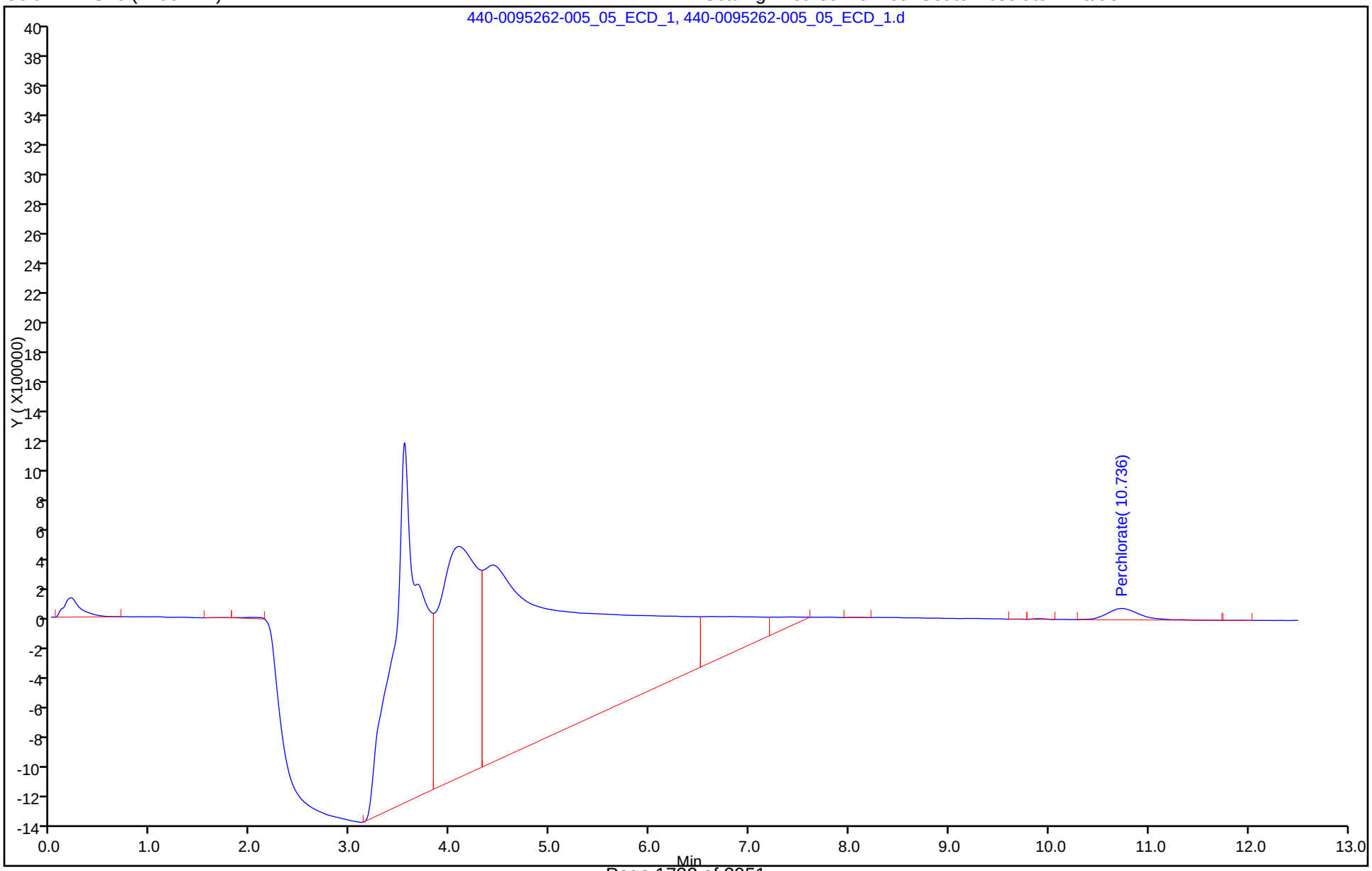
Report Date: 26-Oct-2017 09:09:10 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-005_05_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Oct-2017 18:45:00 | Instrument ID: | IC-23 | Operator ID: | |
| Lims ID: | std4 | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_23PERC | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-006_06_ECD_1.d | | | | |
| Lims ID: | std5 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 5 | | |
| Inject. Date: | 25-Oct-2017 19:03:00 | ALS Bottle#: | 0 | Worklist Smp#: | 6 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095262-006 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-23 | | |
| Sublist: | chrom-314_23PERC*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\314_23PERC.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 26-Oct-2017 09:09:10 | Calib Date: | 25-Oct-2017 19:38:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-008_08_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK012 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.728 | 10.714 | 0.014 | 4116682 | 25.0 | 24.2 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 250.00 Units: uL

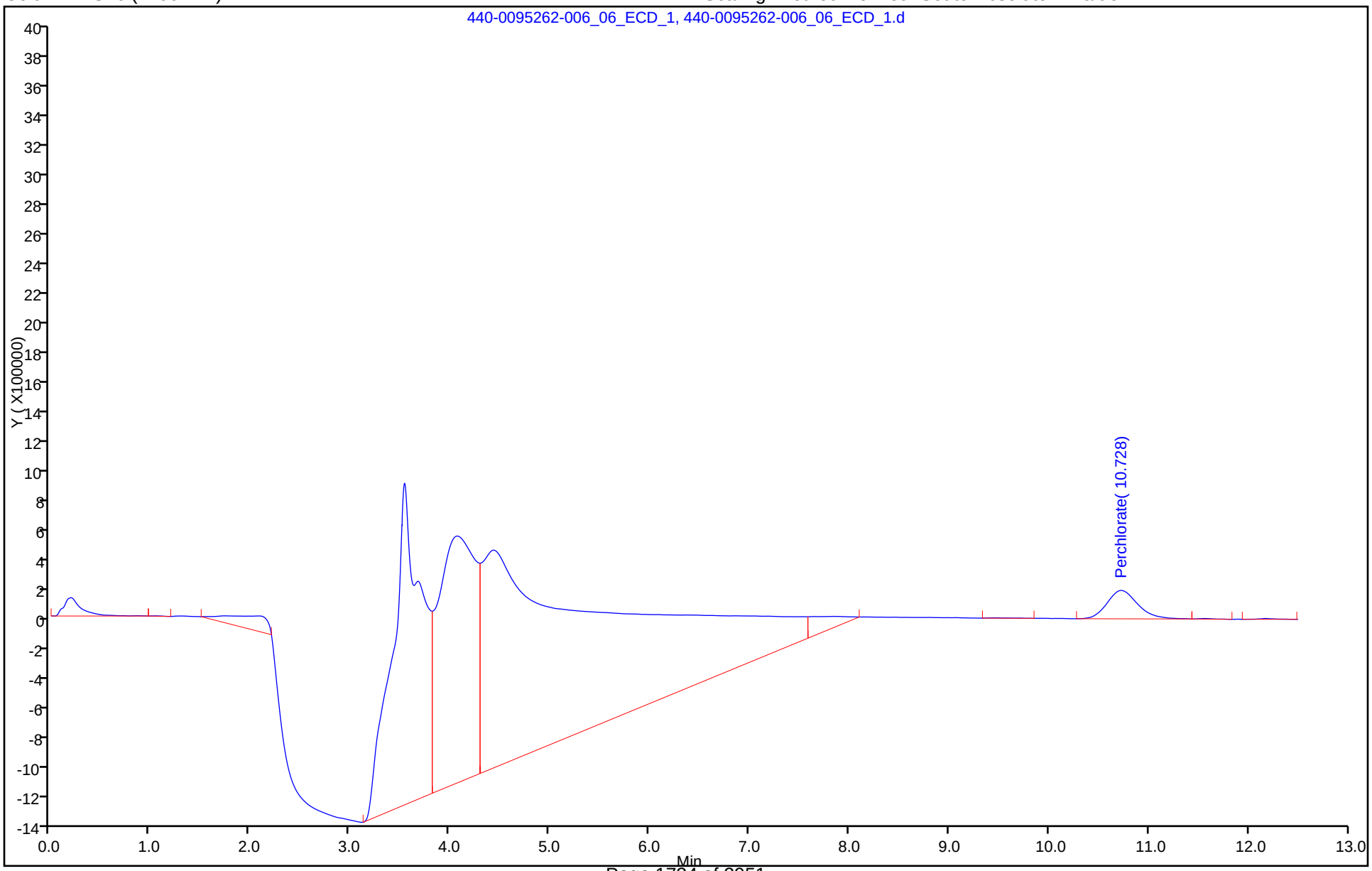
Report Date: 26-Oct-2017 09:09:10 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-006_06_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Oct-2017 19:03:00 | Instrument ID: | IC-23 | Operator ID: | |
| Lims ID: | std5 | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_23PERC | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-007_07_ECD_1.d | | | | |
| Lims ID: | std6 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 6 | | |
| Inject. Date: | 25-Oct-2017 19:20:00 | ALS Bottle#: | 0 | Worklist Smp#: | 7 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095262-007 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-23 | | |
| Sublist: | chrom-314_23PERC*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\314_23PERC.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 26-Oct-2017 09:09:11 | Calib Date: | 25-Oct-2017 19:38:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-008_08_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK012 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.739 | 10.714 | 0.025 | 8295148 | 50.0 | 48.3 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 500.00 Units: uL

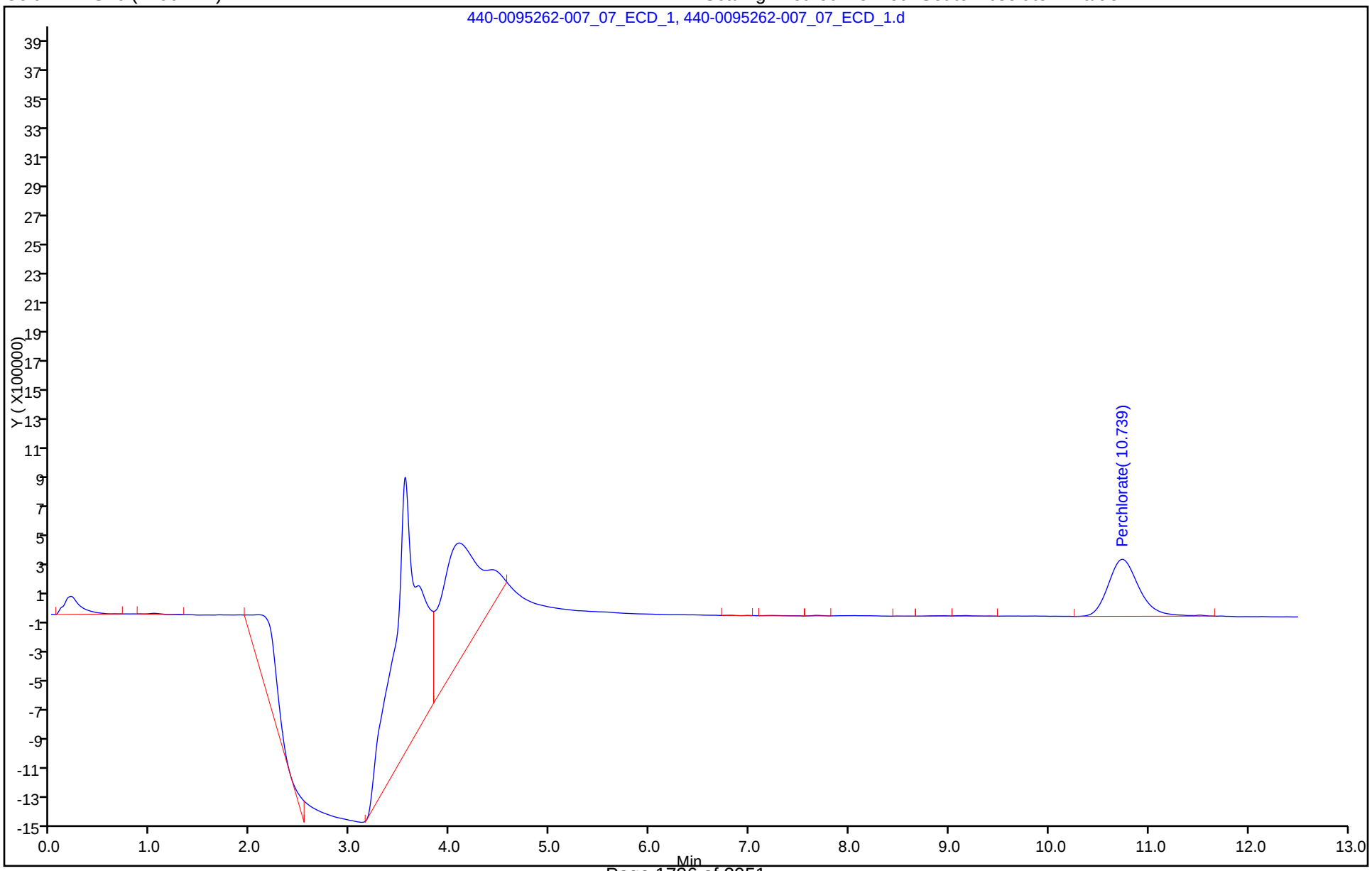
Report Date: 26-Oct-2017 09:09:11 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-007_07_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Oct-2017 19:20:00 | Instrument ID: | IC-23 | Operator ID: | |
| Lims ID: | std6 | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_23PERC | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-008_08_ECD_1.d | | | | |
| Lims ID: | std7 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 7 | | |
| Inject. Date: | 25-Oct-2017 19:38:00 | ALS Bottle#: | 0 | Worklist Smp#: | 8 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095262-008 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-23 | | |
| Sublist: | chrom-314_23PERC*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\314_23PERC.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 26-Oct-2017 09:09:11 | Calib Date: | 25-Oct-2017 19:38:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-008_08_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK012 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.727 | 10.714 | 0.013 | 17439659 | 100.0 | 101.0 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 1000.00 Units: uL

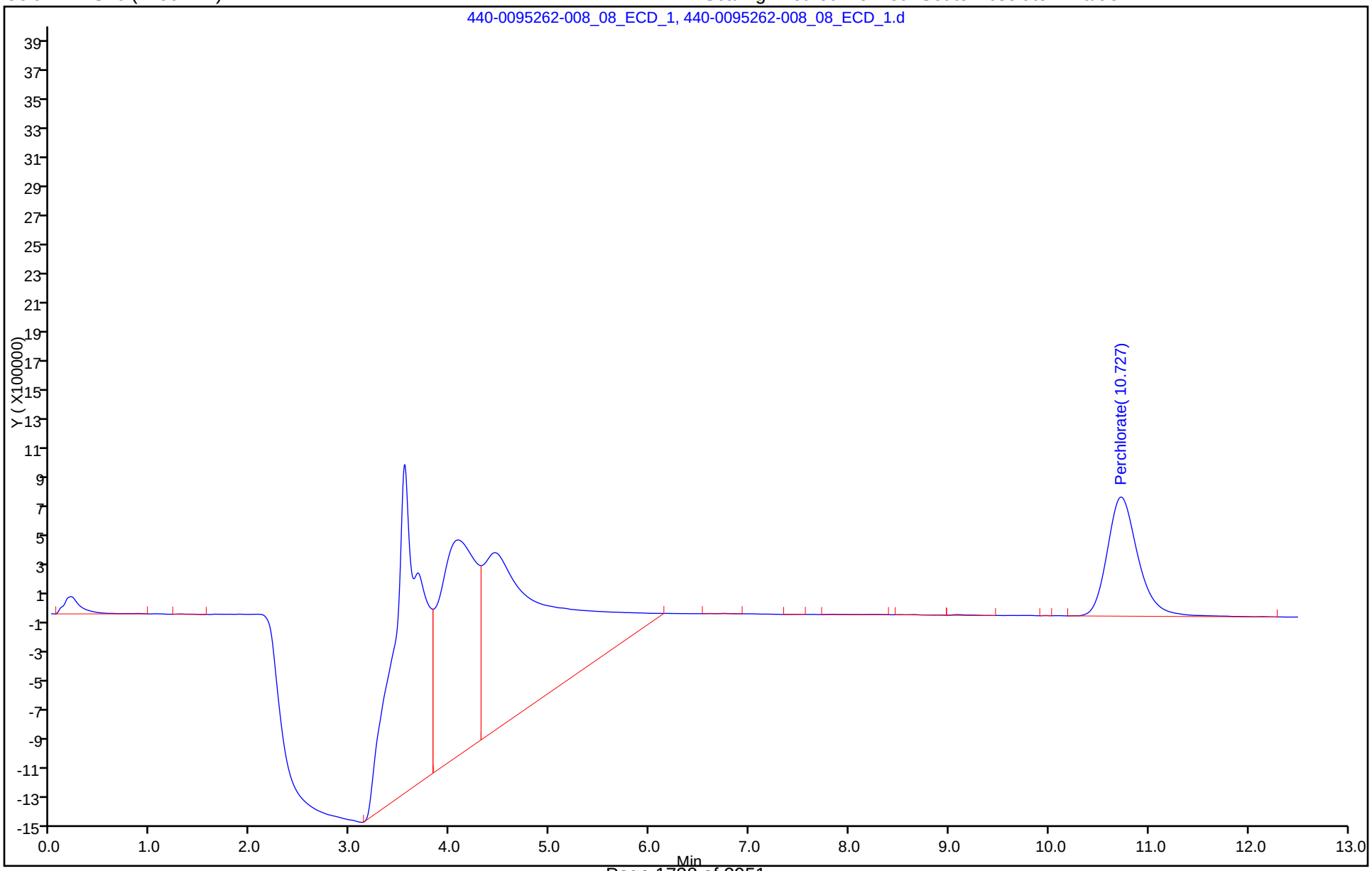
Report Date: 26-Oct-2017 09:09:12 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-008_08_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 25-Oct-2017 19:38:00 | Instrument ID: | IC-23 | Operator ID: | |
| Lims ID: | std7 | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_23PERC | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1 Analy Batch No.: 437218

SDG No.:

Instrument ID: IC-25 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/24/2017 16:48 Calibration End Date: 10/24/2017 18:45 Calibration ID: 17777

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-437218/2 | 440-0095217-002_2_ECD_1.d |
| Level 2 | STD2 440-437218/3 | 440-0095217-003_3_ECD_1.d |
| Level 3 | STD3 440-437218/4 | 440-0095217-004_4_ECD_1.d |
| Level 4 | STD4 440-437218/5 | 440-0095217-005_5_ECD_1.d |
| Level 5 | STD5 440-437218/6 | 440-0095217-006_6_ECD_1.d |
| Level 6 | STD6 440-437218/7 | 440-0095217-007_7_ECD_1.d |
| Level 7 | STD7 440-437218/8 | 440-0095217-008_8_ECD_1.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 11.894 | 11.877 | 11.877 | 11.867 | 11.857 | 11.844 | 11.824 | | | | 11.299 - 12.489 | 11.863 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-194754-1 Analy Batch No.: 437218

SDG No.:

Instrument ID: IC-25 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/24/2017 16:48 Calibration End Date: 10/24/2017 18:45 Calibration ID: 17777

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-437218/2 | 440-0095217-002_2_ECD_1.d |
| Level 2 | STD2 440-437218/3 | 440-0095217-003_3_ECD_1.d |
| Level 3 | STD3 440-437218/4 | 440-0095217-004_4_ECD_1.d |
| Level 4 | STD4 440-437218/5 | 440-0095217-005_5_ECD_1.d |
| Level 5 | STD5 440-437218/6 | 440-0095217-006_6_ECD_1.d |
| Level 6 | STD6 440-437218/7 | 440-0095217-007_7_ECD_1.d |
| Level 7 | STD7 440-437218/8 | 440-0095217-008_8_ECD_1.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Perchlorate | 123900<br>127102 | 114557<br>129691 | 130512<br>137810 | 117285 | Qua | -4087.8031 | 122012.044 | 158.345383 | | | | | | 1.0000 | | 0.9950 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-194754-1 Analy Batch No.: 437218

SDG No.:

Instrument ID: IC-25 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/24/2017 16:48 Calibration End Date: 10/24/2017 18:45 Calibration ID: 17777

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-437218/2 | 440-0095217-002_2_ECD_1.d |
| Level 2 | STD2 440-437218/3 | 440-0095217-003_3_ECD_1.d |
| Level 3 | STD3 440-437218/4 | 440-0095217-004_4_ECD_1.d |
| Level 4 | STD4 440-437218/5 | 440-0095217-005_5_ECD_1.d |
| Level 5 | STD5 440-437218/6 | 440-0095217-006_6_ECD_1.d |
| Level 6 | STD6 440-437218/7 | 440-0095217-007_7_ECD_1.d |
| Level 7 | STD7 440-437218/8 | 440-0095217-008_8_ECD_1.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| Perchlorate | Qua | 123900<br>6484558 | 229114<br>13781040 | 522047 | 1172852 | 3177542 | 1.00<br>50.0 | 2.00<br>100 | 4.00 | 10.0 | 25.0 |

Curve Type Legend:
Qua = Quadratic

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-002_2_ECD_1.d
Lims ID: std1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 24-Oct-2017 17:04:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095217-002
Misc. Info.: ch
Operator ID: Instrument ID: IC-25
Sublist: chrom-314_25perchlorate*sub1

Method: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\314_25perchlorate.m
Limit Group: IC-314
Method Label: PERCHLORATE
Last Update: 25-Oct-2017 08:18:11 Calib Date: 24-Oct-2017 18:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d

Column 1 : AS16 ( 4.00 mm) Det: Ch-A-20111003029
Process Host: XAWRK006

First Level Reviewer: hoangch Date: 25-Oct-2017 08:13:09

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.894 | 11.894 | 0.000 | 123900 | 1.00 | 1.05 | M |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

WCCLO41st-10_00011 Amount Added: 10.00 Units: uL

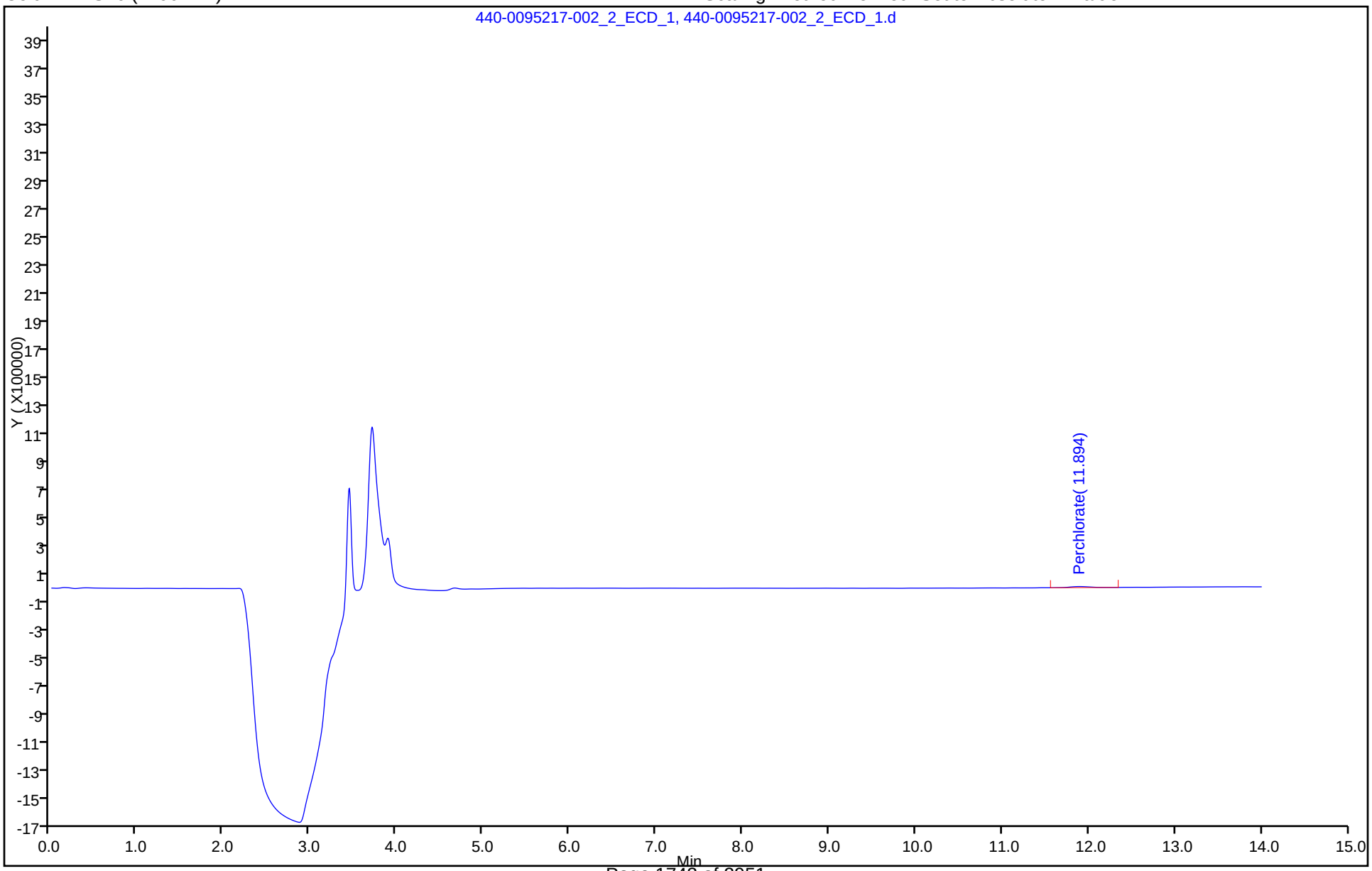
Report Date: 25-Oct-2017 08:18:11 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-002_2_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 17:04:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | std1 | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

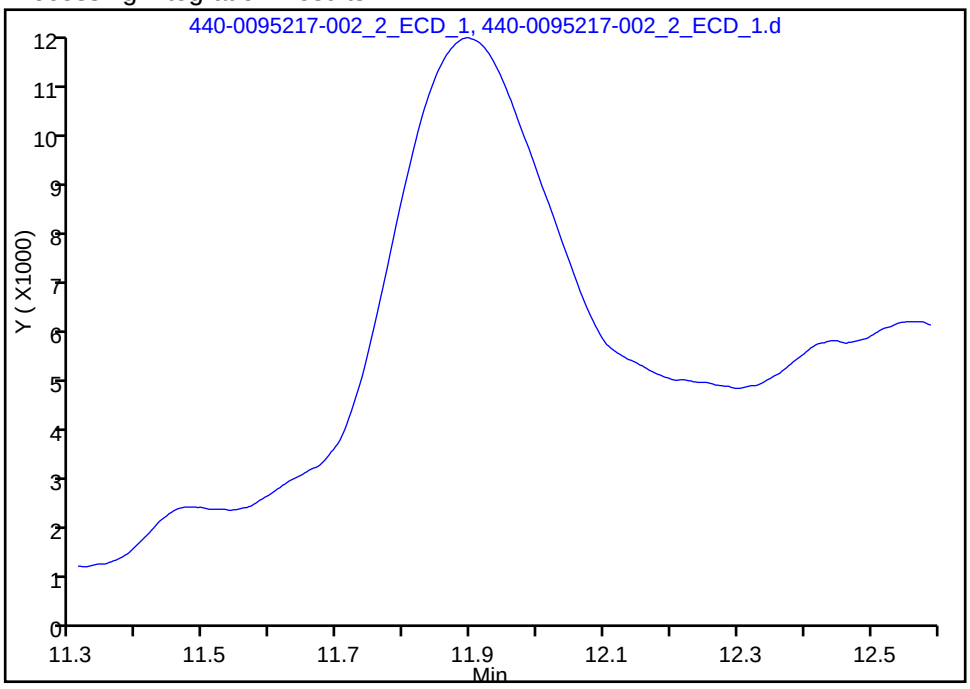
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-002_2_ECD_1.d | | | | |
| Injection Date: | 24-Oct-2017 17:04:00 | Instrument ID: | IC-25 | | |
| Lims ID: | std1 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |
| Column: | AS16 ( 4.00 mm) | Detector | Ch-A-20111003029 | | |

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

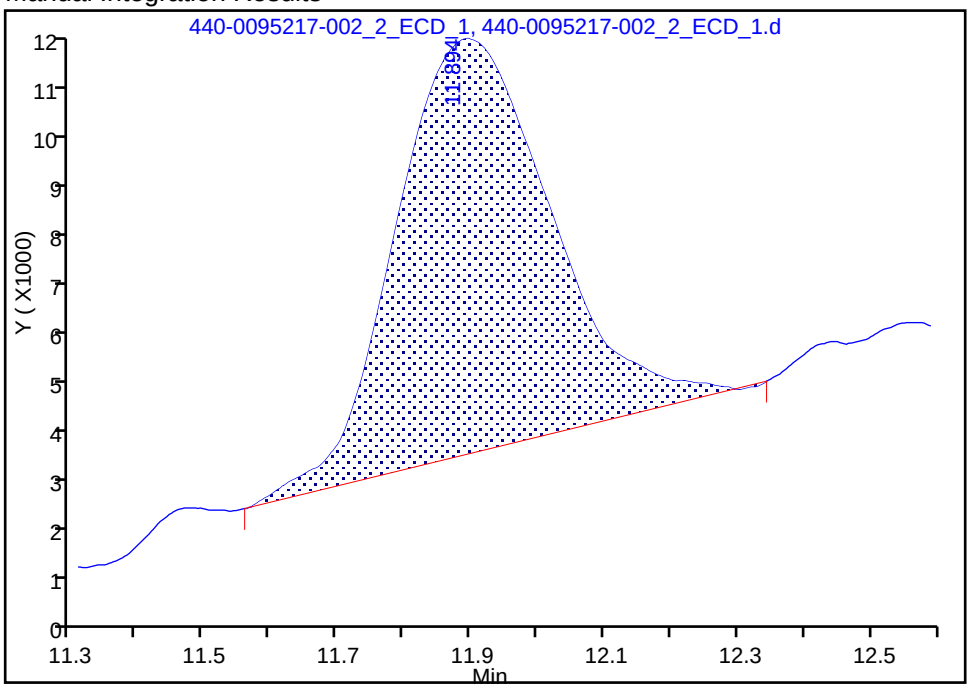
Not Detected
Expected RT: 11.89

Processing Integration Results




Manual Integration Results

RT: 11.89
Area: 123900
Amount: 1.047553
Amount Units: ug/l




Reviewer: hoangch, 25-Oct-2017 08:13:07
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Irvine

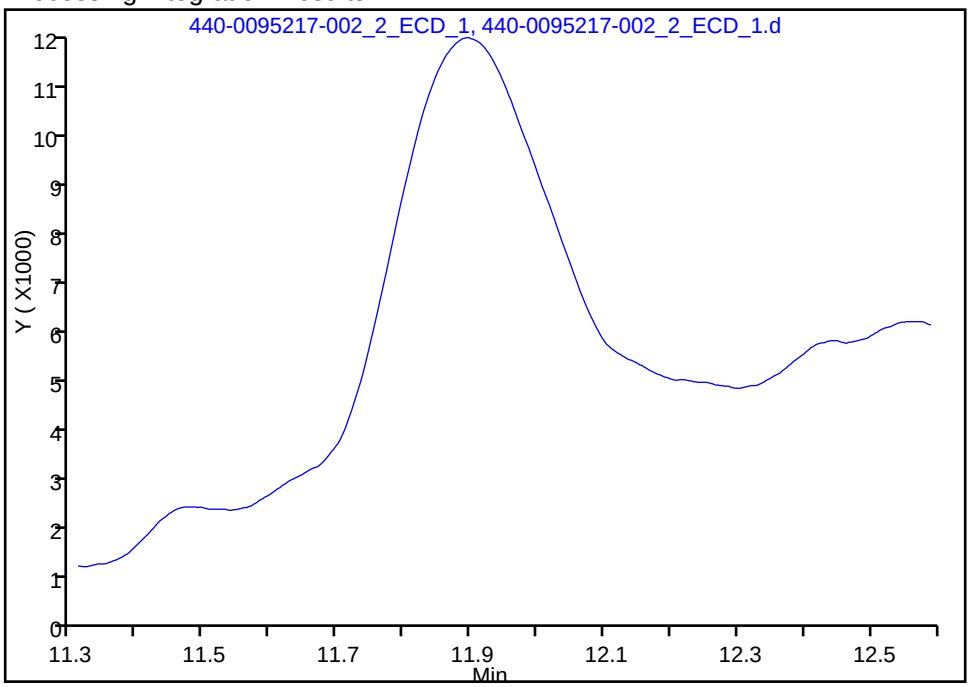
Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-002_2_ECD_1.d
Injection Date: 24-Oct-2017 17:04:00 Instrument ID: IC-25
Lims ID: std1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 314_25perchlorate Limit Group: IC-314
Column: AS16 ( 4.00 mm) Detector Ch-A-20111003029

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

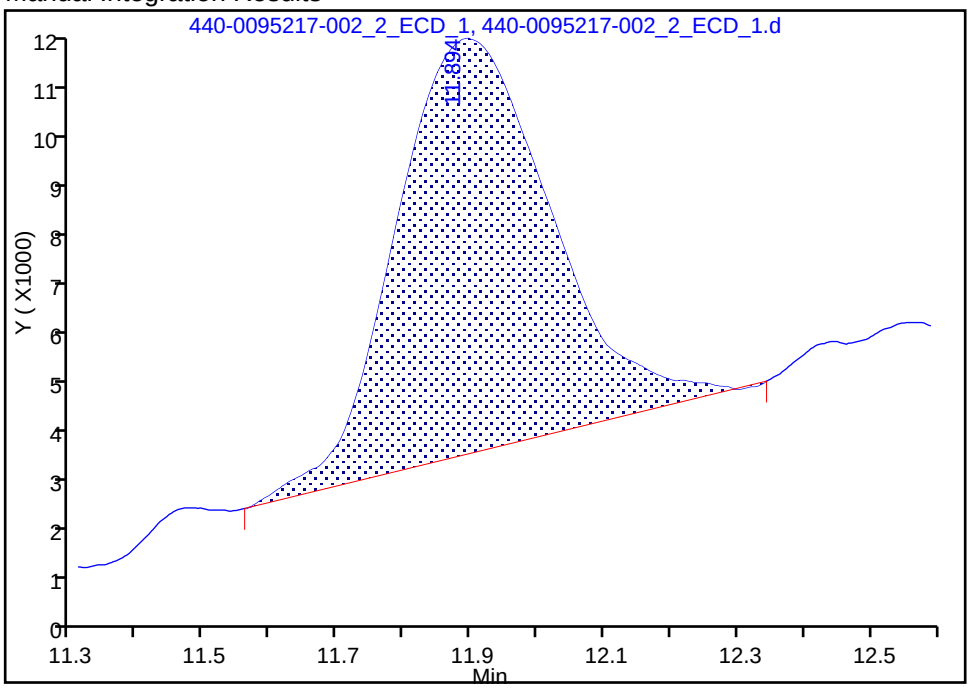
Not Detected
Expected RT: 11.89

Processing Integration Results




Manual Integration Results

RT: 11.89
Area: 123900
Amount: 1.047553
Amount Units: ug/l




Reviewer: hoangch, 25-Oct-2017 08:14:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-003_3_ECD_1.d
Lims ID: std2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 24-Oct-2017 17:21:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095217-003
Misc. Info.: ch
Operator ID: Instrument ID: IC-25
Sublist: chrom-314_25perchlorate*sub1

Method: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\314_25perchlorate.m
Limit Group: IC-314
Method Label: PERCHLORATE
Last Update: 25-Oct-2017 08:18:12 Calib Date: 24-Oct-2017 18:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d

Column 1 : AS16 ( 4.00 mm) Det: Ch-A-20111003029
Process Host: XAWRK006

First Level Reviewer: hoangch Date: 25-Oct-2017 08:11:46

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.877 | 11.894 | -0.017 | 229114 | 2.00 | 1.91 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 20.00 Units: uL

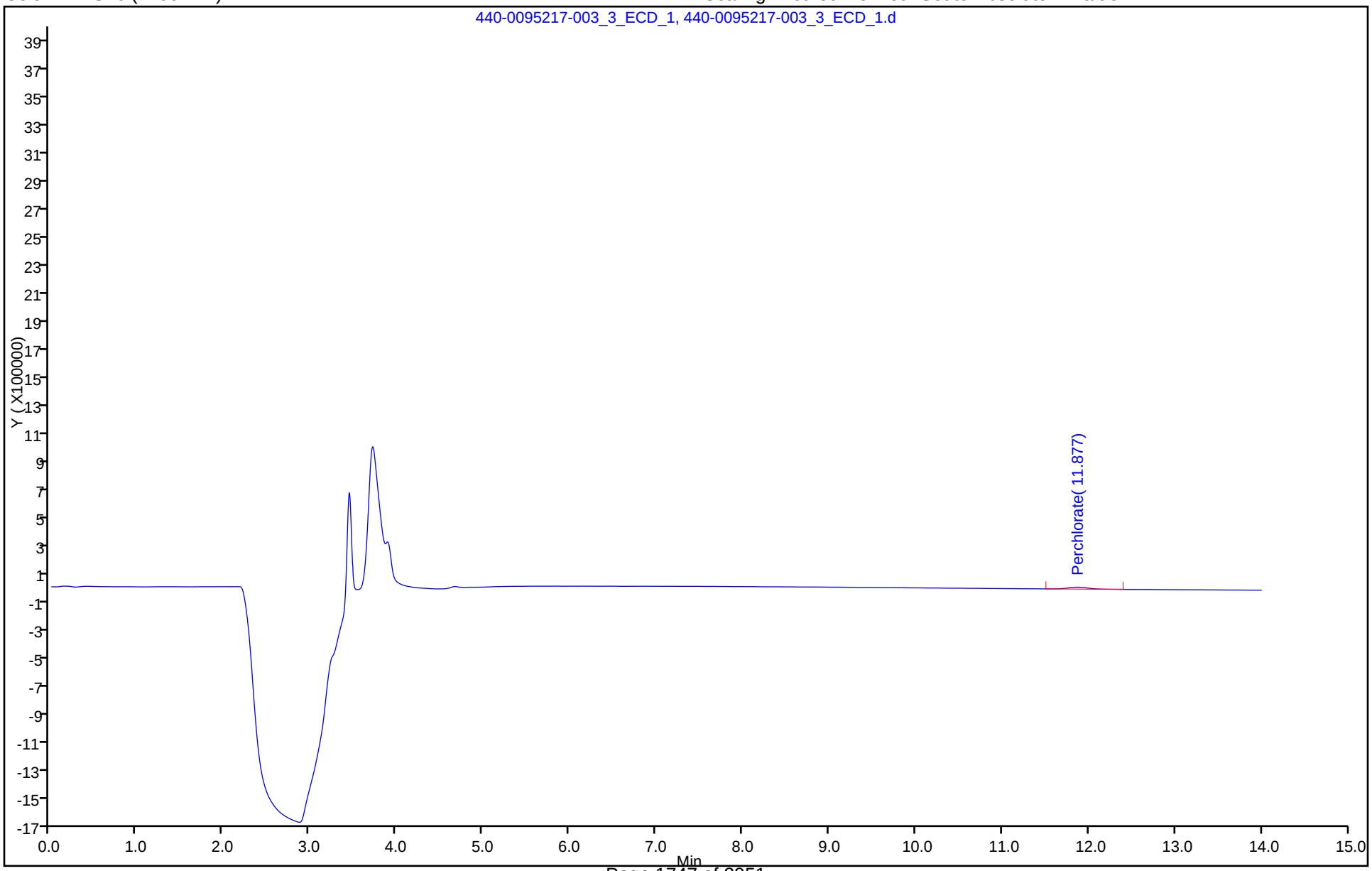
Report Date: 25-Oct-2017 08:18:13 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-003_3_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 17:21:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | std2 | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-004_4_ECD_1.d
Lims ID: std3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 24-Oct-2017 17:38:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095217-004
Misc. Info.: ch
Operator ID: Instrument ID: IC-25
Sublist: chrom-314_25perchlorate*sub1

Method: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\314_25perchlorate.m
Limit Group: IC-314
Method Label: PERCHLORATE
Last Update: 25-Oct-2017 08:18:14 Calib Date: 24-Oct-2017 18:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d

Column 1 : AS16 ( 4.00 mm) Det: Ch-A-20111003029
Process Host: XAWRK006

First Level Reviewer: hoangch Date: 25-Oct-2017 08:13:29

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.877 | 11.894 | -0.017 | 522047 | 4.00 | 4.29 | M |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

WCCLO41st-10_00011 Amount Added: 40.00 Units: uL

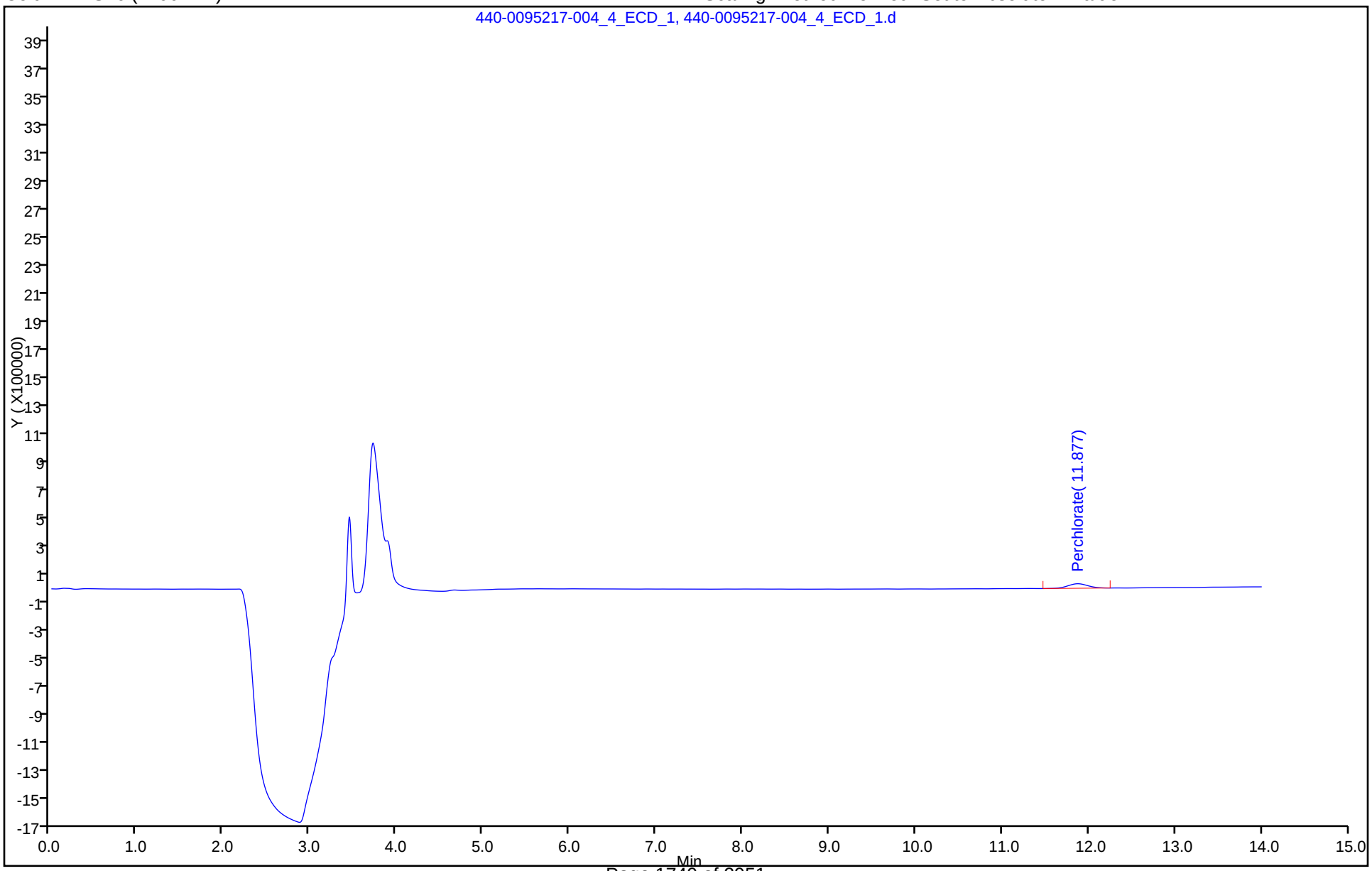
Report Date: 25-Oct-2017 08:18:14 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-004_4_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 17:38:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | std3 | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

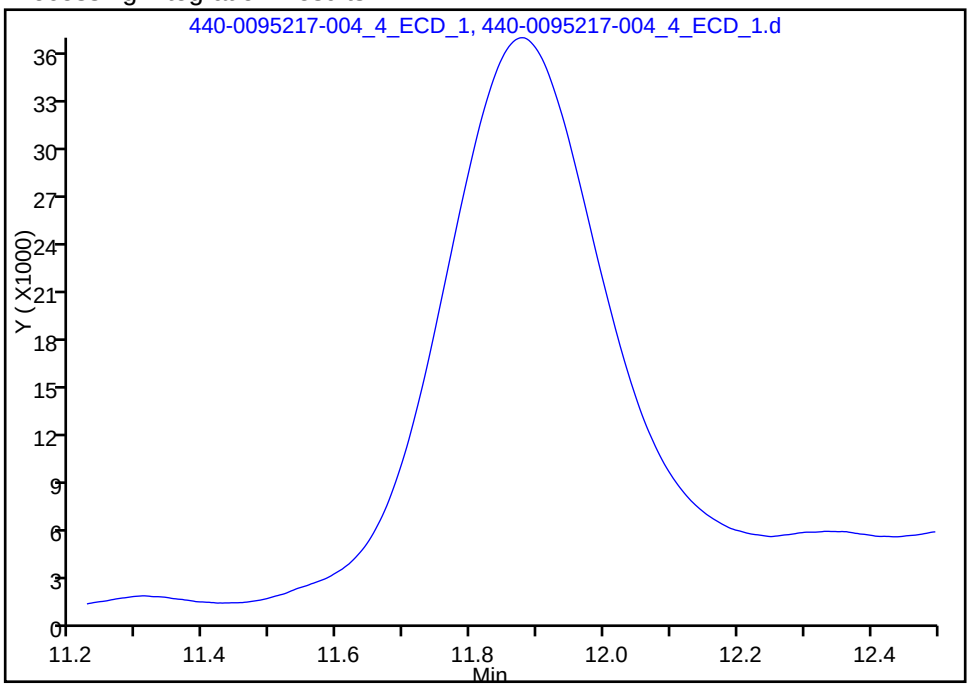
Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-004_4_ECD_1.d
Injection Date: 24-Oct-2017 17:38:00 Instrument ID: IC-25
Lims ID: std3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 314_25perchlorate Limit Group: IC-314
Column: AS16 ( 4.00 mm) Detector Ch-A-20111003029

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

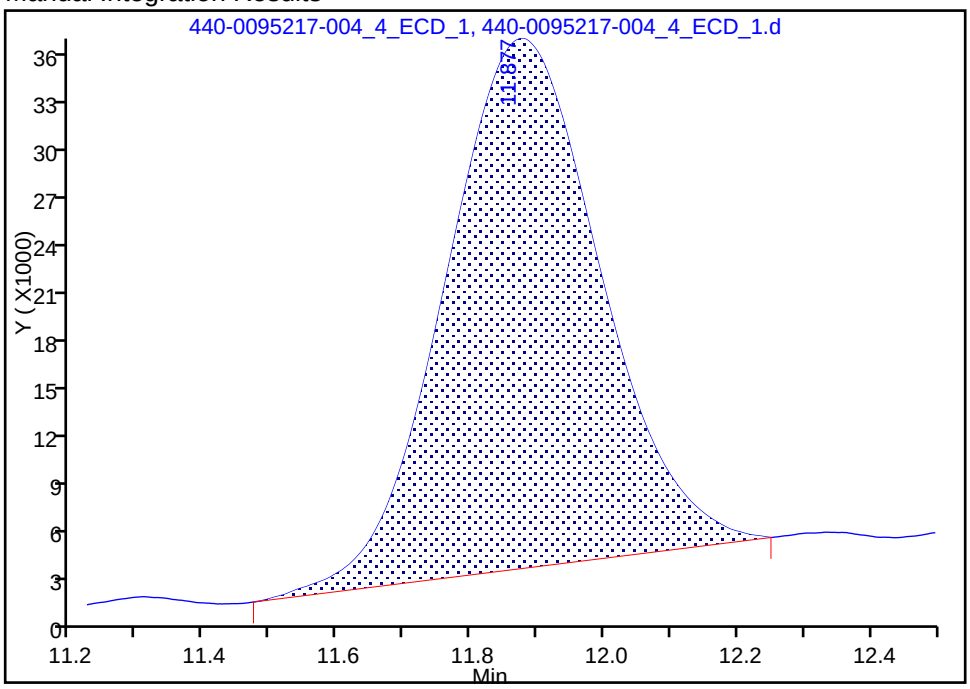
Not Detected
Expected RT: 11.89

Processing Integration Results




Manual Integration Results

RT: 11.88
Area: 522047
Amount: 4.288289
Amount Units: ug/l




Reviewer: hoangch, 25-Oct-2017 08:13:27
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Irvine

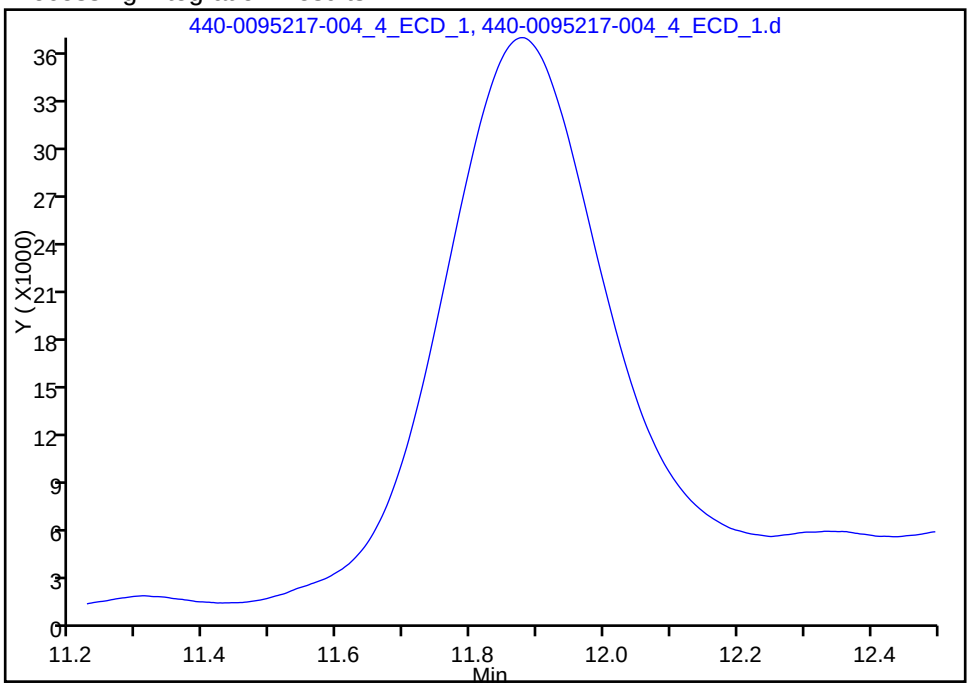
Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-004_4_ECD_1.d
Injection Date: 24-Oct-2017 17:38:00 Instrument ID: IC-25
Lims ID: std3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 314_25perchlorate Limit Group: IC-314
Column: AS16 ( 4.00 mm) Detector Ch-A-20111003029

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

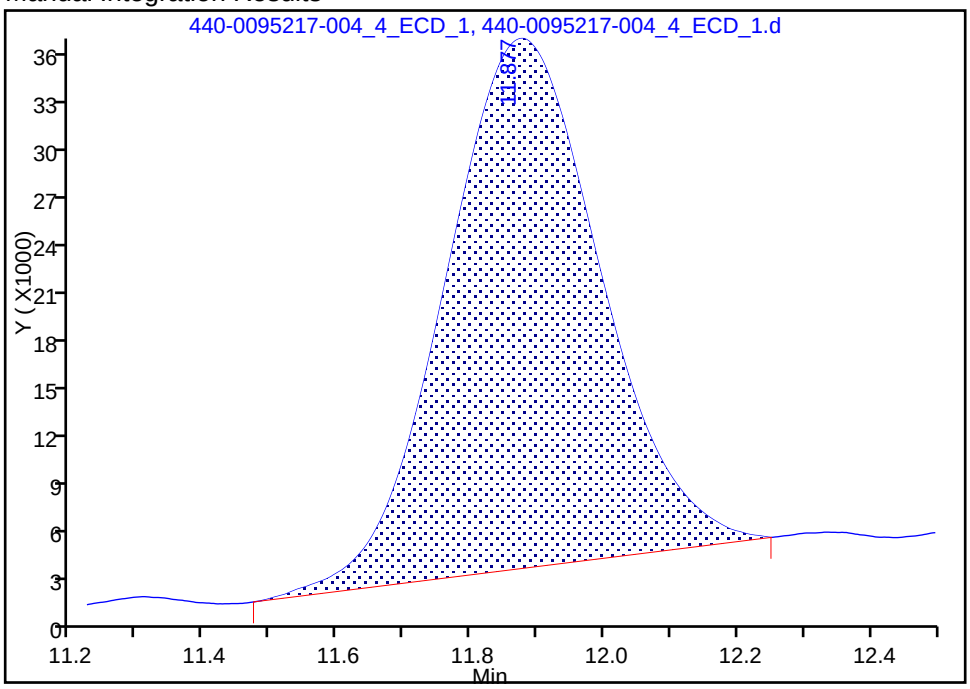
Not Detected
Expected RT: 11.89

Processing Integration Results




Manual Integration Results

RT: 11.88
Area: 522047
Amount: 4.288289
Amount Units: ug/l




Reviewer: hoangch, 25-Oct-2017 08:15:10
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-005_5_ECD_1.d
Lims ID: std4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 24-Oct-2017 17:54:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095217-005
Misc. Info.: ch
Operator ID: Instrument ID: IC-25
Sublist: chrom-314_25perchlorate*sub1

Method: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\314_25perchlorate.m
Limit Group: IC-314
Method Label: PERCHLORATE
Last Update: 25-Oct-2017 08:18:15 Calib Date: 24-Oct-2017 18:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d

Column 1 : AS16 ( 4.00 mm) Det: Ch-A-20111003029
Process Host: XAWRK006

First Level Reviewer: hoangch Date: 25-Oct-2017 08:12:13

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.867 | 11.894 | -0.027 | 1172852 | 10.0 | 9.53 | M |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

WCCLO41st-10_00011 Amount Added: 100.00 Units: uL

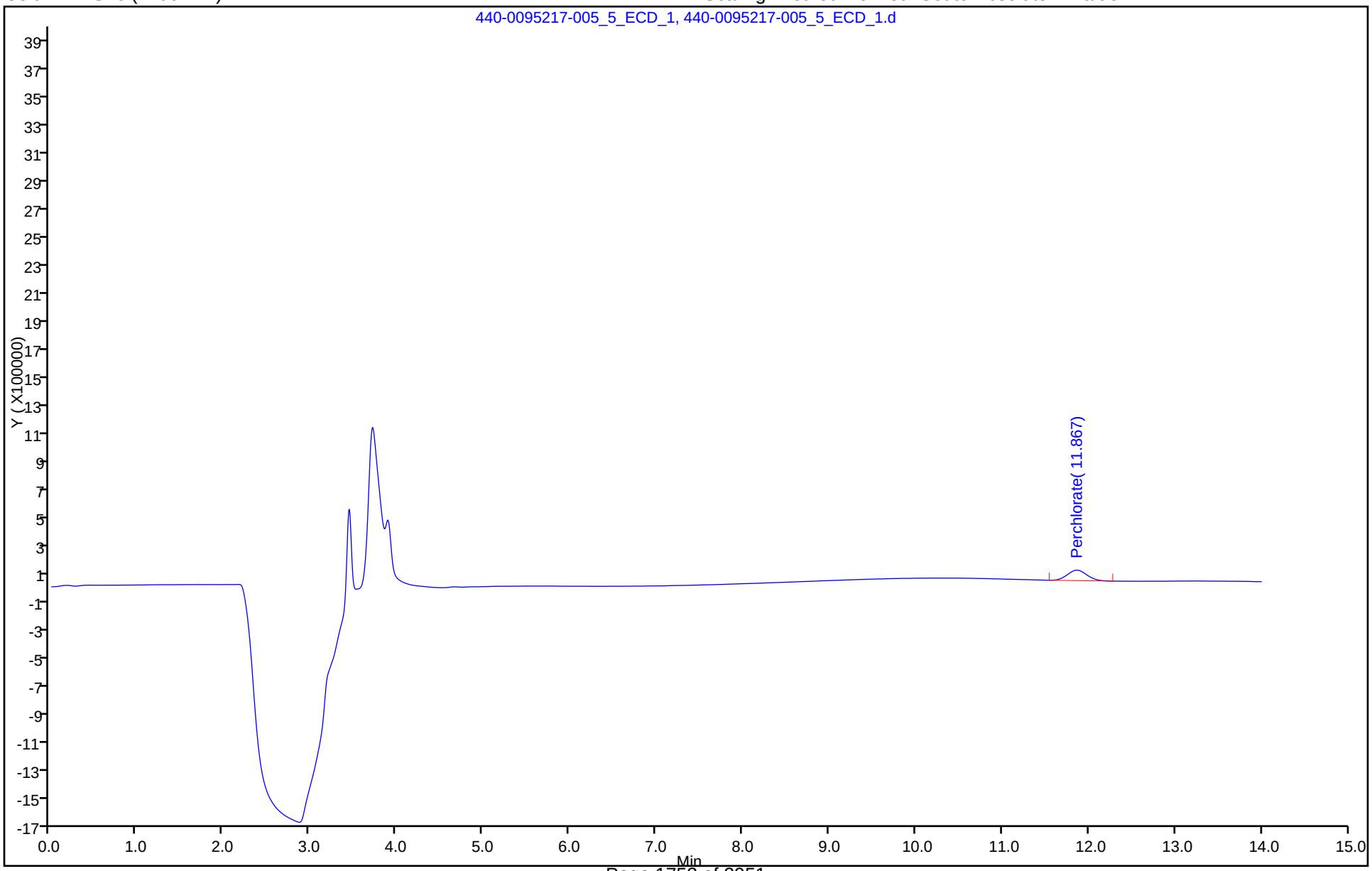
Report Date: 25-Oct-2017 08:18:15 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-005_5_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 17:54:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | std4 | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

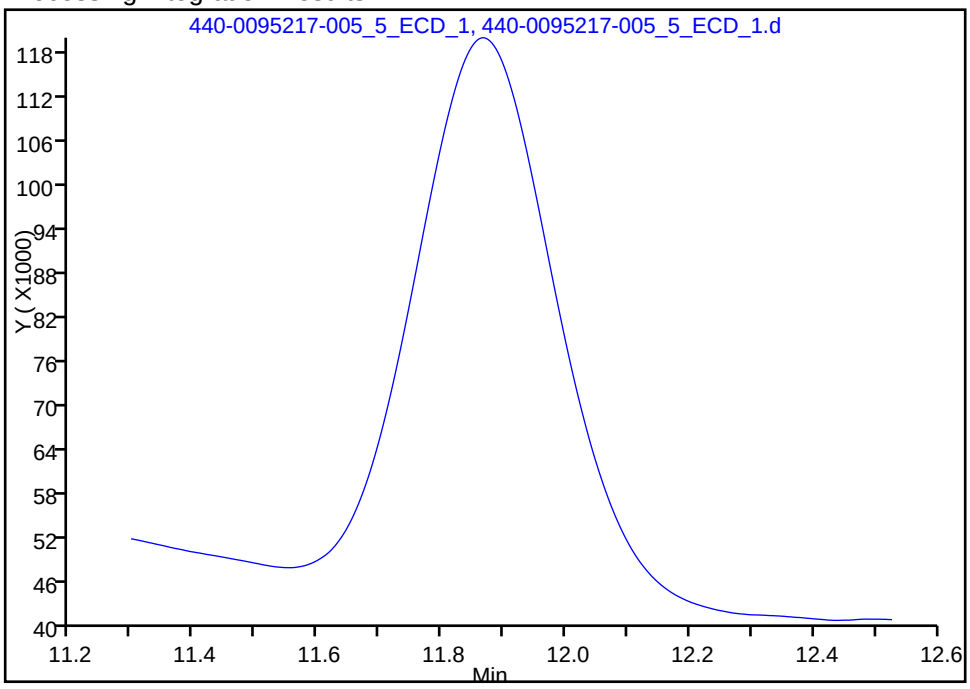
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-005_5_ECD_1.d | | | | |
| Injection Date: | 24-Oct-2017 17:54:00 | Instrument ID: | IC-25 | | |
| Lims ID: | std4 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 0 | Worklist Smp#: | 5 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |
| Column: | AS16 ( 4.00 mm) | Detector | Ch-A-20111003029 | | |

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

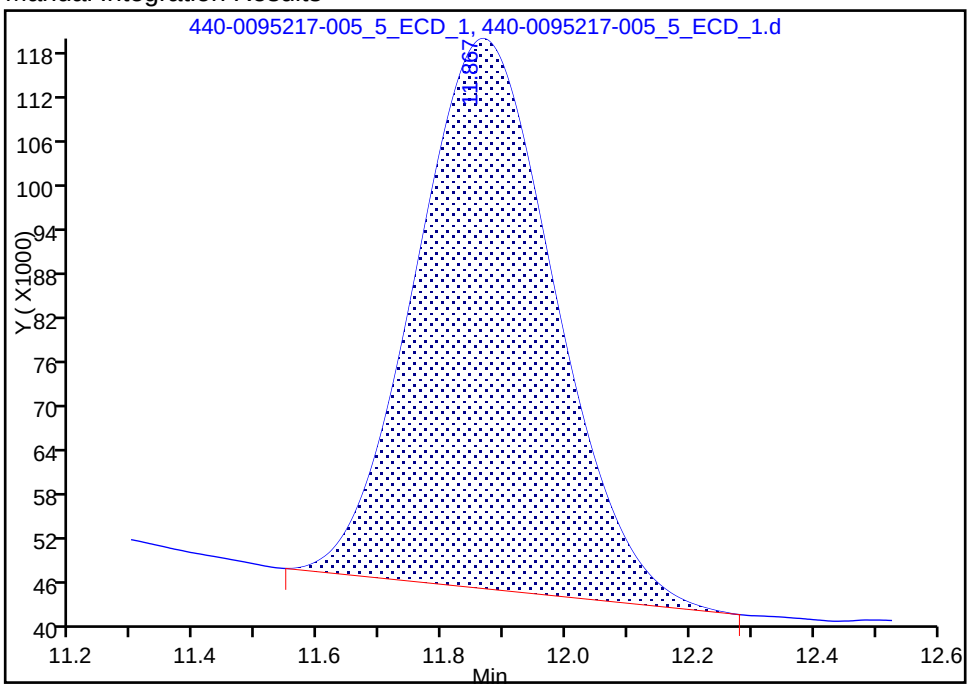
Not Detected
Expected RT: 11.89

Processing Integration Results




Manual Integration Results

RT: 11.87
Area: 1172852
Amount: 9.528272
Amount Units: ug/l




Reviewer: hoangch, 25-Oct-2017 08:11:54
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Irvine

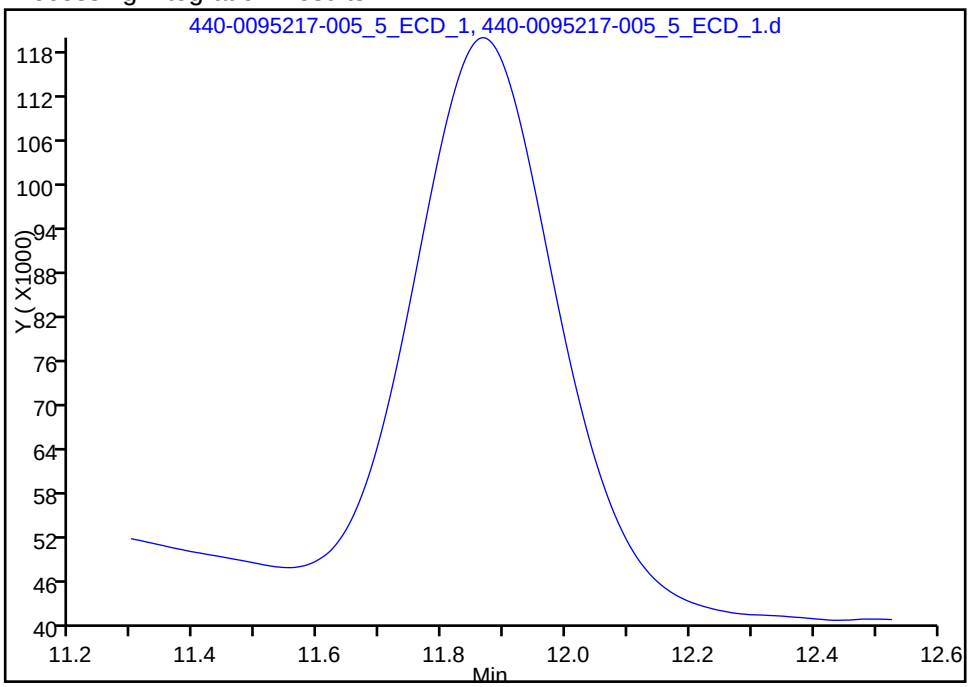
Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-005_5_ECD_1.d
Injection Date: 24-Oct-2017 17:54:00 Instrument ID: IC-25
Lims ID: std4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 314_25perchlorate Limit Group: IC-314
Column: AS16 ( 4.00 mm) Detector Ch-A-20111003029

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

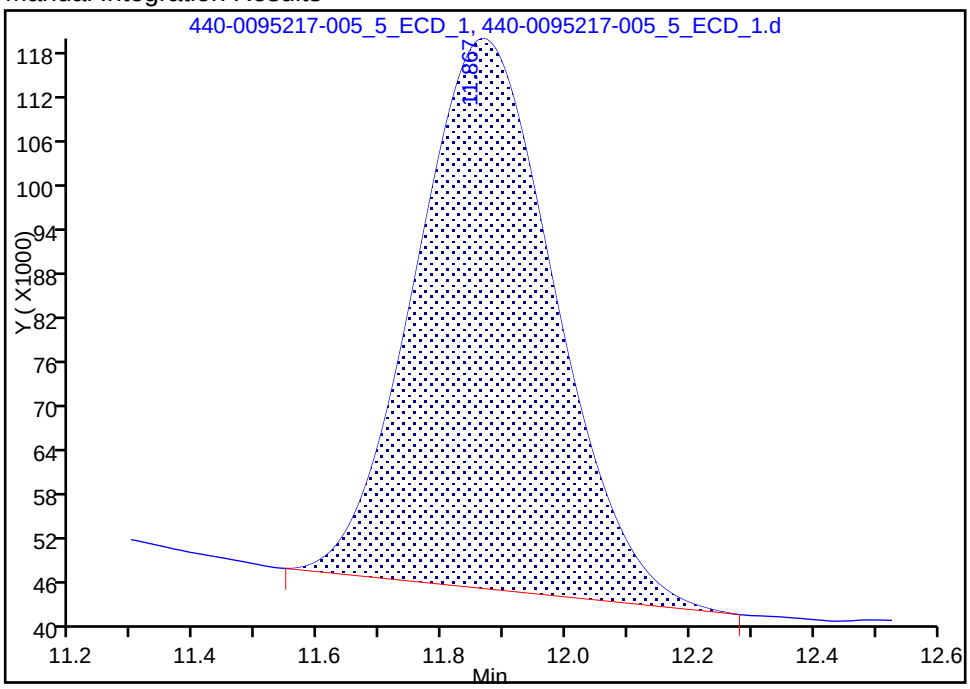
Not Detected
Expected RT: 11.89

Processing Integration Results




Manual Integration Results

RT: 11.87
Area: 1172852
Amount: 9.528272
Amount Units: ug/l




Reviewer: hoangch, 25-Oct-2017 08:12:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-006_6_ECD_1.d
Lims ID: std5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 24-Oct-2017 18:11:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095217-006
Misc. Info.: ch
Operator ID: Instrument ID: IC-25
Sublist: chrom-314_25perchlorate*sub1

Method: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\314_25perchlorate.m
Limit Group: IC-314
Method Label: PERCHLORATE
Last Update: 25-Oct-2017 08:18:16 Calib Date: 24-Oct-2017 18:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d

Column 1 : AS16 ( 4.00 mm) Det: Ch-A-20111003029
Process Host: XAWRK006

First Level Reviewer: hoangch Date: 25-Oct-2017 08:12:35

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.857 | 11.894 | -0.037 | 3177542 | 25.0 | 25.2 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 250.00 Units: uL

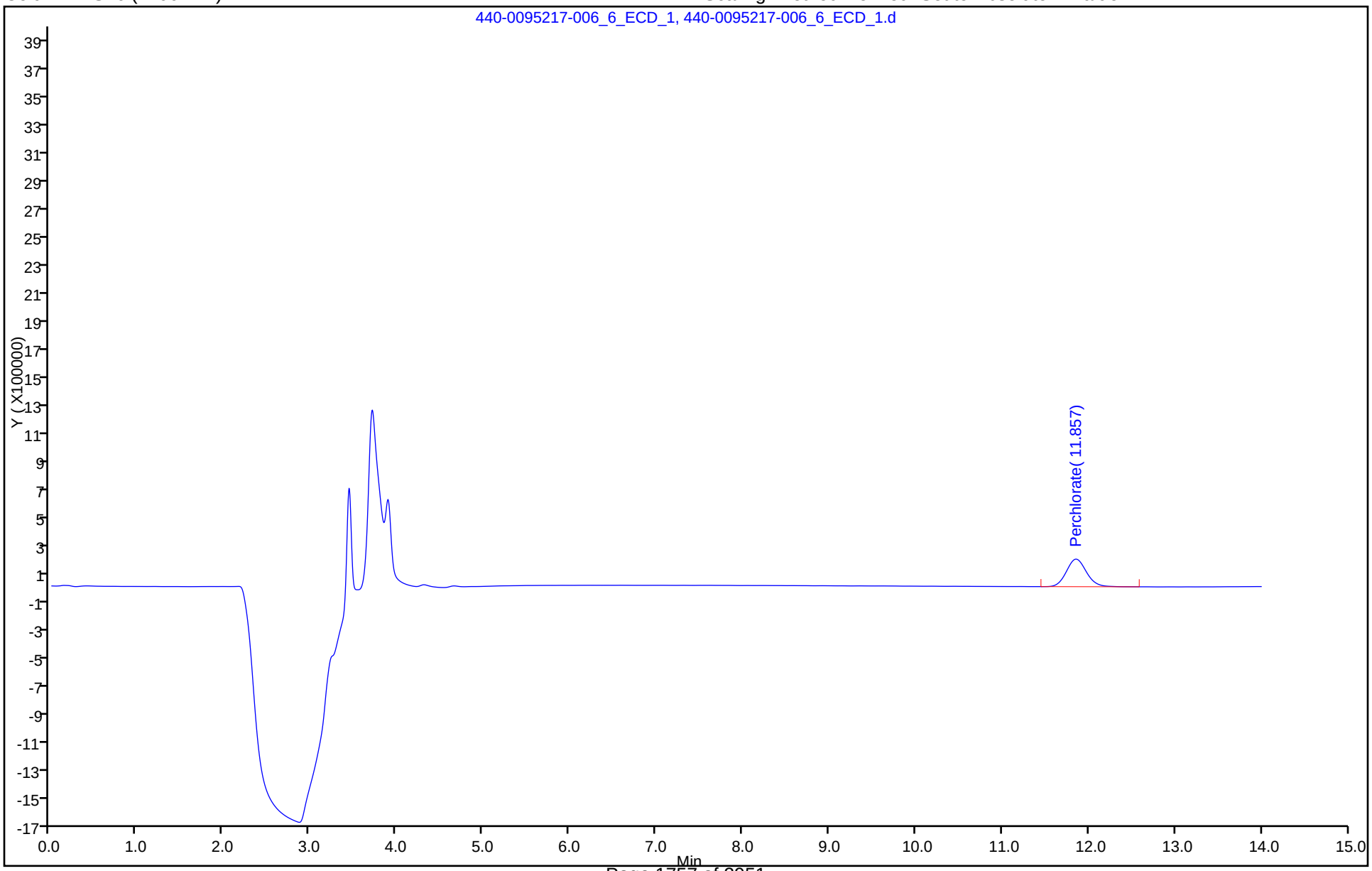
Report Date: 25-Oct-2017 08:18:17 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-006_6_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 18:11:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | std5 | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-007_7_ECD_1.d
Lims ID: std6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 24-Oct-2017 18:28:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095217-007
Misc. Info.: ch
Operator ID: Instrument ID: IC-25
Sublist: chrom-314_25perchlorate*sub1

Method: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\314_25perchlorate.m
Limit Group: IC-314
Method Label: PERCHLORATE
Last Update: 25-Oct-2017 08:18:18 Calib Date: 24-Oct-2017 18:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d

Column 1 : AS16 ( 4.00 mm) Det: Ch-A-20111003029
Process Host: XAWRK006

First Level Reviewer: hoangch Date: 25-Oct-2017 08:12:42

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.844 | 11.894 | -0.050 | 6484558 | 50.0 | 49.9 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 500.00 Units: uL

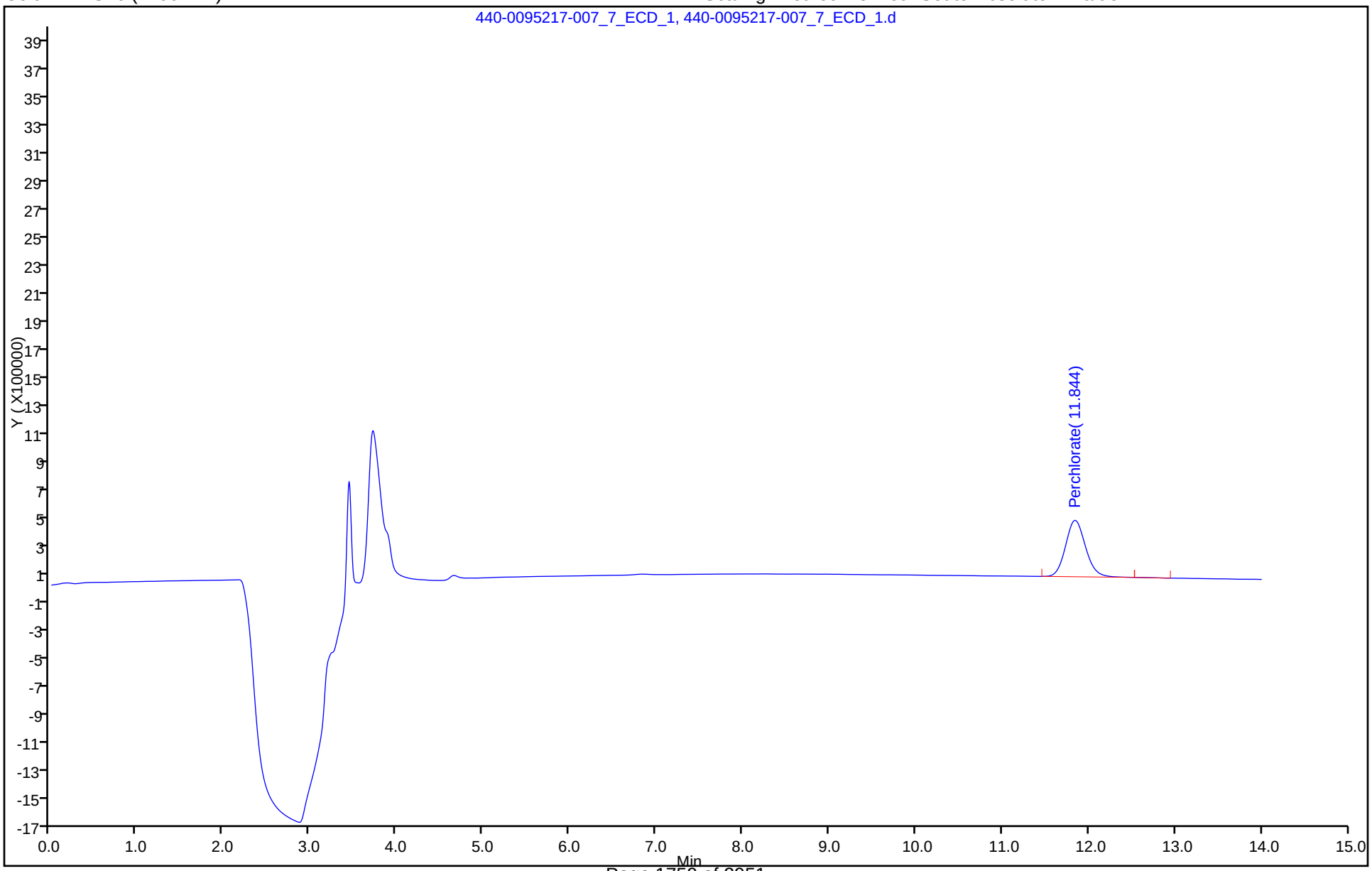
Report Date: 25-Oct-2017 08:18:18 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-007_7_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 18:28:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | std6 | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Lims ID: | std7 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 7 | | |
| Inject. Date: | 24-Oct-2017 18:45:00 | ALS Bottle#: | 0 | Worklist Smp#: | 8 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095217-008 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | chrom-314_25perchlorate*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 25-Oct-2017 08:18:21 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK006 | | | | |
| First Level Reviewer: hoangch | | Date: | 25-Oct-2017 08:12:49 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.824 | 11.894 | -0.070 | 13781040 | 100.0 | 100.0 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 1000.00 Units: uL

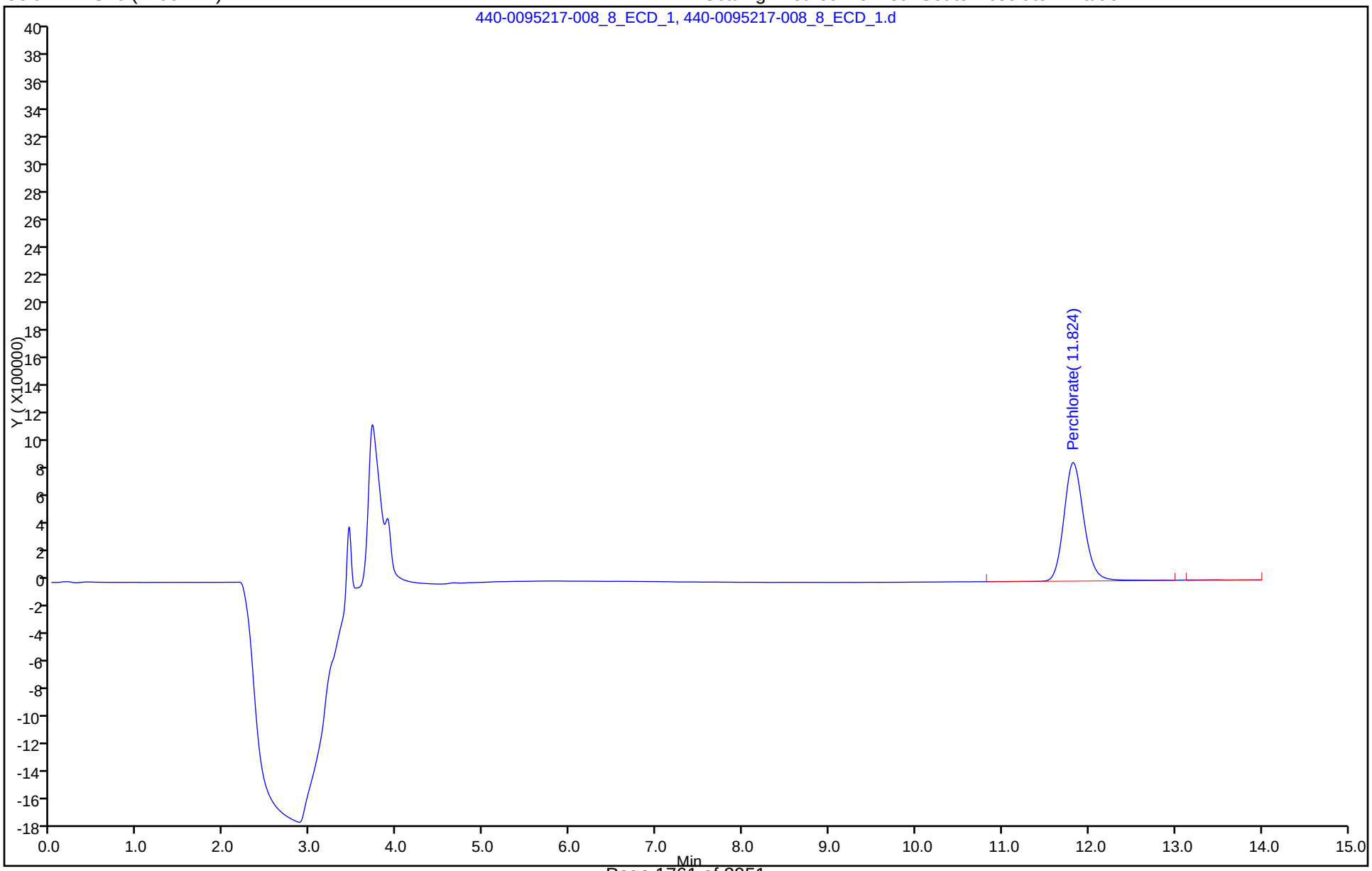
Report Date: 25-Oct-2017 08:18:22 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 18:45:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | std7 | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-438239/33 Calibration Date: 10/30/2017 19:40

Instrument ID: IC-23 Calib Start Date: 10/25/2017 17:34

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/25/2017 19:38

Lab File ID: 440-0095480-033_33_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 23.2 | 25.0 | 93 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-438239/33 Calibration Date: 10/30/2017 19:40

Instrument ID: IC-23 Calib Start Date: 10/25/2017 17:34

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/25/2017 19:38

Lab File ID: 440-0095480-033_33_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 10.71 | 10.18 | 11.25 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC23\20171030-95480.b\440-0095480-033_33_ECD_1.d | | | | |
| Lims ID: | ccv 25 | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 30-Oct-2017 19:40:00 | ALS Bottle#: | 0 | Worklist Smp#: | 33 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095480-033 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-23 | | |
| Sublist: | chrom-314_23PERC*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC23\20171030-95480.b\314_23PERC.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 31-Oct-2017 10:51:12 | Calib Date: | 25-Oct-2017 19:38:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-008_08_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK005 | | | | |
| First Level Reviewer: saraubonp | | Date: | 31-Oct-2017 10:51:12 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.712 | 10.712 | 0.000 | 3947367 | 25.0 | 23.2 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 250.00 Units: uL

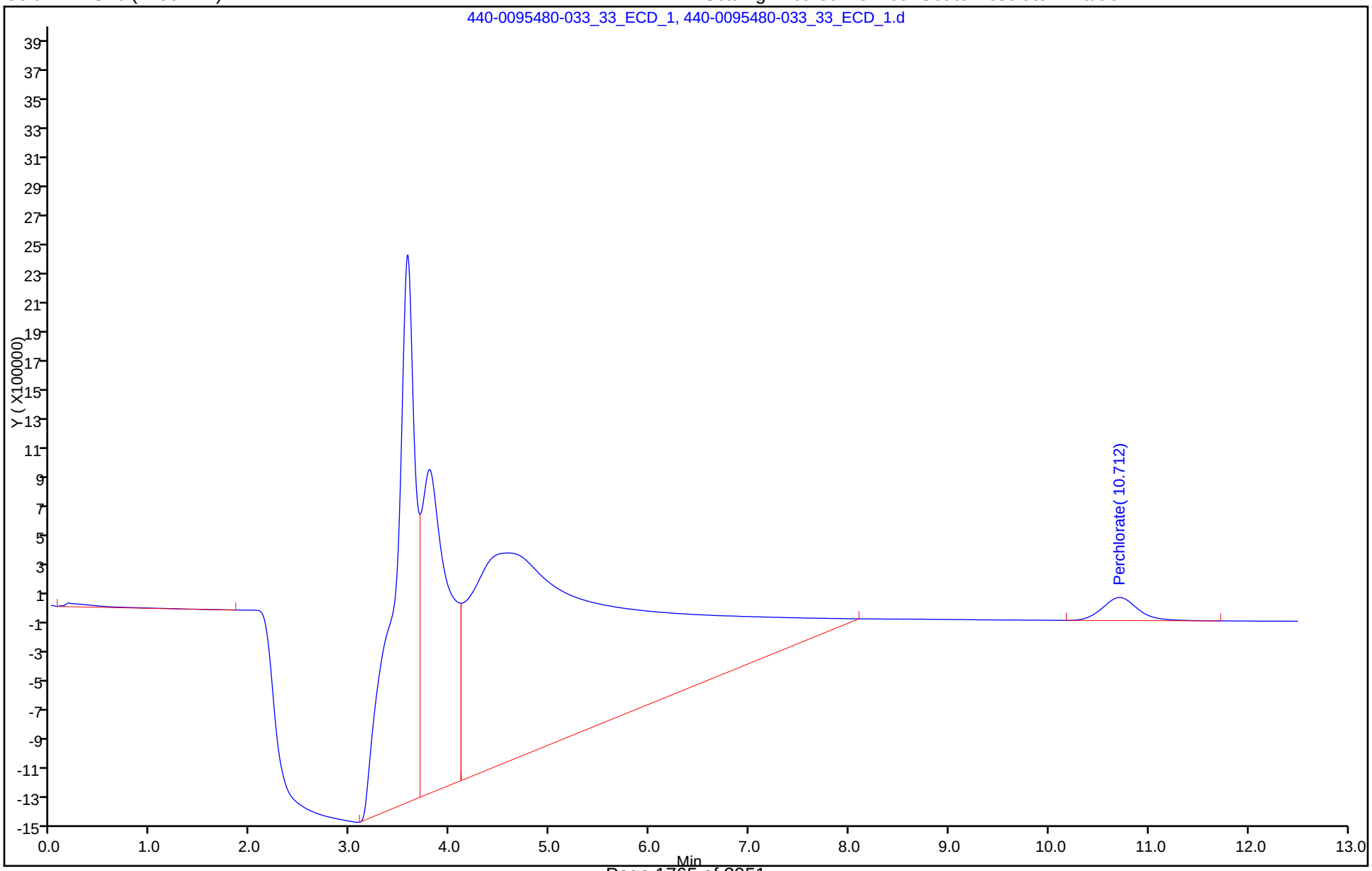
Report Date: 31-Oct-2017 10:51:12 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC23\20171030-95480.b\440-0095480-033_33_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Oct-2017 19:40:00 | Instrument ID: | IC-23 | Operator ID: | |
| Lims ID: | ccv 25 | | | Worklist Smp#: | 33 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_23PERC | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-438239/40 Calibration Date: 10/30/2017 21:45

Instrument ID: IC-23 Calib Start Date: 10/25/2017 17:34

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/25/2017 19:38

Lab File ID: 440-0095480-040_40_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 69.1 | 75.0 | 92 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-438239/40 Calibration Date: 10/30/2017 21:45

Instrument ID: IC-23 Calib Start Date: 10/25/2017 17:34

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/25/2017 19:38

Lab File ID: 440-0095480-040_40_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 10.67 | 10.14 | 11.21 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC23\20171030-95480.b\440-0095480-040_40_ECD_1.d
Lims ID: ccv 75
Client ID:
Sample Type: CCV
Inject. Date: 30-Oct-2017 21:45:00 ALS Bottle#: 0 Worklist Smp#: 40
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095480-040
Misc. Info.: ch
Operator ID: Instrument ID: IC-23
Sublist: chrom-314_23PERC*sub1

Method: \\ChromNA\Irvine\ChromData\IC23\20171030-95480.b\314_23PERC.m
Limit Group: IC-314
Method Label: PERCHLORATE
Last Update: 31-Oct-2017 14:49:35 Calib Date: 25-Oct-2017 19:38:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-008_08_ECD_1.d

Column 1 : AS16 ( 4.00 mm) Det: Ch-A-20111003029
Process Host: XAWRK005

First Level Reviewer: saraubonp Date: 31-Oct-2017 14:49:35

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.674 | 10.674 | 0.000 | 11913010 | 75.0 | 69.1 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 750.00 Units: uL

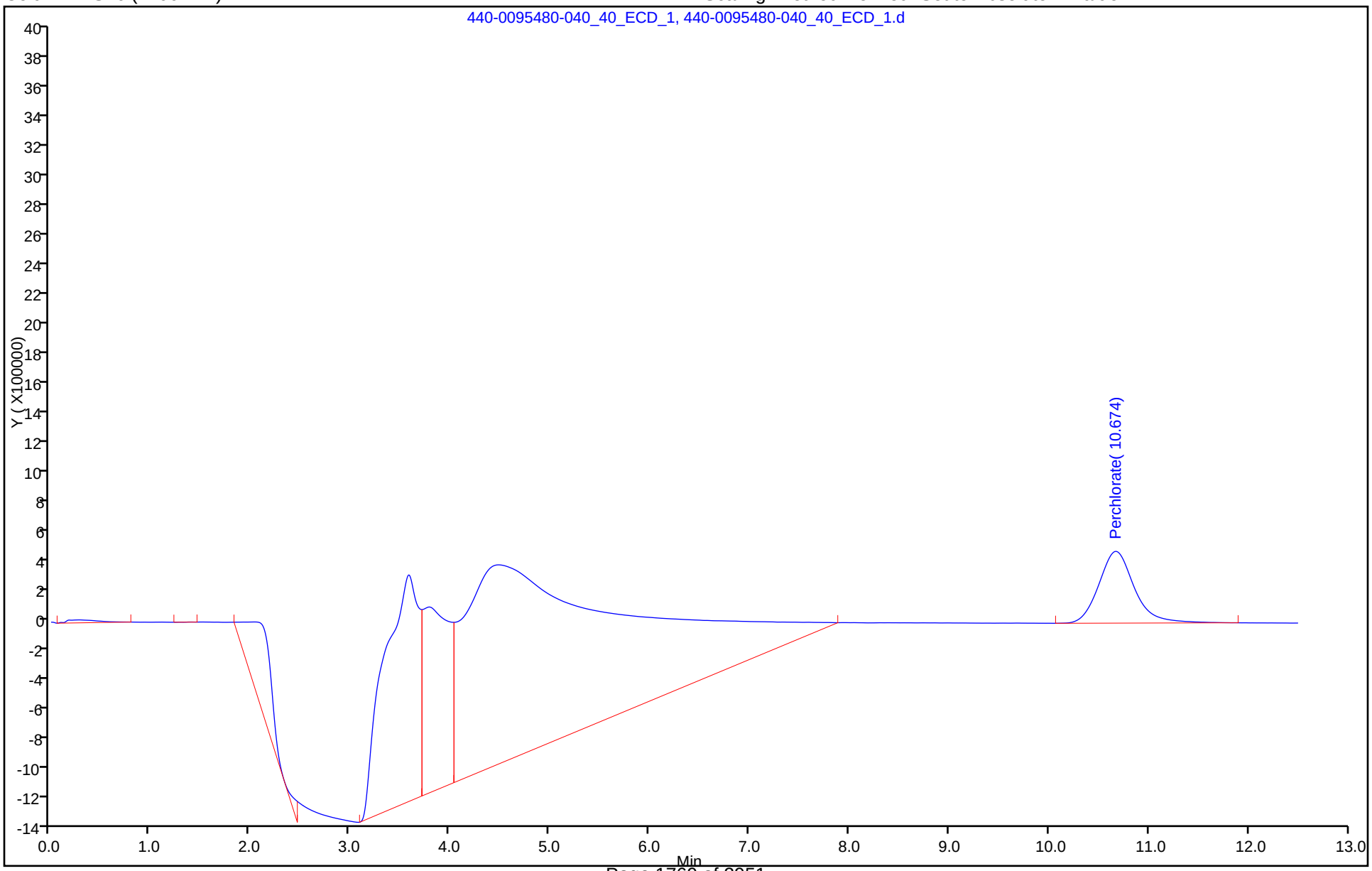
Report Date: 31-Oct-2017 14:49:36 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC23\20171030-95480.b\440-0095480-040_40_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Oct-2017 21:45:00 | Instrument ID: | IC-23 | Operator ID: | |
| Lims ID: | ccv 75 | | | Worklist Smp#: | 40 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_23PERC | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: ICV 440-437218/9  Calibration Date: 10/24/2017 19:02

Instrument ID: IC-25  Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A  ID: 4.00(mm)  Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095217-009_9_ECD_1.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 50.4 | 50.0 | 101 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: ICV 440-437218/9 Calibration Date: 10/24/2017 19:02

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095217-009_9_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.84 | 11.30 | 12.49 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-009_9_ECD_1.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 24-Oct-2017 19:02:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095217-009
Misc. Info.: ch
Operator ID: Instrument ID: IC-25
Sublist:

Method: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\314_25perchlorate.m
Limit Group: IC-314
Method Label: PERCHLORATE
Last Update: 25-Oct-2017 08:18:21 Calib Date: 24-Oct-2017 18:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d

Column 1 : AS16 ( 4.00 mm) Det: Ch-A-20111003029
Process Host: XAWRK006

First Level Reviewer: hoangch Date: 25-Oct-2017 08:12:56

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.841 | 11.894 | -0.053 | 6549225 | 50.0 | 50.4 | |

## Reagents:

WCCLO4ICV10_00028 Amount Added: 500.00 Units: uL

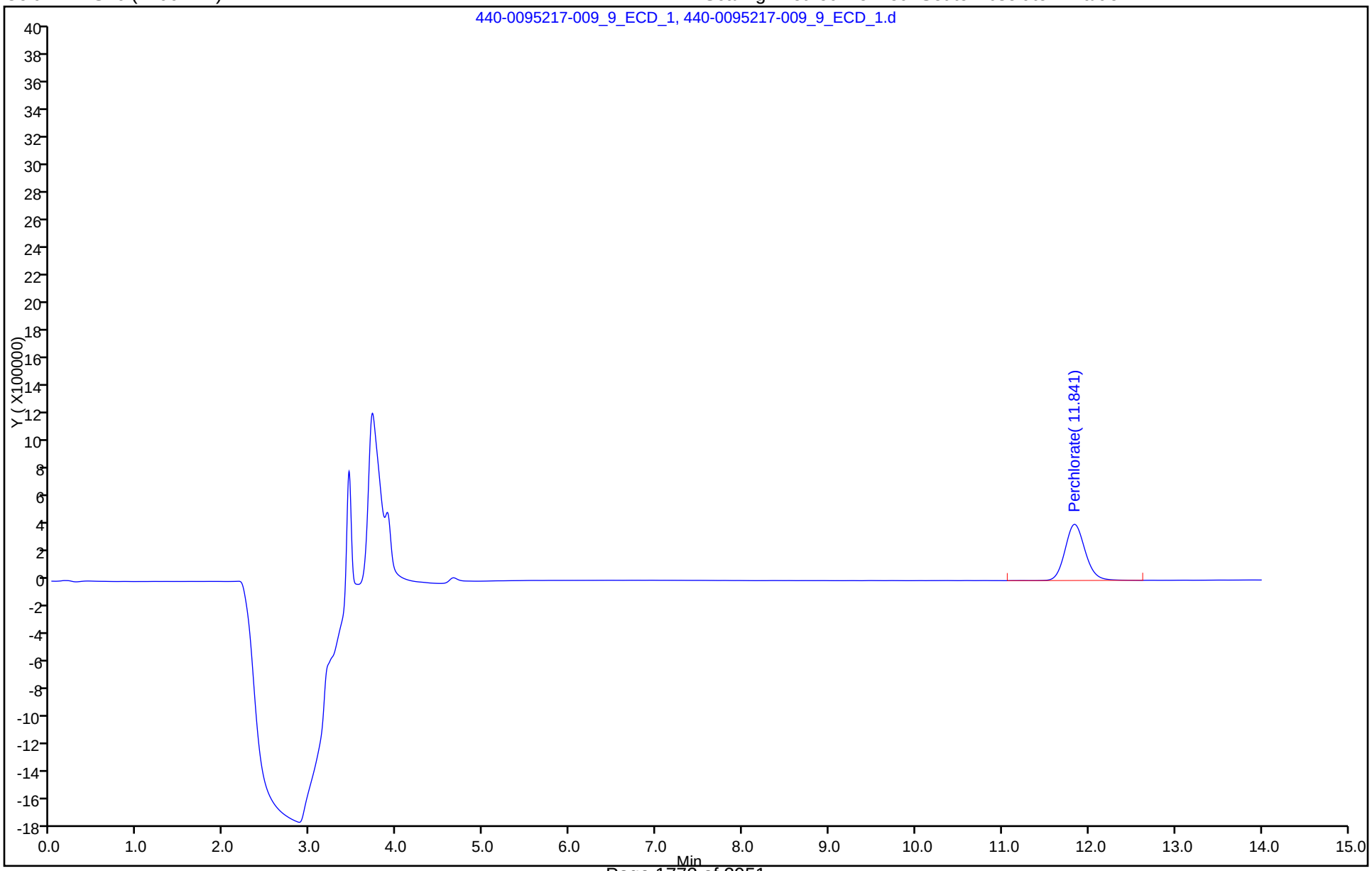
Report Date: 25-Oct-2017 08:18:23 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-009_9_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 19:02:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ICV | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437568/2  Calibration Date: 10/26/2017 08:40

Instrument ID: IC-25  Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A  ID: 4.00(mm)  Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-002_2_ECD_1.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 23.1 | 25.0 | 92 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437568/2 Calibration Date: 10/26/2017 08:40

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-002_2_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 10.82 | 10.28 | 11.36 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-002_2_ECD_1.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 26-Oct-2017 08:40:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095301-002
Misc. Info.: ch
Operator ID: Instrument ID: IC-25
Sublist: chrom-314_25perchlorate*sub1

Method: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m
Limit Group: IC-314
Method Label: PERCHLORATE
Last Update: 26-Oct-2017 10:37:02 Calib Date: 24-Oct-2017 18:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d

Column 1 : AS16 ( 4.00 mm) Det: Ch-A-20111003029
Process Host: XAWRK016

First Level Reviewer: hoangch Date: 26-Oct-2017 09:21:02

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.821 | 10.821 | 0.000 | 2897013 | 25.0 | 23.1 | M |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

WCCLO41st-10_00011 Amount Added: 250.00 Units: uL

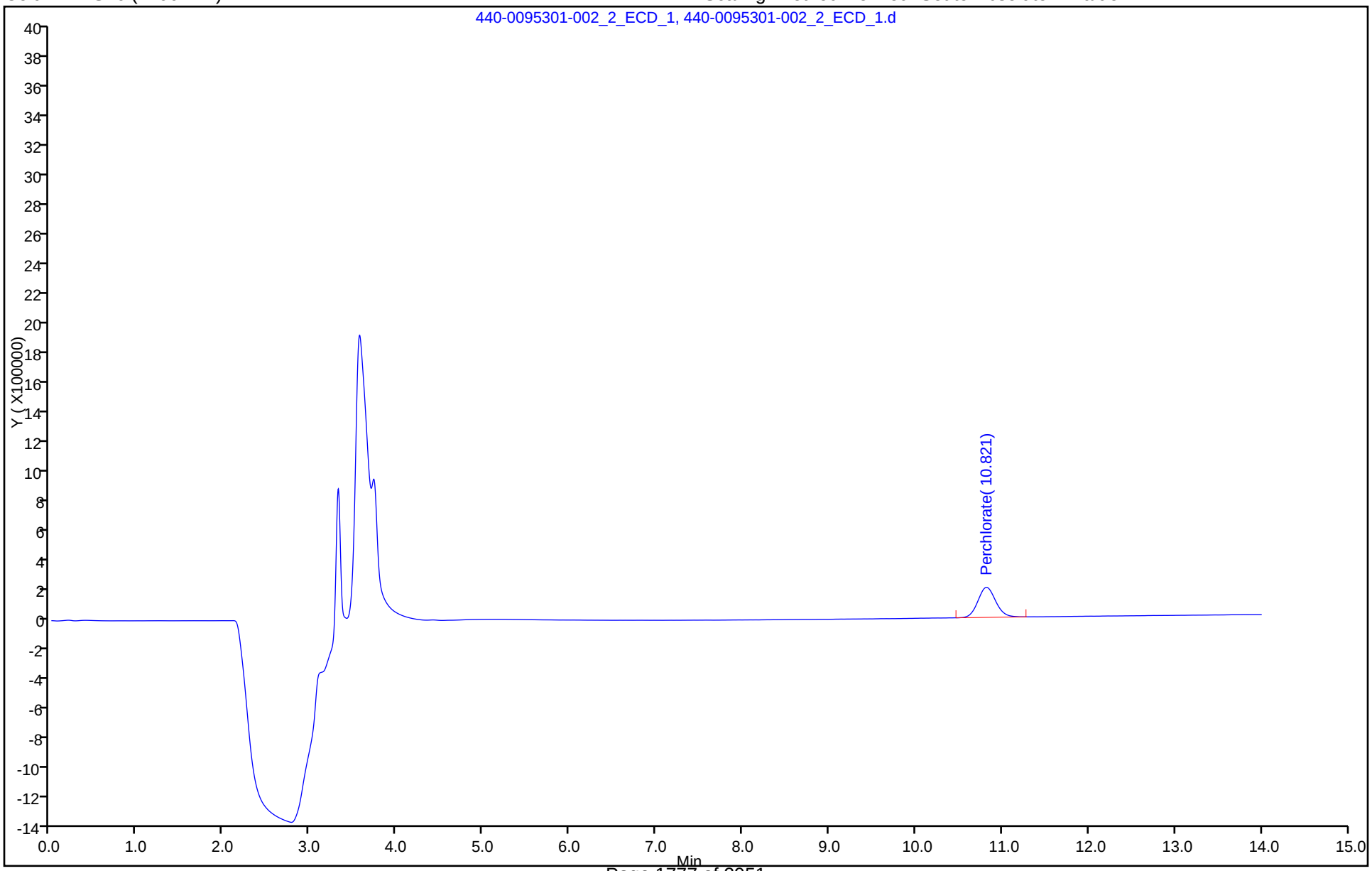
Report Date: 26-Oct-2017 10:37:02 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-002_2_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 08:40:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | CCV | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

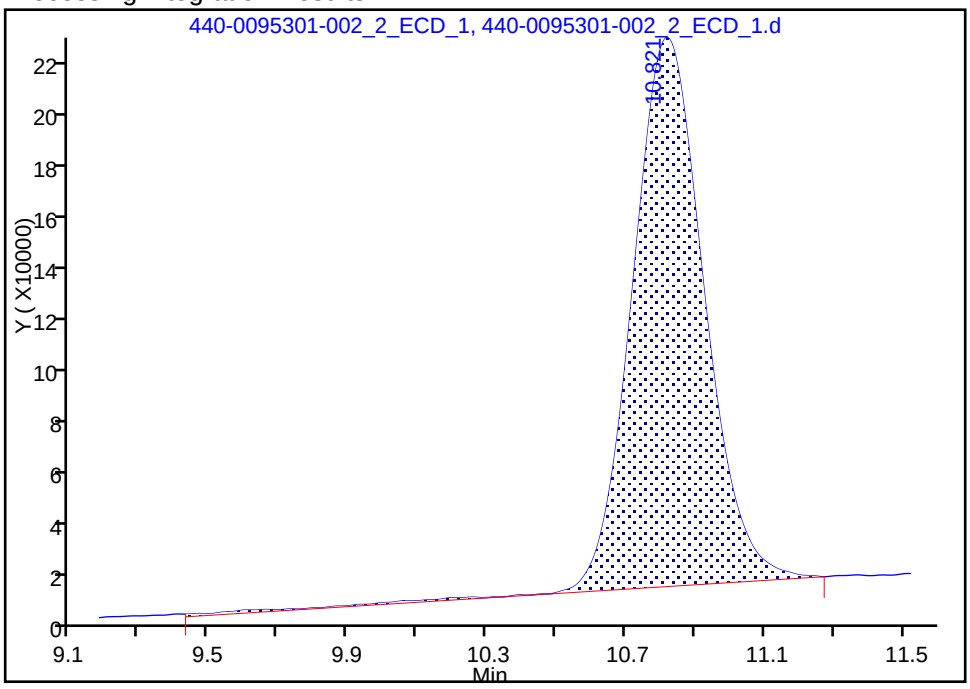
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-002_2_ECD_1.d | | | | |
| Injection Date: | 26-Oct-2017 08:40:00 | Instrument ID: | IC-25 | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |
| Column: | AS16 ( 4.00 mm) | Detector | Ch-A-20111003029 | | |

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

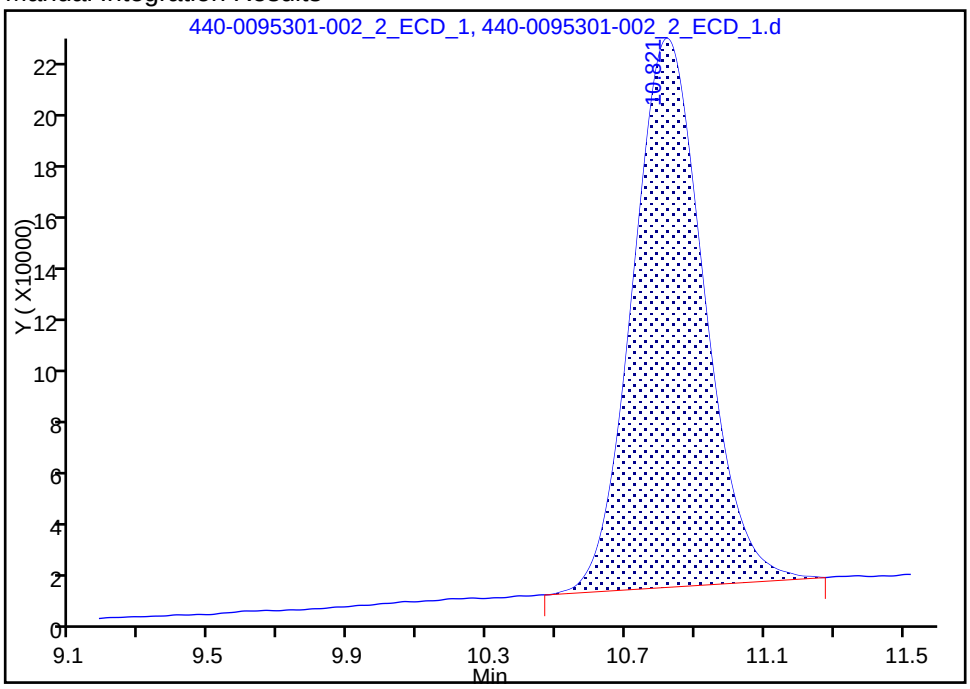
Processing Integration Results

RT: 10.82
Area: 2930202
Amount: 23.342080
Amount Units: ug/l




Manual Integration Results

RT: 10.82
Area: 2897013
Amount: 23.085524
Amount Units: ug/l




Reviewer: hoangch, 26-Oct-2017 10:06:58
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Irvine

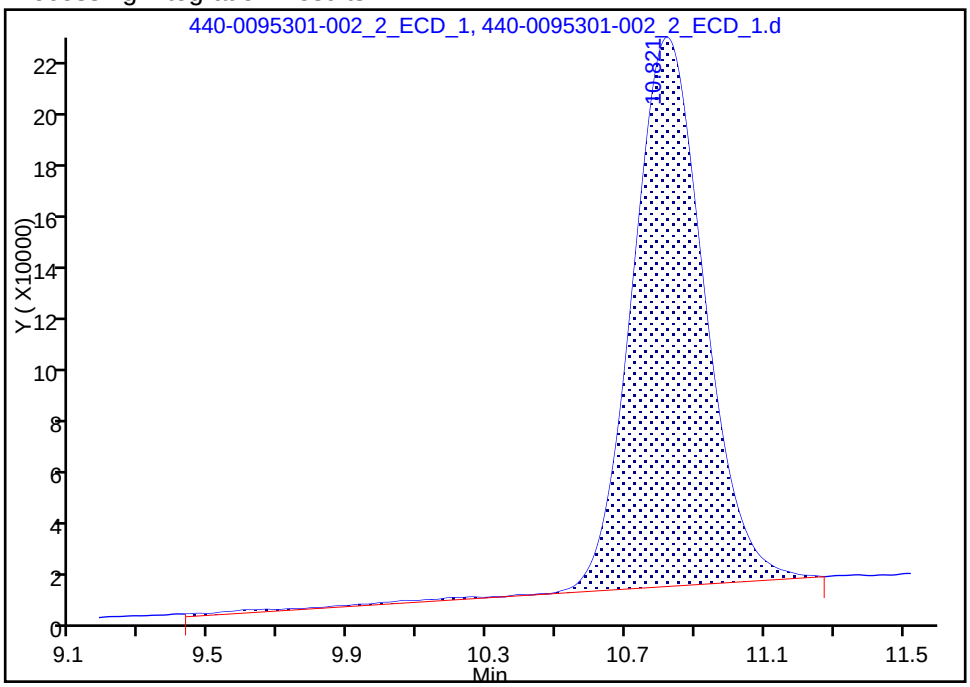
Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-002_2_ECD_1.d
Injection Date: 26-Oct-2017 08:40:00 Instrument ID: IC-25
Lims ID: CCV
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 314_25perchlorate Limit Group: IC-314
Column: AS16 ( 4.00 mm) Detector Ch-A-20111003029

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

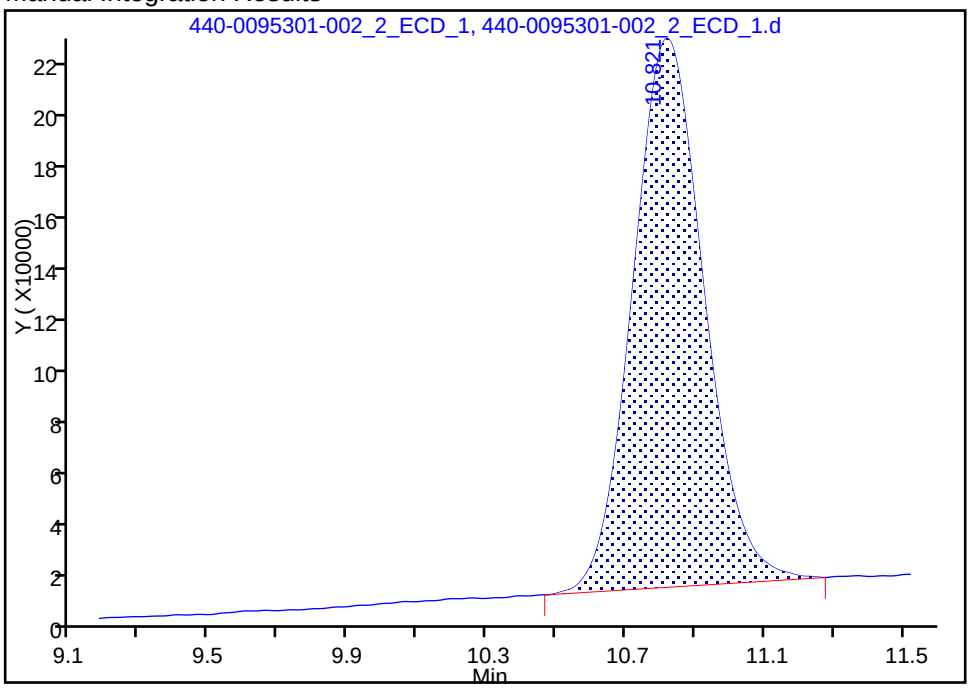
Processing Integration Results

RT: 10.82
Area: 2930202
Amount: 23.342080
Amount Units: ug/l




Manual Integration Results

RT: 10.82
Area: 2897013
Amount: 23.085524
Amount Units: ug/l




Reviewer: hoangch, 26-Oct-2017 10:36:13
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437568/14 Calibration Date: 10/26/2017 12:34

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-014_14_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 23.3 | 25.0 | 93 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437568/14 Calibration Date: 10/26/2017 12:34

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-014_14_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 10.35 | 9.84 | 10.87 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-014_14_ECD_1.d | | | | |
| Lims ID: | ccv 25 | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 26-Oct-2017 12:34:00 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-014 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | chrom-314_25perchlorate*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 26-Oct-2017 13:19:15 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK016 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.354 | 10.354 | 0.000 | 2928237 | 25.0 | 23.3 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 250.00 Units: uL

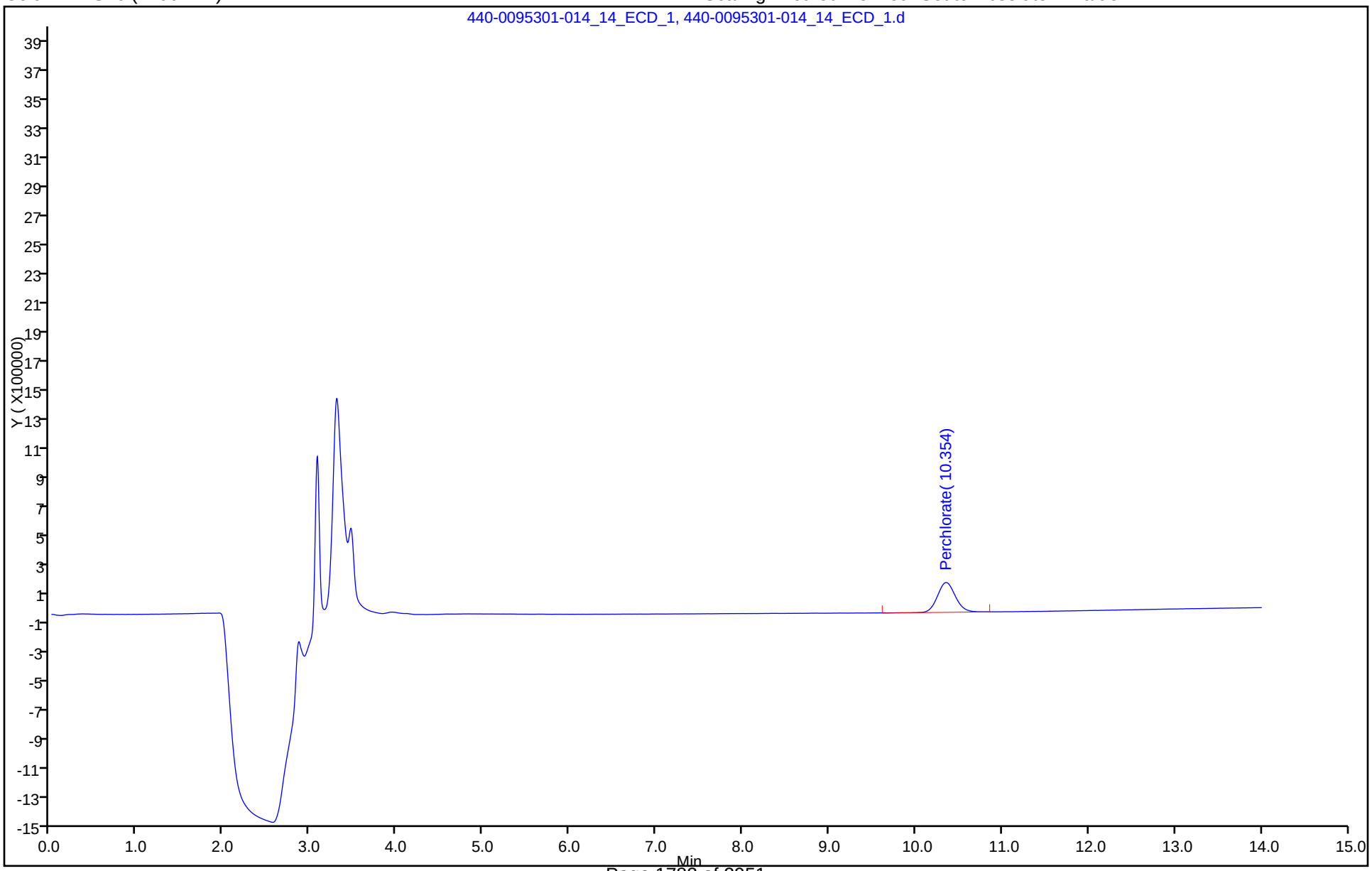
Report Date: 26-Oct-2017 13:19:15 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-014_14_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 12:34:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccv 25 | | | Worklist Smp#: | 14 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437568/50 Calibration Date: 10/26/2017 22:58

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-050_50_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 72.0 | 75.0 | 96 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437568/50 Calibration Date: 10/26/2017 22:58

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-050_50_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 10.33 | 9.81 | 10.85 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-050_50_ECD_1.d | | | | |
| Lims ID: | ccv 75 | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 26-Oct-2017 22:58:00 | ALS Bottle#: | 0 | Worklist Smp#: | 50 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-050 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | chrom-314_25perchlorate*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 15:06:36 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK009 | | | | |
| First Level Reviewer: saraubonp | | Date: | 27-Oct-2017 15:06:36 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.331 | 10.331 | 0.000 | 9608875 | 75.0 | 72.0 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 750.00 Units: uL

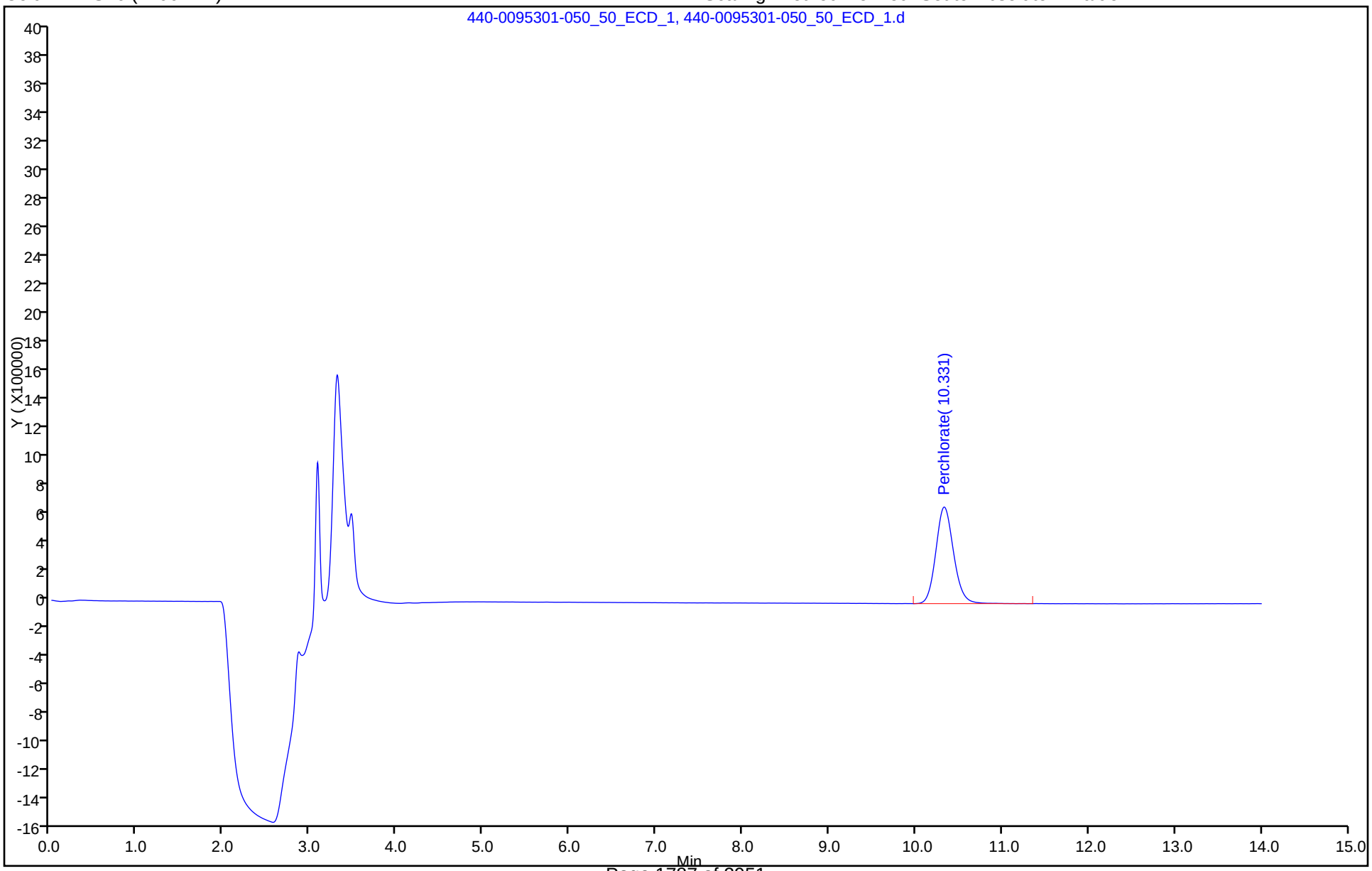
Report Date: 27-Oct-2017 15:06:37 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-050_50_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 22:58:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccv 75 | | | Worklist Smp#: | 50 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437568/62  Calibration Date: 10/27/2017 02:20

Instrument ID: IC-25  Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A  ID: 4.00(mm)  Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-062_62_ECD_1.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 23.5 | 25.0 | 94 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437568/62 Calibration Date: 10/27/2017 02:20

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-062_62_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 10.34 | 9.82 | 10.86 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-062_62_ECD_1.d | | | | |
| Lims ID: | ccv 25 | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 27-Oct-2017 02:20:00 | ALS Bottle#: | 0 | Worklist Smp#: | 62 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-062 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | chrom-314_25perchlorate*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 08:33:13 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK033 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.341 | 10.341 | 0.000 | 2950516 | 25.0 | 23.5 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 250.00 Units: uL

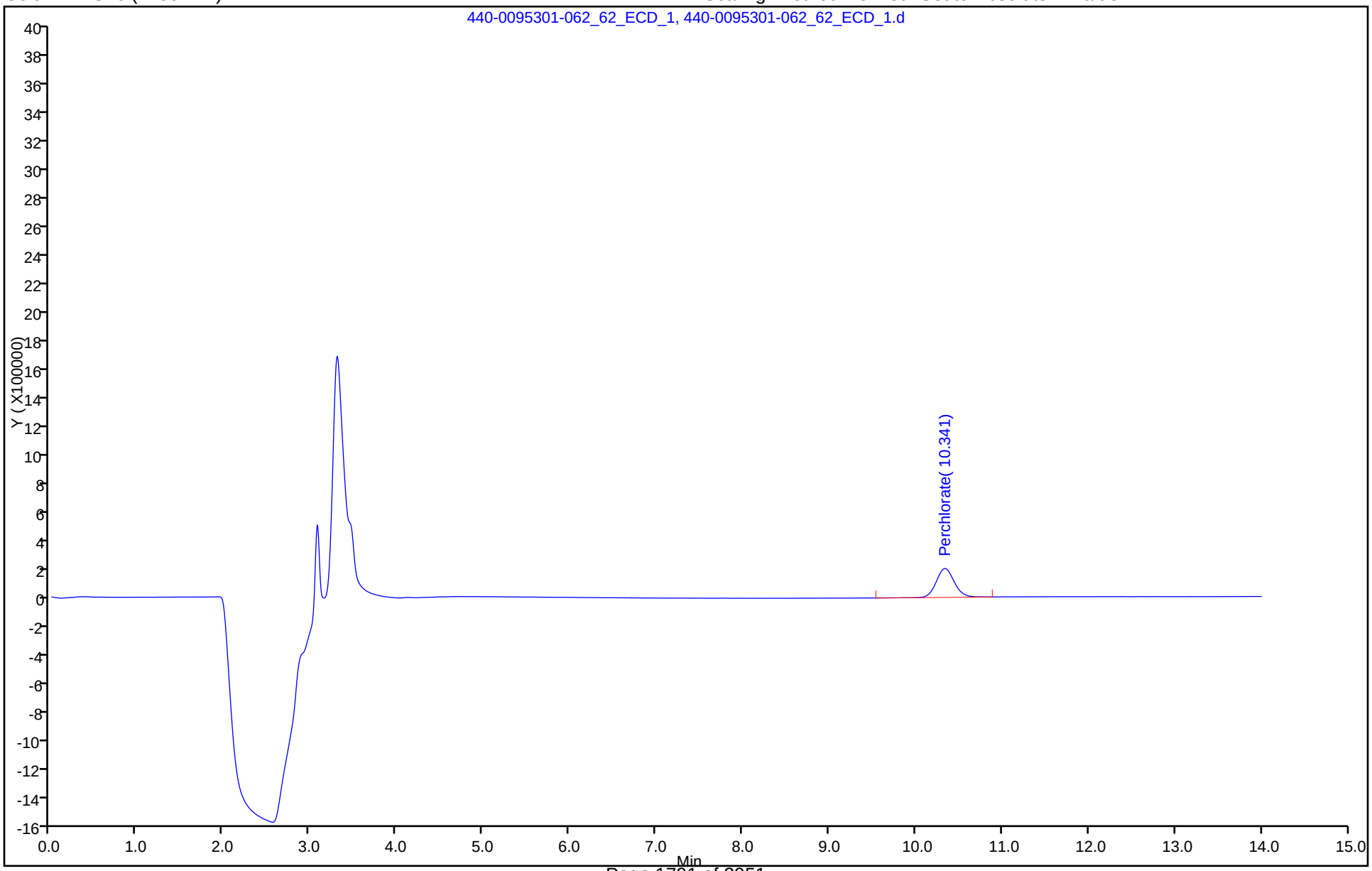
Report Date: 27-Oct-2017 08:33:15 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-062_62_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 02:20:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccv 25 | | | Worklist Smp#: | 62 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437568/69  Calibration Date: 10/27/2017 04:18

Instrument ID: IC-25  Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A  ID: 4.00(mm)  Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-069_69_ECD_1.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 69.1 | 75.0 | 92 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437568/69 Calibration Date: 10/27/2017 04:18

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-069_69_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 10.33 | 9.81 | 10.85 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-069_69_ECD_1.d | | | | |
| Lims ID: | ccv 75 | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 27-Oct-2017 04:18:00 | ALS Bottle#: | 0 | Worklist Smp#: | 69 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-069 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | chrom-314_25perchlorate*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 08:33:24 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK033 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.331 | 10.331 | 0.000 | 9190037 | 75.0 | 69.1 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 750.00 Units: uL

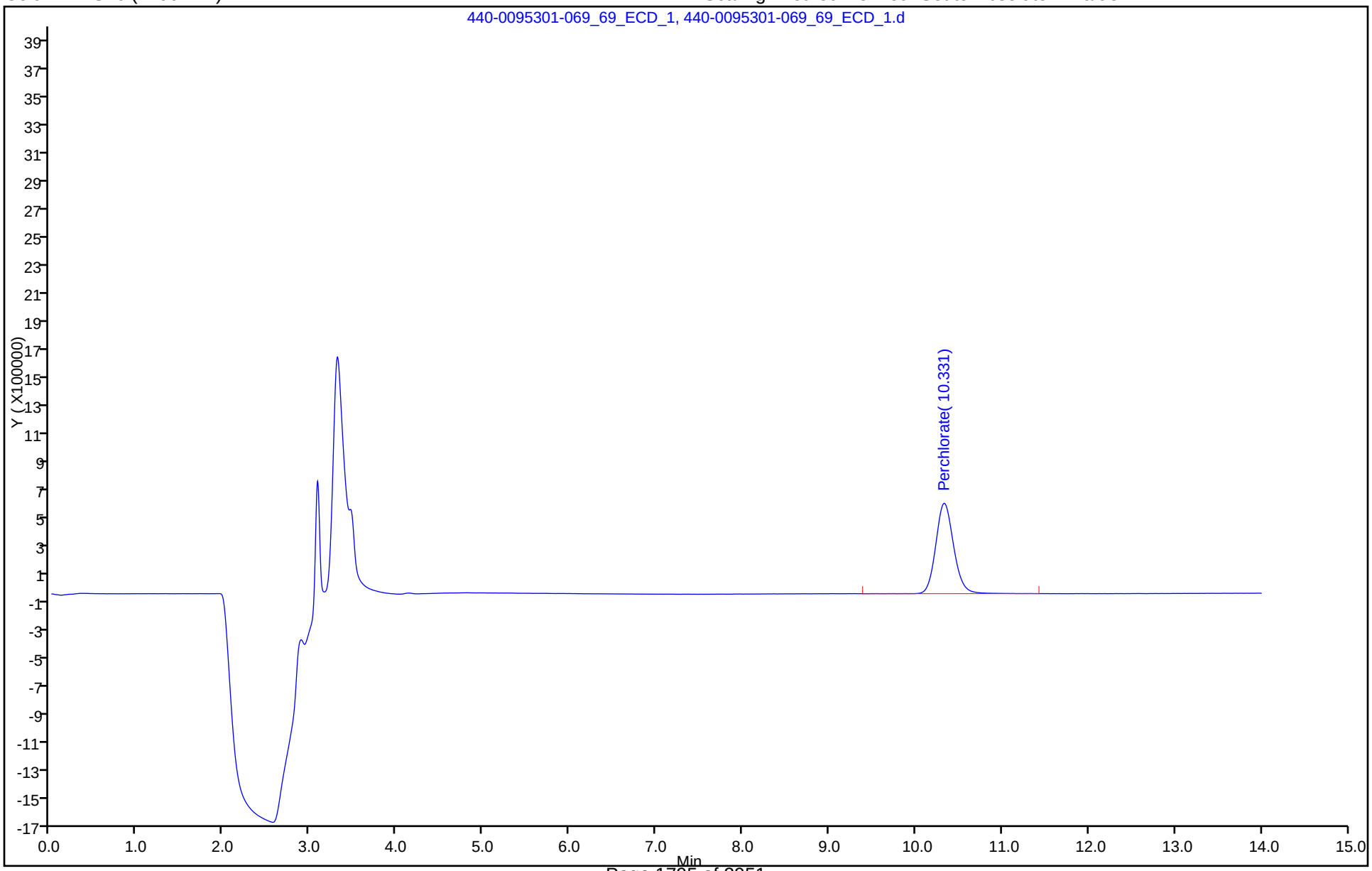
Report Date: 27-Oct-2017 08:33:25 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-069_69_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 04:18:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccv 75 | | | Worklist Smp#: | 69 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437568/80 Calibration Date: 10/27/2017 07:23

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-080_80_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 23.1 | 25.0 | 92 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437568/80 Calibration Date: 10/27/2017 07:23

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-080_80_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 10.34 | 9.83 | 10.86 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-080_80_ECD_1.d | | | | |
| Lims ID: | ccv 25 | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 27-Oct-2017 07:23:00 | ALS Bottle#: | 0 | Worklist Smp#: | 80 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-080 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | chrom-314_25perchlorate*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 08:33:42 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK033 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.344 | 10.344 | 0.000 | 2895823 | 25.0 | 23.1 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 250.00 Units: uL

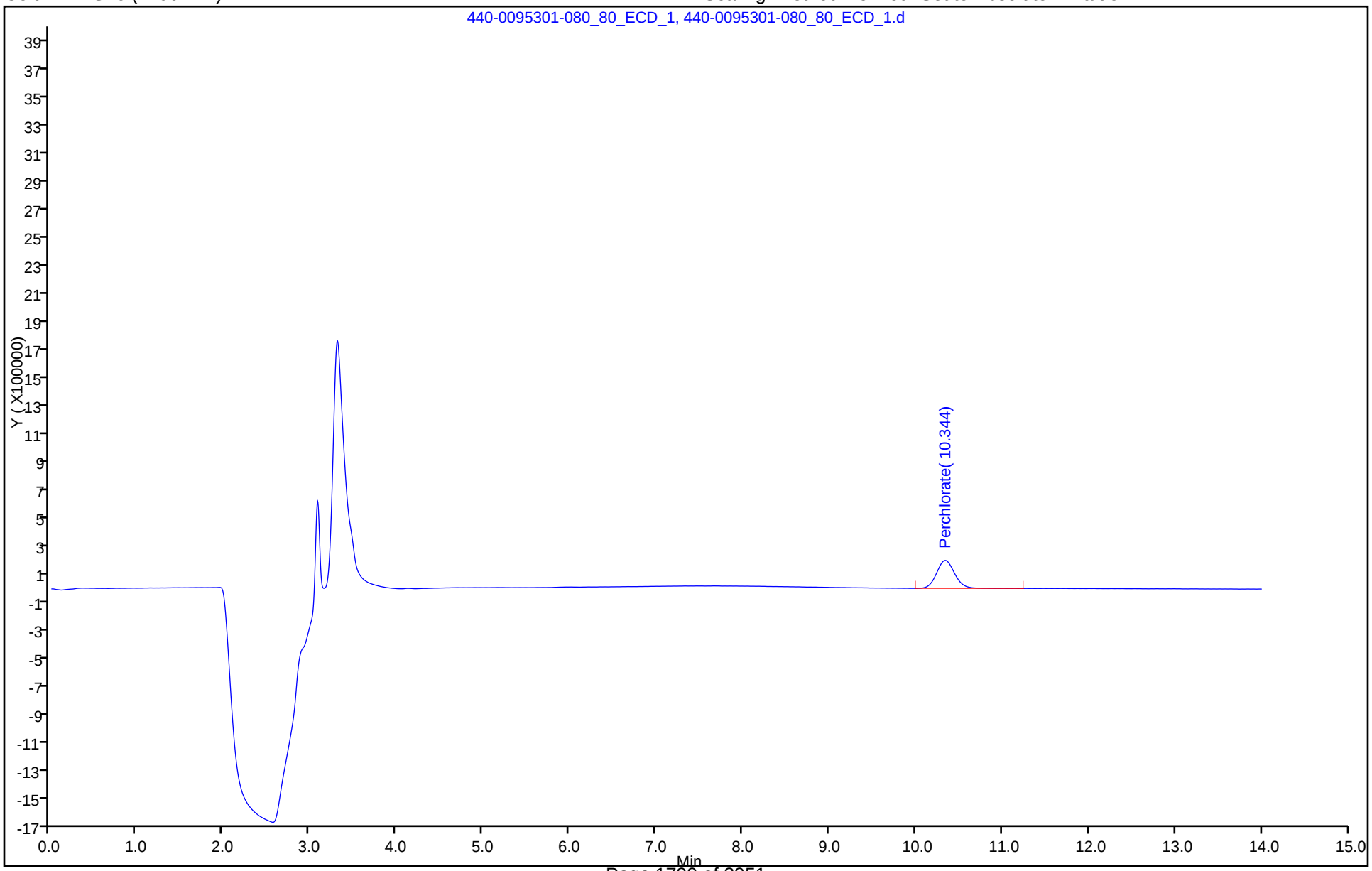
Report Date: 27-Oct-2017 08:33:42 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-080_80_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 07:23:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccv 25 | | | Worklist Smp#: | 80 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437568/92 Calibration Date: 10/27/2017 11:20

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-092_92_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 74.5 | 75.0 | 99 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437568/92 Calibration Date: 10/27/2017 11:20

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-092_92_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.53 | 10.95 | 12.10 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-092_92_ECD_1.d | | | | |
| Lims ID: | ccv 75 | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 27-Oct-2017 11:20:00 | ALS Bottle#: | 0 | Worklist Smp#: | 92 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-092 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | chrom-314_25perchlorate*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 12:25:37 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK007 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.527 | 11.527 | 0.000 | 9967631 | 75.0 | 74.5 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 750.00 Units: uL

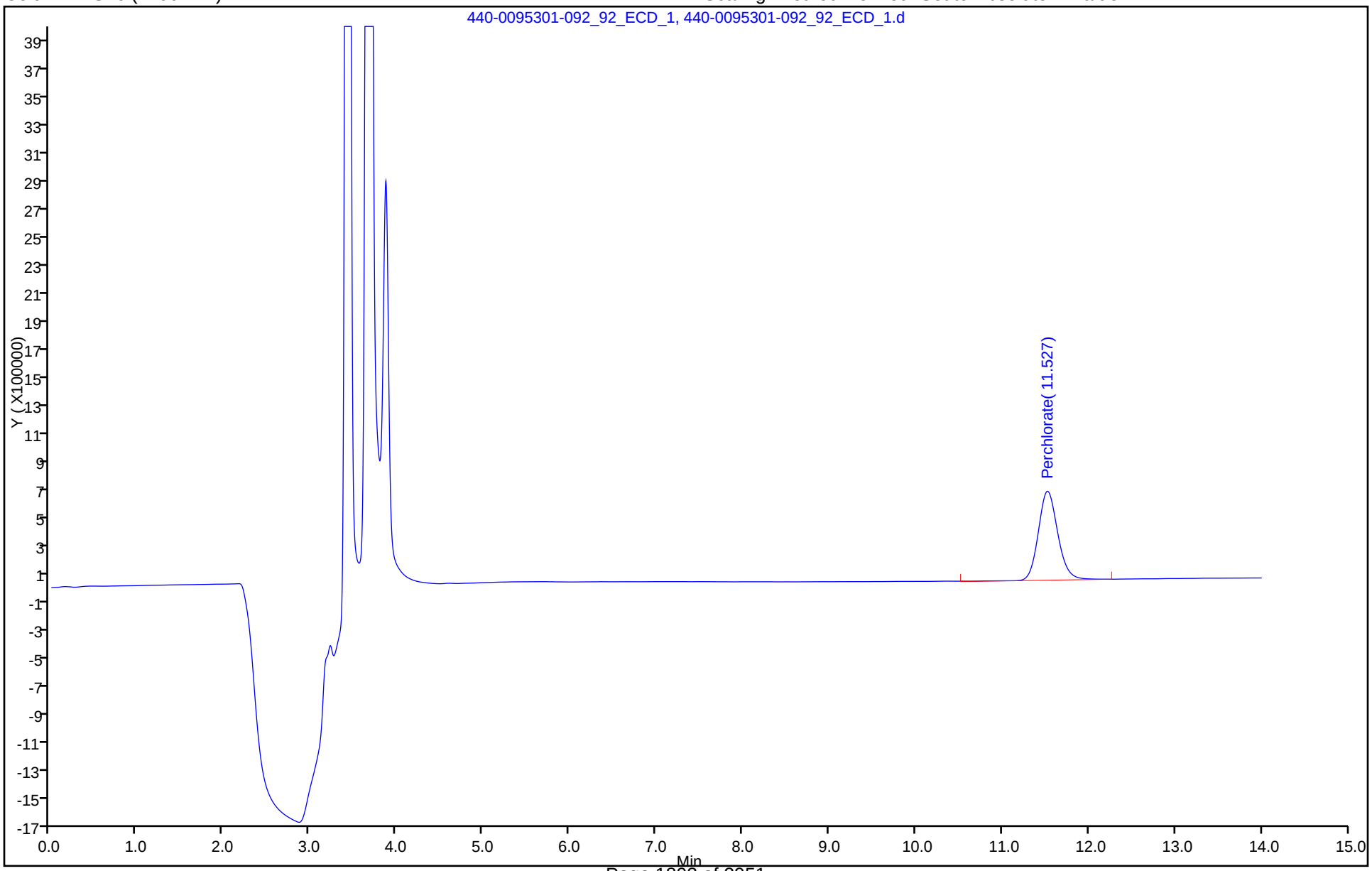
Report Date: 27-Oct-2017 12:25:38 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-092_92_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 11:20:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccv 75 | | | Worklist Smp#: | 92 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437935/2 Calibration Date: 10/27/2017 16:10

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095381-002_2_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 25.6 | 25.0 | 102 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437935/2 Calibration Date: 10/27/2017 16:10

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095381-002_2_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.45 | 10.88 | 12.03 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-002_2_ECD_1.d | | | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 27-Oct-2017 16:10:00 | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-002 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | chrom-314_25perchlorate*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 19:19:13 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK007 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.454 | 11.454 | 0.000 | 3222572 | 25.0 | 25.6 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 250.00 Units: uL

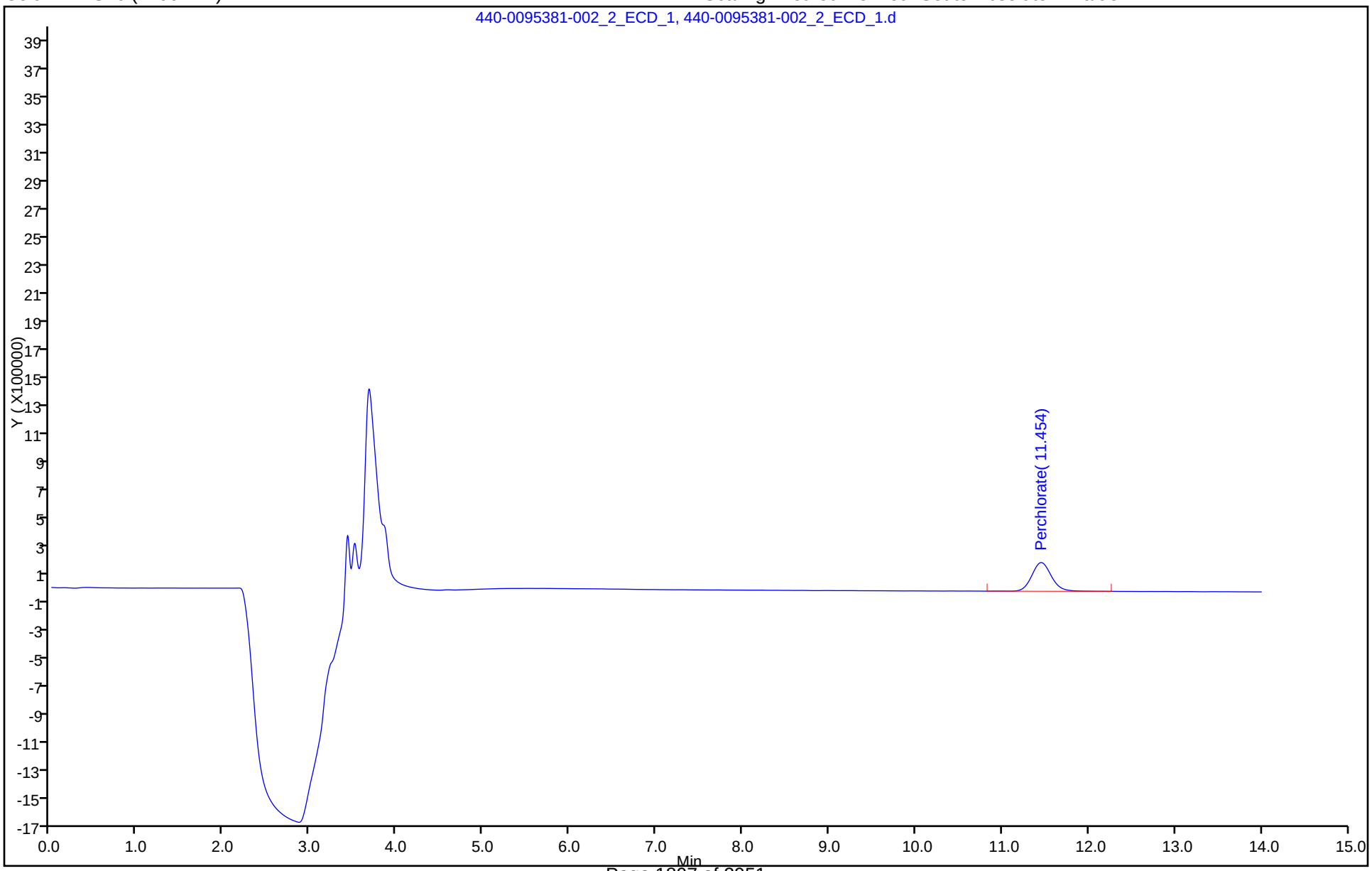
Report Date: 27-Oct-2017 19:19:14 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-002_2_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 16:10:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | CCV | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437935/14 Calibration Date: 10/27/2017 20:41

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095381-014_14_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 25.8 | 25.0 | 103 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437935/14 Calibration Date: 10/27/2017 20:41

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095381-014_14_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.44 | 10.87 | 12.02 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-014_14_ECD_1.d | | | | |
| Lims ID: | ccv 25 | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 27-Oct-2017 20:41:00 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-014 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | chrom-314_25perchlorate*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 28-Oct-2017 09:06:33 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.444 | 11.444 | 0.000 | 3244018 | 25.0 | 25.8 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 250.00 Units: uL

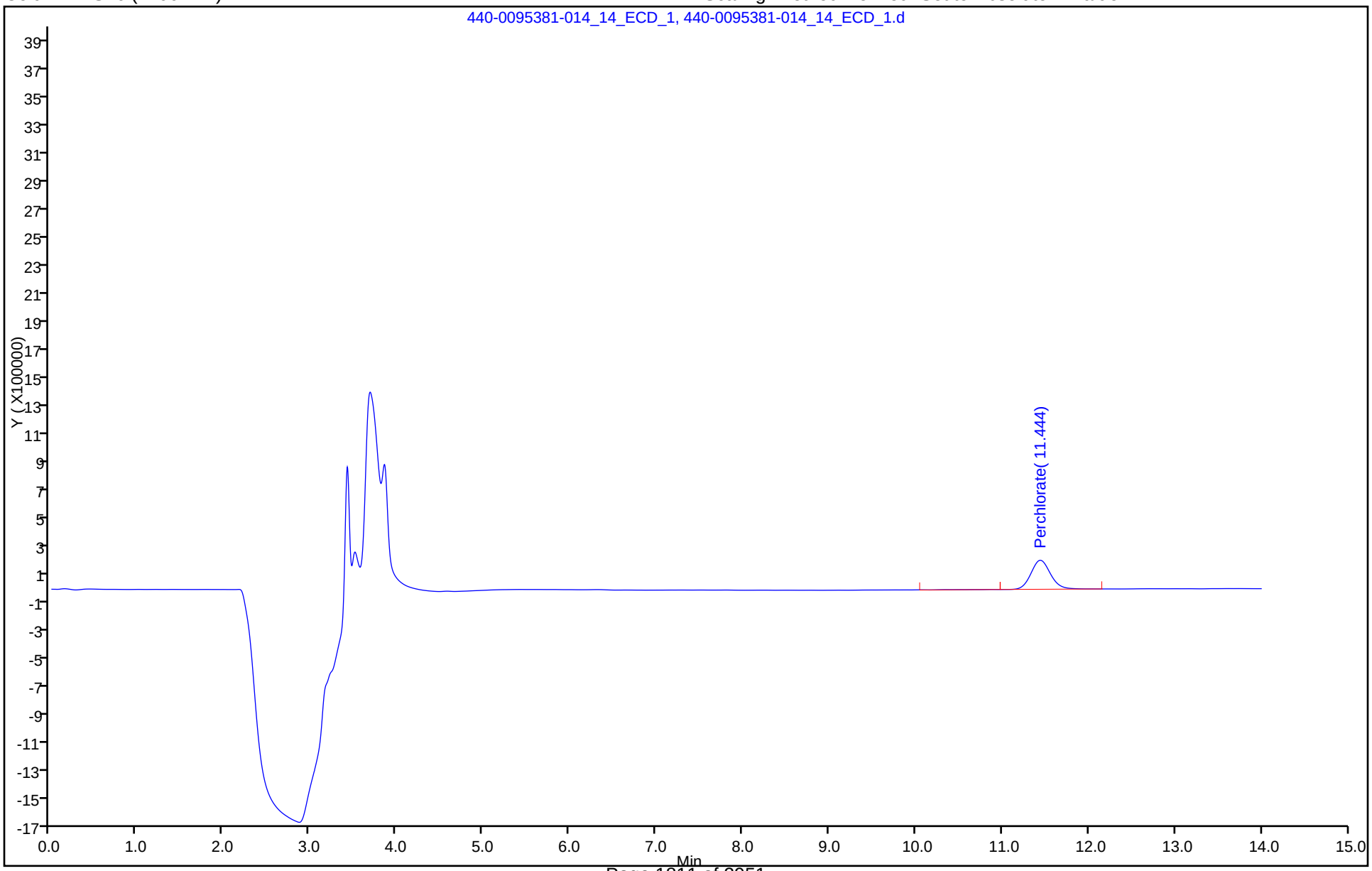
Report Date: 28-Oct-2017 09:06:33 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-014_14_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 20:41:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccv 25 | | | Worklist Smp#: | 14 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437935/26 Calibration Date: 10/28/2017 00:03

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095381-026_26_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 75.3 | 75.0 | 100 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437935/26 Calibration Date: 10/28/2017 00:03

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095381-026_26_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.42 | 10.85 | 12.00 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-026_26_ECD_1.d | | | | |
| Lims ID: | ccv 75 | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 28-Oct-2017 00:03:00 | ALS Bottle#: | 0 | Worklist Smp#: | 26 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-026 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | chrom-314_25perchlorate*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 28-Oct-2017 09:06:42 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.424 | 11.424 | 0.000 | 10077888 | 75.0 | 75.3 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 750.00 Units: uL

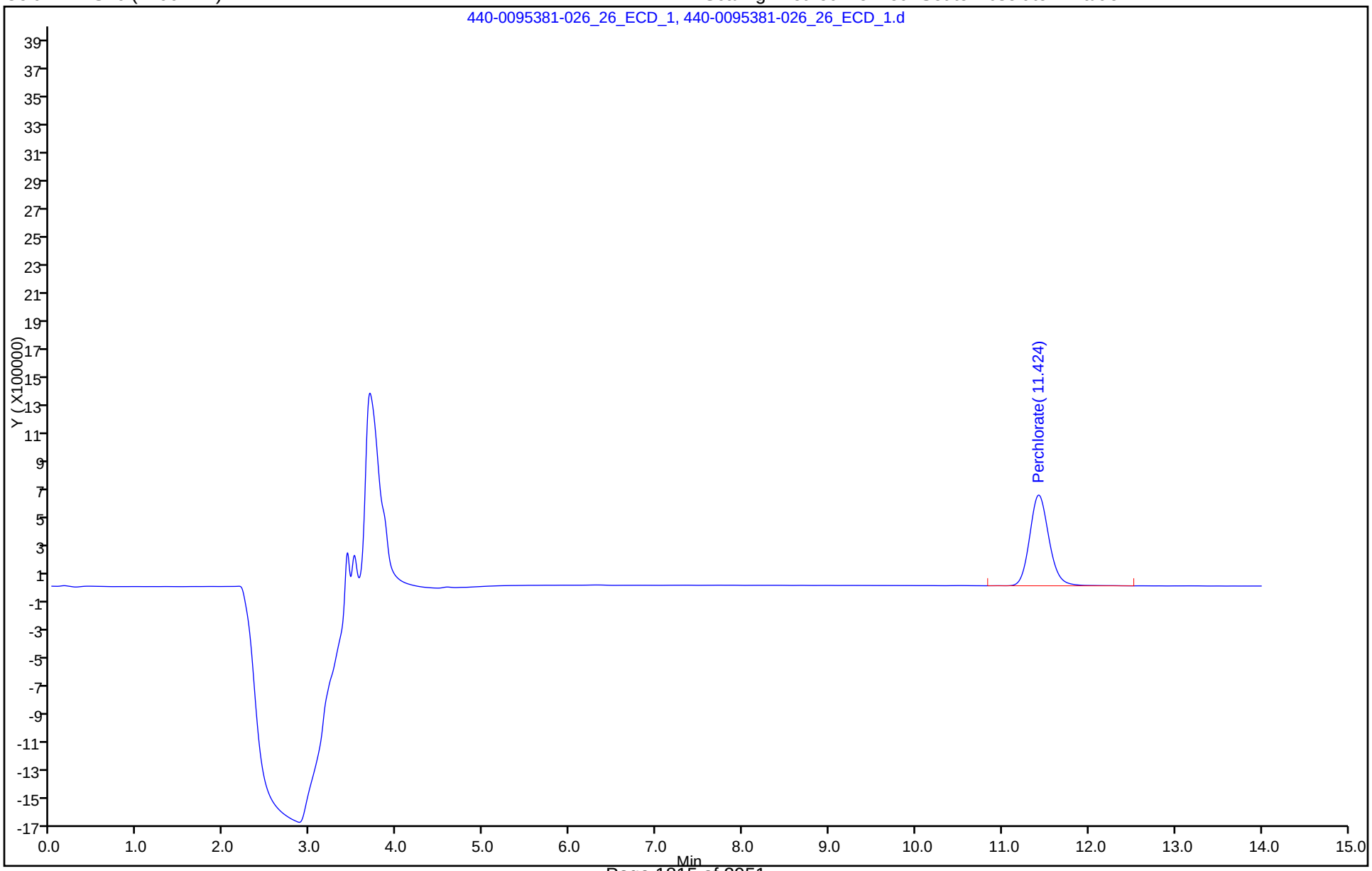
Report Date: 28-Oct-2017 09:06:42 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-026_26_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 00:03:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccv 75 | | | Worklist Smp#: | 26 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437935/35 Calibration Date: 10/28/2017 02:35

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095381-035_35_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 25.6 | 25.0 | 102 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437935/35 Calibration Date: 10/28/2017 02:35

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095381-035_35_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.45 | 10.88 | 12.02 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-035_35_ECD_1.d | | | | |
| Lims ID: | ccv 25 | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 28-Oct-2017 02:35:00 | ALS Bottle#: | 0 | Worklist Smp#: | 35 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-035 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | chrom-314_25perchlorate*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 28-Oct-2017 09:06:49 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.447 | 11.447 | 0.000 | 3220952 | 25.0 | 25.6 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 250.00 Units: uL

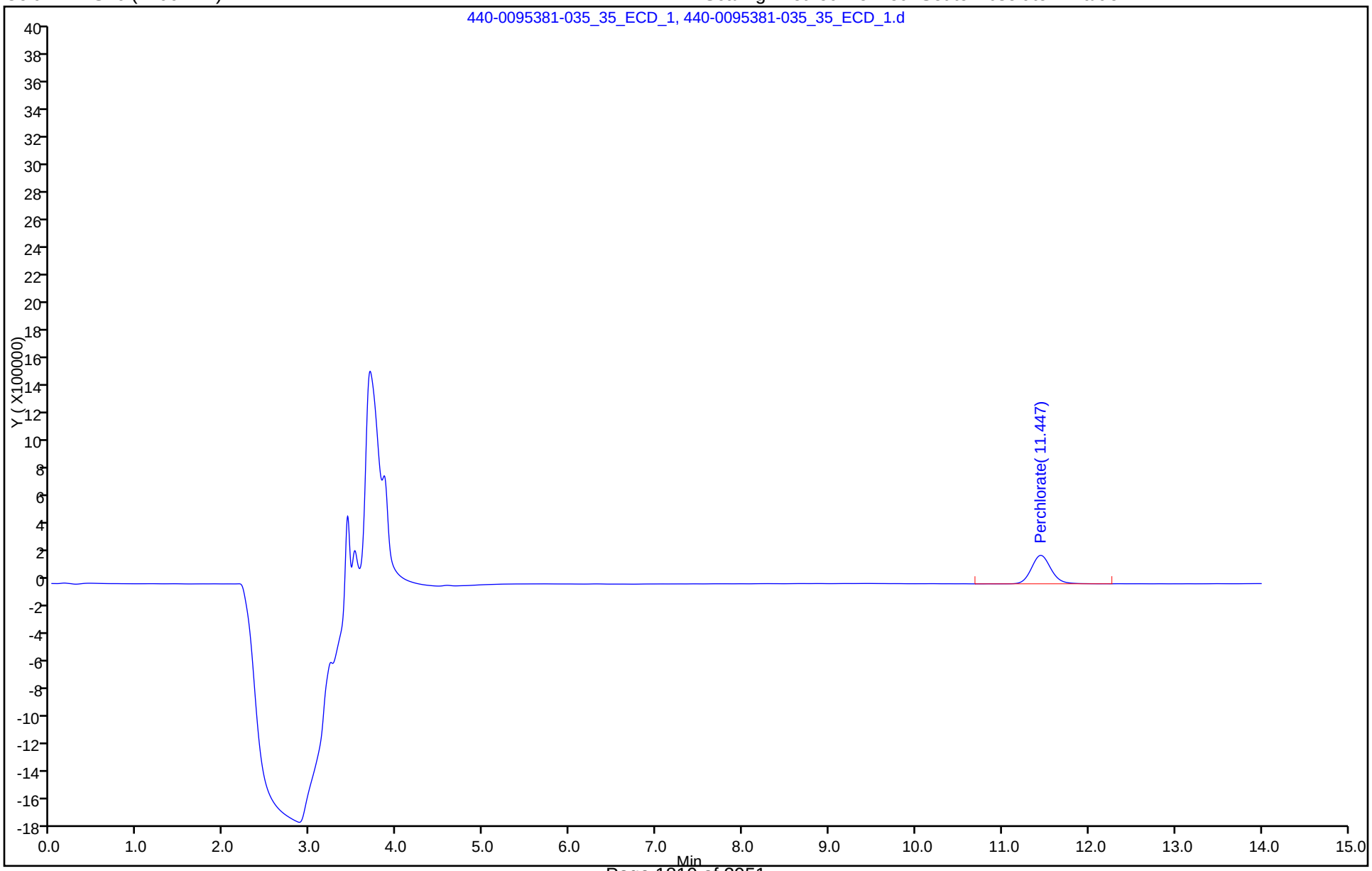
Report Date: 28-Oct-2017 09:06:49 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-035_35_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 02:35:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccv 25 | | | Worklist Smp#: | 35 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437935/45 Calibration Date: 10/28/2017 05:24

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095381-045_45_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 74.9 | 75.0 | 100 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437935/45 Calibration Date: 10/28/2017 05:24

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095381-045_45_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.43 | 10.86 | 12.00 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-045_45_ECD_1.d | | | | |
| Lims ID: | ccv 75 | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 28-Oct-2017 05:24:00 | ALS Bottle#: | 0 | Worklist Smp#: | 45 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-045 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | chrom-314_25perchlorate*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 28-Oct-2017 09:06:56 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.431 | 11.431 | 0.000 | 10026530 | 75.0 | 74.9 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 750.00 Units: uL

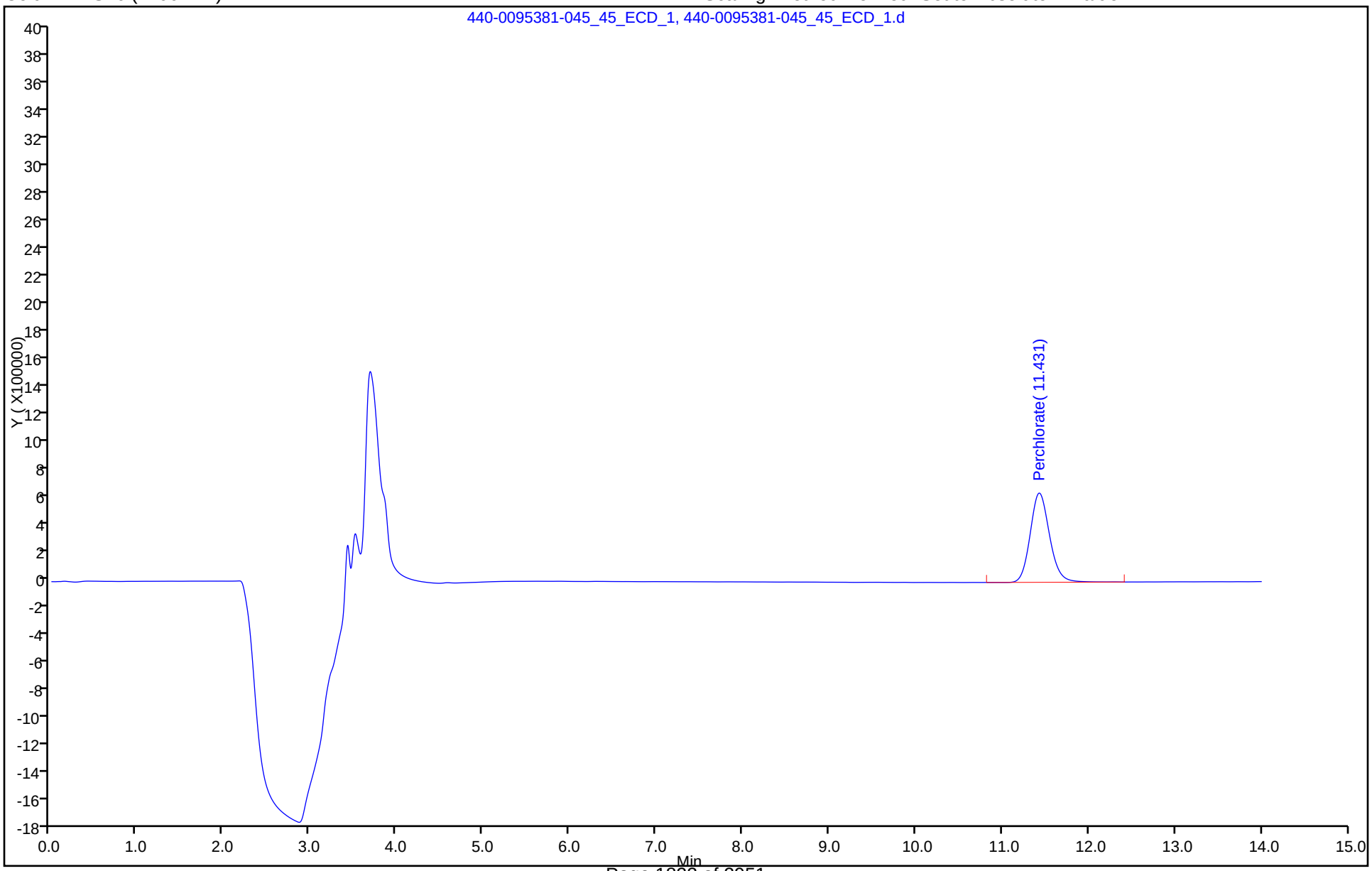
Report Date: 28-Oct-2017 09:06:56 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-045_45_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 05:24:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccv 75 | | | Worklist Smp#: | 45 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437935/57 Calibration Date: 10/28/2017 12:06

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095381-057_57_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 26.6 | 25.0 | 106 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437935/57 Calibration Date: 10/28/2017 12:06

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095381-057_57_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.51 | 10.94 | 12.09 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-057_57_ECD_1.d
Lims ID: ccv 25
Client ID:
Sample Type: CCV
Inject. Date: 28-Oct-2017 12:06:00 ALS Bottle#: 0 Worklist Smp#: 57
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095381-057
Misc. Info.: ch
Operator ID: Instrument ID: IC-25
Sublist: chrom-314_25perchlorate*sub1

Method: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m
Limit Group: IC-314
Method Label: PERCHLORATE
Last Update: 28-Oct-2017 13:22:37 Calib Date: 24-Oct-2017 18:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d

Column 1 : AS16 ( 4.00 mm) Det: Ch-A-20111003029
Process Host: XAWRK031

First Level Reviewer: hoangch Date: 28-Oct-2017 12:25:51

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.514 | 11.514 | 0.000 | 3352582 | 25.0 | 26.6 | M |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

WCCLO41st-10_00011 Amount Added: 250.00 Units: uL

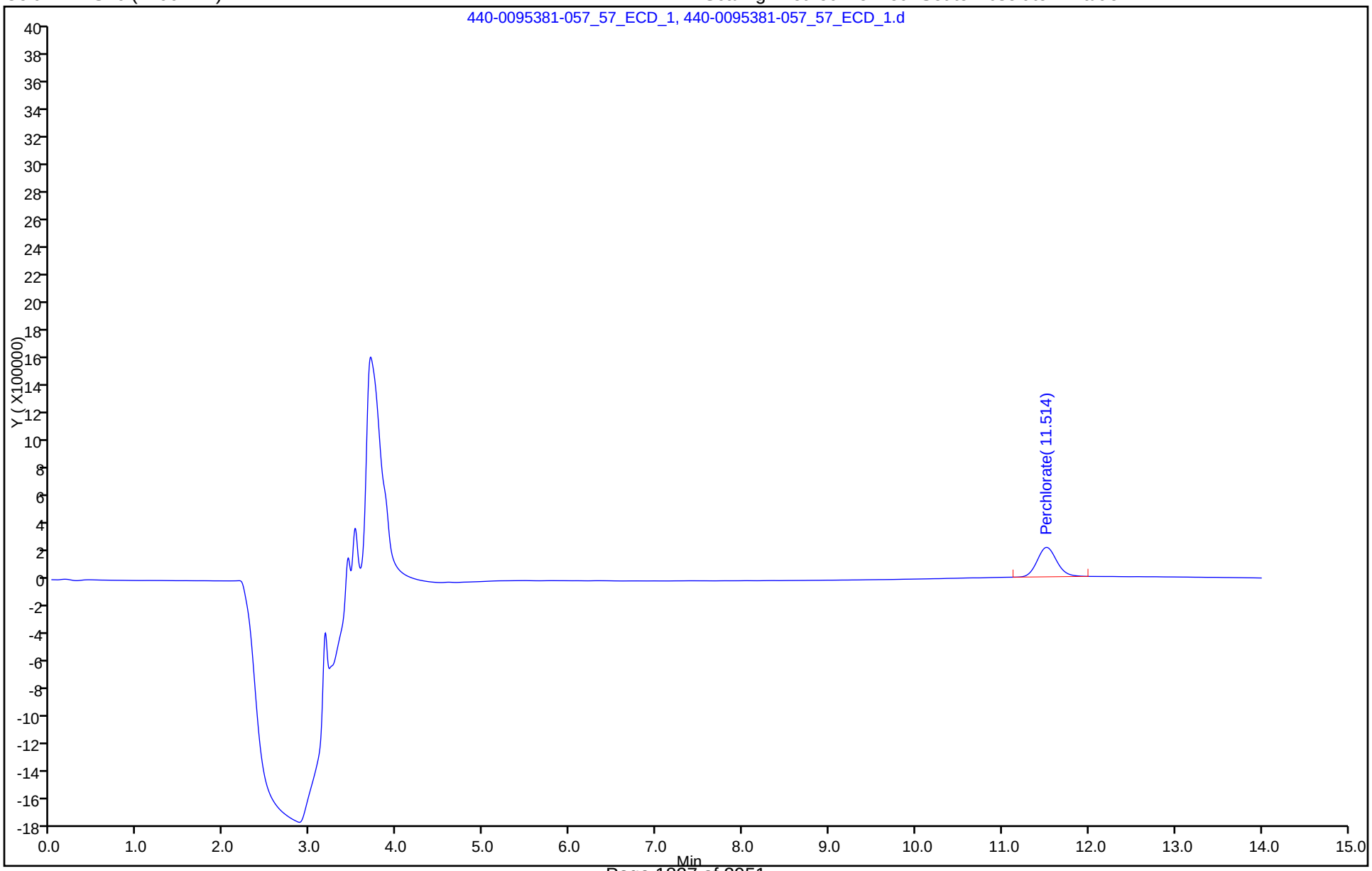
Report Date: 28-Oct-2017 13:22:37 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-057_57_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 12:06:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccv 25 | | | Worklist Smp#: | 57 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

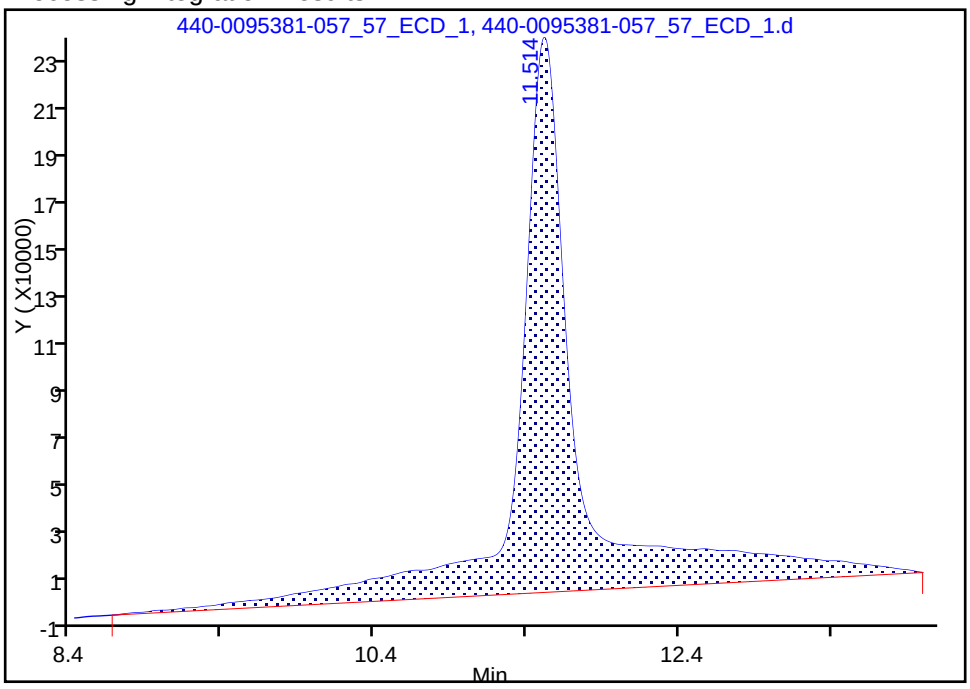
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-057_57_ECD_1.d | | | | |
| Injection Date: | 28-Oct-2017 12:06:00 | Instrument ID: | IC-25 | | |
| Lims ID: | ccv 25 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 0 | Worklist Smp#: | 57 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |
| Column: | AS16 ( 4.00 mm) | Detector | Ch-A-20111003029 | | |

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

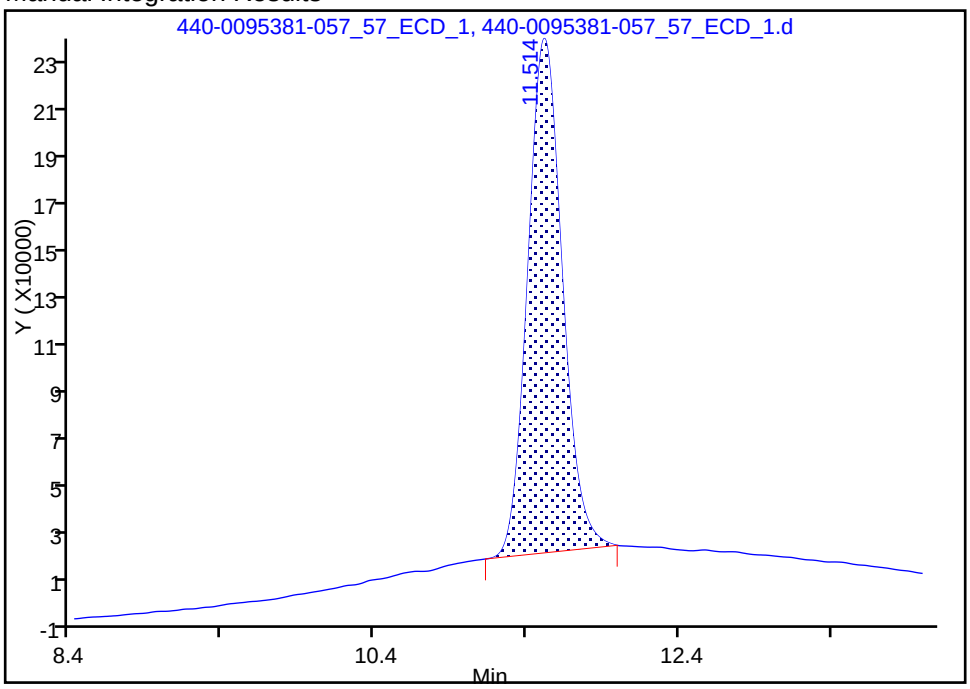
Processing Integration Results

RT: 11.51
Area: 6342642
Amount: 48.912391
Amount Units: ug/l




Manual Integration Results

RT: 11.51
Area: 3352582
Amount: 26.593181
Amount Units: ug/l




Reviewer: hoangch, 28-Oct-2017 12:25:49

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437935/89 Calibration Date: 10/28/2017 21:33

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095381-089_89_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 78.0 | 75.0 | 104 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437935/89 Calibration Date: 10/28/2017 21:33

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095381-089_89_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.49 | 10.92 | 12.07 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-089_89_ECD_1.d | | | | |
| Lims ID: | ccv 75 | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 28-Oct-2017 21:33:00 | ALS Bottle#: | 0 | Worklist Smp#: | 89 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-089 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | chrom-314_25perchlorate*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 29-Oct-2017 07:19:03 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.491 | 11.491 | 0.000 | 10481365 | 75.0 | 78.0 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 750.00 Units: uL

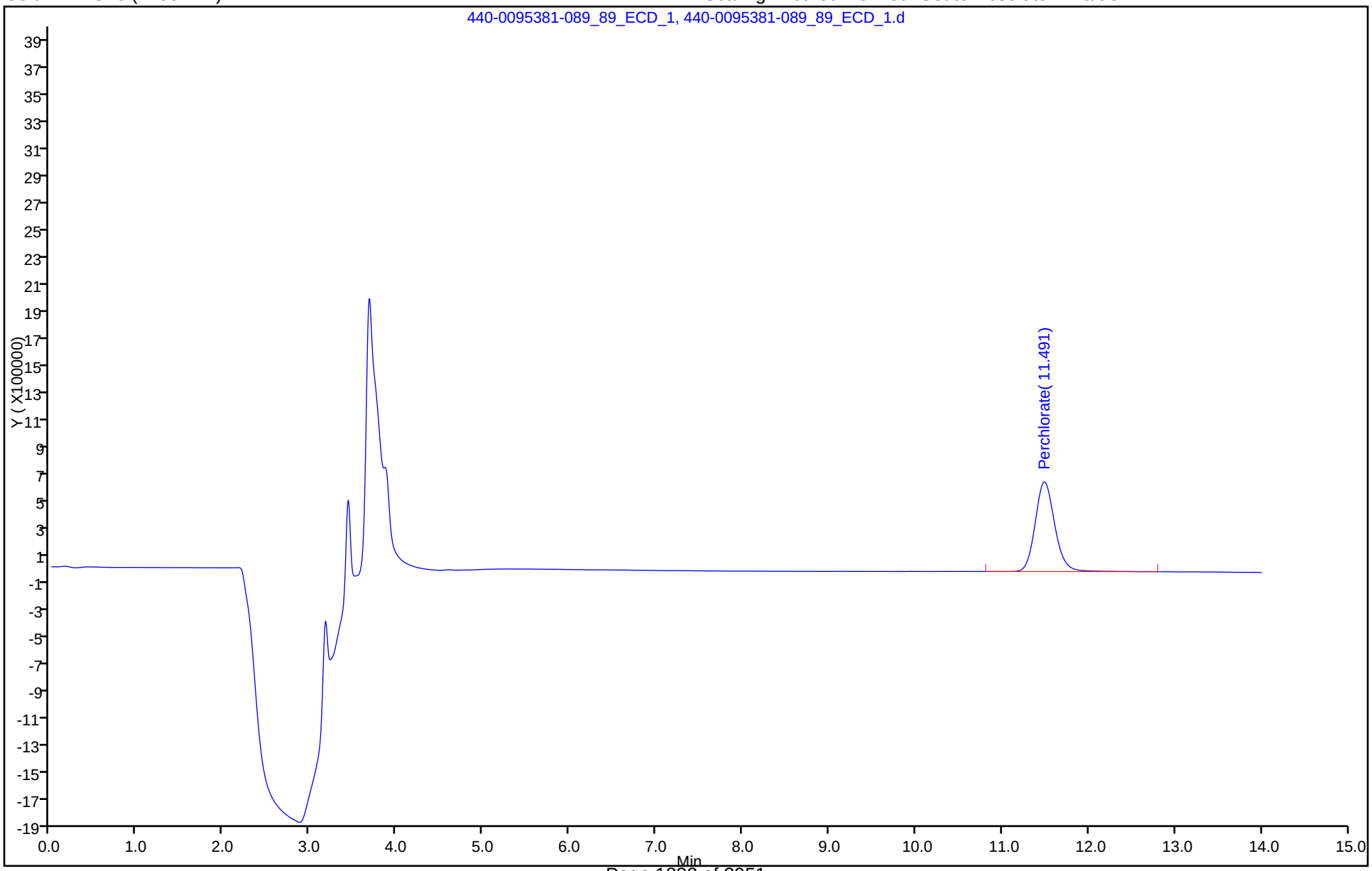
Report Date: 29-Oct-2017 07:19:03 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-089_89_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 21:33:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccv 75 | | | Worklist Smp#: | 89 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437935/99 Calibration Date: 10/29/2017 00:22

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095381-099_99_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 27.0 | 25.0 | 108 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Lab Sample ID: CCV 440-437935/99 Calibration Date: 10/29/2017 00:22

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095381-099_99_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.51 | 10.93 | 12.08 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-099_99_ECD_1.d | | | | |
| Lims ID: | ccv 25 | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 29-Oct-2017 00:22:00 | ALS Bottle#: | 0 | Worklist Smp#: | 99 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-099 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | chrom-314_25perchlorate*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 29-Oct-2017 07:19:16 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.507 | 11.507 | 0.000 | 3410334 | 25.0 | 27.0 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 250.00 Units: uL

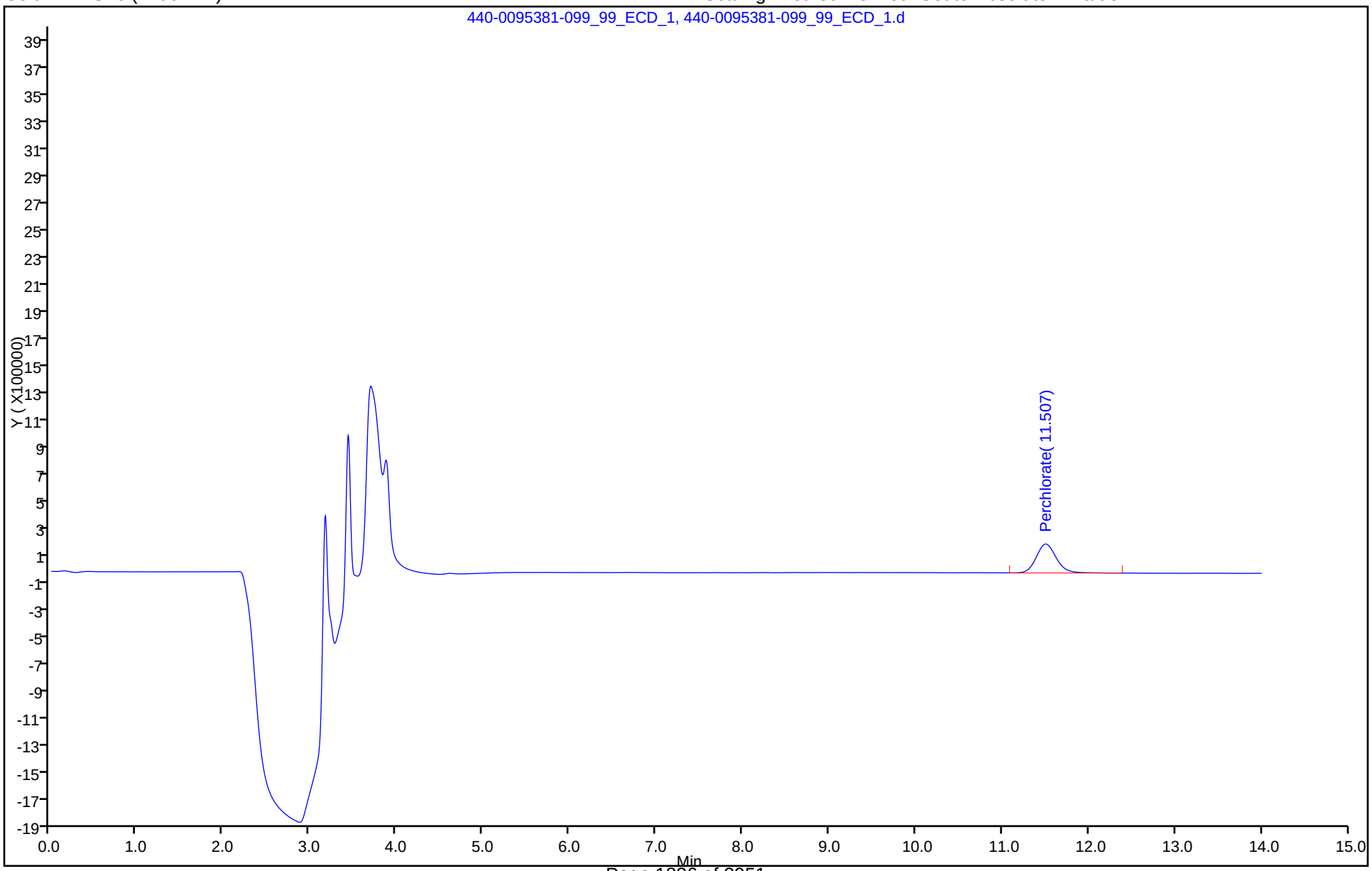
Report Date: 29-Oct-2017 07:19:17 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-099_99_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 29-Oct-2017 00:22:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccv 25 | | | Worklist Smp#: | 99 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-437240/1-A

Matrix: Solid (Soluble) | Lab File ID: 440-0095301-052_52_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/26/2017 23:32

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 0.040 | 0.0095 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-052_52_ECD_1.d | | | | |
| Lims ID: | MB 440-437240/1-A | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 26-Oct-2017 23:32:00 | ALS Bottle#: | 0 | Worklist Smp#: | 52 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-052 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 15:06:36 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK009 | | | | |
| First Level Reviewer: saraubonp | | Date: | 27-Oct-2017 15:06:54 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

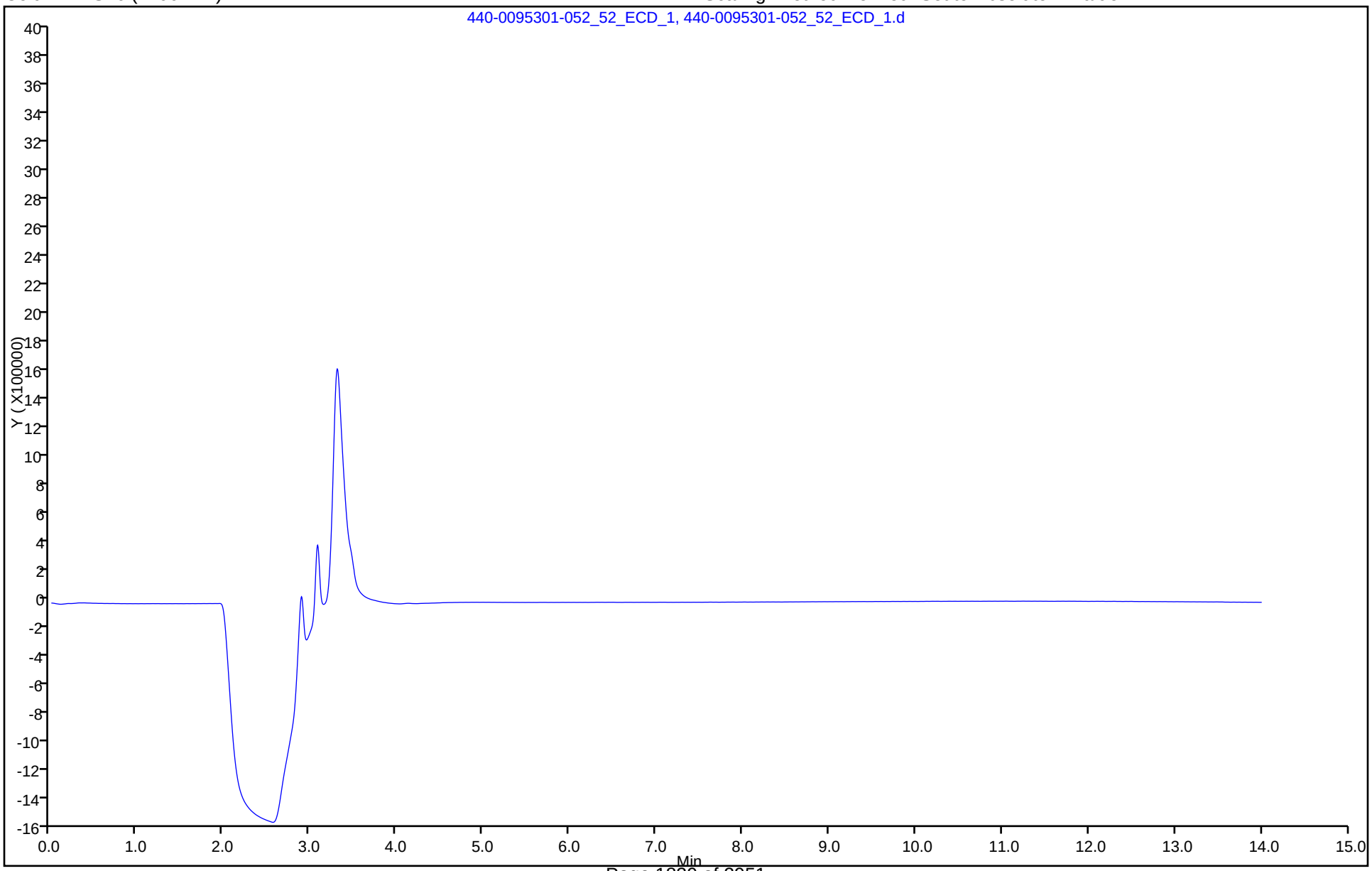
Report Date: 27-Oct-2017 15:06:55 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-052_52_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 23:32:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | MB 440-437240/1-A | | | Worklist Smp#: | 52 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-437390/1-A

Matrix: Solid (Soluble) | Lab File ID: 440-0095381-018_18_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 21:49

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 0.040 | 0.0095 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-018_18_ECD_1.d | | | | |
| Lims ID: | MB 440-437390/1-A | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 27-Oct-2017 21:49:00 | ALS Bottle#: | 0 | Worklist Smp#: | 18 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-018 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 28-Oct-2017 09:06:33 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

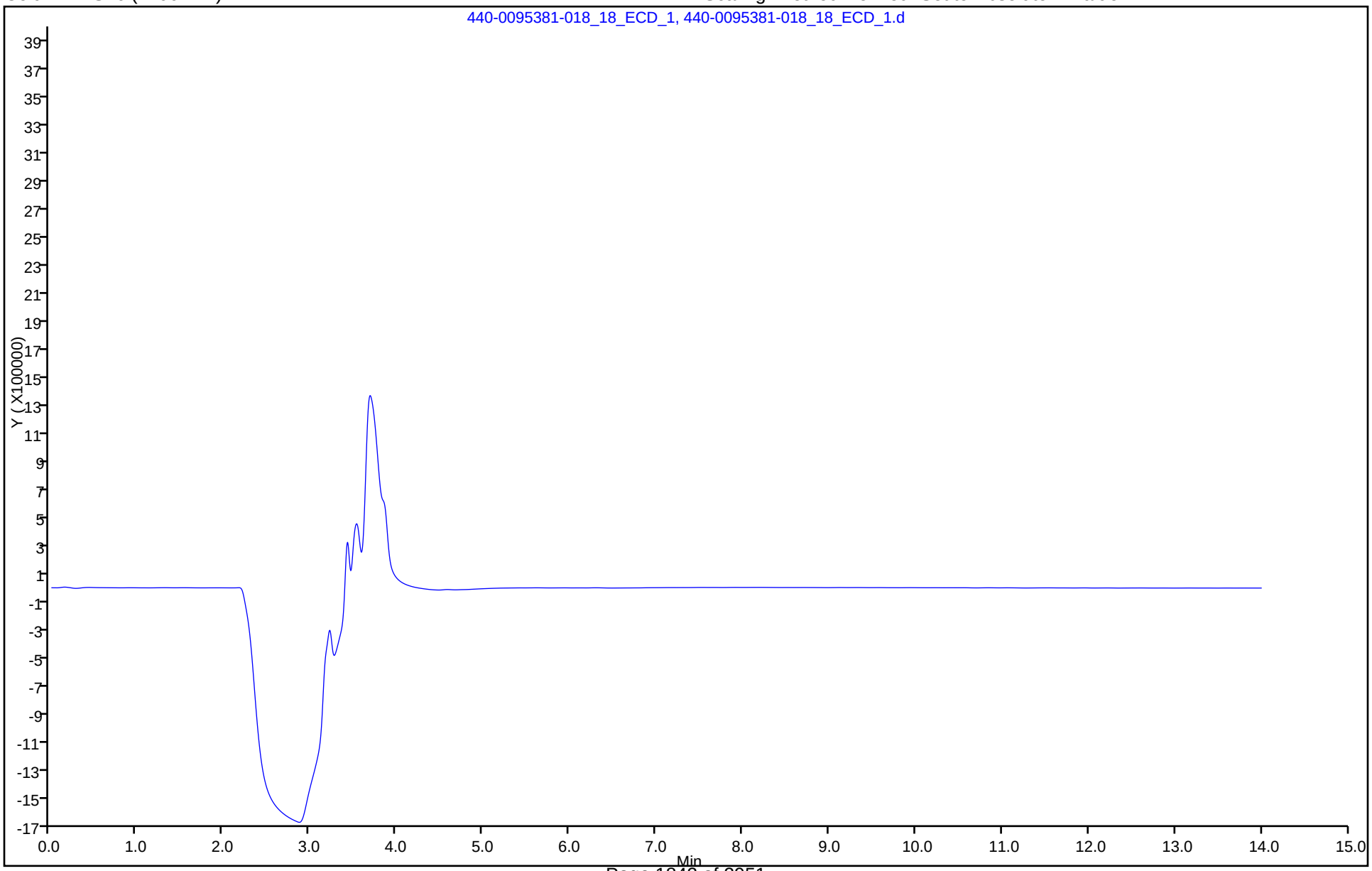
Report Date: 28-Oct-2017 09:06:37 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-018_18_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 21:49:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | MB 440-437390/1-A | | | Worklist Smp#: | 18 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437568/3

Matrix: Solid | Lab File ID: 440-0095301-003_3_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/26/2017 09:21

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-003_3_ECD_1.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 26-Oct-2017 09:21:00 | ALS Bottle#: | 0 | Worklist Smp#: | 3 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-003 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 26-Oct-2017 10:37:02 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK016 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

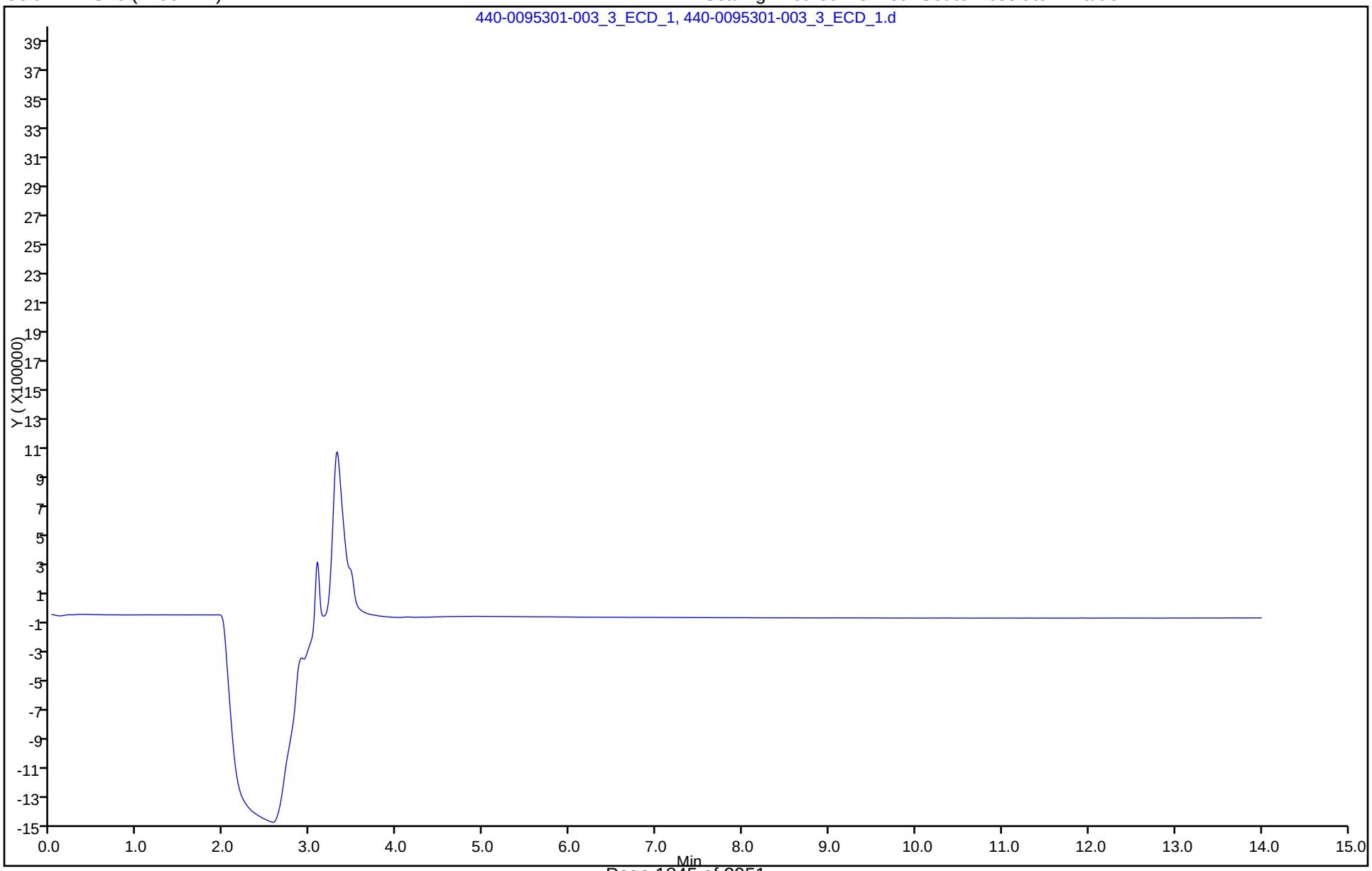
Report Date: 26-Oct-2017 10:37:03 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-003_3_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 09:21:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | CCB | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 440-437568/15

Matrix: Solid Lab File ID: 440-0095301-015_15_ECD_1.d

Analysis Method: 314.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 10/26/2017 12:54

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: AS7 A ID: 4(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-015_15_ECD_1.d | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 26-Oct-2017 12:54:00 | ALS Bottle#: | 0 | Worklist Smp#: | 15 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-015 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 26-Oct-2017 14:14:24 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK016 | | | | |
| First Level Reviewer: hoangch | | Date: | 26-Oct-2017 13:19:21 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

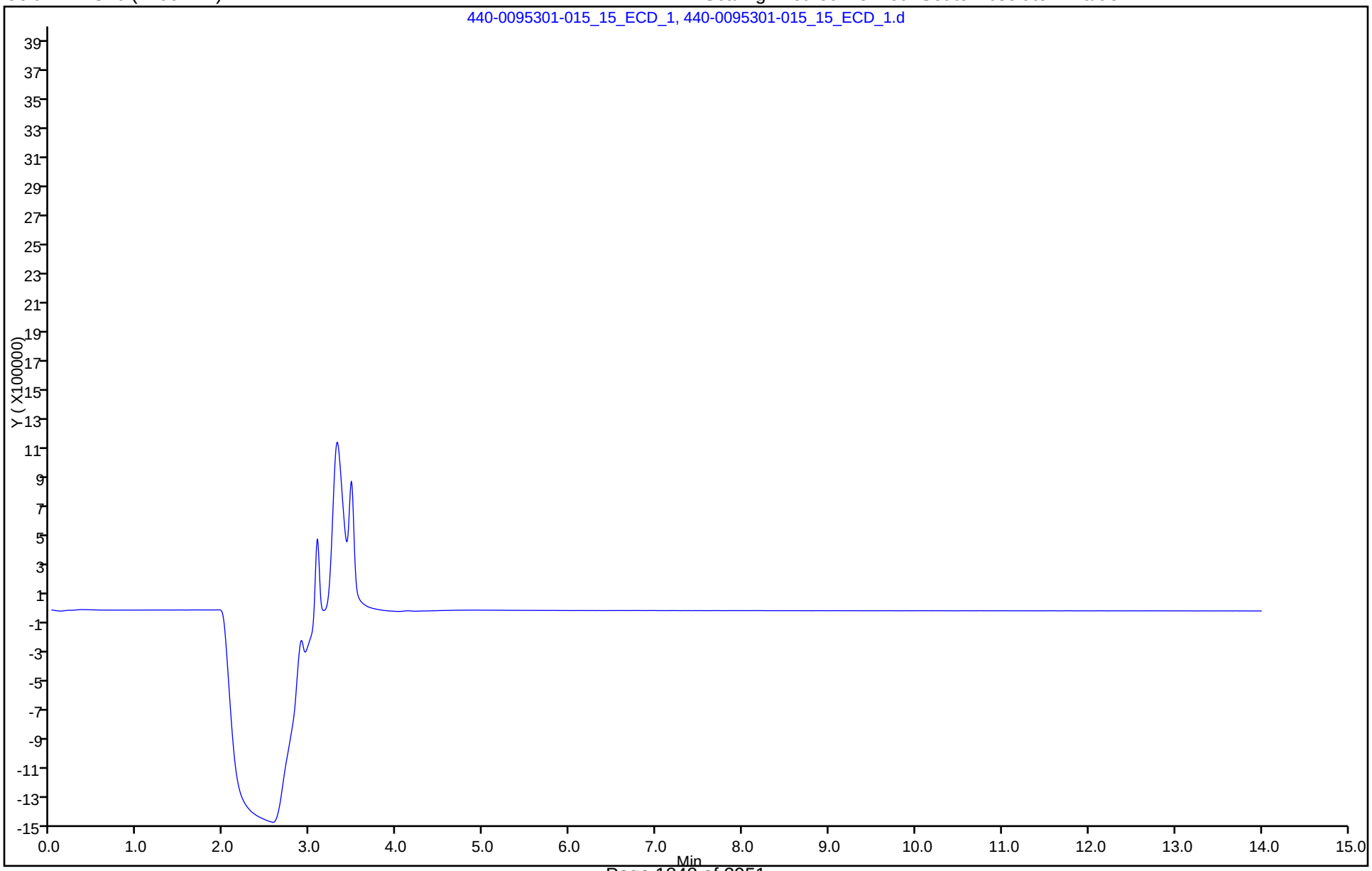
Report Date: 26-Oct-2017 14:14:29 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-015_15_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 12:54:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccb | | | Worklist Smp#: | 15 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437568/51

Matrix: Solid | Lab File ID: 440-0095301-051_51_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/26/2017 23:15

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-051_51_ECD_1.d | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 26-Oct-2017 23:15:00 | ALS Bottle#: | 0 | Worklist Smp#: | 51 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-051 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 15:06:36 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK009 | | | | |
| First Level Reviewer: saraubonp | | Date: | 27-Oct-2017 15:06:44 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

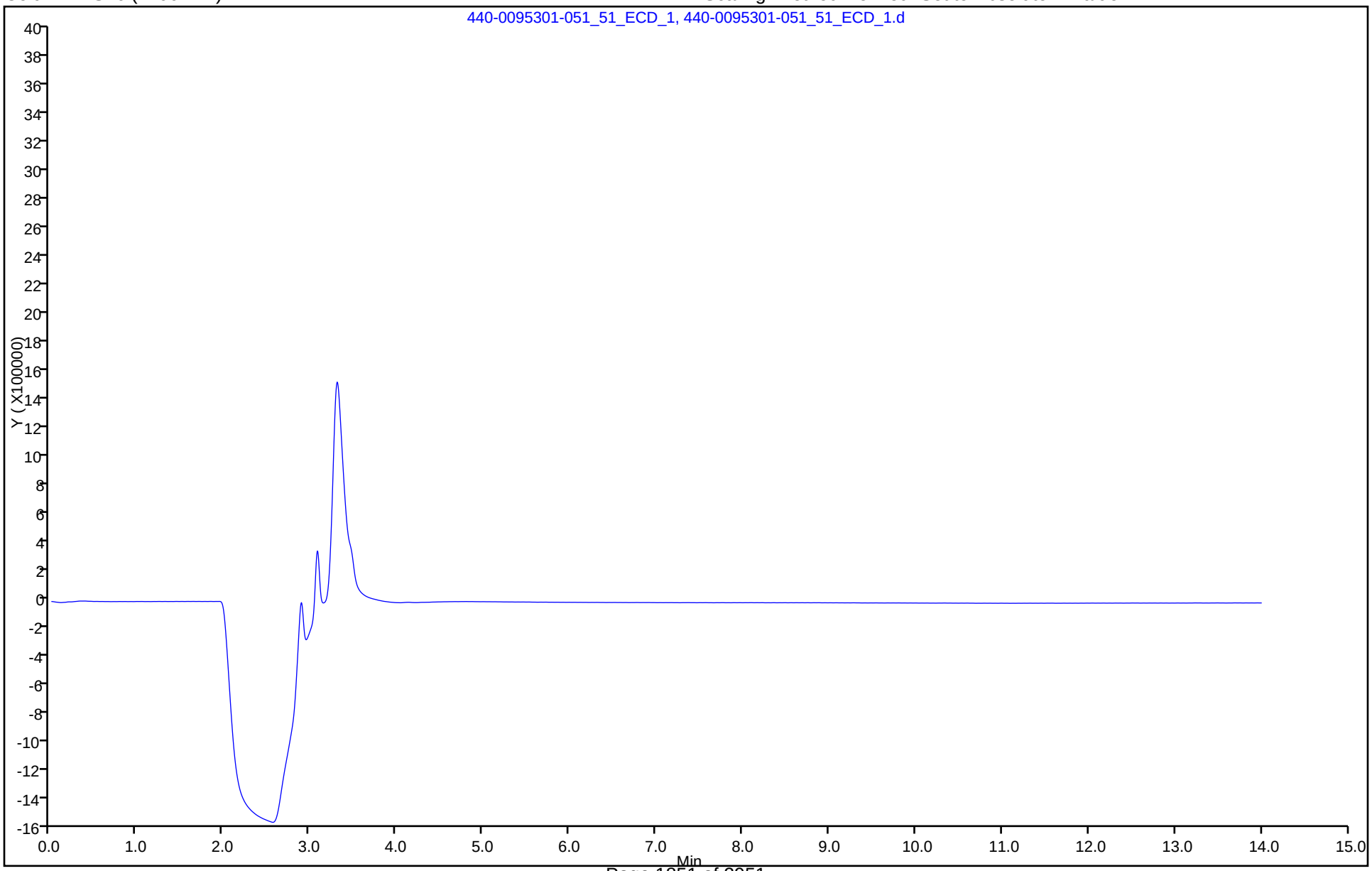
Report Date: 27-Oct-2017 15:06:44 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-051_51_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 23:15:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccb | | | Worklist Smp#: | 51 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-437568/63

Matrix: Solid  Lab File ID: 440-0095301-063_63_ECD_1.d

Analysis Method: 314.0  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 1(mL)  Date Analyzed: 10/27/2017 02:37

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS7 A  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-063_63_ECD_1.d | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 27-Oct-2017 02:37:00 | ALS Bottle#: | 0 | Worklist Smp#: | 63 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-063 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 08:33:13 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK033 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

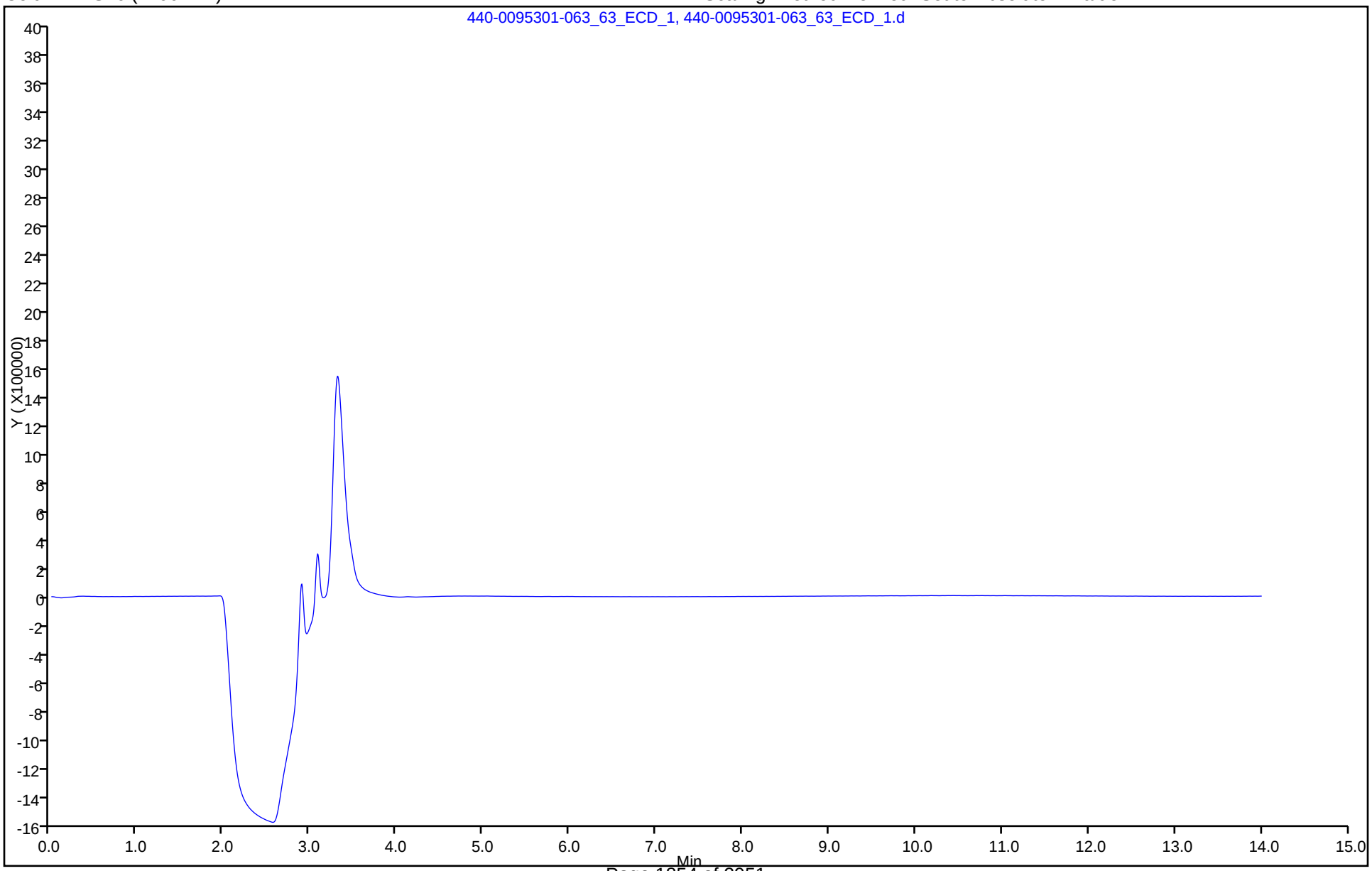
Report Date: 27-Oct-2017 08:33:16 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-063_63_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 02:37:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccb | | | Worklist Smp#: | 63 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437568/70

Matrix: Solid | Lab File ID: 440-0095301-070_70_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 04:35

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-070_70_ECD_1.d | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 27-Oct-2017 04:35:00 | ALS Bottle#: | 0 | Worklist Smp#: | 70 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-070 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 08:33:24 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK033 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

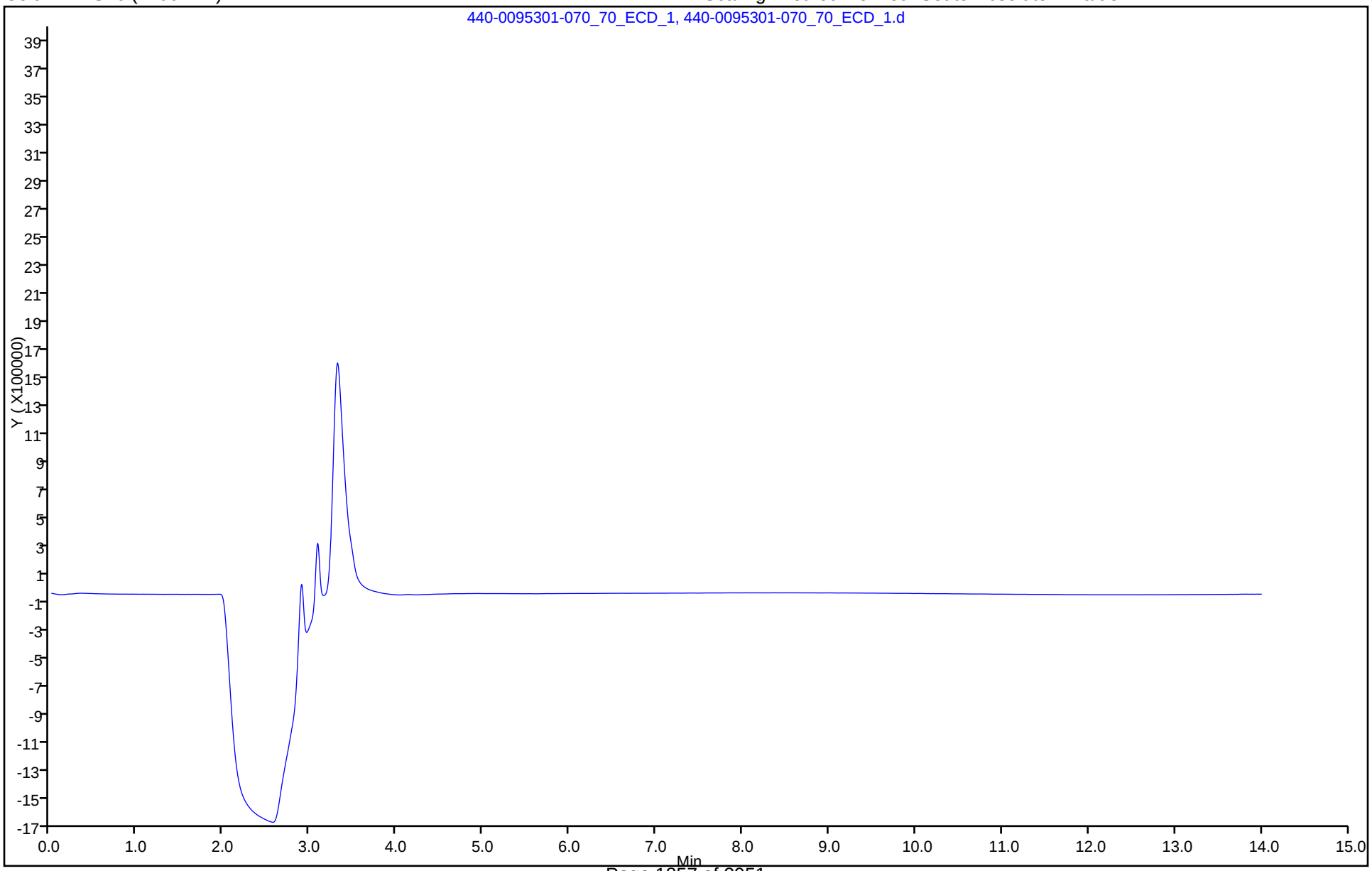
Report Date: 27-Oct-2017 08:33:26 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-070_70_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 04:35:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccb | | | Worklist Smp#: | 70 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437568/82

Matrix: Solid | Lab File ID: 440-0095301-082_82_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 08:04

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-082_82_ECD_1.d | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 27-Oct-2017 08:04:00 | ALS Bottle#: | 0 | Worklist Smp#: | 82 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-082 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 08:34:21 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK007 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

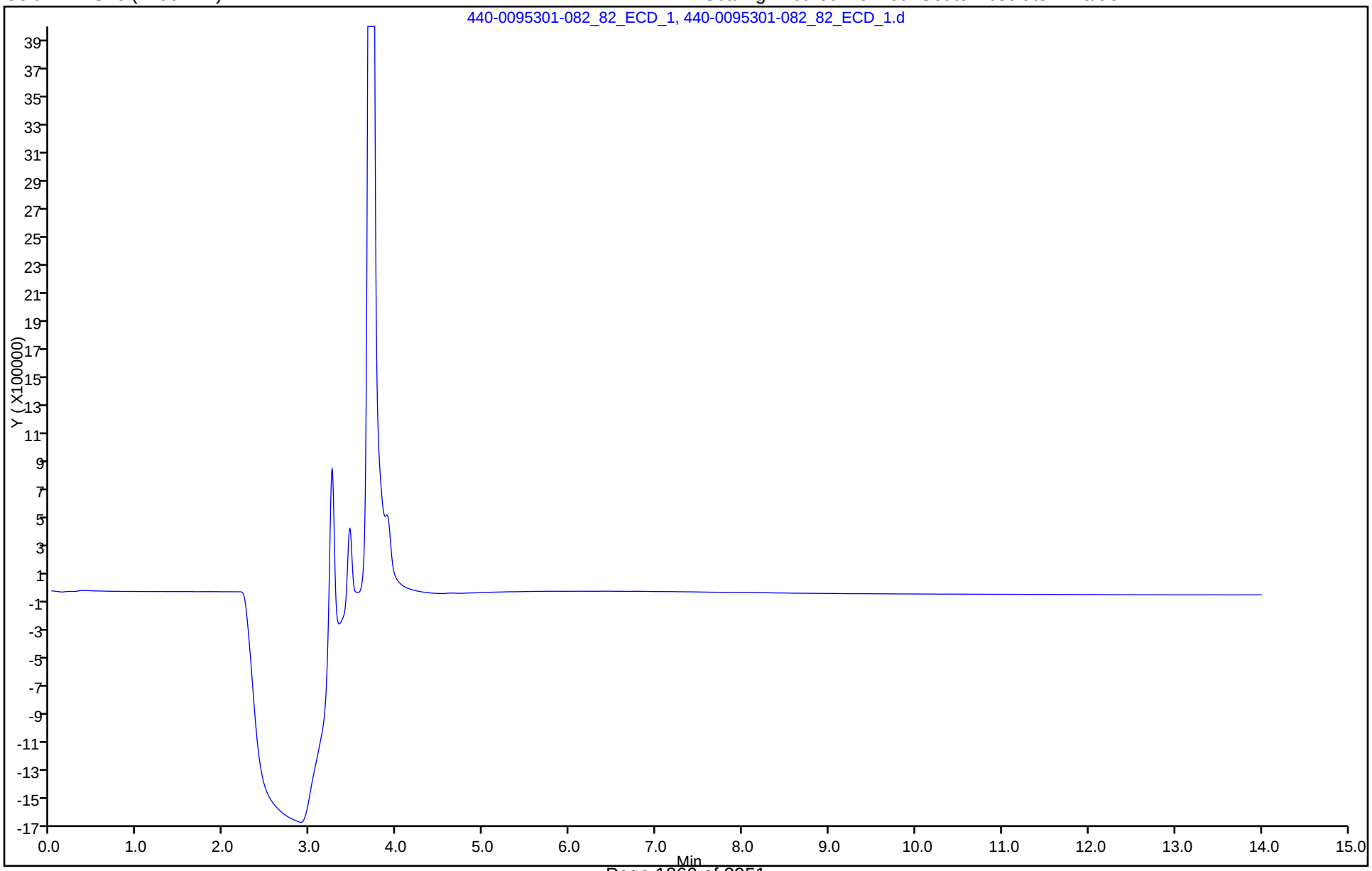
Report Date: 27-Oct-2017 08:39:03 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-082_82_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 08:04:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccb | | | Worklist Smp#: | 82 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437568/93

Matrix: Solid | Lab File ID: 440-0095301-093_93_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 11:51

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-093_93_ECD_1.d | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 27-Oct-2017 11:51:00 | ALS Bottle#: | 0 | Worklist Smp#: | 93 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-093 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 12:25:37 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK007 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

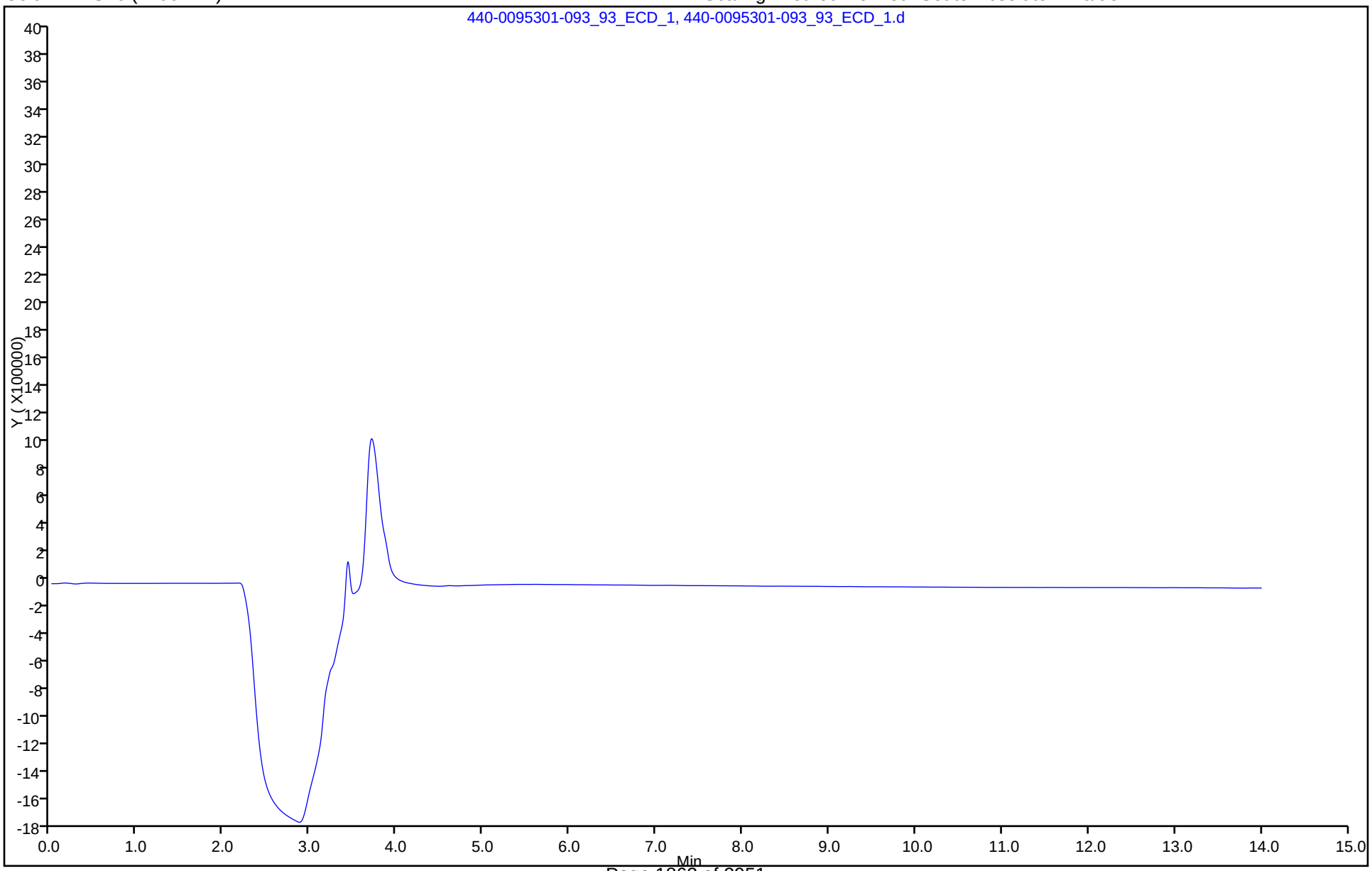
Report Date: 27-Oct-2017 12:25:38 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-093_93_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 11:51:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccb | | | Worklist Smp#: | 93 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437935/3

Matrix: Solid | Lab File ID: 440-0095381-003_3_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 16:33

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-003_3_ECD_1.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 27-Oct-2017 16:33:00 | ALS Bottle#: | 0 | Worklist Smp#: | 3 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-003 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 19:19:13 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK007 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

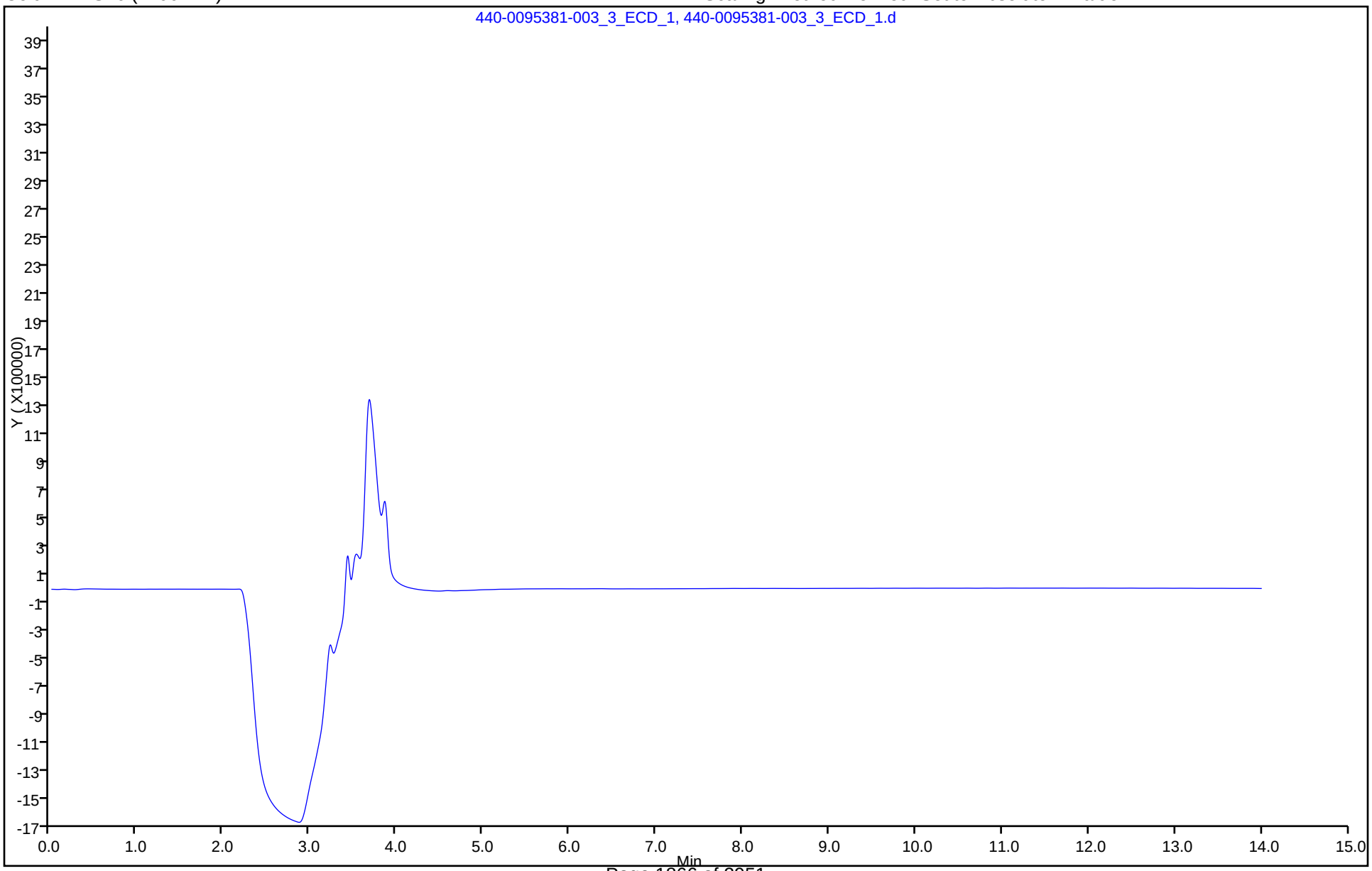
Report Date: 27-Oct-2017 19:19:16 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-003_3_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 16:33:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | CCB | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437935/15

Matrix: Solid | Lab File ID: 440-0095381-015_15_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 20:58

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-015_15_ECD_1.d | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 27-Oct-2017 20:58:00 | ALS Bottle#: | 0 | Worklist Smp#: | 15 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-015 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 28-Oct-2017 09:06:33 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

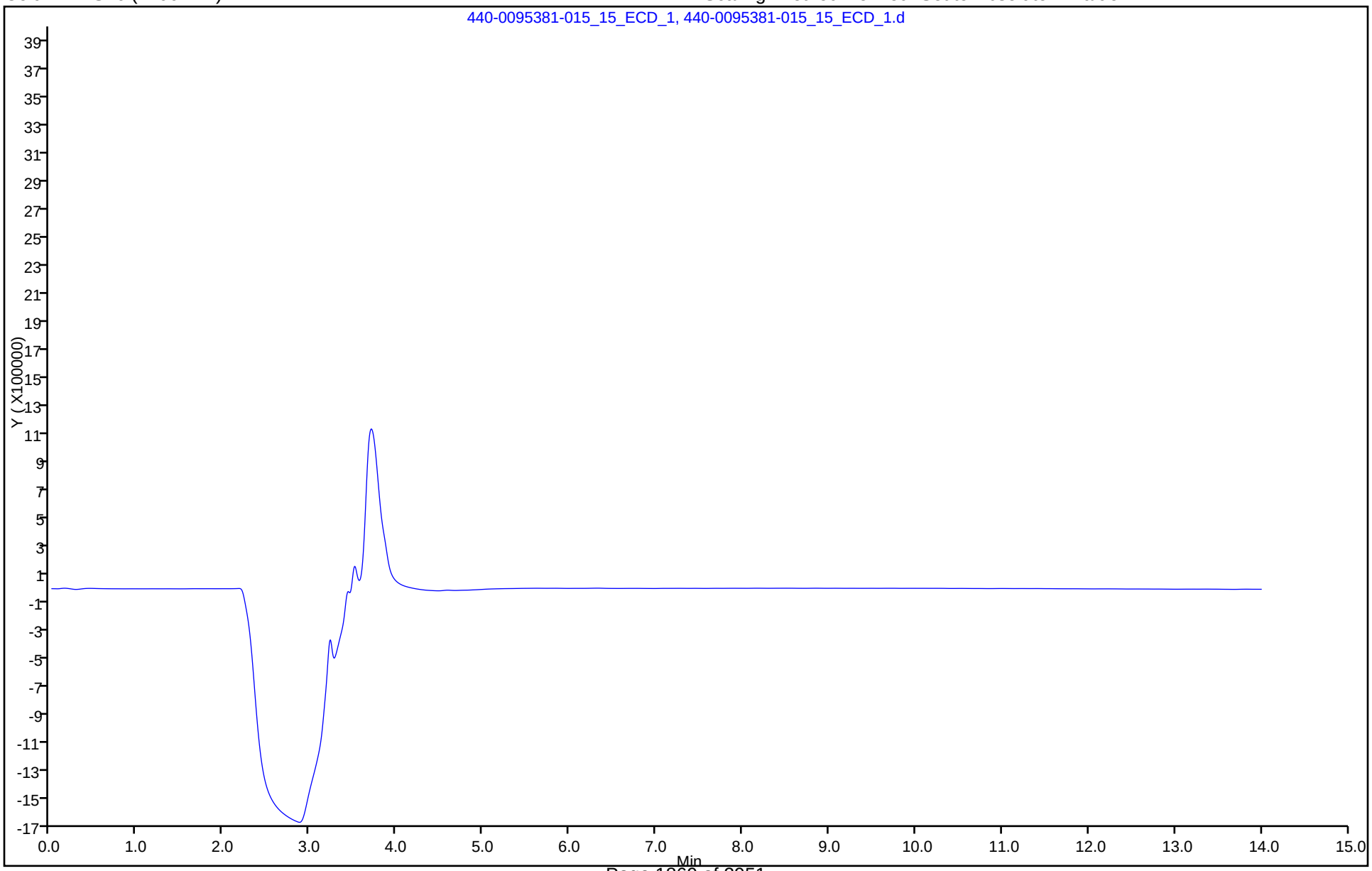
Report Date: 28-Oct-2017 09:06:34 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-015_15_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 20:58:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccb | | | Worklist Smp#: | 15 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437935/27

Matrix: Solid | Lab File ID: 440-0095381-027_27_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/28/2017 00:20

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-027_27_ECD_1.d | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 28-Oct-2017 00:20:00 | ALS Bottle#: | 0 | Worklist Smp#: | 27 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-027 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 28-Oct-2017 09:06:42 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

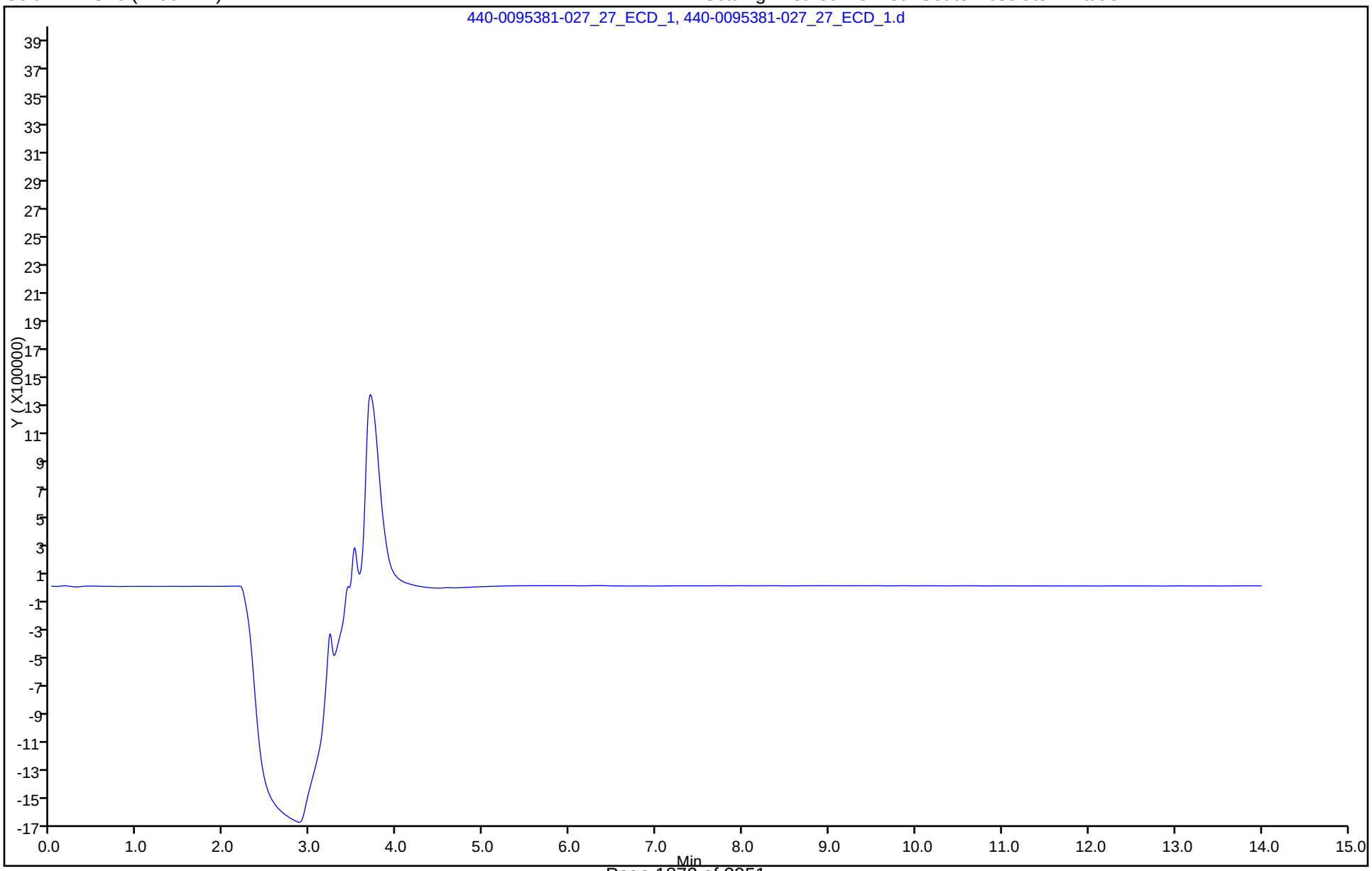
Report Date: 28-Oct-2017 09:06:43 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-027_27_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 00:20:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccb | | | Worklist Smp#: | 27 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437935/36

Matrix: Solid | Lab File ID: 440-0095381-036_36_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/28/2017 02:52

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-036_36_ECD_1.d | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 28-Oct-2017 02:52:00 | ALS Bottle#: | 0 | Worklist Smp#: | 36 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-036 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 28-Oct-2017 09:06:49 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

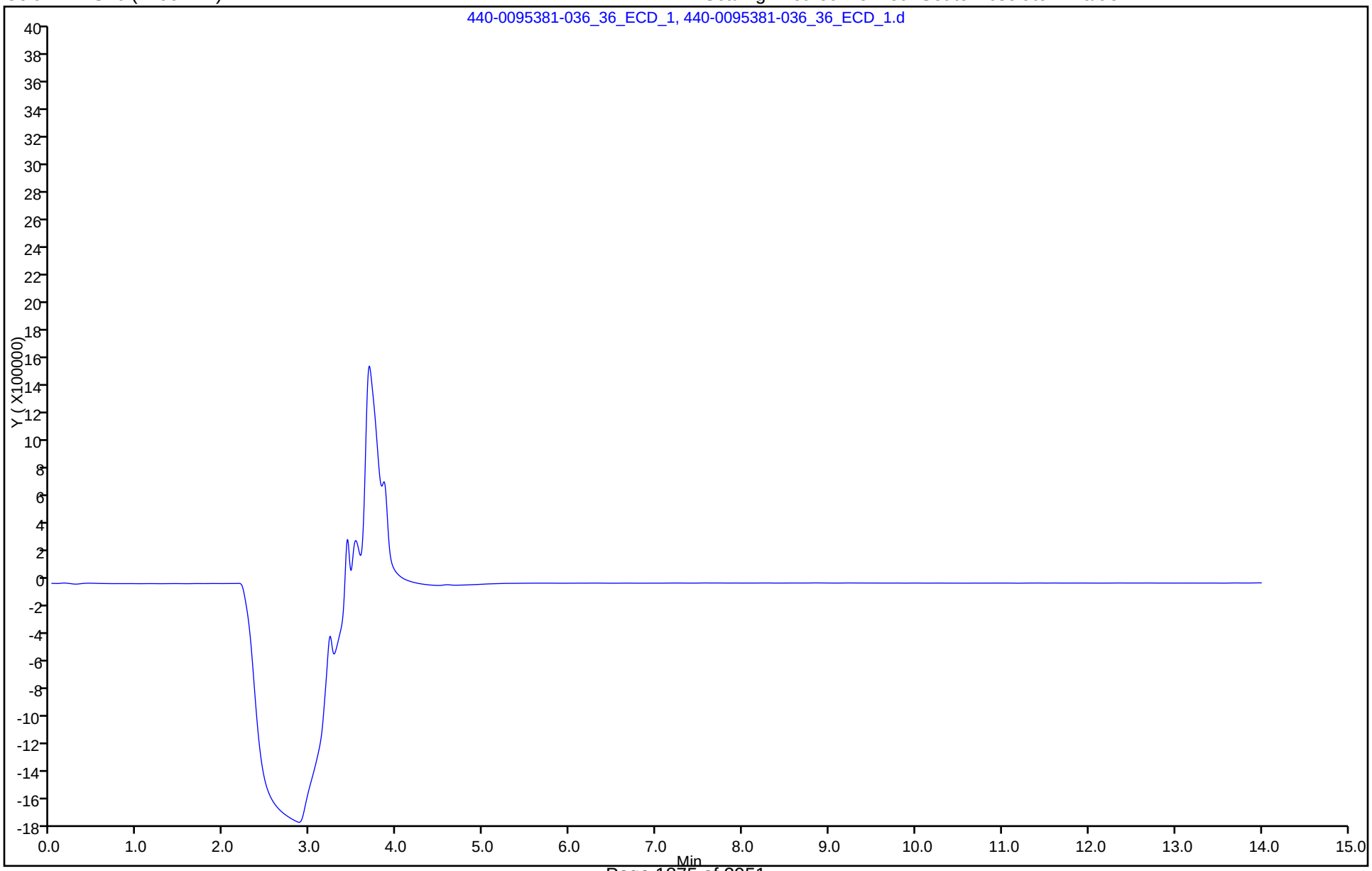
Report Date: 28-Oct-2017 09:06:50 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-036_36_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 02:52:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccb | | | Worklist Smp#: | 36 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437935/46

Matrix: Solid | Lab File ID: 440-0095381-046_46_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/28/2017 05:41

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-046_46_ECD_1.d | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 28-Oct-2017 05:41:00 | ALS Bottle#: | 0 | Worklist Smp#: | 46 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-046 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 28-Oct-2017 09:06:56 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |
| First Level Reviewer: hoangch | | Date: | 28-Oct-2017 09:33:33 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

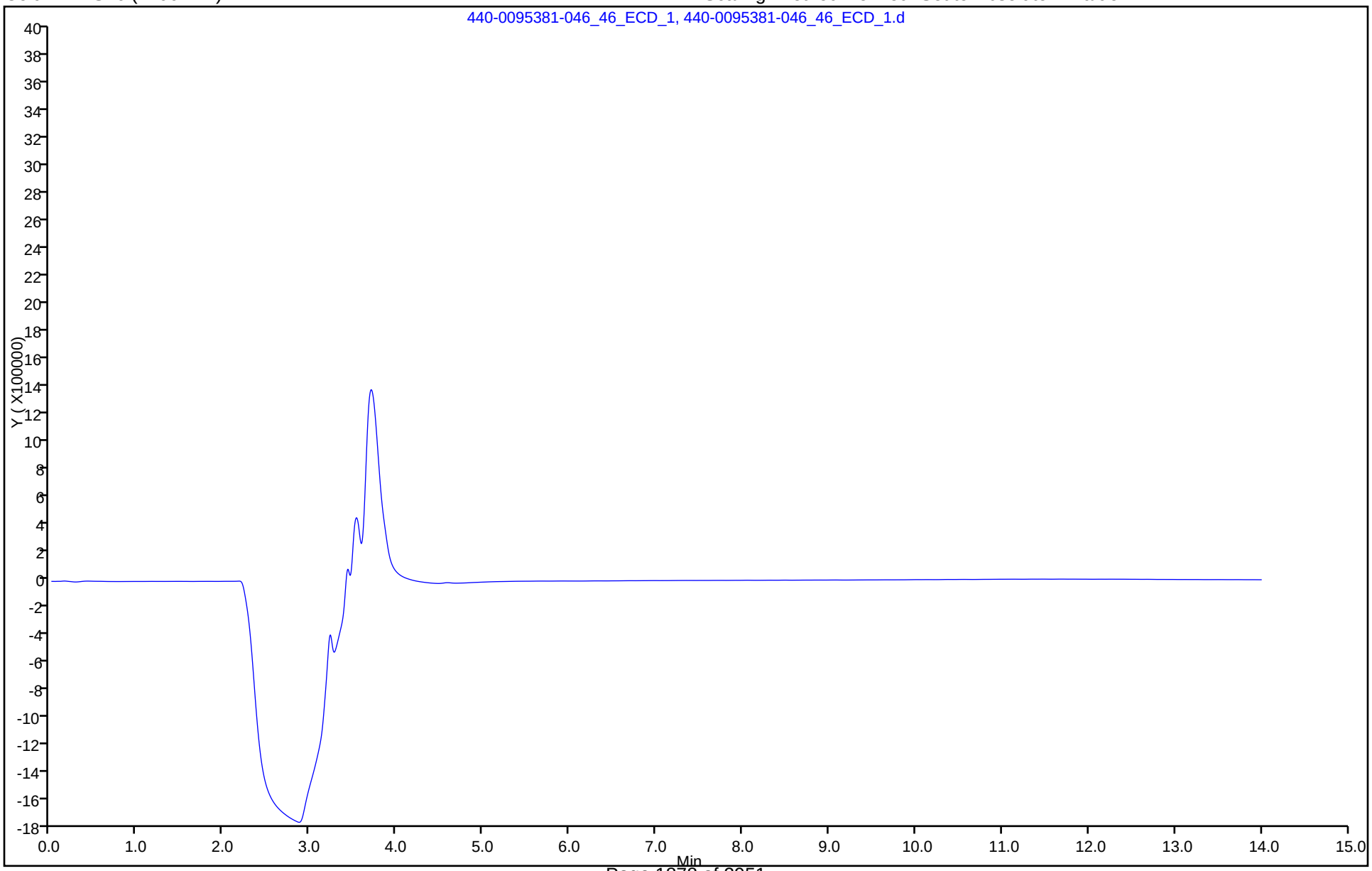
Report Date: 28-Oct-2017 09:33:47 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-046_46_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 05:41:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccb | | | Worklist Smp#: | 46 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-437935/58

Matrix: Solid  Lab File ID: 440-0095381-058_58_ECD_1.d

Analysis Method: 314.0  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 1(mL)  Date Analyzed: 10/28/2017 12:26

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS7 A  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-058_58_ECD_1.d | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 28-Oct-2017 12:26:00 | ALS Bottle#: | 0 | Worklist Smp#: | 58 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-058 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 28-Oct-2017 13:22:37 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

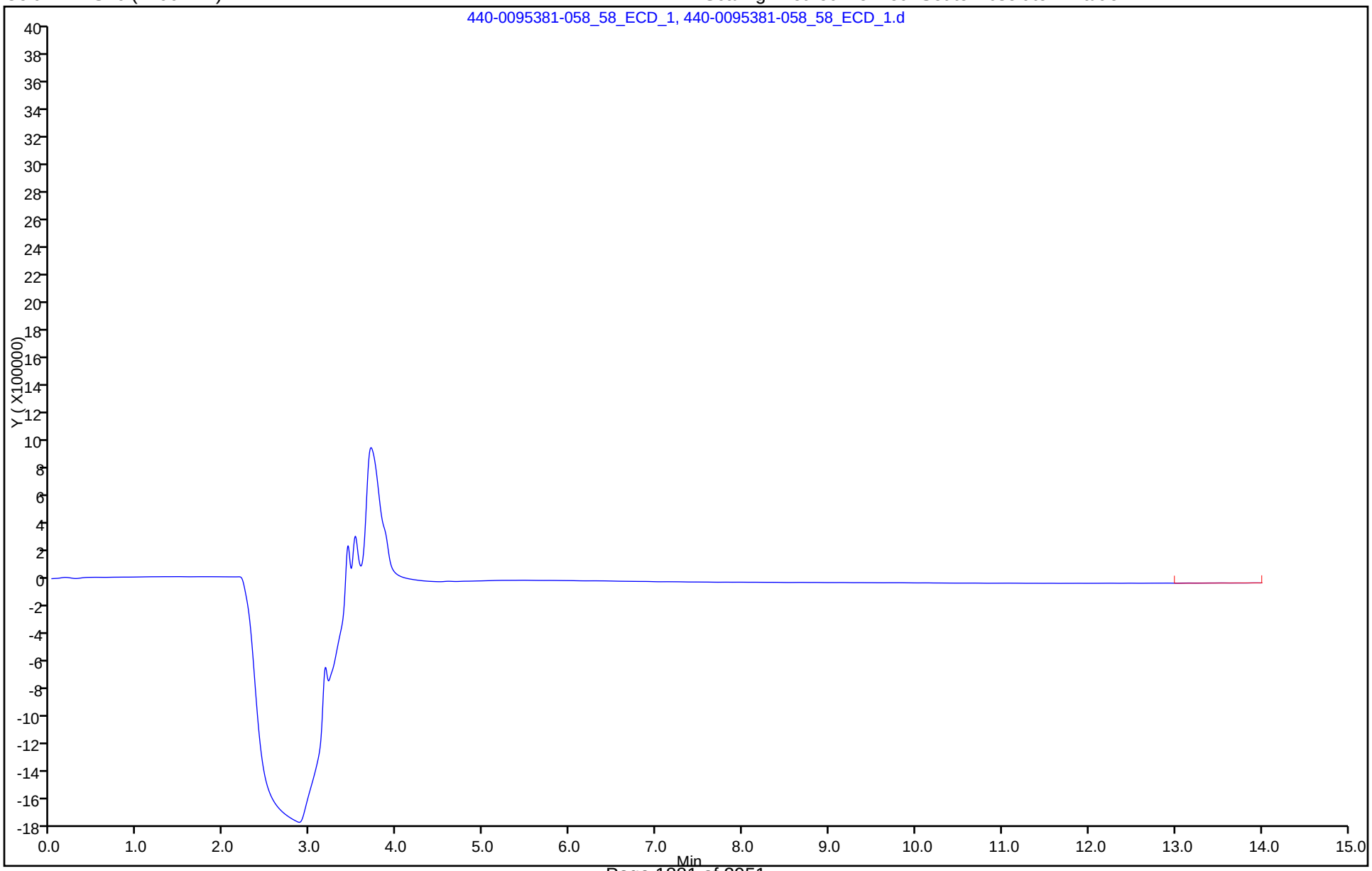
Report Date: 28-Oct-2017 13:22:39 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-058_58_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 12:26:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccb | | | Worklist Smp#: | 58 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437935/90

Matrix: Solid | Lab File ID: 440-0095381-090_90_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/28/2017 21:50

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-090_90_ECD_1.d | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 28-Oct-2017 21:50:00 | ALS Bottle#: | 0 | Worklist Smp#: | 90 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-090 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 29-Oct-2017 07:19:03 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

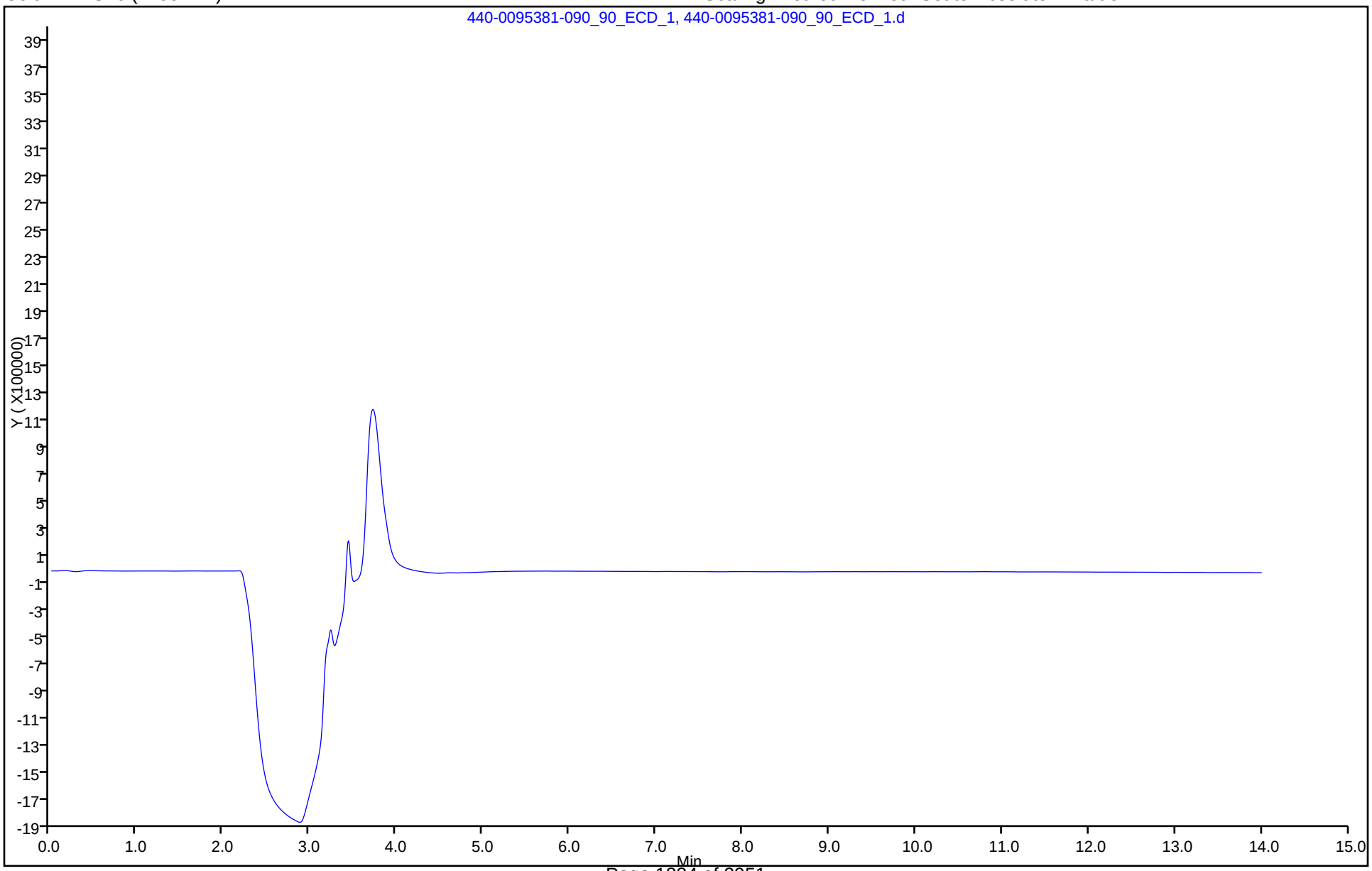
Report Date: 29-Oct-2017 07:19:05 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-090_90_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 21:50:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccb | | | Worklist Smp#: | 90 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437935/100

Matrix: Solid | Lab File ID: 440-0095381-100_100_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/29/2017 00:39

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-100_100_ECD_1.d | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 29-Oct-2017 00:39:00 | ALS Bottle#: | 0 | Worklist Smp#: | 100 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-100 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 29-Oct-2017 07:19:16 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

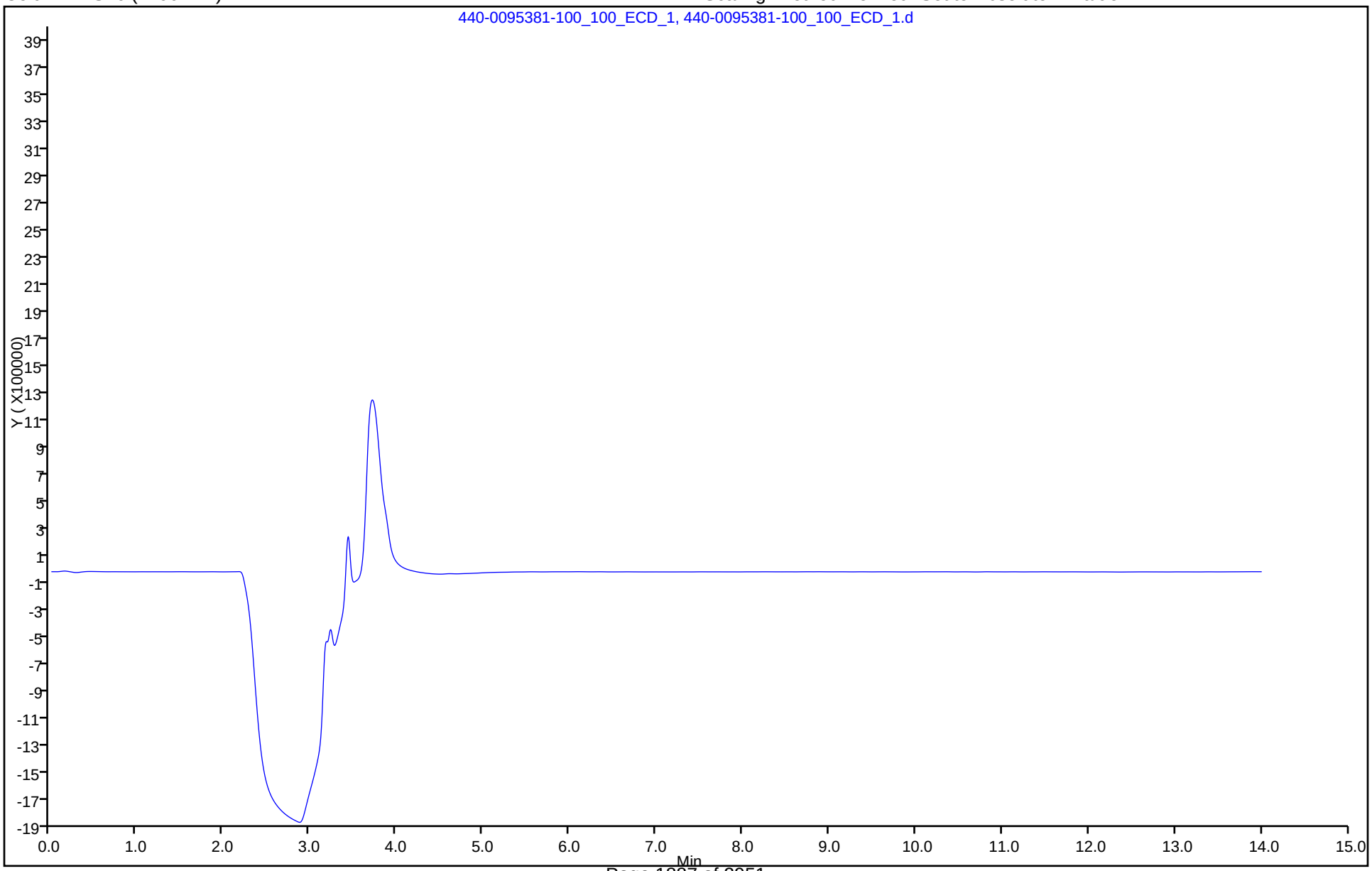
Report Date: 29-Oct-2017 07:19:18 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-100_100_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 29-Oct-2017 00:39:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccb | | | Worklist Smp#: | 100 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-438239/34

Matrix: Solid | Lab File ID: 440-0095480-034_34_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/30/2017 19:58

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 438239 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC23\20171030-95480.b\440-0095480-034_34_ECD_1.d | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 30-Oct-2017 19:58:00 | ALS Bottle#: | 0 | Worklist Smp#: | 34 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095480-034 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-23 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC23\20171030-95480.b\314_23PERC.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 31-Oct-2017 10:51:12 | Calib Date: | 25-Oct-2017 19:38:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-008_08_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK005 | | | | |
| First Level Reviewer: saraubonp | | Date: | 31-Oct-2017 10:51:47 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

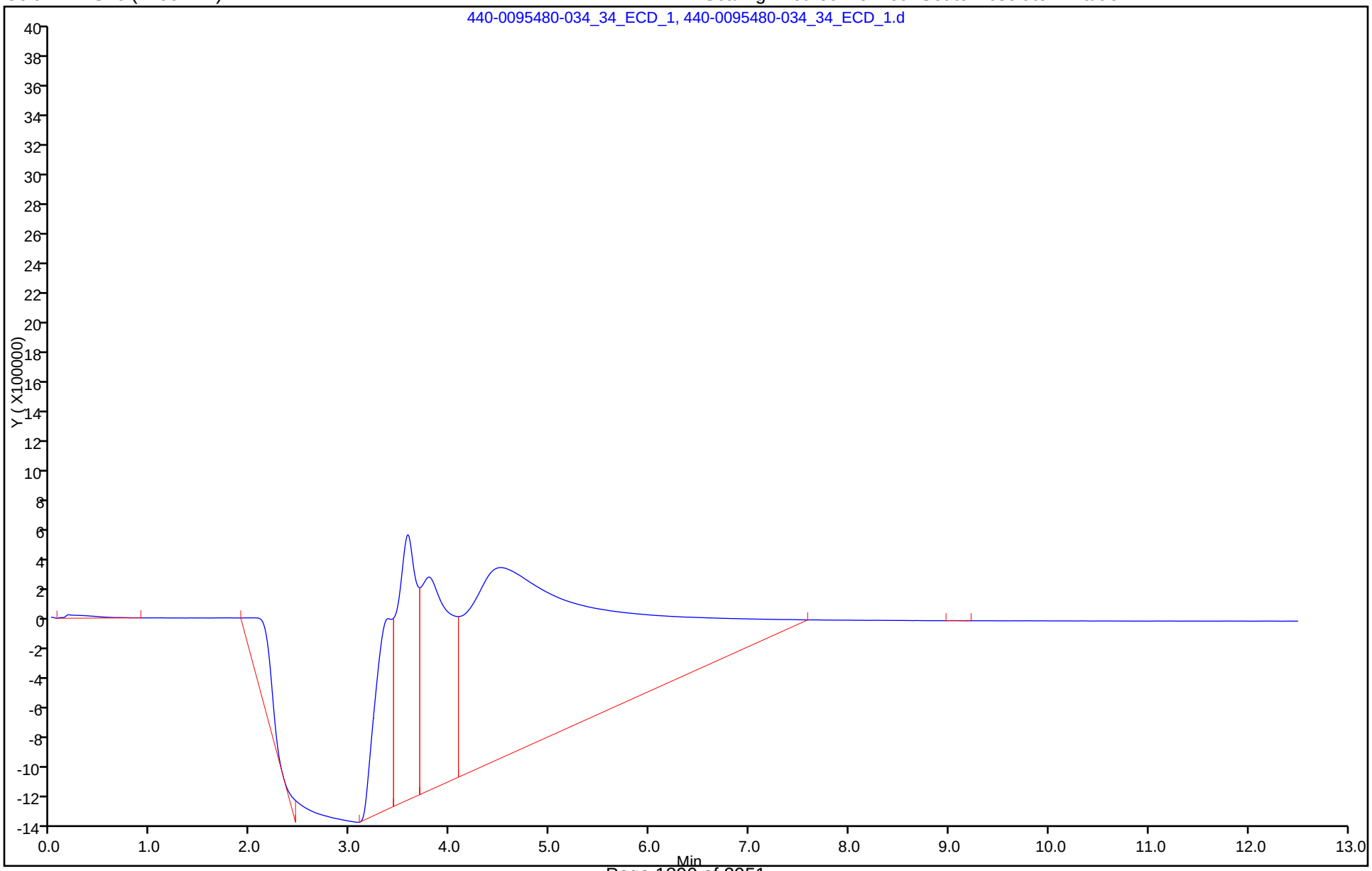
Report Date: 31-Oct-2017 10:51:47 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC23\20171030-95480.b\440-0095480-034_34_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Oct-2017 19:58:00 | Instrument ID: | IC-23 | Operator ID: | |
| Lims ID: | ccb | | | Worklist Smp#: | 34 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_23PERC | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-438239/41

Matrix: Solid | Lab File ID: 440-0095480-041_41_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/30/2017 22:03

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 438239 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC23\20171030-95480.b\440-0095480-041_41_ECD_1.d | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 30-Oct-2017 22:03:00 | ALS Bottle#: | 0 | Worklist Smp#: | 41 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095480-041 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-23 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC23\20171030-95480.b\314_23PERC.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 31-Oct-2017 15:34:04 | Calib Date: | 25-Oct-2017 19:38:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC23\20171025-95262.b\440-0095262-008_08_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK016 | | | | |
| First Level Reviewer: saraubonp | | Date: | 31-Oct-2017 14:49:25 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 4-Chlorobenzenesulfonic Ac | 11.178 | 11.714 | -0.536 | 8753 | | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

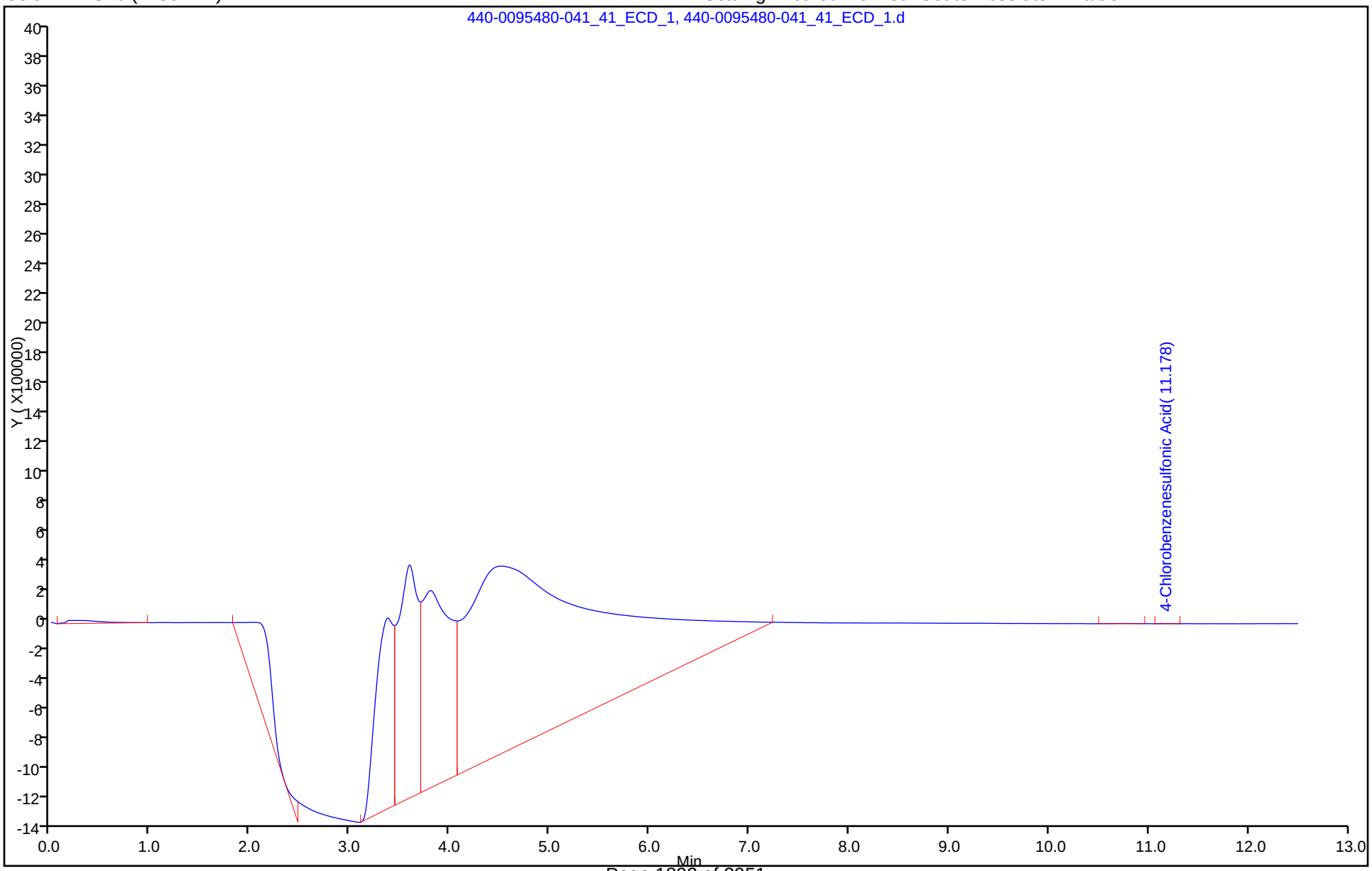
Report Date: 31-Oct-2017 15:34:04 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC23\20171030-95480.b\440-0095480-041_41_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 30-Oct-2017 22:03:00 | Instrument ID: | IC-23 | Operator ID: | |
| Lims ID: | ccb | | | Worklist Smp#: | 41 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_23PERC | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-437240/2-A

Matrix: Solid (Soluble) | Lab File ID: 440-0095301-053_53_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/26/2017 23:48

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 0.455 | | 0.040 | 0.0095 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-053_53_ECD_1.d
Lims ID: LCS 440-437240/2-A
Client ID:
Sample Type: LCS
Inject. Date: 26-Oct-2017 23:48:00 ALS Bottle#: 0 Worklist Smp#: 53
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095301-053
Misc. Info.: ch
Operator ID: Instrument ID: IC-25

Method: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m
Limit Group: IC-314
Method Label: PERCHLORATE
Last Update: 27-Oct-2017 15:06:36 Calib Date: 24-Oct-2017 18:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d

Column 1 : AS16 ( 4.00 mm) Det: Ch-A-20111003029
Process Host: XAWRK009

First Level Reviewer: saraubonp Date: 27-Oct-2017 15:07:32

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.337 | 10.331 | 0.006 | 5887541 | 50.0 | 45.6 | |

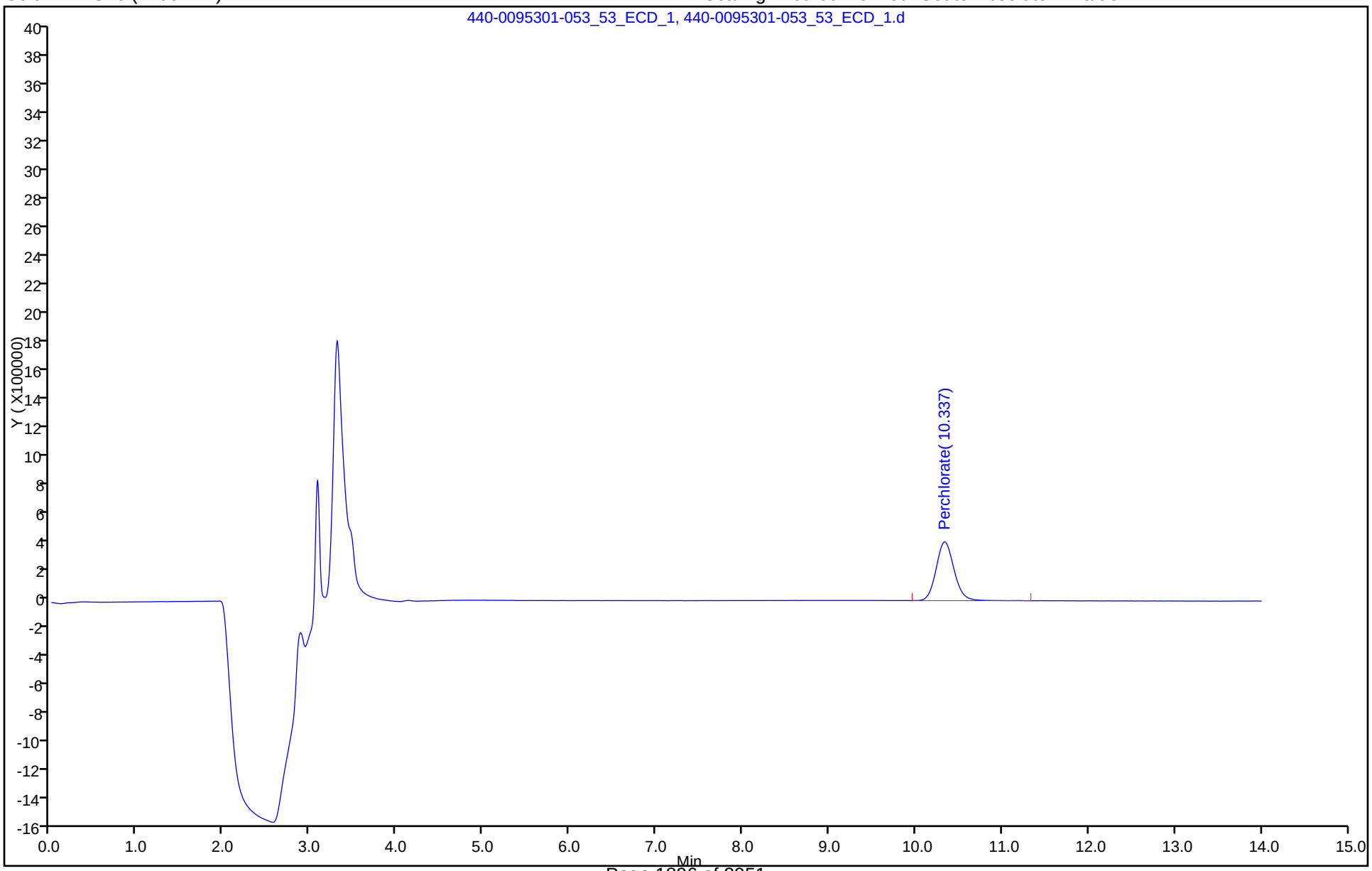
Report Date: 27-Oct-2017 15:07:32 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-053_53_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 23:48:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | LCS 440-437240/2-A | | | Worklist Smp#: | 53 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-437390/2-A

Matrix: Solid (Soluble) | Lab File ID: 440-0095381-019_19_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 22:05

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 0.492 | | 0.040 | 0.0095 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-019_19_ECD_1.d | | | | |
| Lims ID: | LCS 440-437390/2-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 27-Oct-2017 22:05:00 | ALS Bottle#: | 0 | Worklist Smp#: | 19 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-019 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 28-Oct-2017 09:06:33 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.434 | 11.444 | -0.010 | 6387805 | 50.0 | 49.2 | |

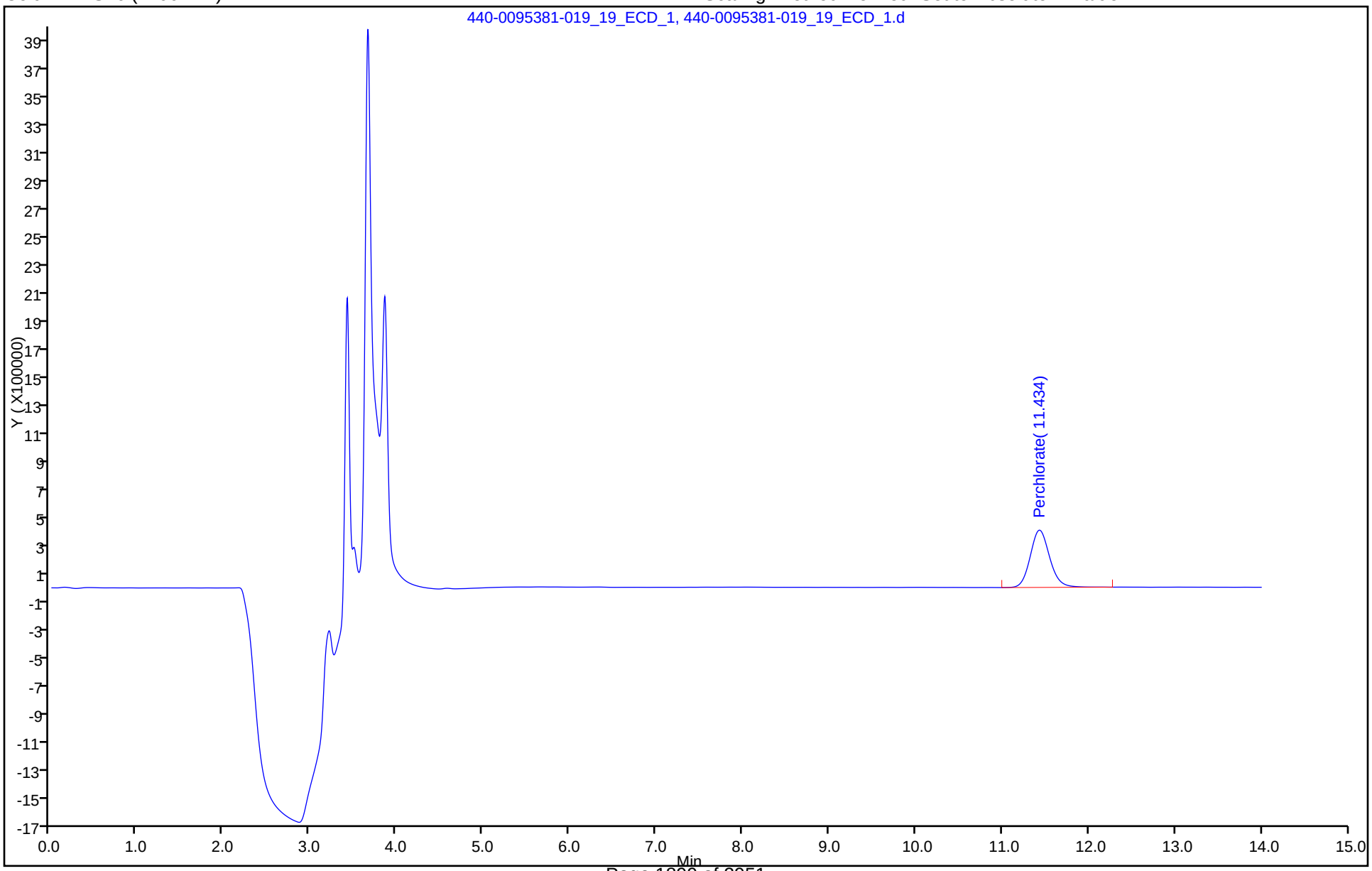
Report Date: 28-Oct-2017 09:06:37 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-019_19_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 22:05:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | LCS 440-437390/2-A | | | Worklist Smp#: | 19 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-437568/7

Matrix: Solid | Lab File ID: 440-0095301-007_7_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/26/2017 10:29

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 3.99 | J | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-007_7_ECD_1.d | | | | |
| Lims ID: | MRL | | | | |
| Client ID: | | | | | |
| Sample Type: | MRL | | | | |
| Inject. Date: | 26-Oct-2017 10:29:00 | ALS Bottle#: | 0 | Worklist Smp#: | 7 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-007 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 26-Oct-2017 11:32:14 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK016 | | | | |
| First Level Reviewer: nikbakhtm | | Date: | 26-Oct-2017 11:32:14 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.364 | 10.821 | -0.457 | 485121 | 4.00 | 3.99 | M |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

WCCLO41st-10_00011 Amount Added: 40.00 Units: uL

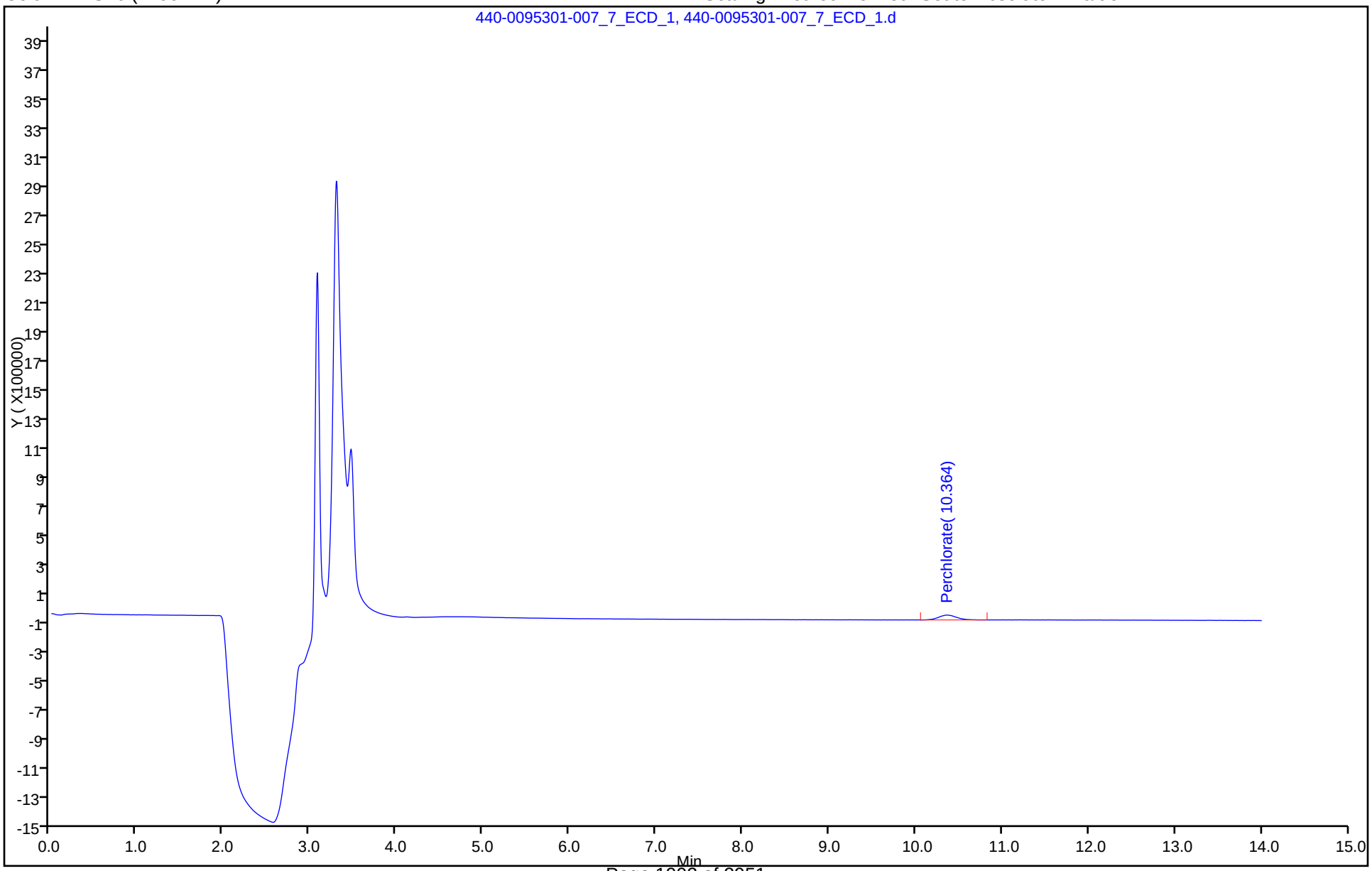
Report Date: 26-Oct-2017 11:36:57 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-007_7_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 10:29:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | MRL | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

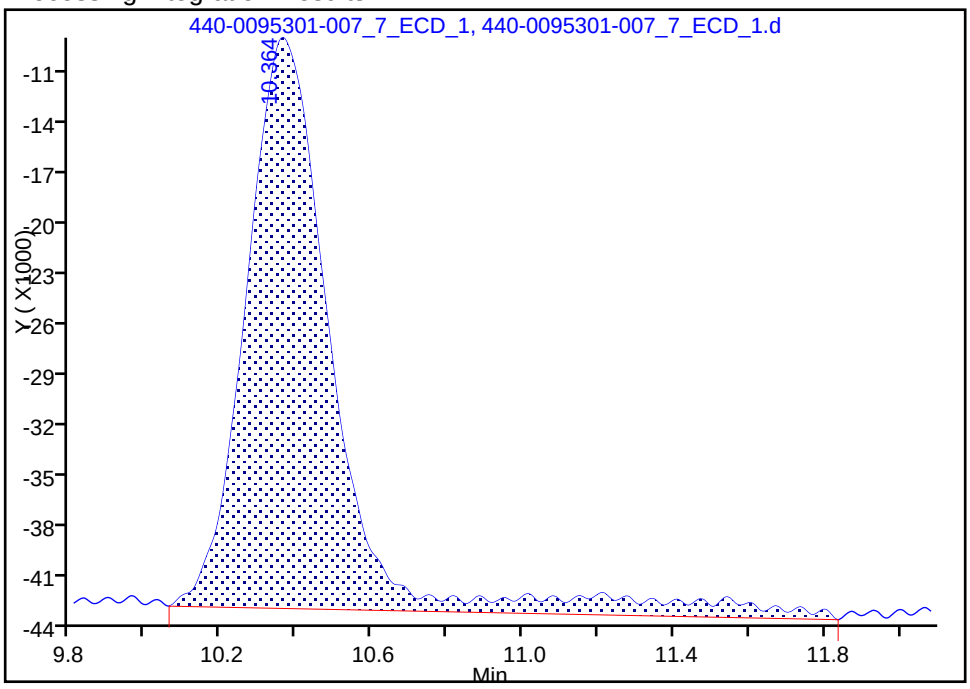
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-007_7_ECD_1.d | | | | |
| Injection Date: | 26-Oct-2017 10:29:00 | Instrument ID: | IC-25 | | |
| Lims ID: | MRL | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 0 | Worklist Smp#: | 7 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |
| Column: | AS16 ( 4.00 mm) | Detector | Ch-A-20111003029 | | |

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

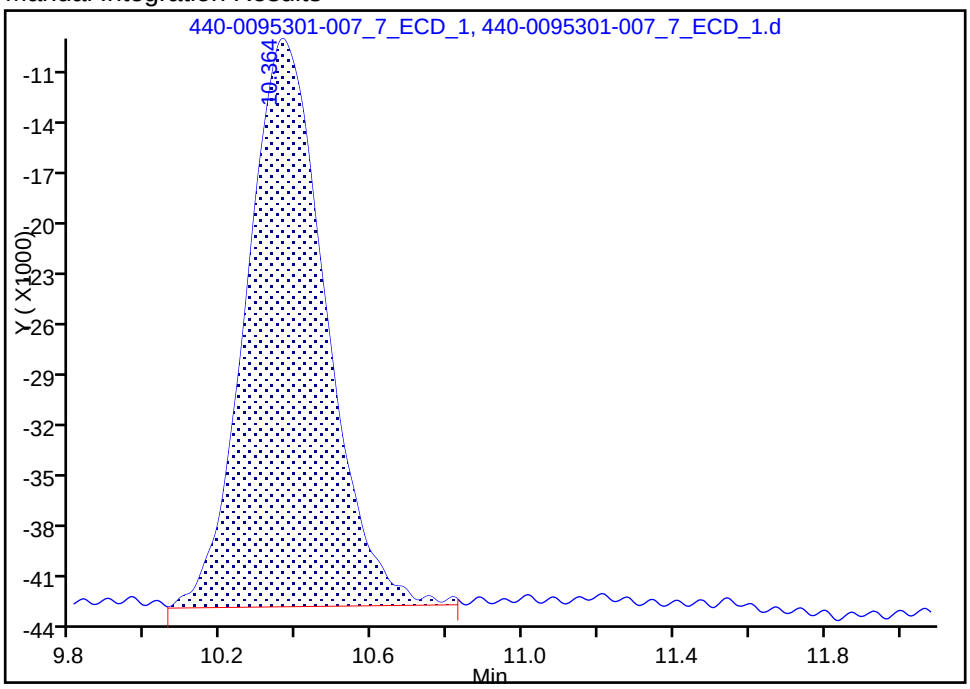
Processing Integration Results

RT: 10.36
Area: 541465
Amount: 4.445654
Amount Units: ug/l




Manual Integration Results

RT: 10.36
Area: 485121
Amount: 3.988863
Amount Units: ug/l




Reviewer: nikbakhtm, 26-Oct-2017 11:32:12

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-437935/7

Matrix: Solid | Lab File ID: 440-0095381-007_7_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 17:40

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 4.27 | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-007_7_ECD_1.d | | | | |
| Lims ID: | MRL | | | | |
| Client ID: | | | | | |
| Sample Type: | MRL | | | | |
| Inject. Date: | 27-Oct-2017 17:40:00 | ALS Bottle#: | 0 | Worklist Smp#: | 7 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-007 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 19:19:13 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK007 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.461 | 11.454 | 0.007 | 519801 | 4.00 | 4.27 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 40.00 Units: uL

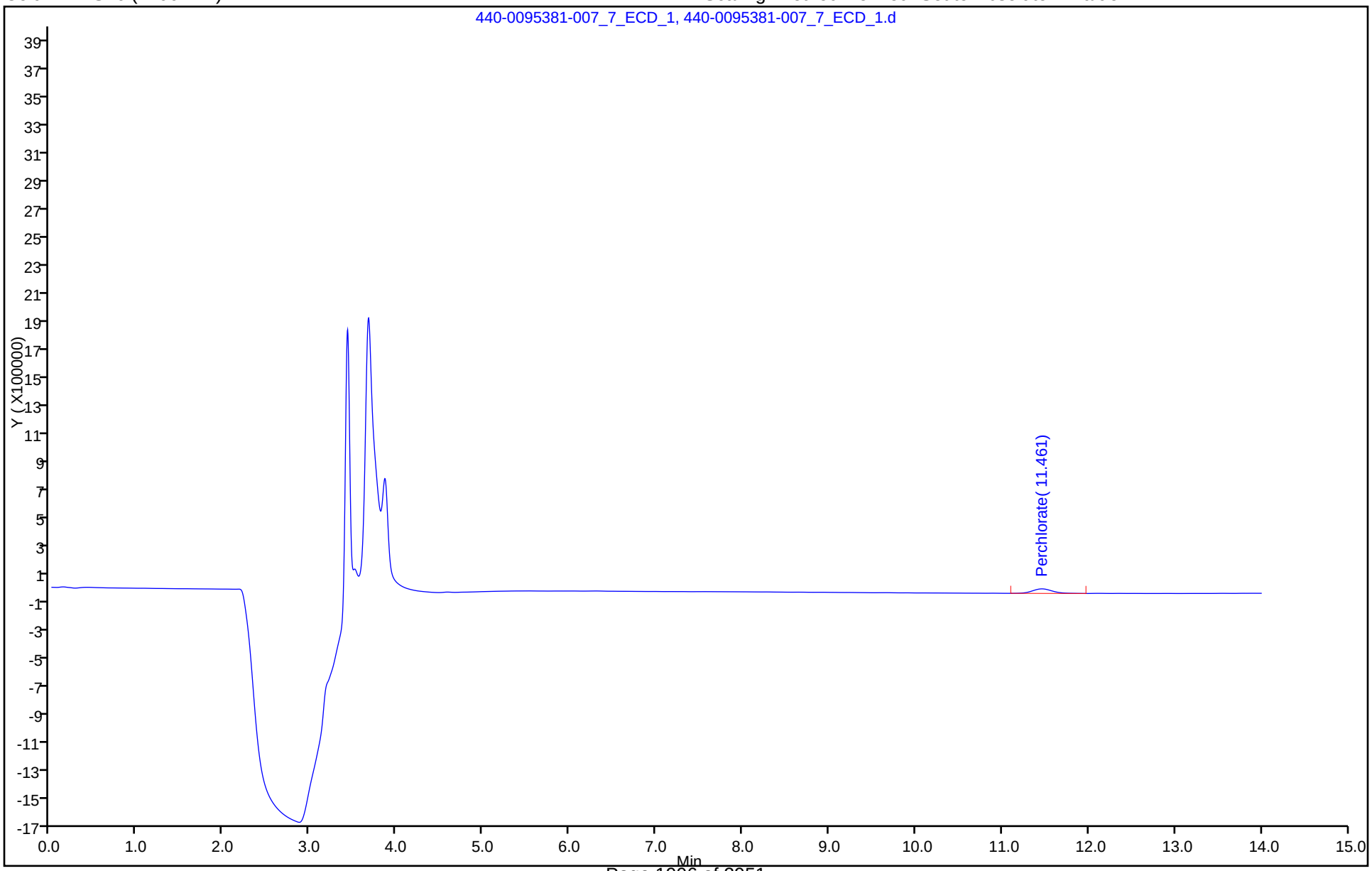
Report Date: 27-Oct-2017 19:19:24 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-007_7_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 17:40:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | MRL | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-437935/50

Matrix: Solid | Lab File ID: 440-0095381-050_50_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/28/2017 10:02

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 4.05 | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-050_50_ECD_1.d | | | | |
| Lims ID: | MRL | | | | |
| Client ID: | | | | | |
| Sample Type: | MRL | | | | |
| Inject. Date: | 28-Oct-2017 10:02:00 | ALS Bottle#: | 0 | Worklist Smp#: | 50 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-050 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 28-Oct-2017 11:59:14 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.524 | 11.431 | 0.093 | 492997 | 4.00 | 4.05 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 40.00 Units: uL

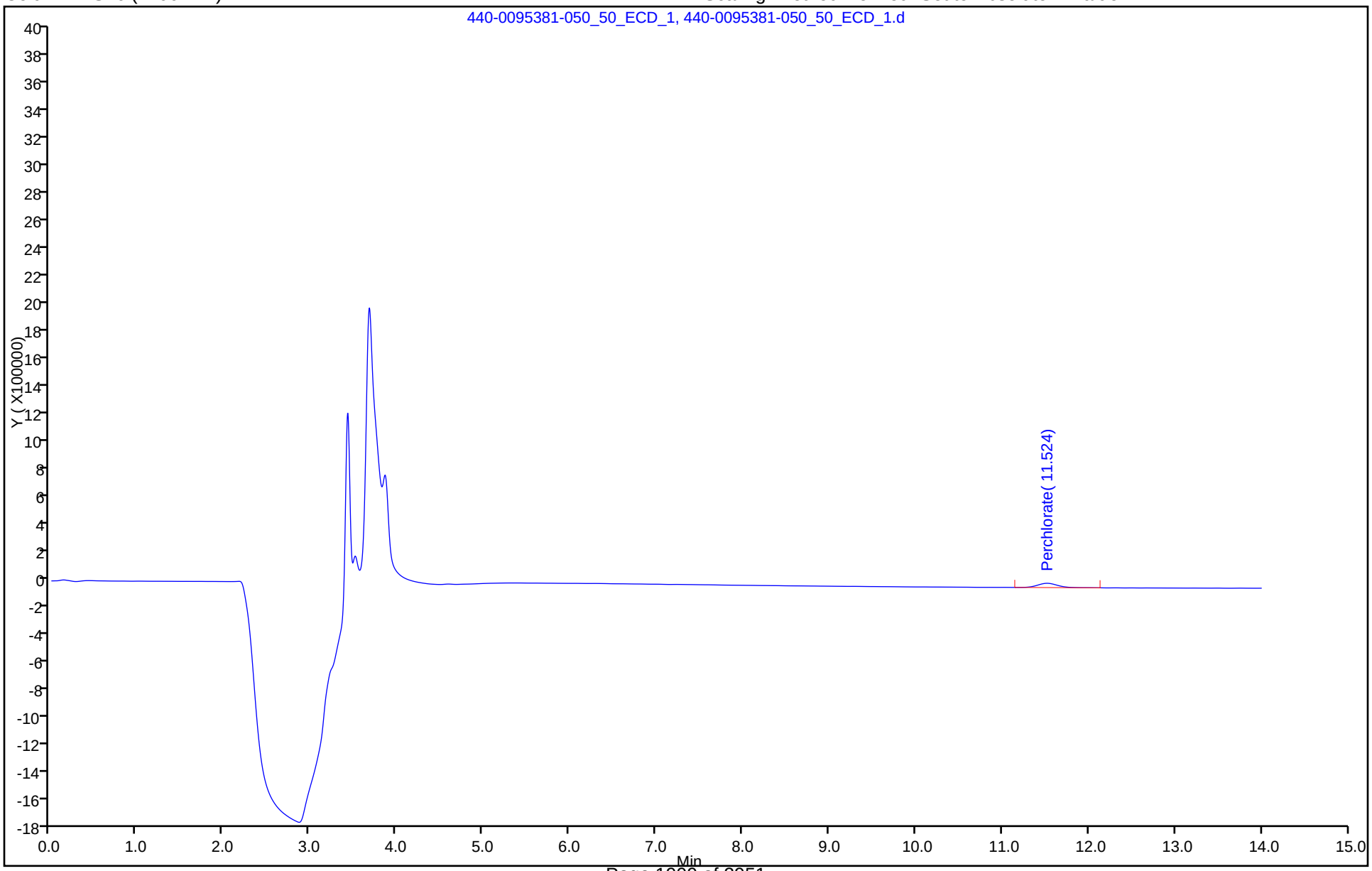
Report Date: 28-Oct-2017 11:10:37 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-050_50_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 10:02:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | MRL | | | Worklist Smp#: | 50 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: INF 440-437568/6

Matrix: Solid | Lab File ID: 440-0095301-006_6_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/26/2017 10:12

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 25.0 | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-006_6_ECD_1.d
Lims ID: INF
Client ID:
Sample Type: INF
Inject. Date: 26-Oct-2017 10:12:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095301-006
Misc. Info.: ch
Operator ID: Instrument ID: IC-25
Sublist:

Method: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m
Limit Group: IC-314
Method Label: PERCHLORATE
Last Update: 26-Oct-2017 10:37:02 Calib Date: 24-Oct-2017 18:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d

Column 1 : AS16 ( 4.00 mm) Det: Ch-A-20111003029
Process Host: XAWRK016

First Level Reviewer: hoangch Date: 26-Oct-2017 10:36:55

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.291 | 10.821 | -0.530 | 3139547 | 25.0 | 25.0 | |

## Reagents:

WC314.INF_00252 Amount Added: 5.00 Units: mL

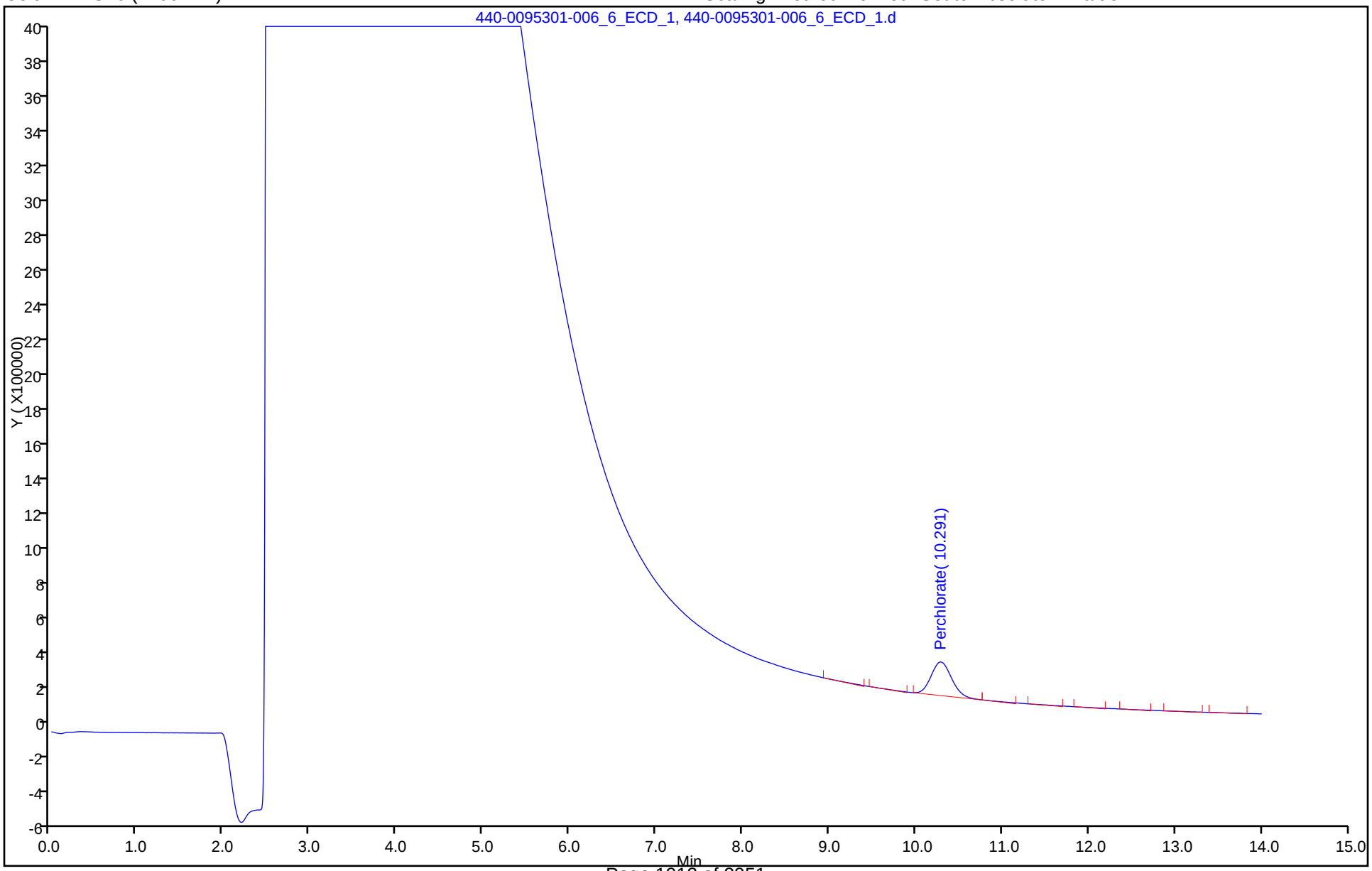
Report Date: 26-Oct-2017 10:37:05 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-006_6_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 10:12:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | INF | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: INF 440-437935/6

Matrix: Solid | Lab File ID: 440-0095381-006_6_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 17:23

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 25.6 | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-006_6_ECD_1.d | | | | |
| Lims ID: | INF | | | | |
| Client ID: | | | | | |
| Sample Type: | INF | | | | |
| Inject. Date: | 27-Oct-2017 17:23:00 | ALS Bottle#: | 0 | Worklist Smp#: | 6 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-006 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 19:19:13 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK007 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.337 | 11.454 | -0.117 | 3227730 | 25.0 | 25.6 | |

## Reagents:

WC314.INF_00253 Amount Added: 5.00 Units: mL

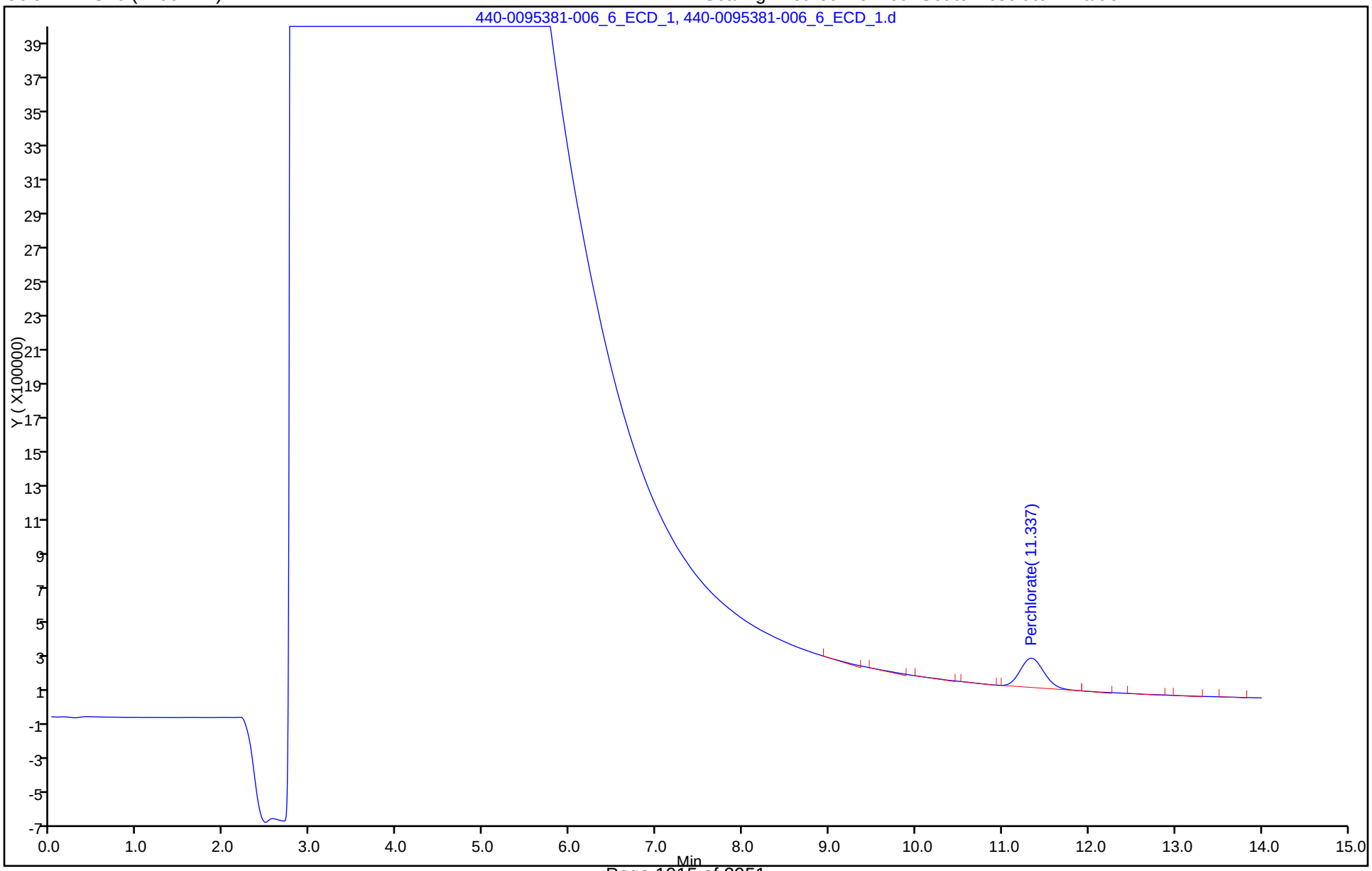
Report Date: 27-Oct-2017 19:19:22 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-006_6_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 17:23:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | INF | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: INF 440-437935/49

Matrix: Solid | Lab File ID: 440-0095381-049_49_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/28/2017 09:46

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 25.5 | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-049_49_ECD_1.d | | | | |
| Lims ID: | INF | | | | |
| Client ID: | | | | | |
| Sample Type: | INF | | | | |
| Inject. Date: | 28-Oct-2017 09:46:00 | ALS Bottle#: | 0 | Worklist Smp#: | 49 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095381-049 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 28-Oct-2017 11:59:14 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.400 | 11.431 | -0.031 | 3214958 | 25.0 | 25.5 | |

## Reagents:

WC314.INF_00254 Amount Added: 5.00 Units: mL

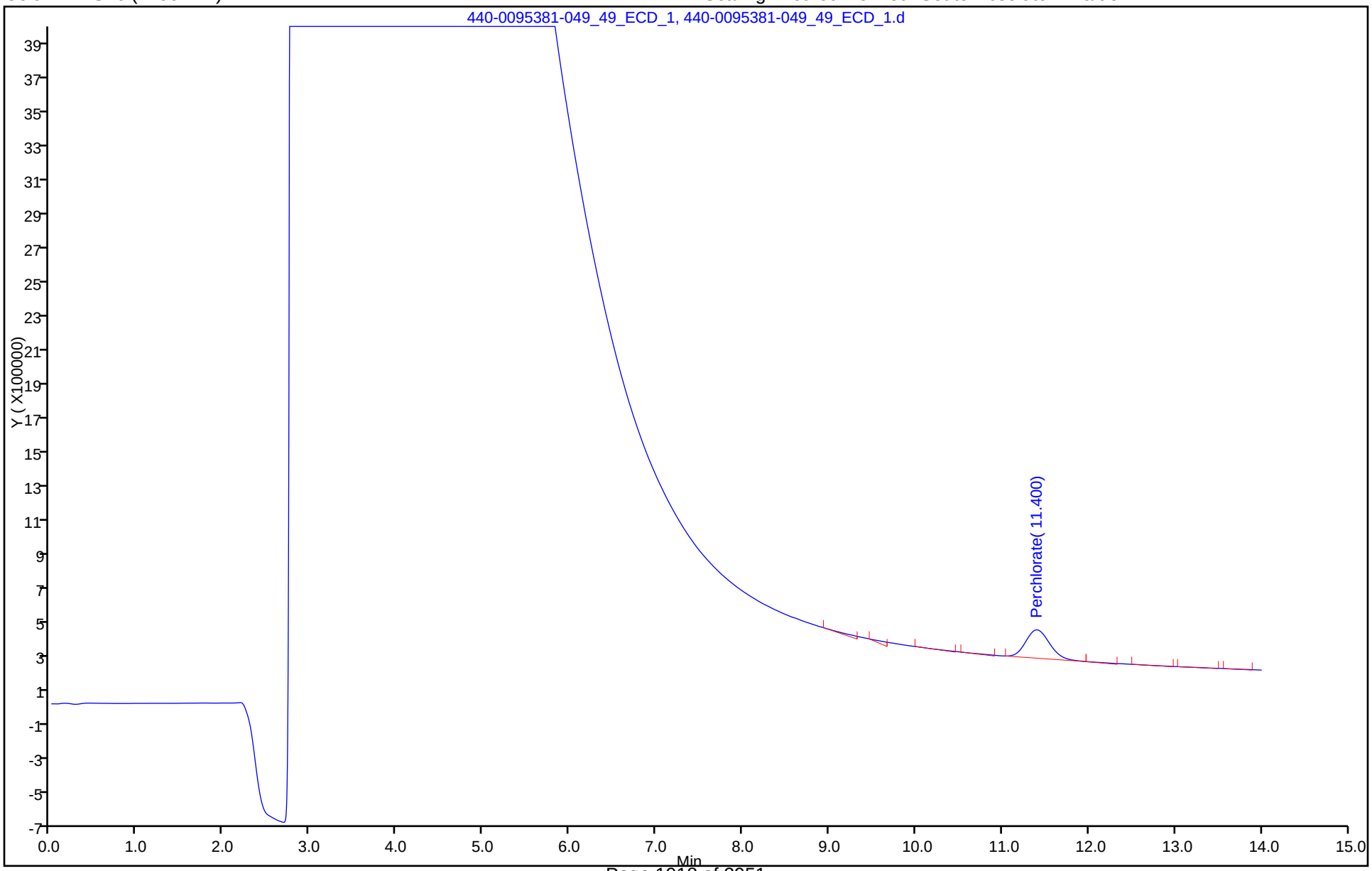
Report Date: 28-Oct-2017 11:10:36 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-049_49_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 28-Oct-2017 09:46:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | INF | | | Worklist Smp#: | 49 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-20.0-20171020 MS | Lab Sample ID: 440-194754-6 MS

Matrix: Solid (Soluble) | Lab File ID: 440-0095381-021_21_ECD_1.d

Analysis Method: 314.0 | Date Collected: 10/20/2017 07:55

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 22:39

Con. Extract Vol.: | Dilution Factor: 50

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 28.4 | | 2.3 | 0.53 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-021_21_ECD_1.d | | | | |
| Lims ID: | 440-194754-A-6-H MS | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 27-Oct-2017 22:39:00 | ALS Bottle#: | 0 | Worklist Smp#: | 21 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 50.0000 | | |
| Sample Info: | 440-0095381-021 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 28-Oct-2017 09:06:33 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.431 | 11.444 | -0.013 | 6564718 | 1.00 | 50.5 | |

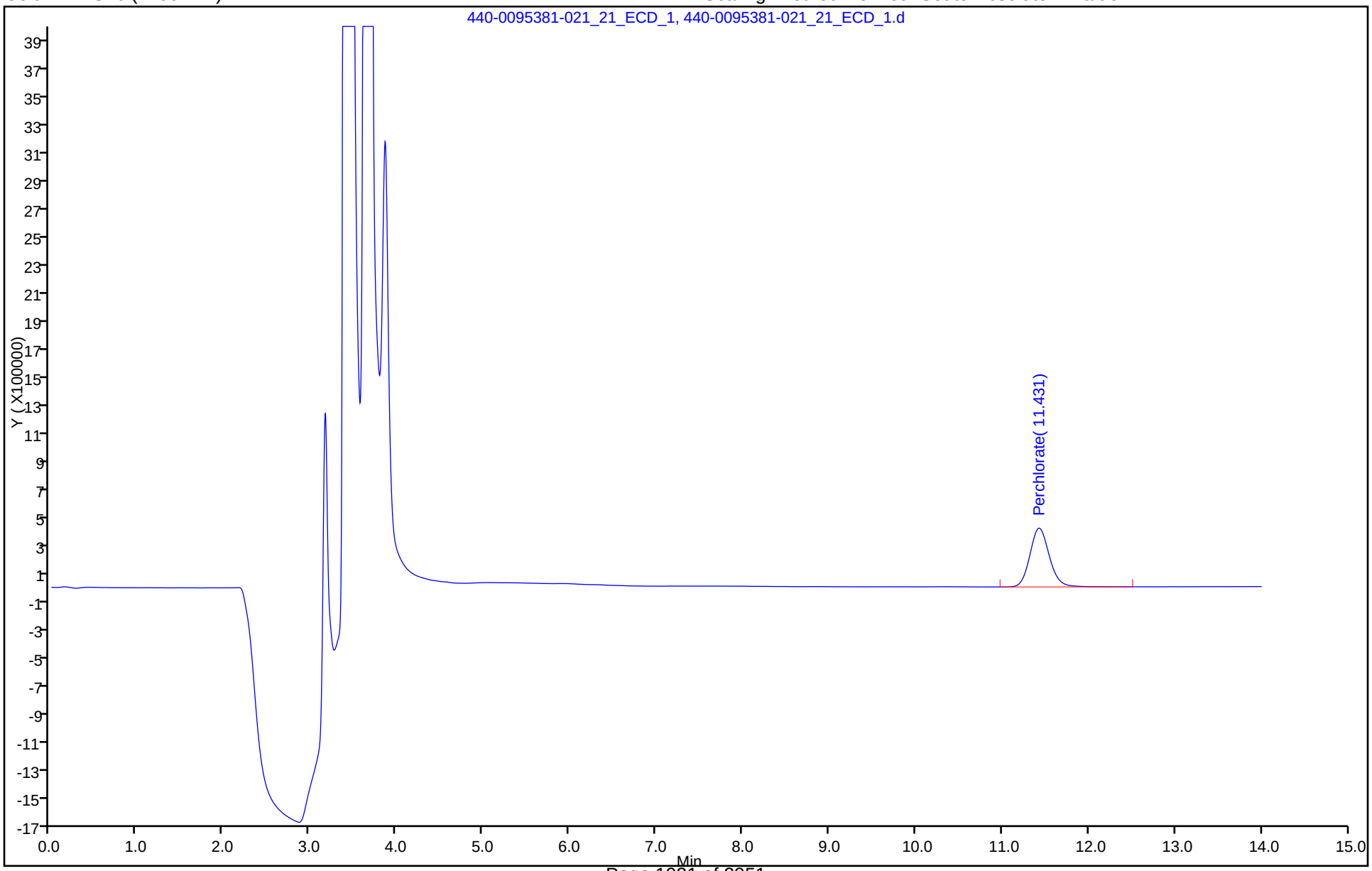
Report Date: 28-Oct-2017 09:06:39 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-021_21_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 22:39:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | 440-194754-A-6-H MS | | | Worklist Smp#: | 21 |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 50.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-194623-A-4-H MS

Matrix: Solid (Soluble) | Lab File ID: 440-0095301-084_84_ECD_1.d

Analysis Method: 314.0 | Date Collected: 10/19/2017 08:35

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 09:00

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: 9.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 0.629 | | 0.044 | 0.010 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-084_84_ECD_1.d | | | | |
| Lims ID: | 440-194623-A-4-H MS | | | | |
| Client ID: | VER-01I-10.0-20171019 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 27-Oct-2017 09:00:00 | ALS Bottle#: | 0 | Worklist Smp#: | 84 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-084 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 11:31:00 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK007 | | | | |
| First Level Reviewer: hoangch | | Date: | 27-Oct-2017 09:35:06 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.517 | 11.524 | -0.007 | 7489379 | 50.0 | 57.2 | M |

## QC Flag Legend

Review Flags
M - Manually Integrated

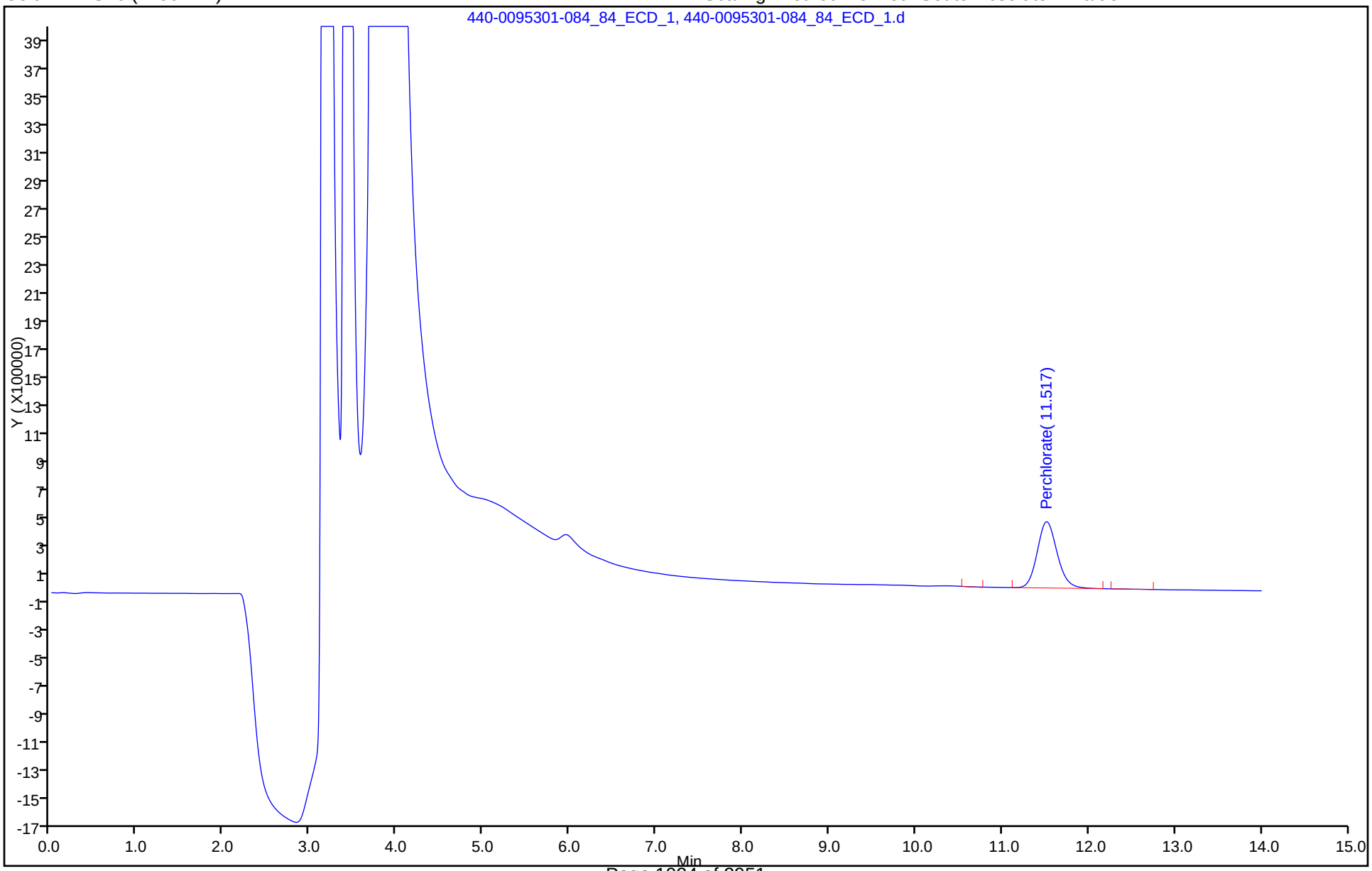
Report Date: 27-Oct-2017 10:40:54 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-084_84_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 09:00:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | 440-194623-A-4-H MS | | | Worklist Smp#: | 84 |
| Client ID: | VER-01I-10.0-20171019 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

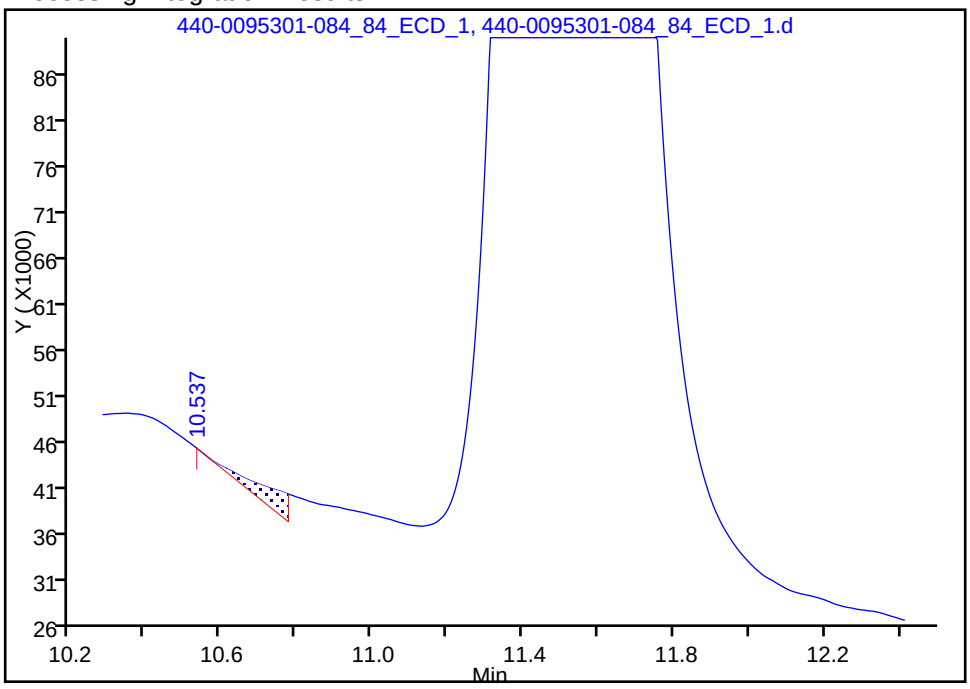
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-084_84_ECD_1.d | | | | |
| Injection Date: | 27-Oct-2017 09:00:00 | Instrument ID: | IC-25 | | |
| Lims ID: | 440-194623-A-4-H MS | | | | |
| Client ID: | VER-01I-10.0-20171019 | | | | |
| Operator ID: | | ALS Bottle#: | 0 | Worklist Smp#: | 84 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |
| Column: | AS16 ( 4.00 mm) | Detector | Ch-A-20111003029 | | |

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

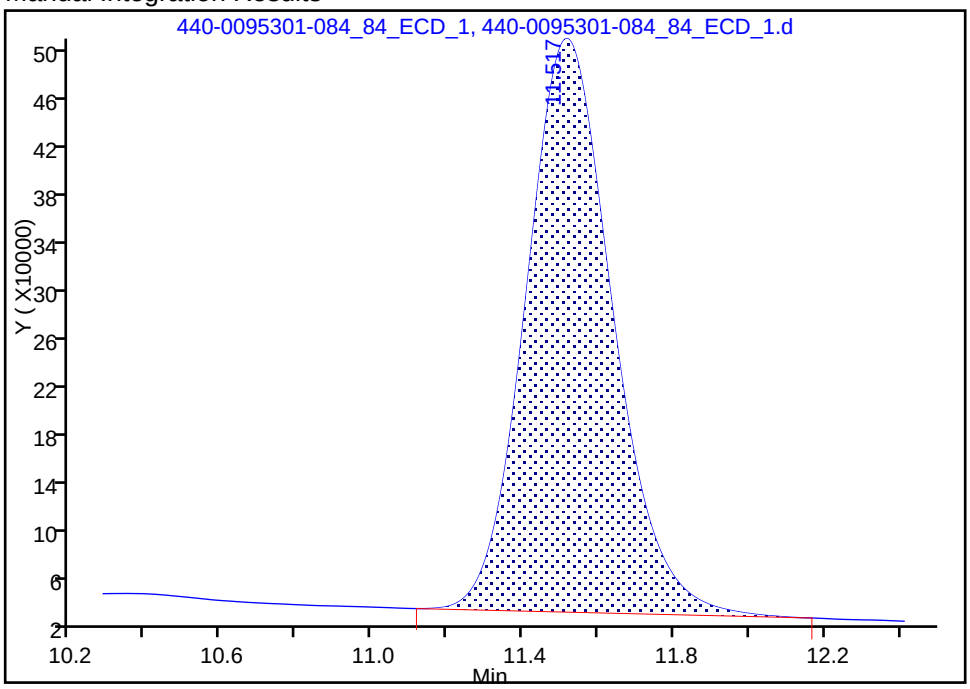
Processing Integration Results

RT: 10.54
Area: 16007
Amount: 0.164660
Amount Units: ug/l




Manual Integration Results

RT: 11.52
Area: 7489379
Amount: 57.173574
Amount Units: ug/l




Reviewer: hoangch, 27-Oct-2017 09:34:52

Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Irvine

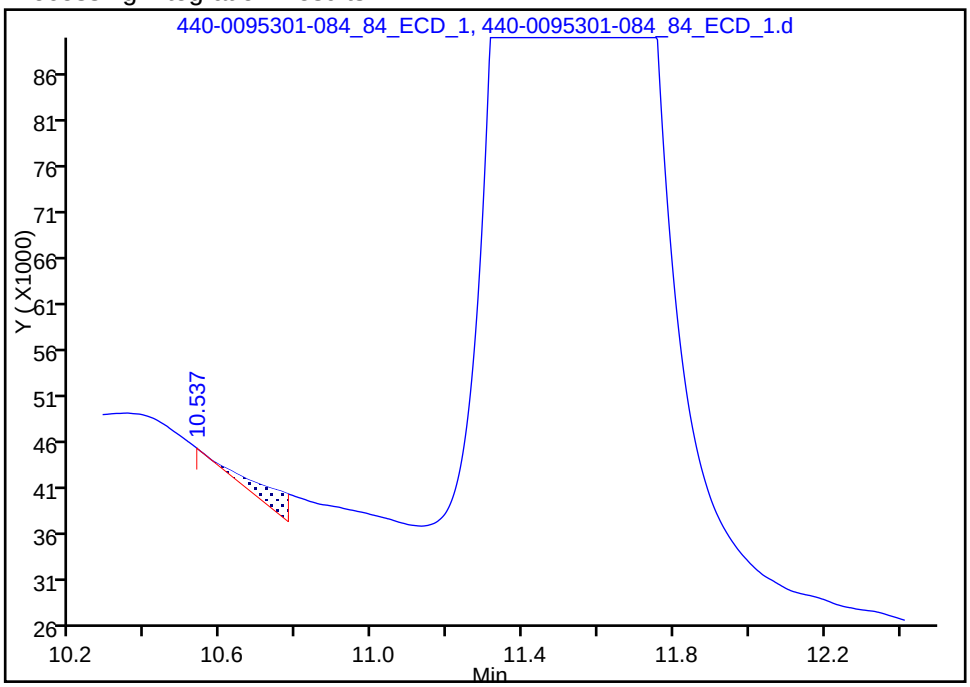
Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-084_84_ECD_1.d
Injection Date: 27-Oct-2017 09:00:00 Instrument ID: IC-25
Lims ID: 440-194623-A-4-H MS
Client ID: VER-01I-10.0-20171019
Operator ID: ALS Bottle#: 0 Worklist Smp#: 84
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 314_25perchlorate Limit Group: IC-314
Column: AS16 ( 4.00 mm) Detector Ch-A-20111003029

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

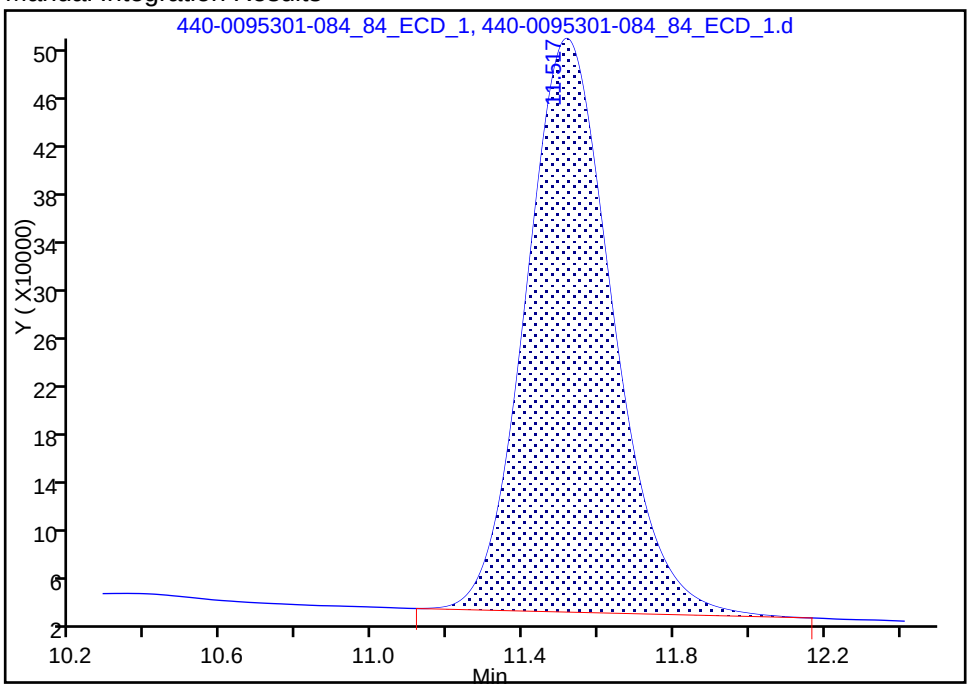
Processing Integration Results

RT: 10.54
Area: 16007
Amount: 0.164660
Amount Units: ug/l




Manual Integration Results

RT: 11.52
Area: 7489379
Amount: 57.173574
Amount Units: ug/l




Reviewer: hoangch, 27-Oct-2017 09:35:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: VER-01D-20.0-20171020 MSD | Lab Sample ID: 440-194754-6 MSD

Matrix: Solid (Soluble) | Lab File ID: 440-0095381-022_22_ECD_1.d

Analysis Method: 314.0 | Date Collected: 10/20/2017 07:55

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 22:56

Con. Extract Vol.: | Dilution Factor: 50

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437935 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 27.9 | | 2.3 | 0.54 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-022_22_ECD_1.d | | | | |
| Lims ID: | 440-194754-A-6-I MSD | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 27-Oct-2017 22:56:00 | ALS Bottle#: | 0 | Worklist Smp#: | 22 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 50.0000 | | |
| Sample Info: | 440-0095381-022 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 28-Oct-2017 09:06:33 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK031 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.434 | 11.444 | -0.010 | 6405962 | 1.00 | 49.4 | |

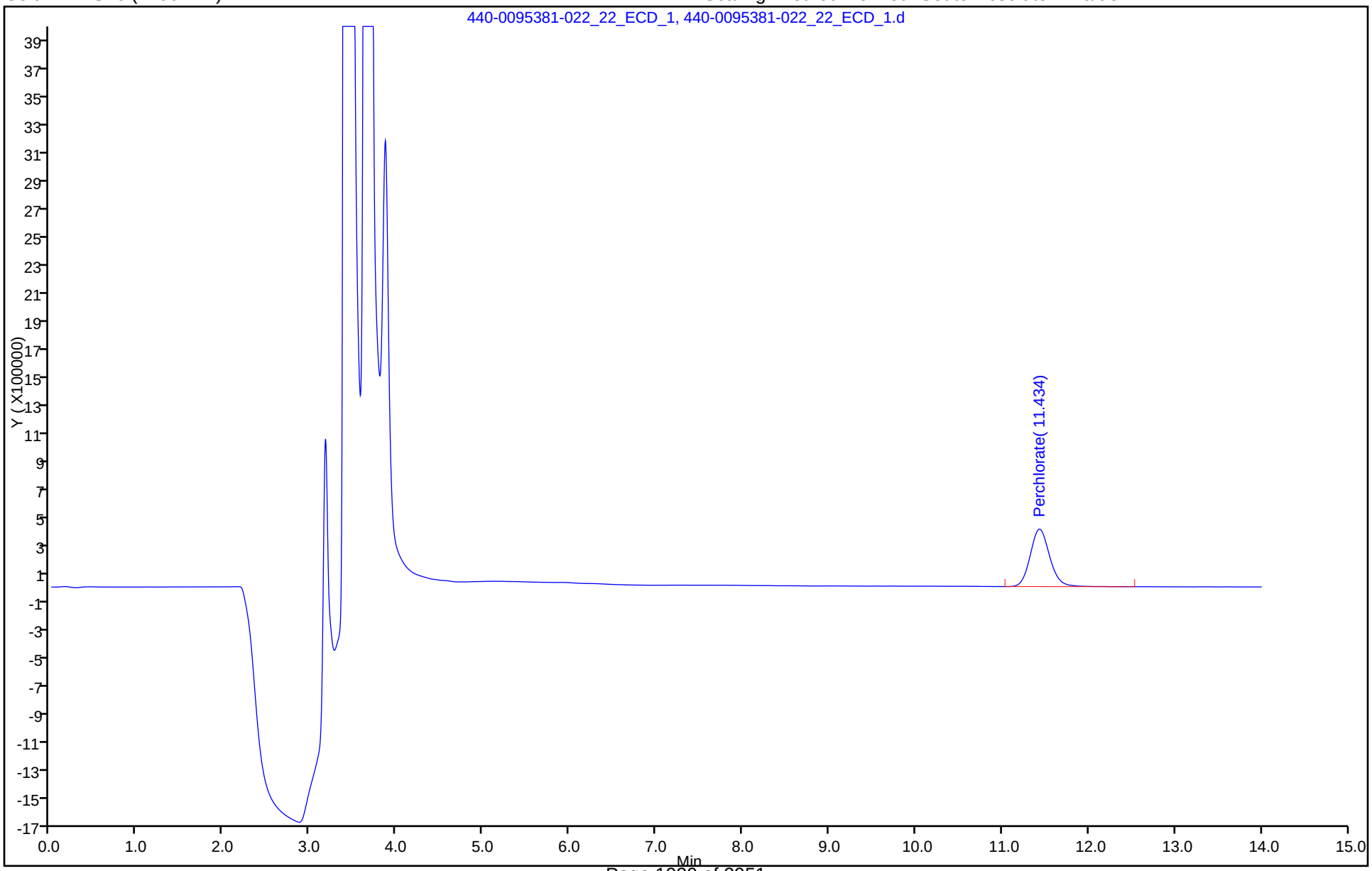
Report Date: 28-Oct-2017 09:06:39 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171027-95381.b\440-0095381-022_22_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 22:56:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | 440-194754-A-6-I MSD | | | Worklist Smp#: | 22 |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 50.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194754-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-194623-A-4-I MSD

Matrix: Solid (Soluble) | Lab File ID: 440-0095301-085_85_ECD_1.d

Analysis Method: 314.0 | Date Collected: 10/19/2017 08:35

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 09:17

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: 9.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 0.661 | | 0.044 | 0.010 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-085_85_ECD_1.d | | | | |
| Lims ID: | 440-194623-A-4-I MSD | | | | |
| Client ID: | VER-01I-10.0-20171019 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 27-Oct-2017 09:17:00 | ALS Bottle#: | 0 | Worklist Smp#: | 85 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-085 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 11:31:00 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK007 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.517 | 11.524 | -0.007 | 7882561 | 50.0 | 60.0 | |

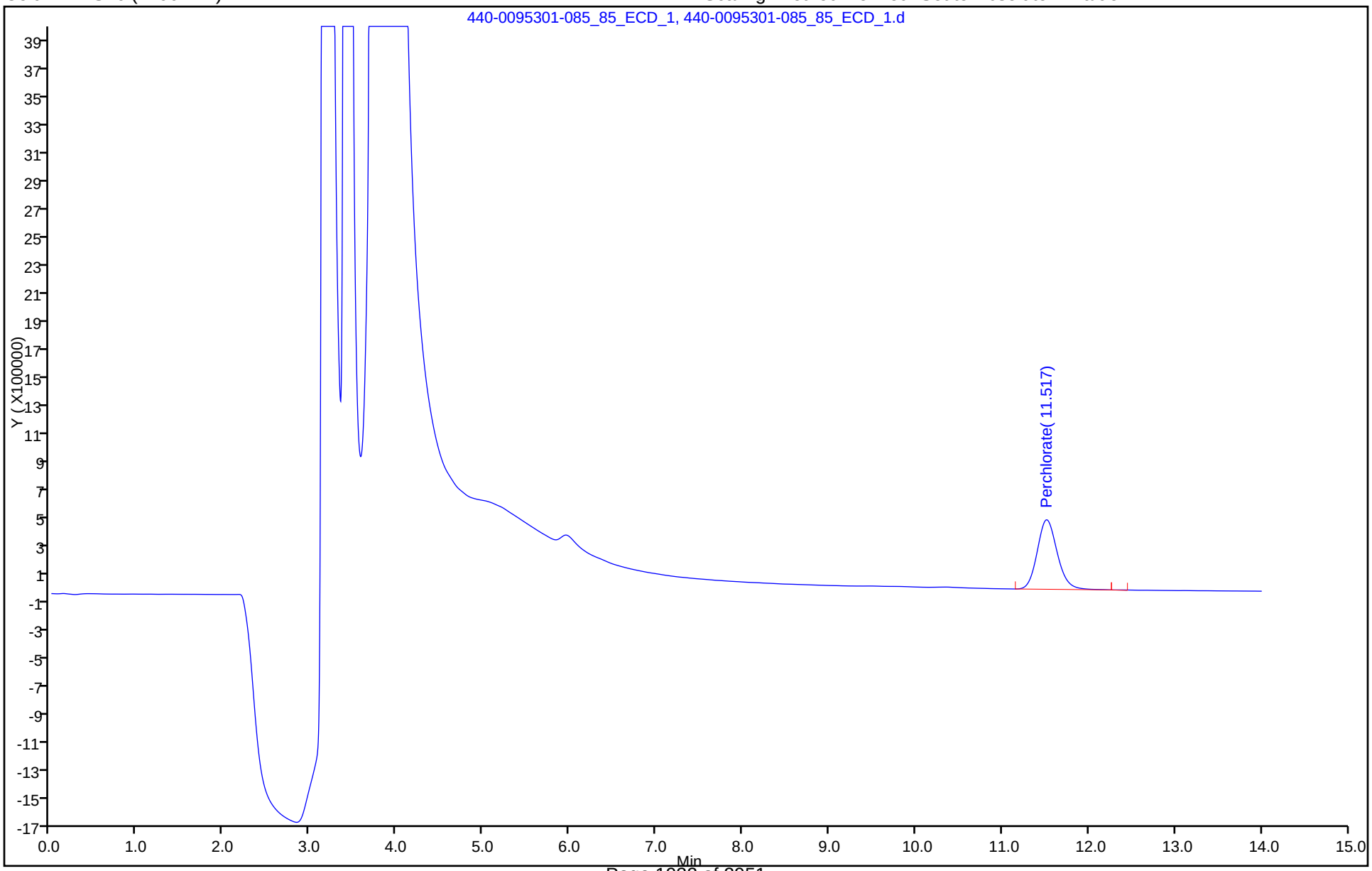
Report Date: 27-Oct-2017 10:40:55 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-085_85_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 09:17:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | 440-194623-A-4-I MSD | | | Worklist Smp#: | 85 |
| Client ID: | VER-01I-10.0-20171019 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-25 Start Date: 10/24/2017 16:48

Analysis Batch Number: 437218 End Date: 10/24/2017 19:02

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| STD0 440-437218/1 IC | | 10/24/2017 16:48 | 1 | | AS7 A 4(mm) |
| STD1 440-437218/2 IC | | 10/24/2017 17:04 | 1 | 440-0095217-002 2_ECD_1.d | AS7 A 4(mm) |
| STD2 440-437218/3 IC | | 10/24/2017 17:21 | 1 | 440-0095217-003 3_ECD_1.d | AS7 A 4(mm) |
| STD3 440-437218/4 IC | | 10/24/2017 17:38 | 1 | 440-0095217-004 4_ECD_1.d | AS7 A 4(mm) |
| STD4 440-437218/5 IC | | 10/24/2017 17:54 | 1 | 440-0095217-005 5_ECD_1.d | AS7 A 4(mm) |
| STD5 440-437218/6 IC | | 10/24/2017 18:11 | 1 | 440-0095217-006 6_ECD_1.d | AS7 A 4(mm) |
| STD6 440-437218/7 IC | | 10/24/2017 18:28 | 1 | 440-0095217-007 7_ECD_1.d | AS7 A 4(mm) |
| STD7 440-437218/8 IC | | 10/24/2017 18:45 | 1 | 440-0095217-008 8_ECD_1.d | AS7 A 4(mm) |
| ICV 440-437218/9 | | 10/24/2017 19:02 | 1 | 440-0095217-009 9_ECD_1.d | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-23 Start Date: 10/25/2017 17:34

Analysis Batch Number: 437411 End Date: 10/25/2017 20:14

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| STD0 440-437411/1 IC | | 10/25/2017 17:34 | 1 | 440-0095262-001 01 ECD 1.d | AS7 A 4(mm) |
| STD1 440-437411/2 IC | | 10/25/2017 17:51 | 1 | 440-0095262-002 02 ECD 1.d | AS7 A 4(mm) |
| STD2 440-437411/3 IC | | 10/25/2017 18:09 | 1 | 440-0095262-003 03 ECD 1.d | AS7 A 4(mm) |
| STD3 440-437411/4 IC | | 10/25/2017 18:27 | 1 | 440-0095262-004 04 ECD 1.d | AS7 A 4(mm) |
| STD4 440-437411/5 IC | | 10/25/2017 18:45 | 1 | 440-0095262-005 05 ECD 1.d | AS7 A 4(mm) |
| STD5 440-437411/6 IC | | 10/25/2017 19:03 | 1 | 440-0095262-006 06 ECD 1.d | AS7 A 4(mm) |
| STD6 440-437411/7 IC | | 10/25/2017 19:20 | 1 | 440-0095262-007 07 ECD 1.d | AS7 A 4(mm) |
| STD7 440-437411/8 IC | | 10/25/2017 19:38 | 1 | 440-0095262-008 08 ECD 1.d | AS7 A 4(mm) |
| ICB 440-437411/10 | | 10/25/2017 20:14 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-25 Start Date: 10/26/2017 08:24

Analysis Batch Number: 437568 End Date: 10/27/2017 14:46

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 10/26/2017 08:24 | 1 | | AS7 A 4(mm) |
| CCV 440-437568/2 | | 10/26/2017 08:40 | 1 | 440-0095301-002 2 ECD 1.d | AS7 A 4(mm) |
| CCB 440-437568/3 | | 10/26/2017 09:21 | 1 | 440-0095301-003 3 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 09:38 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 09:55 | 1 | | AS7 A 4(mm) |
| INF 440-437568/6 | | 10/26/2017 10:12 | 1 | 440-0095301-006 6 ECD 1.d | AS7 A 4(mm) |
| MRL 440-437568/7 | | 10/26/2017 10:29 | 1 | 440-0095301-007 7 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 10:53 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 11:10 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 11:27 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 11:44 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 12:00 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 12:17 | 1 | | AS7 A 4(mm) |
| CCV 440-437568/14 | | 10/26/2017 12:34 | 1 | 440-0095301-014 14 ECD 1.d | AS7 A 4(mm) |
| CCB 440-437568/15 | | 10/26/2017 12:54 | 1 | 440-0095301-015 15 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 13:11 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 13:28 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 13:44 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 14:01 | 200 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 14:18 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 14:35 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 14:52 | 20 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 15:09 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 15:26 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 15:42 | 10 | | AS7 A 4(mm) |
| CCV 440-437568/26 | | 10/26/2017 15:59 | 1 | | AS7 A 4(mm) |
| CCB 440-437568/27 | | 10/26/2017 16:25 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 16:47 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 17:04 | 50000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 17:21 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 17:38 | 50000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 17:54 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 18:11 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 18:28 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 18:45 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 19:02 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 19:19 | 1 | | AS7 A 4(mm) |
| CCV 440-437568/38 | | 10/26/2017 19:36 | 1 | | AS7 A 4(mm) |
| CCB 440-437568/39 | | 10/26/2017 19:52 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 20:09 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 20:26 | 50000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 20:43 | 1000 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-25 Start Date: 10/26/2017 08:24

Analysis Batch Number: 437568 End Date: 10/27/2017 14:46

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 10/26/2017 21:00 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 21:17 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 21:34 | 20 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 21:50 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 22:07 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 22:24 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 22:41 | 20 | | AS7 A 4(mm) |
| CCV 440-437568/50 | | 10/26/2017 22:58 | 1 | 440-0095301-050 50 ECD 1.d | AS7 A 4(mm) |
| CCB 440-437568/51 | | 10/26/2017 23:15 | 1 | 440-0095301-051 51 ECD 1.d | AS7 A 4(mm) |
| MB 440-437240/1-A | | 10/26/2017 23:32 | 1 | 440-0095301-052 52 ECD 1.d | AS7 A 4(mm) |
| LCS 440-437240/2-A | | 10/26/2017 23:48 | 1 | 440-0095301-053 53 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 00:05 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 00:22 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 00:39 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 00:56 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 01:13 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 01:29 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 01:46 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 02:03 | 50 | | AS7 A 4(mm) |
| CCV 440-437568/62 | | 10/27/2017 02:20 | 1 | 440-0095301-062 62 ECD 1.d | AS7 A 4(mm) |
| CCB 440-437568/63 | | 10/27/2017 02:37 | 1 | 440-0095301-063 63 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 02:54 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 03:11 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 03:27 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 03:44 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 04:01 | 50 | | AS7 A 4(mm) |
| CCV 440-437568/69 | | 10/27/2017 04:18 | 1 | 440-0095301-069 69 ECD 1.d | AS7 A 4(mm) |
| CCB 440-437568/70 | | 10/27/2017 04:35 | 1 | 440-0095301-070 70 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 04:52 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 05:09 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 05:25 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 05:42 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 05:59 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 06:16 | 50 | | AS7 A 4(mm) |
| 440-194754-3 | | 10/27/2017 06:33 | 50 | 440-0095301-077 77 ECD 1.d | AS7 A 4(mm) |
| 440-194754-4 | | 10/27/2017 06:50 | 50 | 440-0095301-078 78 ECD 1.d | AS7 A 4(mm) |
| 440-194754-5 | | 10/27/2017 07:07 | 50 | 440-0095301-079 79 ECD 1.d | AS7 A 4(mm) |
| CCV 440-437568/80 | | 10/27/2017 07:23 | 1 | 440-0095301-080 80 ECD 1.d | AS7 A 4(mm) |
| CCB 440-437568/82 | | 10/27/2017 08:04 | 1 | 440-0095301-082 82 ECD 1.d | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-25 Start Date: 10/26/2017 08:24

Analysis Batch Number: 437568 End Date: 10/27/2017 14:46

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 10/27/2017 08:44 | 1 | | AS7 A 4(mm) |
| 440-194623-A-4-H MS | | 10/27/2017 09:00 | 1 | 440-0095301-084 84 ECD 1.d | AS7 A 4(mm) |
| 440-194623-A-4-I MSD | | 10/27/2017 09:17 | 1 | 440-0095301-085 85 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 09:39 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 09:56 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 10:12 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 10:29 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 10:46 | 5 | | AS7 A 4(mm) |
| 440-194754-2 | | 10/27/2017 11:03 | 200 | 440-0095301-091 91 ECD 1.d | AS7 A 4(mm) |
| CCV 440-437568/92 | | 10/27/2017 11:20 | 1 | 440-0095301-092 92 ECD 1.d | AS7 A 4(mm) |
| CCB 440-437568/93 | | 10/27/2017 11:51 | 1 | 440-0095301-093 93 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 12:26 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 12:43 | 500 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 13:00 | 500 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 13:17 | 500 | | AS7 A 4(mm) |
| CCV 440-437568/98 | | 10/27/2017 13:34 | 1 | | AS7 A 4(mm) |
| CCB 440-437568/99 | | 10/27/2017 14:46 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-25 Start Date: 10/27/2017 15:54

Analysis Batch Number: 437935 End Date: 10/29/2017 00:39

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 10/27/2017 15:54 | 1 | | AS7 A 4(mm) |
| CCV 440-437935/2 | | 10/27/2017 16:10 | 1 | 440-0095381-002 2 ECD 1.d | AS7 A 4(mm) |
| CCB 440-437935/3 | | 10/27/2017 16:33 | 1 | 440-0095381-003 3 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 16:49 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 17:06 | 1 | | AS7 A 4(mm) |
| INF 440-437935/6 | | 10/27/2017 17:23 | 1 | 440-0095381-006 6 ECD 1.d | AS7 A 4(mm) |
| MRL 440-437935/7 | | 10/27/2017 17:40 | 1 | 440-0095381-007 7 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 18:40 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 19:34 | 500 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 19:34 | 200 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 19:50 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 20:07 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 20:24 | 5 | | AS7 A 4(mm) |
| CCV 440-437935/14 | | 10/27/2017 20:41 | 1 | 440-0095381-014 14 ECD 1.d | AS7 A 4(mm) |
| CCB 440-437935/15 | | 10/27/2017 20:58 | 1 | 440-0095381-015 15 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 21:15 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 21:32 | 5 | | AS7 A 4(mm) |
| MB 440-437390/1-A | | 10/27/2017 21:49 | 1 | 440-0095381-018 18 ECD 1.d | AS7 A 4(mm) |
| LCS 440-437390/2-A | | 10/27/2017 22:05 | 1 | 440-0095381-019 19 ECD 1.d | AS7 A 4(mm) |
| 440-194754-6 | | 10/27/2017 22:22 | 50 | 440-0095381-020 20 ECD 1.d | AS7 A 4(mm) |
| 440-194754-6 MS | | 10/27/2017 22:39 | 50 | 440-0095381-021 21 ECD 1.d | AS7 A 4(mm) |
| 440-194754-6 MSD | | 10/27/2017 22:56 | 50 | 440-0095381-022 22 ECD 1.d | AS7 A 4(mm) |
| 440-194754-7 | | 10/27/2017 23:13 | 50 | 440-0095381-023 23 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 23:30 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 23:47 | 50 | | AS7 A 4(mm) |
| CCV 440-437935/26 | | 10/28/2017 00:03 | 1 | 440-0095381-026 26 ECD 1.d | AS7 A 4(mm) |
| CCB 440-437935/27 | | 10/28/2017 00:20 | 1 | 440-0095381-027 27 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 00:37 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 00:54 | 50 | | AS7 A 4(mm) |
| 440-194754-13 | | 10/28/2017 01:11 | 50 | 440-0095381-030 30 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 01:28 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 01:45 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 02:01 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 02:18 | 50 | | AS7 A 4(mm) |
| CCV 440-437935/35 | | 10/28/2017 02:35 | 1 | 440-0095381-035 35 ECD 1.d | AS7 A 4(mm) |
| CCB 440-437935/36 | | 10/28/2017 02:52 | 1 | 440-0095381-036 36 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 03:09 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 03:26 | 50 | | AS7 A 4(mm) |

314.0

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-25 Start Date: 10/27/2017 15:54

Analysis Batch Number: 437935 End Date: 10/29/2017 00:39

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 10/28/2017 03:43 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 03:59 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 04:16 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 04:33 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 04:50 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 05:07 | 500 | | AS7 A 4(mm) |
| CCV 440-437935/45 | | 10/28/2017 05:24 | 1 | 440-0095381-045 45_ECD_1.d | AS7 A 4(mm) |
| CCB 440-437935/46 | | 10/28/2017 05:41 | 1 | 440-0095381-046 46_ECD_1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 09:12 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 09:29 | 1 | | AS7 A 4(mm) |
| INF 440-437935/49 | | 10/28/2017 09:46 | 1 | 440-0095381-049 49_ECD_1.d | AS7 A 4(mm) |
| MRL 440-437935/50 | | 10/28/2017 10:02 | 1 | 440-0095381-050 50_ECD_1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 10:25 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 10:41 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 10:58 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 11:15 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 11:32 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 11:49 | 10000 | | AS7 A 4(mm) |
| CCV 440-437935/57 | | 10/28/2017 12:06 | 1 | 440-0095381-057 57_ECD_1.d | AS7 A 4(mm) |
| CCB 440-437935/58 | | 10/28/2017 12:26 | 1 | 440-0095381-058 58_ECD_1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 12:52 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 13:09 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 13:25 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 13:42 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 13:59 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 14:16 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 14:33 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 14:50 | 50000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 15:07 | 50000 | | AS7 A 4(mm) |
| CCV 440-437935/68 | | 10/28/2017 15:23 | 1 | | AS7 A 4(mm) |
| CCB 440-437935/69 | | 10/28/2017 15:51 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 16:14 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 16:30 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 16:47 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 17:04 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 17:21 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 17:37 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 17:54 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 18:11 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 18:28 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 18:45 | 1 | | AS7 A 4(mm) |
| CCV 440-437935/80 | | 10/28/2017 19:02 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-25  Start Date: 10/27/2017 15:54

Analysis Batch Number: 437935  End Date: 10/29/2017 00:39

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCB 440-437935/81 | | 10/28/2017 19:19 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 19:35 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 19:52 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 20:09 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 20:26 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 20:43 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 21:00 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 21:17 | 1 | | AS7 A 4(mm) |
| CCV 440-437935/89 | | 10/28/2017 21:33 | 1 | 440-0095381-089 89 ECD 1.d | AS7 A 4(mm) |
| CCB 440-437935/90 | | 10/28/2017 21:50 | 1 | 440-0095381-090 90 ECD 1.d | AS7 A 4(mm) |
| 440-194754-8 | | 10/28/2017 22:07 | 1000 | 440-0095381-091 91 ECD 1.d | AS7 A 4(mm) |
| 440-194754-11 | | 10/28/2017 22:24 | 1000 | 440-0095381-092 92 ECD 1.d | AS7 A 4(mm) |
| 440-194754-12 | | 10/28/2017 22:41 | 500 | 440-0095381-093 93 ECD 1.d | AS7 A 4(mm) |
| 440-194754-15 | | 10/28/2017 22:58 | 5 | 440-0095381-094 94 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/28/2017 23:15 | 5 | | AS7 A 4(mm) |
| 440-194754-16 | | 10/28/2017 23:31 | 1 | 440-0095381-096 96 ECD 1.d | AS7 A 4(mm) |
| 440-194754-17 | | 10/28/2017 23:48 | 1 | 440-0095381-097 97 ECD 1.d | AS7 A 4(mm) |
| 440-194754-18 | | 10/29/2017 00:05 | 1 | 440-0095381-098 98 ECD 1.d | AS7 A 4(mm) |
| CCV 440-437935/99 | | 10/29/2017 00:22 | 1 | 440-0095381-099 99 ECD 1.d | AS7 A 4(mm) |
| CCB 440-437935/100 | | 10/29/2017 00:39 | 1 | 440-0095381-100 100 ECD 1.d | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Instrument ID: IC-23 Start Date: 10/30/2017 09:35

Analysis Batch Number: 438239 End Date: 10/30/2017 22:03

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 10/30/2017 09:35 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/30/2017 11:50 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/30/2017 12:53 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/30/2017 13:11 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 10/30/2017 13:29 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 10/30/2017 14:35 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/30/2017 14:53 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/30/2017 15:28 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/30/2017 15:46 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/30/2017 16:24 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/30/2017 16:41 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/30/2017 17:17 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/30/2017 18:11 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/30/2017 18:28 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/30/2017 18:46 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/30/2017 19:04 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/30/2017 19:22 | 10 | | AS7 A 4(mm) |
| CCV 440-438239/33 | | 10/30/2017 19:40 | 1 | 440-0095480-033 33_ECD_1.d | AS7 A 4(mm) |
| CCB 440-438239/34 | | 10/30/2017 19:58 | 1 | 440-0095480-034 34_ECD_1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/30/2017 20:16 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/30/2017 20:33 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/30/2017 20:51 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/30/2017 21:09 | 50 | | AS7 A 4(mm) |
| 440-194754-10 | | 10/30/2017 21:27 | 1000 | 440-0095480-039 39_ECD_1.d | AS7 A 4(mm) |
| CCV 440-438239/40 | | 10/30/2017 21:45 | 1 | 440-0095480-040 40_ECD_1.d | AS7 A 4(mm) |
| CCB 440-438239/41 | | 10/30/2017 22:03 | 1 | 440-0095480-041 41_ECD_1.d | AS7 A 4(mm) |

# HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Batch Number: 437240  Batch Start Date: 10/24/17 18:03  Batch Analyst: Mancini, Catherine M

Batch Method: DI Leach  Batch End Date: 10/24/17 18:39

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | WCCLO41st-10 00011 | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-437240/1 | | DI Leach, 314.0 | | 3.99 g | 40 mL | | | | |
| LCS 440-437240/2 | | DI Leach, 314.0 | | 4.01 g | 40 mL | 0.2 mL | | | |
| 440-194623-A-4 MS | | DI Leach, 314.0 | S | 4.00 g | 40 mL | 0.2 mL | | | |
| 440-194623-A-4 MSD | | DI Leach, 314.0 | S | 3.99 g | 40 mL | 0.2 mL | | | |
| 440-194754-A-2 | VER-01D-5.0-2017 1020 | DI Leach, 314.0 | S | 4.01 g | 40 mL | | | | |
| 440-194754-A-3 | VER-01D-10.0-201 71020 | DI Leach, 314.0 | S | 4.01 g | 40 mL | | | | |
| 440-194754-A-4 | VER-01D-10.0-201 71020-FD | DI Leach, 314.0 | S | 3.99 g | 40 mL | | | | |
| 440-194754-A-5 | VER-01D-15.0-201 71020 | DI Leach, 314.0 | S | 3.99 g | 40 mL | | | | |

| Batch Notes | |
|---|---|
| Balance ID | BAL63 |

| Basis | Basis Description |
|---|---|
| S | Soluble |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Batch Number: 437390  Batch Start Date: 10/25/17 12:49  Batch Analyst: Mancini, Catherine M

Batch Method: DI Leach  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | WCCLO41st-10 00011 | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-437390/1 | | DI Leach, 314.0 | | 4.00 g | 40 mL | | | | |
| LCS 440-437390/2 | | DI Leach, 314.0 | | 4.00 g | 40 mL | 0.2 mL | | | |
| 440-194754-A-6 | VER-01D-20.0-201 71020 | DI Leach, 314.0 | S | 4.01 g | 40 mL | | | | |
| 440-194754-A-6 MS | VER-01D-20.0-201 71020 | DI Leach, 314.0 | S | 4.00 g | 40 mL | 0.2 mL | | | |
| 440-194754-A-6 MSD | VER-01D-20.0-201 71020 | DI Leach, 314.0 | S | 3.99 g | 40 mL | 0.2 mL | | | |
| 440-194754-A-7 | VER-01D-25.0-201 71020 | DI Leach, 314.0 | S | 4.00 g | 40 mL | | | | |
| 440-194754-A-8 | VER-01D-30.0-201 71020 | DI Leach, 314.0 | S | 4.01 g | 40 mL | | | | |
| 440-194754-A-10 | VER-01D-40.0-201 71020 | DI Leach, 314.0 | S | 3.99 g | 40 mL | | | | |
| 440-194754-A-11 | VER-01D-50.0-201 71020 | DI Leach, 314.0 | S | 4.01 g | 40 mL | | | | |
| 440-194754-A-12 | VER-01D-60.0-201 71020 | DI Leach, 314.0 | S | 4.00 g | 40 mL | | | | |
| 440-194754-A-13 | VER-01D-70.0-201 71020 | DI Leach, 314.0 | S | 4.01 g | 40 mL | | | | |
| 440-194754-A-15 | VER-01D-80.0-201 71020 | DI Leach, 314.0 | S | 4.01 g | 40 mL | | | | |
| 440-194754-A-16 | VER-01D-100.0-20 171020 | DI Leach, 314.0 | S | 4.00 g | 40 mL | | | | |
| 440-194754-A-17 | VER-01D-110.0-20 171020 | DI Leach, 314.0 | S | 4.00 g | 40 mL | | | | |
| 440-194754-A-18 | VER-01D-110.0-20 171020-FD | DI Leach, 314.0 | S | 4.00 g | 40 mL | | | | |

| Batch Notes | |
|---|---|
| Balance ID | BAL3 |

| Basis | Basis Description |
|---|---|
| S | Soluble |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# METALS

COVER PAGE
METALS

Lab Name: TestAmerica Irvine  Job Number: 440-194754-1

SDG No.:

Project: VER Treatability Study

| Client Sample ID | Lab Sample ID |
|---|---|
| VER-01D-5.0-20171020 | 440-194754-2 |
| VER-01D-10.0-20171020 | 440-194754-3 |
| VER-01D-10.0-20171020-FD | 440-194754-4 |
| VER-01D-15.0-20171020 | 440-194754-5 |
| VER-01D-20.0-20171020 | 440-194754-6 |
| VER-01D-25.0-20171020 | 440-194754-7 |
| VER-01D-30.0-20171020 | 440-194754-8 |
| VER-01D-35.0-20171020 | 440-194754-9 |
| VER-01D-40.0-20171020 | 440-194754-10 |
| VER-01D-50.0-20171020 | 440-194754-11 |
| VER-01D-60.0-20171020 | 440-194754-12 |
| VER-01D-70.0-20171020 | 440-194754-13 |
| VER-01D-70.0-20171020-EB | 440-194754-14 |
| VER-01D-80.0-20171020 | 440-194754-15 |
| VER-01D-100.0-20171020 | 440-194754-16 |
| VER-01D-110.0-20171020 | 440-194754-17 |
| VER-01D-110.0-20171020-FD | 440-194754-18 |

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: VER-01D-5.0-20171020 Lab Sample ID: 440-194754-2

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG ID.:

Matrix: Solid Date Sampled: 10/20/2017 07:30

Reporting Basis: DRY Date Received: 10/20/2017 20:15

% Solids: 88.3

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 18 | 1.1 | 0.56 | mg/Kg | | | 5 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: VER-01D-10.0-20171020 Lab Sample ID: 440-194754-3

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG ID.:

Matrix: Solid Date Sampled: 10/20/2017 07:40

Reporting Basis: DRY Date Received: 10/20/2017 20:15

% Solids: 90.0

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 35 | 1.1 | 0.56 | mg/Kg | | | 5 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: VER-01D-10.0-20171020-FD
Lab Sample ID: 440-194754-4
Lab Name: TestAmerica Irvine
Job No.: 440-194754-1
SDG ID.:
Matrix: Solid
Date Sampled: 10/20/2017 07:40
Reporting Basis: DRY
Date Received: 10/20/2017 20:15
% Solids: 91.0

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 21 | 1.1 | 0.54 | mg/Kg | | | 5 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: VER-01D-15.0-20171020 Lab Sample ID: 440-194754-5

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG ID.:

Matrix: Solid Date Sampled: 10/20/2017 07:45

Reporting Basis: DRY Date Received: 10/20/2017 20:15

% Solids: 91.8

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 13 | 1.1 | 0.54 | mg/Kg | | | 5 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: VER-01D-20.0-20171020 Lab Sample ID: 440-194754-6

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG ID.:

Matrix: Solid Date Sampled: 10/20/2017 07:55

Reporting Basis: DRY Date Received: 10/20/2017 20:15

% Solids: 88.3

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 13 | 1.1 | 0.56 | mg/Kg | | | 5 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: VER-01D-25.0-20171020 Lab Sample ID: 440-194754-7

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG ID.:

Matrix: Solid Date Sampled: 10/20/2017 08:05

Reporting Basis: DRY Date Received: 10/20/2017 20:15

% Solids: 91.3

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 14 | 1.1 | 0.55 | mg/Kg | | | 5 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: VER-01D-30.0-20171020 Lab Sample ID: 440-194754-8

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG ID.:

Matrix: Solid Date Sampled: 10/20/2017 08:15

Reporting Basis: DRY Date Received: 10/20/2017 20:15

% Solids: 63.9

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 44 | 1.5 | 0.77 | mg/Kg | | | 5 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: VER-01D-35.0-20171020 Lab Sample ID: 440-194754-9

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG ID.:

Matrix: Water Date Sampled: 10/20/2017 09:15

Reporting Basis: WET Date Received: 10/20/2017 20:15

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 16 | 0.025 | 0.013 | mg/L | | | 5 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: VER-01D-40.0-20171020 Lab Sample ID: 440-194754-10

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG ID.:

Matrix: Solid Date Sampled: 10/20/2017 09:50

Reporting Basis: DRY Date Received: 10/20/2017 20:15

% Solids: 59.2

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 41 | 1.7 | 0.84 | mg/Kg | | | 5 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: VER-01D-50.0-20171020 Lab Sample ID: 440-194754-11

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG ID.:

Matrix: Solid Date Sampled: 10/20/2017 10:15

Reporting Basis: DRY Date Received: 10/20/2017 20:15

% Solids: 49.4

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 30 | 4.0 | 2.0 | mg/Kg | | | 10 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: VER-01D-60.0-20171020 Lab Sample ID: 440-194754-12

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG ID.:

Matrix: Solid Date Sampled: 10/20/2017 10:35

Reporting Basis: DRY Date Received: 10/20/2017 20:15

% Solids: 80.3

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 14 | 1.2 | 0.62 | mg/Kg | | | 5 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: VER-01D-70.0-20171020 Lab Sample ID: 440-194754-13

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG ID.:

Matrix: Solid Date Sampled: 10/20/2017 10:55

Reporting Basis: DRY Date Received: 10/20/2017 20:15

% Solids: 60.5

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 36 | 1.6 | 0.81 | mg/Kg | | | 5 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: VER-01D-70.0-20171020-EB
Lab Sample ID: 440-194754-14
Lab Name: TestAmerica Irvine
Job No.: 440-194754-1
SDG ID.:
Matrix: Water
Date Sampled: 10/20/2017 11:05
Reporting Basis: WET
Date Received: 10/20/2017 20:15

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | ND | 0.0050 | 0.0025 | mg/L | | | 1 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: VER-01D-80.0-20171020 Lab Sample ID: 440-194754-15

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG ID.:

Matrix: Solid Date Sampled: 10/20/2017 11:25

Reporting Basis: DRY Date Received: 10/20/2017 20:15

% Solids: 67.7

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 37 | 1.5 | 0.74 | mg/Kg | | | 5 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: VER-01D-100.0-20171020 Lab Sample ID: 440-194754-16

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG ID.:

Matrix: Solid Date Sampled: 10/20/2017 12:20

Reporting Basis: DRY Date Received: 10/20/2017 20:15

% Solids: 78.3

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 23 | 1.3 | 0.64 | mg/Kg | | | 5 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: VER-01D-110.0-20171020 Lab Sample ID: 440-194754-17

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG ID.:

Matrix: Solid Date Sampled: 10/20/2017 13:00

Reporting Basis: DRY Date Received: 10/20/2017 20:15

% Solids: 58.8

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 52 | 1.7 | 0.85 | mg/Kg | | | 5 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: VER-01D-110.0-20171020-FD
Lab Sample ID: 440-194754-18
Lab Name: TestAmerica Irvine
Job No.: 440-194754-1
SDG ID.:
Matrix: Solid
Date Sampled: 10/20/2017 13:00
Reporting Basis: DRY
Date Received: 10/20/2017 20:15
% Solids: 53.6

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 110 | 1.9 | 0.93 | mg/Kg | | | 5 | 6010B |

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

ICV Source: ME ICP ICV2_01695 Concentration Units: mg/L

CCV Source: ME ICP STD3_01718

| Analyte | ICV 440-437651/5 10/26/2017 10:29 | | | | CCV 440-437651/13 10/26/2017 12:49 | | | | CCV 440-437651/17 10/26/2017 13:12 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Found | C | True | %R | Found | C | True | %R | Found | C | True | %R |
| **Chromium** | 0.996 | | 1.00 | 100 | 0.972 | | 1.00 | 97 | 0.954 | | 1.00 | 95 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

ICV Source: ME ICP ICV2_01692 Concentration Units: mg/L

CCV Source: ME ICP STD3_01715

| Analyte | ICV 440-437064/5 10/23/2017 09:32 | | | | CCV 440-437064/14 10/23/2017 18:10 | | | | CCV 440-437064/26 10/23/2017 18:36 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Found | C | True | %R | Found | C | True | %R | Found | C | True | %R |
| **Chromium** | 1.02 | | 1.00 | 102 | 0.984 | | 1.00 | 98 | 1.05 | | 1.00 | 105 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

ICV Source: ME ICP ICV2_01692 Concentration Units: mg/L

CCV Source: ME ICP STD3_01715

| Analyte | CCV 440-437064/33 10/23/2017 19:01 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Found | C | True | %R | Found | C | True | %R | Found | C | True | %R |
| **Chromium** | 1.02 | | 1.00 | 102 | | | | | | | | |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

ICV Source: ME ICP ICV2_01694  Concentration Units: mg/L

CCV Source: ME ICP STD3_01717

| Analyte | ICV 440-437474/5 10/25/2017 08:19 | | | | CCV 440-437474/16 10/25/2017 16:26 | | | | CCV 440-437474/28 10/25/2017 16:51 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Found | C | True | %R | Found | C | True | %R | Found | C | True | %R |
| **Chromium** | 1.01 | | 1.00 | 101 | 0.981 | | 1.00 | 98 | 0.956 | | 1.00 | 96 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

ICV Source: ME ICP ICV2_01694 Concentration Units: mg/L

CCV Source: ME ICP STD3_01717

| Analyte | CCV 440-437474/40 10/25/2017 17:16 | | | | CCV 440-437474/47 10/25/2017 17:41 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Found | C | True | %R | Found | C | True | %R | Found | C | True | %R |
| **Chromium** | 0.937 | | 1.00 | 94 | 0.936 | | 1.00 | 94 | | | | |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

ICV Source: ME ICP ICV2_01694  Concentration Units: mg/L

CCV Source: ME ICP STD3_01717

| Analyte | ICV 440-437423/5 10/25/2017 11:16 | | | | CCV 440-437423/16 10/25/2017 13:10 | | | | CCV 440-437423/30 10/25/2017 14:07 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Found | C | True | %R | Found | C | True | %R | Found | C | True | %R |
| **Chromium** | 1.03 | | 1.00 | 103 | 1.00 | | 1.00 | 100 | 1.02 | | 1.00 | 102 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Method: 6010B Instrument ID: ICP7

Lab Sample ID: CRI 440-437651/12 Concentration Units: mg/L

CRQL Check Standard Source: ME ICP CRI 2x_00363

| Analyte | CRQL Check Standard | | | | |
|---|---|---|---|---|---|
| | True | Found | Qualifiers | %R(1) | Limits |
| Chromium | 0.0100 | 0.0102 | | 102 | 50-150 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Method: 6010B Instrument ID: ICP8

Lab Sample ID: CRI 440-437064/13 Concentration Units: mg/L

CRQL Check Standard Source: ME ICP CRI 2x_00359

| Analyte | CRQL Check Standard | | | | |
|---|---|---|---|---|---|
| | True | Found | Qualifiers | %R(1) | Limits |
| Chromium | 0.0100 | 0.00930 | | 93 | 50-150 |

Lab Sample ID: CRI 440-437474/13 Concentration Units: mg/L

CRQL Check Standard Source: ME ICP CRI 2x_00362

| Analyte | CRQL Check Standard | | | | |
|---|---|---|---|---|---|
| | True | Found | Qualifiers | %R(1) | Limits |
| Chromium | 0.0100 | 0.0102 | | 102 | 50-150 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Method: 6010B Instrument ID: ICP9

Lab Sample ID: CRI 440-437423/13 Concentration Units: mg/L

CRQL Check Standard Source: ME ICP CRI 2x_00362

| Analyte | CRQL Check Standard | | | | |
|---|---|---|---|---|---|
| | True | Found | Qualifiers | %R(1) | Limits |
| Chromium | 0.0100 | 0.0101 | | 101 | 50-150 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Concentration Units: mg/L

| Analyte | RL | ICB 440-437651/6 10/26/2017 10:33 | | CCB 440-437651/14 10/26/2017 12:51 | | CCB 440-437651/18 10/26/2017 13:14 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Found | C | Found | C | Found | C | Found | C |
| **Chromium** | 0.0050 | ND | | ND | | ND | | | |

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Concentration Units: mg/L

| Analyte | RL | ICB 440-437064/6 10/23/2017 09:36 | | CCB 440-437064/15 10/23/2017 18:12 | | CCB 440-437064/27 10/23/2017 18:39 | | CCB 440-437064/34 10/23/2017 19:03 | |
|---|---|---|---|---|---|---|---|---|---|
| | | Found | C | Found | C | Found | C | Found | C |
| **Chromium** | 0.0050 | ND | | ND | | ND | | ND | |

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Concentration Units: mg/L

| Analyte | RL | ICB 440-437474/6 10/25/2017 08:23 | | CCB 440-437474/17 10/25/2017 16:28 | | CCB 440-437474/29 10/25/2017 16:53 | | CCB 440-437474/42 10/25/2017 17:31 | |
|---|---|---|---|---|---|---|---|---|---|
| | | Found | C | Found | C | Found | C | Found | C |
| **Chromium** | 0.0050 | ND | | ND | | ND | | ND | |

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Concentration Units: mg/L

| Analyte | RL | CCB 440-437474/48 10/25/2017 17:43 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Found | C | Found | C | Found | C | Found | C |
| **Chromium** | 0.0050 | ND | | | | | | | |

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Concentration Units: mg/L

| Analyte | RL | ICB 440-437423/7 10/25/2017 11:21 | | CCB 440-437423/17 10/25/2017 13:12 | | CCB 440-437423/31 10/25/2017 14:09 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Found | C | Found | C | Found | C | Found | C |
| **Chromium** | 0.0050 | ND | | ND | | ND | | | |

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 440-436848/1-A

Instrument Code: ICP8 Batch No.: 437064

| CAS No. | Analyte | Concentration | C | Q | Method |
|---|---|---|---|---|---|
| 7440-47-3 | Chromium | ND | | | 6010B |

FORM III-IN

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Concentration Units: mg/L  Lab Sample ID: MB 440-437120/1-A

Instrument Code: ICP9  Batch No.: 437423

| CAS No. | Analyte | Concentration | C | Q | Method |
|---|---|---|---|---|---|
| 7440-47-3 | Chromium | ND | | | 6010B |

FORM III-IN

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 440-437212/1-A ^5

Instrument Code: ICP8 Batch No.: 437474

| CAS No. | Analyte | Concentration | C | Q | Method |
|---|---|---|---|---|---|
| 7440-47-3 | Chromium | ND | | | 6010B |

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: ICSA 440-437651/7  Instrument ID: ICP7

Lab File ID: 171026-1D.prn  ICS Source: ME ICP IFA_01725

Concentration Units: mg/L

| Analyte | True Solution A | Found Solution A | Percent Recovery |
|---|---|---|---|
| **Chromium** | | **0.0002** | |
| *Aluminum* | *600* | *667* | *111* |
| *Antimony* | | *-0.0023* | |
| *Arsenic* | | *-0.0120* | |
| *Barium* | | *0.0050* | |
| *Beryllium* | | *-0.0005* | |
| *Cadmium* | | *-0.0002* | |
| *Calcium* | *600* | *610* | *102* |
| *Cobalt* | | *0.0016* | |
| *Copper* | | *-0.0043* | |
| *Iron* | *600* | *561* | *94* |
| *Lead* | | *0.0026* | |
| *Lithium* | | *-0.0899* | |
| *Magnesium* | *600* | *603* | *101* |
| *Manganese* | | *-0.0180* | |
| *Molybdenum* | | *0.0025* | |
| *Nickel* | | *0.0013* | |
| *Phosphorus* | | *-0.0533* | |
| *Potassium* | | *-0.0551* | |
| *Selenium* | | *0.0064* | |
| *Silicon* | | *0.0017* | |
| *Silver* | | *0.0004* | |
| *Sodium* | | *0.261* | |
| *Strontium* | | *-0.0149* | |
| *Thallium* | | *-0.0011* | |
| *Tin* | | *0.0256* | |
| *Titanium* | | *0.0026* | |
| *Tungsten* | | *0.0034* | |
| *Vanadium* | | *0.0148* | |
| *Zinc* | | *0.0008* | |
| *Zirconium* | | *0.0059* | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: ICSAB 440-437651/8  Instrument ID: ICP7

Lab File ID: 171026-1D.prn  ICS Source: ME ICP IFB_01744

Concentration Units: mg/L

| Analyte | True Solution AB | Found Solution AB | Percent Recovery |
|---|---|---|---|
| **Chromium** | **0.500** | **0.465** | **93** |
| *Aluminum* | *601* | *667* | *111* |
| *Antimony* | *0.500* | *0.489* | *98* |
| *Arsenic* | *0.500* | *0.485* | *97* |
| *Barium* | *0.500* | *0.480* | *96* |
| *Beryllium* | *0.500* | *0.453* | *91* |
| *Cadmium* | *0.500* | *0.439* | *88* |
| *Calcium* | *603* | *619* | *103* |
| *Cobalt* | *0.500* | *0.436* | *87* |
| *Copper* | *0.500* | *0.531* | *106* |
| *Iron* | *601* | *571* | *95* |
| *Lead* | *0.500* | *0.430* | *86* |
| *Lithium* | *0.500* | *0.467* | *93* |
| *Magnesium* | *603* | *602* | *100* |
| *Manganese* | *0.500* | *0.425* | *85* |
| *Molybdenum* | *0.500* | *0.464* | *93* |
| *Nickel* | *0.500* | *0.426* | *85* |
| *Selenium* | *0.500* | *0.449* | *90* |
| *Silicon* | *2.50* | *2.31* | *92* |
| *Silver* | *0.250* | *0.260* | *104* |
| *Sodium* | *10.0* | *9.62* | *96* |
| *Strontium* | *0.500* | *0.460* | *92* |
| *Thallium* | *0.500* | *0.409* | *82* |
| *Tin* | *0.500* | *0.465* | *93* |
| *Titanium* | *0.500* | *0.493* | *99* |
| *Tungsten* | *0.500* | *0.438* | *88* |
| *Vanadium* | *0.500* | *0.514* | *103* |
| *Zinc* | *0.500* | *0.471* | *94* |
| *Zirconium* | *0.500* | *0.487* | *97* |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: ICSAB 440-437064/8  Instrument ID: ICP8

Lab File ID: 171023-2I.csv  ICS Source: ME ICP IFB_01741

Concentration Units: mg/L

| Analyte | True Solution AB | Found Solution AB | Percent Recovery |
|---|---|---|---|
| **Chromium** | **0.500** | **0.511** | **102** |
| *Aluminum* | *601* | *609* | *101* |
| *Antimony* | *0.500* | *0.529* | *106* |
| *Arsenic* | *0.500* | *0.525* | *105* |
| *Barium* | *0.500* | *0.485* | *97* |
| *Beryllium* | *0.500* | *0.544* | *109* |
| *Boron* | *0.500* | *0.537* | *107* |
| *Cadmium* | *0.500* | *0.482* | *96* |
| *Calcium* | *603* | *614* | *102* |
| *Cobalt* | *0.500* | *0.468* | *94* |
| *Copper* | *0.500* | *0.557* | *111* |
| *Iron* | *601* | *564* | *94* |
| *Lead* | *0.500* | *0.480* | *96* |
| *Lithium* | *0.500* | *0.492* | *98* |
| *Magnesium* | *603* | *588* | *98* |
| *Manganese* | *0.500* | *0.499* | *100* |
| *Molybdenum* | *0.500* | *0.530* | *106* |
| *Nickel* | *0.500* | *0.475* | *95* |
| *Phosphorus* | *0.500* | *0.524* | *105* |
| *Potassium* | *10.0* | *11.5* | *115* |
| *Selenium* | *0.500* | *0.493* | *99* |
| *Silicon* | *2.50* | *2.69* | *107* |
| *Silver* | *0.250* | *0.287* | *115* |
| *Sodium* | *10.0* | *11.2* | *112* |
| *Strontium* | *0.500* | *0.505* | *101* |
| *Thallium* | *0.500* | *0.480* | *96* |
| *Tin* | *0.500* | *0.492* | *98* |
| *Titanium* | *0.500* | *0.541* | *108* |
| *Tungsten* | *0.500* | *0.509* | *102* |
| *Vanadium* | *0.500* | *0.517* | *103* |
| *Zinc* | *0.500* | *0.442* | *88* |
| *Zirconium* | *0.500* | *0.505* | *101* |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: ICSA 440-437064/9  Instrument ID: ICP8

Lab File ID: 171023-2I.csv  ICS Source: ME ICP IFA_01722

Concentration Units: mg/L

| Analyte | True Solution A | Found Solution A | Percent Recovery |
|---|---|---|---|
| **Chromium** | | **-0.0005** | |
| *Aluminum* | *600* | *559* | *93* |
| *Antimony* | | *-0.0145* | |
| *Arsenic* | | *0.0006* | |
| *Barium* | | *0.0032* | |
| *Beryllium* | | *-0.0013* | |
| *Boron* | | *-0.0028* | |
| *Cadmium* | | *0.0042* | |
| *Calcium* | *600* | *576* | *96* |
| *Cobalt* | | *-0.0003* | |
| *Copper* | | *-0.0054* | |
| *Iron* | *600* | *527* | *88* |
| *Lead* | | *0.0006* | |
| *Lithium* | | *-0.0728* | |
| *Magnesium* | *600* | *548* | *91* |
| *Manganese* | | *-0.0133* | |
| *Molybdenum* | | *-0.0011* | |
| *Nickel* | | *0.0012* | |
| *Phosphorus* | | *-0.0060* | |
| *Potassium* | | *-0.129* | |
| *Selenium* | | *0.0112* | |
| *Silicon* | | *-0.0243* | |
| *Silver* | | *0.0013* | |
| *Sodium* | | *0.299* | |
| *Strontium* | | *-0.0179* | |
| *Thallium* | | *0.0011* | |
| *Tin* | | *-0.0099* | |
| *Titanium* | | *0.0012* | |
| *Tungsten* | | *0.0000* | |
| *Vanadium* | | *-0.0083* | |
| *Zinc* | | *-0.0163* | |
| *Zirconium* | | *0.0021* | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: ICSA 440-437474/7  Instrument ID: ICP8

Lab File ID: 171025-1G.csv  ICS Source: ME ICP IFA_01724

Concentration Units: mg/L

| Analyte | True Solution A | Found Solution A | Found Percent Recovery |
|---|---|---|---|
| **Chromium** | | **0.0000** | |
| *Aluminum* | *600* | *568* | *95* |
| *Antimony* | | *-0.0045* | |
| *Arsenic* | | *-0.0121* | |
| *Barium* | | *0.0031* | |
| *Beryllium* | | *-0.0004* | |
| *Boron* | | *-0.0108* | |
| *Cadmium* | | *0.0039* | |
| *Calcium* | *600* | *586* | *98* |
| *Cobalt* | | *-0.0019* | |
| *Copper* | | *-0.0057* | |
| *Iron* | *600* | *528* | *88* |
| *Lead* | | *-0.0018* | |
| *Lithium* | | *-0.0548* | |
| *Magnesium* | *600* | *520* | *87* |
| *Manganese* | | *0.0005* | |
| *Molybdenum* | | *0.0007* | |
| *Nickel* | | *0.0030* | |
| *Phosphorus* | | *-0.0056* | |
| *Potassium* | | *-0.157* | |
| *Selenium* | | *-0.0015* | |
| *Silicon* | | *-0.0210* | |
| *Silver* | | *-0.0005* | |
| *Sodium* | | *0.331* | |
| *Strontium* | | *-0.0158* | |
| *Thallium* | | *0.0034* | |
| *Tin* | | *-0.0144* | |
| *Titanium* | | *0.0013* | |
| *Tungsten* | | *0.0013* | |
| *Vanadium* | | *-0.0049* | |
| *Zinc* | | *-0.0183* | |
| *Zirconium* | | *0.0019* | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: ICSAB 440-437474/9  Instrument ID: ICP8

Lab File ID: 171025-1G.csv  ICS Source: ME ICP IFB_01743

Concentration Units: mg/L

| Analyte | True Solution AB | Found Solution AB | Found Percent Recovery |
|---|---|---|---|
| **Chromium** | **0.500** | **0.486** | **97** |
| *Aluminum* | *601* | *591* | *98* |
| *Antimony* | *0.500* | *0.511* | *102* |
| *Arsenic* | *0.500* | *0.503* | *101* |
| *Barium* | *0.500* | *0.461* | *92* |
| *Beryllium* | *0.500* | *0.529* | *106* |
| *Boron* | *0.500* | *0.509* | *102* |
| *Cadmium* | *0.500* | *0.450* | *90* |
| *Calcium* | *603* | *616* | *102* |
| *Cobalt* | *0.500* | *0.447* | *89* |
| *Copper* | *0.500* | *0.547* | *109* |
| *Iron* | *601* | *551* | *92* |
| *Lead* | *0.500* | *0.454* | *91* |
| *Lithium* | *0.500* | *0.504* | *101* |
| *Magnesium* | *603* | *550* | *91* |
| *Manganese* | *0.500* | *0.480* | *96* |
| *Molybdenum* | *0.500* | *0.499* | *100* |
| *Nickel* | *0.500* | *0.450* | *90* |
| *Phosphorus* | *0.500* | *0.500* | *100* |
| *Potassium* | *10.0* | *11.0* | *110* |
| *Selenium* | *0.500* | *0.482* | *96* |
| *Silicon* | *2.50* | *2.40* | *96* |
| *Silver* | *0.250* | *0.279* | *111* |
| *Sodium* | *10.0* | *10.9* | *109* |
| *Strontium* | *0.500* | *0.495* | *99* |
| *Thallium* | *0.500* | *0.452* | *90* |
| *Tin* | *0.500* | *0.453* | *91* |
| *Titanium* | *0.500* | *0.520* | *104* |
| *Tungsten* | *0.500* | *0.481* | *96* |
| *Vanadium* | *0.500* | *0.498* | *100* |
| *Zinc* | *0.500* | *0.410* | *82* |
| *Zirconium* | *0.500* | *0.490* | *98* |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: ICSA 440-437423/8  Instrument ID: ICP9

Lab File ID: 171025-1B.csv  ICS Source: ME ICP IFA_01724

Concentration Units: mg/L

| Analyte | True Solution A | Found Solution A | Percent Recovery |
|---|---|---|---|
| **Chromium** | | **-0.0003** | |
| *Aluminum* | *600* | *559* | *93* |
| *Antimony* | | *-0.0099* | |
| *Arsenic* | | *0.0096* | |
| *Barium* | | *0.0029* | |
| *Beryllium* | | *0.0001* | |
| *Boron* | | *0.0193* | |
| *Cadmium* | | *0.0012* | |
| *Calcium* | *600* | *566* | *94* |
| *Cobalt* | | *0.0037* | |
| *Copper* | | *0.0000* | |
| *Iron* | *600* | *493* | *82* |
| *Lead* | | *0.0021* | |
| *Lithium* | | *0.0107* | |
| *Magnesium* | *600* | *525* | *88* |
| *Manganese* | | *0.0012* | |
| *Molybdenum* | | *0.0013* | |
| *Nickel* | | *0.0019* | |
| *Phosphorus* | | *-0.0238* | |
| *Potassium* | | *0.326* | |
| *Selenium* | | *0.0028* | |
| *Silicon* | | *-0.0286* | |
| *Silver* | | *-0.0030* | |
| *Sodium* | | *0.267* | |
| *Strontium* | | *-0.0174* | |
| *Thallium* | | *-0.0080* | |
| *Tin* | | *-0.0049* | |
| *Titanium* | | *0.0016* | |
| *Tungsten* | | *0.0046* | |
| *Vanadium* | | *-0.0015* | |
| *Zinc* | | *0.0000* | |
| *Zirconium* | | *-0.0005* | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Lab Sample ID: ICSAB 440-437423/9  Instrument ID: ICP9

Lab File ID: 171025-1B.csv  ICS Source: ME ICP IFB_01743

Concentration Units: mg/L

| Analyte | True Solution AB | Found Solution AB | Percent Recovery |
|---|---|---|---|
| **Chromium** | **0.500** | **0.463** | **93** |
| *Aluminum* | *601* | *576* | *96* |
| *Antimony* | *0.500* | *0.503* | *101* |
| *Arsenic* | *0.500* | *0.487* | *97* |
| *Barium* | *0.500* | *0.439* | *88* |
| *Beryllium* | *0.500* | *0.494* | *99* |
| *Boron* | *0.500* | *0.508* | *102* |
| *Cadmium* | *0.500* | *0.429* | *86* |
| *Calcium* | *603* | *591* | *98* |
| *Cobalt* | *0.500* | *0.433* | *87* |
| *Copper* | *0.500* | *0.511* | *102* |
| *Iron* | *601* | *511* | *85* |
| *Lead* | *0.500* | *0.445* | *89* |
| *Lithium* | *0.500* | *0.517* | *103* |
| *Magnesium* | *603* | *545* | *90* |
| *Manganese* | *0.500* | *0.453* | *91* |
| *Molybdenum* | *0.500* | *0.470* | *94* |
| *Nickel* | *0.500* | *0.425* | *85* |
| *Phosphorus* | *0.500* | *0.465* | *93* |
| *Potassium* | *10.0* | *10.6* | *106* |
| *Selenium* | *0.500* | *0.443* | *89* |
| *Silicon* | *2.50* | *2.37* | *95* |
| *Silver* | *0.250* | *0.257* | *103* |
| *Sodium* | *10.0* | *10.1* | *101* |
| *Strontium* | *0.500* | *0.465* | *93* |
| *Thallium* | *0.500* | *0.427* | *85* |
| *Tin* | *0.500* | *0.447* | *89* |
| *Titanium* | *0.500* | *0.484* | *97* |
| *Tungsten* | *0.500* | *0.470* | *94* |
| *Vanadium* | *0.500* | *0.472* | *94* |
| *Zinc* | *0.500* | *0.413* | *83* |
| *Zirconium* | *0.500* | *0.473* | *95* |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: VER-01D-20.0-20171020 MS
Lab ID: 440-194754-6 MS
Lab Name: TestAmerica Irvine
Job No.: 440-194754-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 88.8

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 82.2 | | 13 | | 56.0 | 123 | 75-125 | | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 440-194571-G-9-B MS ^5

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.: _____

Matrix: Water Concentration Units: mg/L

% Solids: _____

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 19.3 | | 19 | | 1.00 | 36 | 75-125 | 4 | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 440-194525-D-1-C MS

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.: _____

Matrix: Water Concentration Units: mg/L

% Solids: _____

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 0.969 | | ND | | 1.00 | 97 | 75-125 | | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: VER-01D-20.0-20171020 MSD
Lab ID: 440-194754-6 MSD
Lab Name: TestAmerica Irvine
Job No.: 440-194754-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 88.8

| Analyte | (SDR) | C | Spike Added (SA) | %R | Control Limit %R | RPD | RPD Limit | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 82.9 | | 55.7 | 125 | 75-125 | 1 | 20 | | 6010B |

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 440-194571-G-9-C MSD ^5

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.: _____

Matrix: Water Concentration Units: mg/L

% Solids: _____

| Analyte | (SDR) C | | Spike Added (SA) | %R | Control Limit %R | RPD | RPD Limit | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 19.2 | | 1.00 | 28 | 75-125 | 0 | 20 | 4 | 6010B |

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 440-194525-D-1-D MSD

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.: _____

Matrix: Water Concentration Units: mg/L

% Solids: _____

| Analyte | (SDR) C | | Spike Added (SA) | %R | Control Limit %R | RPD | RPD Limit | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 1.02 | | 1.00 | 102 | 75-125 | 5 | 20 | | 6010B |

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: VER-01D-20.0-20171020 PDS  Lab ID: 440-194754-6 PDS

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Matrix: Solid  Concentration Units: mg/Kg

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 80.1 | | 13 | | 56.3 | 119 | 75-125 | | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 440-194571-G-9-D PDS ^5

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.: _____

Matrix: Water Concentration Units: mg/L

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 19.5 | | 19 | | 1.00 | NC | 75-125 | | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 440-194525-D-1-E PDS

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.: _____

Matrix: Water Concentration Units: mg/L

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 1.01 | | ND | | 1.00 | 101 | 75-125 | | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 440-436848/2-A

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

Sample Matrix: Water  LCS Source: ME ICP2 ICV1A_00051

| Analyte | Water(mg/L) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | True | Found | C | %R | Limits | | Q | Method |
| Chromium | 1.00 | 0.992 | | 99 | 80 | 120 | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 440-437120/2-A

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

Sample Matrix: Water  LCS Source: ME ICP2 ICV1A_00051

| Analyte | Water(mg/L) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | True | Found | C | %R | Limits | | Q | Method |
| Chromium | 1.00 | 0.986 | | 99 | 80 | 120 | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 440-437212/2-A ^5

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

Sample Matrix: Solid  LCS Source: ME ICP SPKE A_00029

| Analyte | Solid(mg/Kg) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | True | Found | C | %R | Limits | | Q | Method |
| Chromium | 49.3 | 54.8 | | 111 | 80 | 120 | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 440-194754-6

SDG No:

Lab Name: TestAmerica Irvine  Job No: 440-194754-1

Matrix: Solid  Concentration Units: mg/Kg

| Analyte | Initial Sample Result (I) | C | Serial Dilution Result (S) | C | % Difference | Q | Method |
|---|---|---|---|---|---|---|---|
| Chromium | 13 | | 11.2 | | NC | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 440-194571-G-9-A SD ^25

SDG No:

Lab Name: TestAmerica Irvine Job No: 440-194754-1

Matrix: Water Concentration Units: mg/L

| Analyte | Initial Sample Result (I) | C | Serial Dilution Result (S) | C | % Difference | Q | Method |
|---|---|---|---|---|---|---|---|
| Chromium | 19 | | 16.4 | | 14 | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 440-194525-D-1-B SD ^5

SDG No:

Lab Name: TestAmerica Irvine Job No: 440-194754-1

Matrix: Water Concentration Units: mg/L

| Analyte | Initial Sample Result (I) | C | Serial Dilution Result (S) | C | % Difference | Q | Method |
|---|---|---|---|---|---|---|---|
| Chromium | ND | | ND | | NC | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-194754-1

SDG Number:

Matrix: Solid Instrument ID: ICP7

Method: 6010B MDL Date: 08/11/2017 12:45

Prep Method: 3050B

| Analyte | Wavelength/ Mass | RL (mg/Kg) | MDL (mg/Kg) |
|---|---|---|---|
| Chromium | 205.552 | 1 | 0.5 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Irvine  Job Number: 440-194754-1

SDG Number:

Matrix: Solid  Instrument ID: ICP7

Method: 6010B  XMDL Date: 06/15/2017 17:46

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Chromium | 205.552 | 0.005 | 0.0025 |

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Irvine  Job Number: 440-194754-1

SDG Number:

Matrix: Solid  Instrument ID: ICP8

Method: 6010B  MDL Date: 08/11/2017 12:45

Prep Method: 3050B

| Analyte | Wavelength/ Mass | RL (mg/Kg) | MDL (mg/Kg) |
|---|---|---|---|
| Chromium | 205.552 | 1 | 0.5 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Irvine  Job Number: 440-194754-1

SDG Number:

Matrix: Solid  Instrument ID: ICP8

Method: 6010B  XMDL Date: 06/15/2017 17:46

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Chromium | 205.552 | 0.005 | 0.0025 |

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine  Job Number: 440-194754-1

SDG Number:

Matrix: Water  Instrument ID: ICP8

Method: 6010B  MDL Date: 06/15/2017 17:45

Prep Method: 3005A

| Analyte | Wavelength/ Mass | RL (mg/L) | MDL (mg/L) |
|---|---|---|---|
| Chromium | 205.552 | 0.005 | 0.0025 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine Job Number: 440-194754-1

SDG Number:

Matrix: Water Instrument ID: ICP8

Method: 6010B XMDL Date: 06/15/2017 17:46

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Chromium | 205.552 | 0.005 | 0.0025 |

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine Job Number: 440-194754-1

SDG Number:

Matrix: Water Instrument ID: ICP9

Method: 6010B MDL Date: 06/15/2017 17:45

Prep Method: 3005A

| Analyte | Wavelength/ Mass | RL (mg/L) | MDL (mg/L) |
|---|---|---|---|
| Chromium | 205.552 | 0.005 | 0.0025 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine Job Number: 440-194754-1

SDG Number:

Matrix: Water Instrument ID: ICP9

Method: 6010B XMDL Date: 06/15/2017 17:46

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Chromium | 205.552 | 0.005 | 0.0025 |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-194754-1

SDG No.:

ICP-AES Instrument ID: ICP7 Date: 10/25/2017

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 308.215 | | 0.121218 | 0.904092 | 1.309536 | 1.231562 | 0.070641 | 0.141926 | 2.043019 | 7.138100 | 0 | 0 | 1.124366 | 18.655017 | 1.886556 |
| Antimony | 206.836 | -0.036572 | 0 | -0.217916 | 5.017255 | 0 | -0.018557 | 0 | 0 | -14.877122 | 0 | 0 | 0 | 0 | -0.448124 |
| Arsenic | 188.979 | 0 | 0 | -0.177319 | -2.759249 | 0 | -0.080640 | 0 | 0 | 0.705341 | 0 | 0 | 0.253569 | 0.647893 | -0.615382 |
| Barium | 233.527 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -0.759622 | 0 |
| Beryllium | 313.107 | 0 | 0 | 0 | -0.037214 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Boron | 249.677 | 0 | 0 | 0 | 0 | 0 | 2.561250 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4.273924 |
| Cadmium | 214.440 | 0.009153 | 0 | 0 | 0 | 0 | 0.013508 | -0.004053 | 0 | 0 | 0 | 0 | 0 | 0 | -0.335090 |
| Calcium | 315.887 | 0 | | 2.191186 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Chromium | 205.560 | 0 | 0 | 0 | | 0 | -0.005034 | 0 | 0 | 0 | -0.201642 | 0 | 0 | 0 | 0.532973 |
| Cobalt | 228.616 | 0 | 0 | | 0 | 0 | 0.009900 | 0 | 0 | -0.345123 | 0 | 0 | 1.977366 | 0 | 0 |
| Copper | 324.752 | 0 | 0 | -0.324165 | 0 | | -0.076584 | 0 | 0 | 0.436967 | 0 | 0 | 0 | 0 | 0 |
| Iron | 238.204 | 0 | 0 | -1.521218 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lead | 220.353 | 0.089172 | -0.016027 | -0.389896 | 0 | 0.382068 | 0.023107 | 0.011978 | 0.193667 | -2.116906 | -0.11997 | 0 | 0 | 0 | 0.408021 |
| Lithium | 610.362 | 0 | -0.755000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Magnesium | 279.077 | 0 | 0 | 0 | 4.160564 | 0 | -0.092899 | | -0.492871 | -3.158892 | 0 | 0 | -0.974535 | 0 | -1.125708 |
| Manganese | 257.610 | 0 | 0 | 0 | 0 | 0 | 0 | 0.034711 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Molybdenum | 202.031 | 0 | 0 | 0 | 0 | 0 | -0.025350 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 |
| Nickel | 231.604 | 0 | 0 | -1.052819 | 0 | 0 | 0.017001 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 |
| Phosphorus | 214.914 | -0.283100 | 0 | 0 | 0 | 3.415541 | 0.830000 | 0 | 0 | 10.391510 | 0 | 0 | 0 | 0 | 48.903239 |
| Potassium | 766.490 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Selenium | 196.026 | 0 | 0 | -1.192499 | 0 | 0 | -0.423214 | 0 | 0.773986 | 0.374381 | 0 | 0 | 0 | 0 | 9.410769 |
| Silicon | 251.611 | 0 | 0 | 0 | 0 | 0 | -0.070159 | 0.067928 | 0 | 11.880984 | 0 | 0 | 2.977863 | 0 | 54.053182 |
| Silver | 328.068 | 0 | 0 | 0 | 0 | 0 | -0.021077 | 0 | 0 | 0 | 0 | 0 | 0 | -0.198952 | 0 |
| Sodium | 589.592 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Strontium | 421.552 | 0 | 0.029088 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Thallium | 190.801 | -0.015531 | -0.007968 | 4.263215 | 0.195469 | 0 | 0 | 0 | 0.444478 | 0.686592 | 0 | 0 | -8.776847 | 0.640330 | 0 |
| Tin | 189.927 | 0 | 0.056650 | 0 | 0 | 0 | -0.155543 | 0 | 0 | 0 | 0 | | -4.968367 | 0 | 0 |
| Titanium | 334.903 | 0 | -0.014784 | 0 | 0.177608 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 1.05226 |
| Tungsten | 207.912 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Vanadium | 292.402 | 0 | 0 | 0 | -3.287051 | 0 | -0.107300 | 0 | 0 | -0.321667 | 0 | 0 | 0.494855 | | 0 |

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-194754-1

SDG No.:

ICP-AES Instrument ID: ICP7 Date: 10/25/2017

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | | | 3235.791083 | 3187.292323 | 3312.777451 | 174.565362 | 138.698901 | 3210.703894 | 3637.125785 | 3243.298416 | 3320.209526 | 3499.941391 | 3372.699868 | 3554.777578 |
| Zinc | 213.857 | 0 | 0 | 0.475211 | 0 | 1.515383 | 1.02200 | 0.042783 | 0 | 0 | 4.948432 | 0 | 0 | 0 | 0.798690 |
| Zirconium | 343.823 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-194754-1

SDG No.:

ICP-AES Instrument ID: ICP7 Date: 10/25/2017

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 308.215 | 0 | 1.578167 | | | | | | | | | | | | |
| Antimony | 206.836 | 0.183083 | -0.651390 | | | | | | | | | | | | |
| Arsenic | 188.979 | 0 | 0 | | | | | | | | | | | | |
| Barium | 233.527 | 0 | 0 | | | | | | | | | | | | |
| Beryllium | 313.107 | 0 | 0.113659 | | | | | | | | | | | | |
| Boron | 249.677 | 0 | 0 | | | | | | | | | | | | |
| Cadmium | 214.440 | 0 | 0 | | | | | | | | | | | | |
| Calcium | 315.887 | 0 | -5.344820 | | | | | | | | | | | | |
| Chromium | 205.560 | 0 | 0 | | | | | | | | | | | | |
| Cobalt | 228.616 | 0 | 0 | | | | | | | | | | | | |
| Copper | 324.752 | 0 | 0 | | | | | | | | | | | | |
| Iron | 238.204 | 0 | 0 | | | | | | | | | | | | |
| Lead | 220.353 | 0 | 0 | | | | | | | | | | | | |
| Lithium | 610.362 | 0 | 0 | | | | | | | | | | | | |
| Magnesium | 279.077 | 0 | 0 | | | | | | | | | | | | |
| Manganese | 257.610 | 0 | 0 | | | | | | | | | | | | |
| Molybdenum | 202.031 | 0 | 0 | | | | | | | | | | | | |
| Nickel | 231.604 | 0 | 0 | | | | | | | | | | | | |
| Phosphorus | 214.914 | 1.000072 | 1.944433 | | | | | | | | | | | | |
| Potassium | 766.490 | 0 | 0 | | | | | | | | | | | | |
| Selenium | 196.026 | 0 | 0 | | | | | | | | | | | | |
| Silicon | 251.611 | 0 | 7.091490 | | | | | | | | | | | | |
| Silver | 328.068 | 0 | 6.522561 | | | | | | | | | | | | |
| Sodium | 589.592 | 0 | 0 | | | | | | | | | | | | |
| Strontium | 421.552 | 0 | 0 | | | | | | | | | | | | |
| Thallium | 190.801 | 0 | 0 | | | | | | | | | | | | |
| Tin | 189.927 | 0 | 0 | | | | | | | | | | | | |
| Titanium | 334.903 | 0 | 0 | | | | | | | | | | | | |
| Tungsten | 207.912 | 6.571938 | 0 | | | | | | | | | | | | |
| Vanadium | 292.402 | 0 | 0 | | | | | | | | | | | | |

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-194754-1

SDG No.:

ICP-AES Instrument ID: ICP7 Date: 10/25/2017

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | 3492.885456 | 3364.294178 | | | | | | | | | | | | |
| Zinc | 213.857 | | 0 | | | | | | | | | | | | |
| Zirconium | 343.823 | 0 | | | | | | | | | | | | | |

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-194754-1

SDG No.:

ICP-AES Instrument ID: ICP8 Date: 10/21/2017

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 396.152 | | 0.000013 | -0.000018 | 0.000025 | 0.000008 | -0.000036 | 0.000046 | 0 | 0.02689 | -0.000079 | -0.000019 | -0.000203 | 0.000009 | 0.001073 |
| Antimony | 206.834 | 0.000009 | 0.000003 | 0.000006 | 0.010395 | 0.000062 | -0.000053 | -0.000002 | -0.000075 | -0.01878 | -0.000037 | 0.000237 | 0.000208 | 0.00005 | -0.000369 |
| Arsenic | 188.980 | 0.000011 | -0.000005 | -0.000018 | -0.012816 | 0.00004 | 0.000016 | 0.000008 | -0.000015 | 0.000025 | 0.000095 | -0.000094 | -0.000062 | -0.000062 | 0.000903 |
| Barium | 233.527 | 0 | 0 | -0.000006 | -0.000002 | 0.000001 | 0.000001 | 0.000001 | 0 | -0.000191 | -0.000007 | -0.000001 | 0.000003 | -0.000164 | 0.000137 |
| Beryllium | 234.861 | 0 | 0 | 0.000004 | 0 | 0 | 0.000131 | 0 | -0.000003 | -0.000013 | -0.000018 | 0.000001 | 0.000003 | 0.000001 | 0.000004 |
| Boron | 249.678 | 0 | 0.000001 | 0.00088 | 0.000452 | -0.00002 | -0.000089 | 0 | -0.00007 | -0.000017 | -0.000005 | -0.000014 | -0.00003 | -0.000018 | -0.010398 |
| Cadmium | 214.439 | -0.000001 | 0 | 0.000002 | -0.000009 | -0.000003 | 0.000011 | 0 | 0.000001 | -0.000006 | 0.000004 | 0.000001 | 0.000005 | 0.000002 | -0.000056 |
| Calcium | 422.673 | -0.000006 | | 0.000876 | 0.000377 | -0.000272 | -0.000064 | 0.000039 | -0.000053 | -0.000524 | -0.000396 | -0.000114 | -0.000132 | 0.000387 | -0.000193 |
| Chromium | 205.560 | 0.000001 | 0.000003 | -0.000007 | | 0.000042 | 0.000004 | 0 | 0.000025 | -0.000681 | -0.000317 | 0.000014 | 0.000028 | -0.000018 | 0.000386 |
| Cobalt | 228.615 | 0 | 0.000001 | | 0.000085 | 0.000016 | 0.000008 | 0.000002 | -0.000003 | 0.000019 | 0.000157 | 0.000002 | 0.001777 | -0.000007 | 0.000113 |
| Copper | 324.754 | 0.000001 | -0.000019 | 0.000014 | 0.000019 | | 0.000022 | 0.000002 | 0.000013 | 0.000217 | 0.000018 | 0.000014 | 0.000206 | -0.000092 | 0.00002 |
| Iron | 238.204 | -0.000007 | 0.000002 | -0.000338 | -0.000187 | -0.00013 | | 0.000024 | 0.000002 | -0.000162 | -0.000109 | -0.000119 | -0.000132 | -0.000188 | -0.000132 |
| Lead | 220.353 | -0.000039 | 0.000003 | -0.000498 | 0 | 0.000033 | -0.000015 | 0.000011 | 0.000209 | -0.000819 | -0.000019 | 0.000021 | -0.000428 | -0.000038 | -0.000096 |
| Lithium | 670.783 | 0.000054 | 0.000021 | -0.000148 | -0.00023 | -0.001097 | -0.000003 | 0.000057 | -0.000518 | -0.000367 | -0.000358 | -0.001101 | 0.000381 | -0.001377 | -0.000136 |
| Magnesium | 279.078 | -0.00001 | 0.000007 | -0.000382 | -0.000435 | -0.0001 | -0.000217 | | 0.000627 | -0.000188 | -0.000014 | -0.000068 | -0.000188 | 0.000112 | -0.00038 |
| Manganese | 259.372 | 0 | 0.000001 | 0.00001 | -0.000007 | -0.000001 | 0.001156 | 0.000036 | | 0.004715 | 0.000013 | 0.000005 | 0.000019 | 0.00001 | 0.000005 |
| Molybdenum | 204.598 | 0.000025 | 0 | 0.000039 | 0.000067 | 0.000001 | 0.000004 | 0 | 0.000022 | | 0.000085 | -0.000008 | 0.00005 | -0.000031 | 0.000033 |
| Nickel | 231.604 | 0.000001 | -0.000003 | -0.000756 | 0.000004 | -0.000028 | 0.000004 | -0.000002 | -0.000049 | -0.000042 | | 0.00006 | 0.000011 | -0.000001 | -0.000013 |
| Phosphorus | 213.618 | 0.000001 | -0.000013 | 0.000141 | 0.000127 | -0.03762 | -0.000018 | 0.000004 | -0.000139 | -0.020778 | 0.000094 | -0.000098 | 0.000151 | 0.00024 | -0.000573 |
| Potassium | 744.491 | 0.000095 | 0.000087 | 0.002408 | 0.001429 | -0.000339 | 0.000196 | 0.000277 | -0.000372 | -0.001987 | 0.001312 | 0.001861 | 0.001852 | 0.001103 | 0.001579 |
| Selenium | 196.026 | -0.000006 | -0.000007 | -0.00066 | -0.000051 | -0.000107 | -0.000175 | -0.000001 | 0.000565 | -0.000003 | -0.000241 | 0 | -0.000066 | -0.000483 | 0.009364 |
| Silicon | 251.611 | 0.000013 | 0.00002 | 0.000136 | 0.000095 | 0.000162 | -0.000038 | 0.000048 | 0.000255 | 0.010982 | 0.000192 | 0.000679 | 0.004127 | 0.000213 | 0.053502 |
| Silver | 328.068 | 0 | -0.000003 | -0.000013 | -0.000026 | -0.000003 | -0.000007 | -0.000002 | 0.000075 | 0.000029 | 0.000003 | -0.000009 | -0.000107 | 0.000009 | 0.000009 |
| Sodium | 589.592 | 0.00003 | 0.000041 | 0.000558 | 0.000239 | 0.000428 | 0.000025 | 0.000018 | 0.000127 | 0.002128 | 0.000479 | 0.000076 | 0.000228 | -0.00004 | 0.006467 |
| Strontium | 421.552 | 0 | 0.00003 | 0.000002 | 0.000003 | -0.000001 | 0.00000 | 0 | 0 | 0.000001 | 0.000002 | 0.000002 | 0.000001 | 0 | 0.000017 |
| Thallium | 190.794 | -0.000001 | -0.000005 | 0.003078 | 0.000156 | -0.000039 | 0 | 0.000005 | 0.001388 | 0.000096 | -0.000005 | -0.000043 | -0.010982 | -0.02142 | 0.000265 |
| Tin | 189.925 | 0.000001 | 0 | 0.000083 | 0.000021 | 0.000021 | 0.000006 | 0.000003 | 0.000047 | 0.000038 | 0.000039 | | -0.000119 | 0.000028 | 0.000028 |
| Titanium | 336.122 | 0 | -0.000008 | -0.000017 | -0.000029 | 0.000002 | 0.000001 | 0 | 0.000005 | -0.00012 | -0.000039 | 0.000005 | | -0.000364 | 0.000399 |
| Tungsten | 207.912 | -0.000006 | -0.000009 | -0.000082 | -0.000001 | -0.000042 | 0 | -0.000001 | -0.000021 | 0.000144 | -0.000024 | -0.000005 | -0.000009 | -0.000019 | |
| Vanadium | 292.401 | 0.000004 | 0.000038 | 0.000001 | 0.000214 | 0.000012 | 0.000007 | 0.000002 | 0.000014 | -0.008504 | 0.000003 | 0.000009 | 0.000907 | | 0.000183 |

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-194754-1

SDG No.:

ICP-AES Instrument ID: ICP8 Date: 10/21/2017

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | 0 | 0 | 0 | 0 | 0 | -0.000005 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Zinc | 202.548 | 0.000003 | 0.000003 | 0.000013 | -0.001604 | 0.0078 | -0.00000167 | 0.000028 | 0.000044 | 0.00007 | -0.000062 | 0.000012 | 0.000048 | 0.000036 | 0.000339 |
| Zirconium | 343.823 | 0 | 0.000002 | -0.000097 | 0.000005 | 0.000002 | 0.000012 | 0 | -0.000025 | -0.000012 | -0.000009 | 0.000007 | -0.000025 | 0.000005 | 0.000085 |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-194754-1

SDG No.:

ICP-AES Instrument ID: ICP8 Date: 10/21/2017

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 396.152 | -0.00005 | 0.008541 | | | | | | | | | | | | |
| Antimony | 206.834 | 0.000096 | -0.000086 | | | | | | | | | | | | |
| Arsenic | 188.980 | -0.000075 | 0.000125 | | | | | | | | | | | | |
| Barium | 233.527 | 0.000001 | -0.000001 | | | | | | | | | | | | |
| Beryllium | 234.861 | 0.000001 | 0.000006 | | | | | | | | | | | | |
| Boron | 249.678 | 0.00002 | 0.000445 | | | | | | | | | | | | |
| Cadmium | 214.439 | 0.000005 | 0.000001 | | | | | | | | | | | | |
| Calcium | 422.673 | -0.000066 | -0.000488 | | | | | | | | | | | | |
| Chromium | 205.560 | 0.000037 | 0.000101 | | | | | | | | | | | | |
| Cobalt | 228.615 | -0.000013 | -0.000003 | | | | | | | | | | | | |
| Copper | 324.754 | 0.000016 | 0.00004 | | | | | | | | | | | | |
| Iron | 238.204 | 0.00011 | 0.000622 | | | | | | | | | | | | |
| Lead | 220.353 | -0.000028 | -0.000005 | | | | | | | | | | | | |
| Lithium | 670.783 | -0.00073 | -0.000634 | | | | | | | | | | | | |
| Magnesium | 279.078 | -0.000119 | -0.000067 | | | | | | | | | | | | |
| Manganese | 259.372 | 0.000005 | 0.000048 | | | | | | | | | | | | |
| Molybdenum | 204.598 | 0.000052 | 0.000002 | | | | | | | | | | | | |
| Nickel | 231.604 | 0.000023 | 0.000028 | | | | | | | | | | | | |
| Phosphorus | 213.618 | -0.00009 | 0.000028 | | | | | | | | | | | | |
| Potassium | 744.491 | -0.001412 | 0.000491 | | | | | | | | | | | | |
| Selenium | 196.026 | -0.000101 | -0.000166 | | | | | | | | | | | | |
| Silicon | 251.611 | 0.001039 | 0.006759 | | | | | | | | | | | | |
| Silver | 328.068 | 0.000001 | 0.003947 | | | | | | | | | | | | |
| Sodium | 589.592 | -0.000112 | 0.000318 | | | | | | | | | | | | |
| Strontium | 421.552 | 0 | -0.00002 | | | | | | | | | | | | |
| Thallium | 190.794 | -0.000027 | 0.000028 | | | | | | | | | | | | |
| Tin | 189.925 | 0.000048 | 0.000557 | | | | | | | | | | | | |
| Titanium | 336.122 | 0.000006 | 0.000122 | | | | | | | | | | | | |
| Tungsten | 207.912 | 0.008281 | 0.000004 | | | | | | | | | | | | |
| Vanadium | 292.401 | 0.000024 | -0.000008 | | | | | | | | | | | | |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-194754-1

SDG No.:

ICP-AES Instrument ID: ICP8 Date: 10/21/2017

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | 0 | 0 | | | | | | | | | | | | |
| Zinc | 202.548 | | 0.000117 | | | | | | | | | | | | |
| Zirconium | 343.823 | 0.000003 | | | | | | | | | | | | | |

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-194754-1

SDG No.:

ICP-AES Instrument ID: ICP8 Date: 10/25/2017

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 396.152 | | 0.000013 | -0.000018 | 0.000025 | 0.000008 | -0.000036 | 0.000046 | 0 | 0.02689 | -0.000079 | -0.000019 | -0.000203 | 0.000009 | 0.001073 |
| Antimony | 206.834 | 0.000009 | 0.000003 | 0.000006 | 0.010395 | 0.000062 | -0.000053 | -0.000002 | -0.000075 | -0.01878 | -0.000037 | 0.000237 | 0.000208 | 0.00005 | -0.000369 |
| Arsenic | 188.980 | 0.000011 | -0.000005 | -0.000018 | -0.012816 | 0.00004 | 0.000016 | 0.000008 | -0.000015 | 0.000025 | 0.000095 | -0.000094 | -0.000062 | -0.000062 | 0.000903 |
| Barium | 233.527 | 0 | 0 | -0.000006 | -0.000002 | 0.000001 | 0.000001 | 0.000001 | 0 | -0.000191 | -0.000007 | -0.000001 | 0.000003 | -0.000164 | 0.000137 |
| Beryllium | 234.861 | 0 | 0 | 0.000004 | 0 | 0 | 0.000131 | 0 | -0.000003 | -0.000013 | -0.000018 | 0.000001 | 0.000003 | 0.000001 | 0.000004 |
| Boron | 249.678 | 0 | 0.000001 | 0.00088 | 0.000452 | -0.00002 | -0.000089 | 0 | -0.00007 | -0.000017 | -0.000005 | -0.000014 | -0.00003 | -0.000018 | -0.010398 |
| Cadmium | 214.439 | -0.000001 | 0 | 0.000002 | -0.000009 | -0.000003 | 0.000011 | 0 | 0.000001 | -0.000006 | 0.000004 | 0.000001 | 0.000005 | 0.000002 | -0.000056 |
| Calcium | 422.673 | -0.000006 | | 0.000876 | 0.000377 | -0.000272 | -0.000064 | 0.000039 | -0.000053 | -0.000524 | -0.000396 | -0.000114 | -0.000132 | 0.000387 | -0.000193 |
| Chromium | 205.560 | 0.000001 | 0.000003 | -0.000007 | | 0.000042 | 0.000004 | 0 | 0.000025 | -0.000681 | -0.000317 | 0.000014 | 0.000028 | -0.000018 | 0.000386 |
| Cobalt | 228.615 | 0 | 0.000001 | | 0.000085 | 0.000016 | 0.000008 | 0.000002 | -0.000003 | 0.000019 | 0.000157 | 0.000002 | 0.001777 | -0.000007 | 0.000113 |
| Copper | 324.754 | 0.000001 | -0.000019 | 0.000014 | 0.000019 | | 0.000022 | 0.000002 | 0.000013 | 0.000217 | 0.000018 | 0.000014 | 0.000206 | -0.000092 | 0.00002 |
| Iron | 238.204 | -0.000007 | 0.000002 | -0.000338 | -0.000187 | -0.00013 | | 0.000024 | 0.000002 | -0.000162 | -0.000109 | -0.000119 | -0.000132 | -0.000188 | -0.000132 |
| Lead | 220.353 | -0.000039 | 0.000003 | -0.000498 | 0 | 0.000033 | -0.000015 | 0.000011 | 0.000209 | -0.000819 | -0.000019 | 0.000021 | -0.000428 | -0.000038 | -0.000096 |
| Lithium | 670.783 | 0.000054 | 0.000021 | -0.000148 | -0.00023 | -0.001097 | -0.000003 | 0.000057 | -0.000518 | -0.000367 | -0.000358 | -0.001101 | 0.000381 | -0.001377 | -0.000136 |
| Magnesium | 279.078 | -0.00001 | 0.000007 | -0.000382 | -0.000435 | -0.0001 | -0.000217 | | 0.000627 | -0.000188 | -0.000014 | -0.000068 | -0.000188 | 0.000112 | -0.00038 |
| Manganese | 259.372 | 0 | 0.000001 | 0.00001 | -0.000007 | -0.000001 | 0.001380 | 0.000036 | | 0.004715 | 0.000013 | 0.000005 | 0.000019 | 0.00001 | 0.000005 |
| Molybdenum | 204.598 | 0.000025 | 0 | 0.000039 | 0.000067 | 0.000001 | 0.000004 | 0 | 0.000022 | | 0.000085 | -0.000008 | 0.00005 | -0.000031 | 0.000033 |
| Nickel | 231.604 | 0.000001 | -0.000003 | -0.000756 | 0.000004 | -0.000028 | 0.000004 | -0.000002 | -0.000049 | -0.000042 | | 0.00006 | 0.000011 | -0.000001 | -0.000013 |
| Phosphorus | 213.618 | 0.000001 | -0.000013 | 0.000141 | 0.000127 | -0.03762 | -0.000018 | 0.000004 | -0.000139 | -0.020778 | 0.000094 | -0.000098 | 0.000151 | 0.00024 | -0.000573 |
| Potassium | 744.491 | 0.000095 | 0.000087 | 0.002408 | 0.001429 | -0.000339 | 0.000196 | 0.000277 | -0.000372 | -0.001987 | 0.001312 | 0.001861 | 0.001852 | 0.001103 | 0.001579 |
| Selenium | 196.026 | -0.000006 | -0.000007 | -0.00066 | -0.000051 | -0.000107 | -0.000175 | -0.000001 | 0.000565 | -0.000003 | -0.000241 | 0 | -0.000066 | -0.000483 | 0.009364 |
| Silicon | 251.611 | 0.000013 | 0.00002 | 0.000136 | 0.000095 | 0.000162 | -0.000038 | 0.000048 | 0.000255 | 0.010982 | 0.000192 | 0.000679 | 0.004127 | 0.000213 | 0.053502 |
| Silver | 328.068 | 0 | -0.000003 | -0.000013 | -0.000026 | -0.000003 | -0.000007 | -0.000002 | 0.000075 | 0.000029 | 0.000003 | -0.000009 | -0.000107 | 0.000009 | 0.000009 |
| Sodium | 589.592 | 0.00003 | 0.000041 | 0.000558 | 0.000239 | 0.000428 | 0.000025 | 0.000018 | 0.000127 | 0.002128 | 0.000479 | 0.000076 | 0.000228 | -0.00004 | 0.006467 |
| Strontium | 421.552 | 0 | 0.00003 | 0.000002 | 0.000003 | -0.000001 | 0.00000 | 0 | 0 | 0.000001 | 0.000002 | 0.000002 | 0.000001 | 0 | 0.000017 |
| Thallium | 190.794 | -0.000001 | -0.000005 | 0.003078 | 0.000156 | -0.000039 | 0 | 0.000005 | 0.001388 | 0.000096 | -0.000005 | -0.000043 | -0.010982 | -0.02142 | 0.000265 |
| Tin | 189.925 | 0.000001 | 0 | 0.000083 | 0.000021 | 0.000021 | 0.000006 | 0.000003 | 0.000047 | 0.000038 | 0.000039 | | -0.000119 | 0.000028 | 0.000028 |
| Titanium | 336.122 | 0 | -0.000008 | -0.000017 | -0.000029 | 0.000002 | 0.000001 | 0 | 0.000005 | -0.00012 | -0.000039 | 0.000005 | | -0.000364 | 0.000399 |
| Tungsten | 207.912 | -0.000006 | -0.000009 | -0.000082 | -0.000001 | -0.000042 | 0 | -0.000001 | -0.000021 | 0.000144 | -0.000024 | -0.000005 | -0.000009 | -0.000019 | |
| Vanadium | 292.401 | 0.000004 | 0.000038 | 0.000001 | 0.000214 | 0.000012 | 0.000007 | 0.000002 | 0.000014 | -0.008504 | 0.000003 | 0.000009 | 0.000907 | | 0.000183 |

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-194754-1

SDG No.:

ICP-AES Instrument ID: ICP8 Date: 10/25/2017

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | 0 | 0 | 0 | 0 | 0 | -0.000005 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Zinc | 202.548 | 0.000003 | 0.000003 | 0.000013 | -0.001604 | 0.0078 | -0.00000167 | 0.000028 | 0.000044 | 0.00007 | -0.000062 | 0.000012 | 0.000048 | 0.000036 | 0.000339 |
| Zirconium | 343.823 | 0 | 0.000002 | -0.000097 | 0.000005 | 0.000002 | 0.000012 | 0 | -0.000025 | -0.000012 | -0.000009 | 0.000007 | -0.000025 | 0.000005 | 0.000085 |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-194754-1

SDG No.:

ICP-AES Instrument ID: ICP8 Date: 10/25/2017

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 396.152 | -0.00005 | 0.008541 | | | | | | | | | | | | |
| Antimony | 206.834 | 0.000096 | -0.000086 | | | | | | | | | | | | |
| Arsenic | 188.980 | -0.000075 | 0.000125 | | | | | | | | | | | | |
| Barium | 233.527 | 0.000001 | -0.000001 | | | | | | | | | | | | |
| Beryllium | 234.861 | 0.000001 | 0.000006 | | | | | | | | | | | | |
| Boron | 249.678 | 0.00002 | 0.000445 | | | | | | | | | | | | |
| Cadmium | 214.439 | 0.000005 | 0.000001 | | | | | | | | | | | | |
| Calcium | 422.673 | -0.000066 | -0.000488 | | | | | | | | | | | | |
| Chromium | 205.560 | 0.000037 | 0.000101 | | | | | | | | | | | | |
| Cobalt | 228.615 | -0.000013 | -0.000003 | | | | | | | | | | | | |
| Copper | 324.754 | 0.000016 | 0.00004 | | | | | | | | | | | | |
| Iron | 238.204 | 0.00011 | 0.000622 | | | | | | | | | | | | |
| Lead | 220.353 | -0.000028 | -0.000005 | | | | | | | | | | | | |
| Lithium | 670.783 | -0.00073 | -0.000634 | | | | | | | | | | | | |
| Magnesium | 279.078 | -0.000119 | -0.000067 | | | | | | | | | | | | |
| Manganese | 259.372 | 0.000005 | 0.000048 | | | | | | | | | | | | |
| Molybdenum | 204.598 | 0.000052 | 0.000002 | | | | | | | | | | | | |
| Nickel | 231.604 | 0.000023 | 0.000028 | | | | | | | | | | | | |
| Phosphorus | 213.618 | -0.00009 | 0.000028 | | | | | | | | | | | | |
| Potassium | 744.491 | -0.001412 | 0.000491 | | | | | | | | | | | | |
| Selenium | 196.026 | -0.000101 | -0.000166 | | | | | | | | | | | | |
| Silicon | 251.611 | 0.001039 | 0.006759 | | | | | | | | | | | | |
| Silver | 328.068 | 0.000001 | 0.003947 | | | | | | | | | | | | |
| Sodium | 589.592 | -0.000112 | 0.000318 | | | | | | | | | | | | |
| Strontium | 421.552 | 0 | -0.00002 | | | | | | | | | | | | |
| Thallium | 190.794 | -0.000027 | 0.000028 | | | | | | | | | | | | |
| Tin | 189.925 | 0.000048 | 0.000557 | | | | | | | | | | | | |
| Titanium | 336.122 | 0.000006 | 0.000122 | | | | | | | | | | | | |
| Tungsten | 207.912 | 0.008281 | 0.000004 | | | | | | | | | | | | |
| Vanadium | 292.401 | 0.000024 | -0.000008 | | | | | | | | | | | | |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-194754-1

SDG No.:

ICP-AES Instrument ID: ICP8 Date: 10/25/2017

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | 0 | 0 | | | | | | | | | | | | |
| Zinc | 202.548 | | 0.000117 | | | | | | | | | | | | |
| Zirconium | 343.823 | 0.000003 | | | | | | | | | | | | | |

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-194754-1

SDG No.:

ICP-AES Instrument ID: ICP9 Date: 10/25/2017

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 396.152 | | -0.000113 | 0.000335 | 0.000181 | 0.000104 | -0.000033 | 0.000059 | 0.000156 | 0.027697 | 0.000141 | 0.000151 | 0.0001 | 0.000149 | 0.001271 |
| Antimony | 206.834 | -0.00004 | -0.000006 | 0.00011 | 0.011494 | 0.000046 | 0.000015 | -0.000008 | -0.000015 | -0.016976 | 0.000031 | 0.000285 | 0.000246 | 0.000194 | -0.000311 |
| Arsenic | 188.980 | -0.000001 | 0.000004 | 0.00001 | -0.011892 | -0.000057 | 0.000006 | 0.000003 | -0.000097 | -0.000247 | -0.000118 | -0.000045 | -0.0003 | -0.000181 | 0.000746 |
| Barium | 233.527 | 0 | 0 | -0.000008 | 0.000005 | 0.000003 | 0.000002 | 0.000002 | 0.000003 | -0.0002 | -0.000001 | -0.000013 | -0.000001 | -0.000166 | 0.000131 |
| Beryllium | 234.861 | 0 | 0 | 0.000005 | -0.000003 | -0.000001 | 0.000118 | 0 | -0.000065 | -0.000283 | -0.000005 | 0 | 0.000001 | -0.000001 | -0.000002 |
| Boron | 249.678 | 0 | 0 | 0.000864 | 0.000331 | -0.000038 | -0.00009 | -0.000003 | -0.000106 | -0.000041 | -0.000044 | -0.000044 | -0.000026 | -0.000044 | -0.010089 |
| Cadmium | 214.439 | -0.000001 | 0 | -0.000005 | -0.000016 | -0.000003 | 0.00001 | 0 | -0.000001 | -0.000015 | -0.000002 | -0.000003 | 0 | -0.000004 | -0.000105 |
| Calcium | 422.673 | -0.00001 | | 0.000994 | 0.000535 | -0.000109 | -0.00006 | 0.000043 | 0.00015 | -0.000274 | 0.00001 | 0.000023 | -0.000301 | 0.000679 | -0.000279 |
| Chromium | 205.560 | 0.000002 | 0.000001 | -0.000004 | | 0.000103 | 0.000001 | 0.000001 | 0.000002 | -0.000689 | -0.000347 | -0.000006 | 0.000025 | -0.000003 | 0.000429 |
| Cobalt | 228.615 | -0.000074 | -0.000001 | | 0.000295 | 0.000012 | 0.000079 | 0.000001 | 0.000008 | 0.000035 | 0.000122 | 0.000003 | 0.00196 | 0.000006 | 0.000203 |
| Copper | 324.754 | 0.000001 | -0.000036 | 0.000007 | -0.000005 | | 0.000017 | 0.000003 | 0.000004 | 0.00028 | -0.000017 | 0.000003 | -0.000201 | -0.000162 | 0.000005 |
| Iron | 238.204 | -0.000001 | 0.000002 | -0.000563 | -0.000085 | -0.000005 | | 0.000038 | 0.000026 | -0.000037 | -0.00012 | -0.00005 | -0.000012 | -0.000018 | -0.000026 |
| Lead | 220.353 | -0.000075 | 0 | 0.00001 | -0.00002 | 0.000012 | 0.000031 | 0.000005 | 0.000163 | -0.001276 | 0.000103 | 0.000085 | -0.000369 | -0.000017 | -0.001029 |
| Lithium | 670.783 | -0.000008 | 0.000091 | -0.000403 | -0.000358 | -0.000417 | 0.000007 | -0.000043 | -0.000191 | -0.000044 | 0.000649 | -0.000155 | 0.000322 | -0.000365 | -0.000287 |
| Magnesium | 279.078 | -0.000008 | 0.000004 | -0.000345 | -0.000396 | -0.00006 | -0.000154 | | 0.000619 | -0.000486 | -0.000082 | -0.000084 | -0.000074 | 0.000166 | -0.000444 |
| Manganese | 259.372 | 0 | 0.000001 | 0.000014 | -0.000012 | 0.000001 | 0.001173 | 0.000037 | | 0.00506 | 0.000001 | 0.000001 | 0.000019 | 0.000008 | 0.000003 |
| Molybdenum | 204.598 | 0.00002 | -0.000002 | -0.000026 | 0.000026 | -0.000025 | 0.000001 | -0.000003 | -0.000008 | | -0.000008 | 0.000011 | -0.000055 | -0.000071 | -0.000042 |
| Nickel | 231.604 | -0.000054 | -0.000002 | -0.000729 | -0.000004 | -0.000007 | 0.000068 | 0.000003 | -0.000086 | -0.000043 | | 0.000055 | 0.000025 | -0.000031 | -0.000076 |
| Phosphorus | 213.618 | 0.00001 | -0.000003 | 0.000107 | -0.000002 | -0.049125 | -0.000015 | 0.000002 | -0.000009 | -0.022058 | 0.000016 | -0.000101 | 0.000039 | 0.000032 | -0.000338 |
| Potassium | 766.491 | -0.000164 | -0.000312 | -0.002978 | -0.00312 | -0.002577 | -0.00015 | 0.000377 | -0.003299 | -0.003487 | -0.001449 | -0.002276 | -0.001505 | -0.002888 | -0.003948 |
| Selenium | 196.026 | -0.000002 | 0.000001 | -0.000473 | -0.00005 | -0.000118 | -0.000223 | 0.000003 | 0.000473 | -0.000001 | -0.000076 | 0.00001 | -0.000029 | -0.000143 | 0.008371 |
| Silicon | 251.611 | 0.000025 | 0.000032 | 0.000226 | 0.000128 | 0.000078 | -0.000059 | 0.000052 | 0.000244 | 0.011459 | 0.00022 | 0.000666 | 0.003874 | 0.000343 | 0.066637 |
| Silver | 328.068 | 0 | -0.000002 | 0.000013 | -0.000014 | 0.000008 | -0.000006 | -0.000001 | 0.000077 | 0.000057 | 0.000007 | -0.000002 | -0.000079 | 0.000092 | 0.000005 |
| Sodium | 589.592 | 0.000011 | 0.000027 | -0.000151 | 0.000095 | -0.000181 | -0.000033 | 0.000018 | 0.000103 | 0.001732 | -0.000426 | -0.000326 | -0.000135 | -0.000514 | 0.002616 |
| Strontium | 421.552 | 0 | 0.000032 | 0 | -0.000002 | -0.000001 | 0.000001 | 0 | 0.000001 | 0 | -0.000003 | 0.000004 | 0.000002 | 0.000002 | 0.000015 |
| Thallium | 190.794 | 0.000008 | 0.000006 | 0.00333 | 0.000217 | 0.000096 | 0.000009 | 0.000005 | 0.001473 | 0.000248 | -0.000006 | 0.000051 | -0.013168 | -0.022591 | 0.000561 |
| Tin | 189.925 | -0.000002 | 0.000001 | 0.000038 | 0.000046 | 0.000048 | 0.000002 | 0.000006 | 0.000043 | 0.000032 | 0.000087 | | 0.000059 | 0.000459 | 0.000154 |
| Titanium | 336.122 | 0 | -0.000009 | -0.000016 | -0.000021 | 0.000001 | 0 | 0.000001 | 0.000001 | -0.000126 | -0.000041 | 0 | | -0.000256 | 0.000448 |
| Tungsten | 207.912 | 0.000002 | -0.000007 | -0.00009 | -0.000027 | -0.000032 | 0.000002 | -0.000002 | -0.000039 | 0.00016 | -0.000017 | 0.000023 | -0.000013 | -0.000051 | |
| Vanadium | 292.401 | 0 | 0.000004 | 0.000002 | 0.000275 | 0.000012 | 0.000033 | 0.000002 | 0.000011 | -0.009648 | 0.000021 | 0.000013 | 0.000804 | | 0.000223 |

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-194754-1

SDG No.:

ICP-AES Instrument ID: ICP9 Date: 10/25/2017

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Zinc | 202.548 | 0.000003 | 0.000003 | -0.000028 | -0.001505 | 0.007594 | -0.0000366 | 0.000008 | 0.000073 | 0.000042 | -0.000032 | 0.000032 | 0.000063 | 0.000033 | 0.0003 |
| Zirconium | 343.823 | 0 | 0.000002 | -0.000094 | -0.000006 | 0 | 0.000011 | 0 | -0.000024 | 0.000007 | -0.000004 | 0.000016 | 0 | -0.000003 | 0.000114 |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-194754-1

SDG No.:

ICP-AES Instrument ID: ICP9 Date: 10/25/2017

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 396.152 | 0.000144 | 0.008724 | | | | | | | | | | | | |
| Antimony | 206.834 | 0.00016 | -0.000045 | | | | | | | | | | | | |
| Arsenic | 188.980 | -0.00006 | -0.000056 | | | | | | | | | | | | |
| Barium | 233.527 | 0.000001 | 0.000002 | | | | | | | | | | | | |
| Beryllium | 234.861 | 0.000001 | 0.000008 | | | | | | | | | | | | |
| Boron | 249.678 | -0.000001 | 0.000463 | | | | | | | | | | | | |
| Cadmium | 214.439 | -0.000002 | -0.000004 | | | | | | | | | | | | |
| Calcium | 422.673 | -0.00032 | -0.00005 | | | | | | | | | | | | |
| Chromium | 205.560 | -0.000026 | 0.000017 | | | | | | | | | | | | |
| Cobalt | 228.615 | -0.000005 | 0.000009 | | | | | | | | | | | | |
| Copper | 324.754 | -0.000013 | 0.000007 | | | | | | | | | | | | |
| Iron | 238.204 | -0.00003 | 0.000223 | | | | | | | | | | | | |
| Lead | 220.353 | -0.000019 | -0.00027 | | | | | | | | | | | | |
| Lithium | 670.783 | -0.000044 | -0.000041 | | | | | | | | | | | | |
| Magnesium | 279.078 | -0.000127 | -0.000031 | | | | | | | | | | | | |
| Manganese | 259.372 | 0.000002 | 0.000041 | | | | | | | | | | | | |
| Molybdenum | 204.598 | -0.00003 | 0.000023 | | | | | | | | | | | | |
| Nickel | 231.604 | -0.000011 | -0.000035 | | | | | | | | | | | | |
| Phosphorus | 213.618 | 0.00003 | 0.000123 | | | | | | | | | | | | |
| Potassium | 766.491 | -0.003593 | -0.003514 | | | | | | | | | | | | |
| Selenium | 196.026 | -0.000005 | -0.000021 | | | | | | | | | | | | |
| Silicon | 251.611 | 0.002002 | 0.0079 | | | | | | | | | | | | |
| Silver | 328.068 | 0.000017 | 0.003635 | | | | | | | | | | | | |
| Sodium | 589.592 | -0.00036 | -0.000181 | | | | | | | | | | | | |
| Strontium | 421.552 | -0.000002 | -0.000021 | | | | | | | | | | | | |
| Thallium | 190.794 | 0.000009 | -0.000081 | | | | | | | | | | | | |
| Tin | 189.925 | 0.000176 | 0.000611 | | | | | | | | | | | | |
| Titanium | 336.122 | 0.000008 | 0.000128 | | | | | | | | | | | | |
| Tungsten | 207.912 | 0.009684 | 0.000018 | | | | | | | | | | | | |
| Vanadium | 292.401 | 0.000017 | -0.000005 | | | | | | | | | | | | |

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-194754-1

SDG No.:

ICP-AES Instrument ID: ICP9 Date: 10/25/2017

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | 0 | 0 | | | | | | | | | | | | |
| Zinc | 202.548 | | 0.000211 | | | | | | | | | | | | |
| Zirconium | 343.823 | 0.000006 | | | | | | | | | | | | | |

X-IN

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Irvine Job No: 440-194754-1

SDG No.:

Instrument ID: ICP7 Date: 02/27/2017 17:57

| Analyte | Integ. Time (Sec.) | Concentration (mg/L) | Method |
|---|---|---|---|
| Chromium | | 30 | 6010B |

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Irvine Job No: 440-194754-1

SDG No.:

Instrument ID: ICP8 Date: 06/15/2017 18:16

| Analyte | Integ. Time (Sec.) | Concentration (mg/L) | Method |
|---|---|---|---|
| Chromium | | 30 | 6010B |

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Irvine Job No: 440-194754-1

SDG No.:

Instrument ID: ICP9 Date: 06/15/2017 18:17

| Analyte | Integ. Time (Sec.) | Concentration (mg/L) | Method |
|---|---|---|---|
| Chromium | | 30 | 6010B |

FORM XI - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Prep Method: 3005A

| Lab Sample ID | Preparation Date | Prep Batch | Initial Weight | Initial Volume (mL) | Final Volume (mL) |
|---|---|---|---|---|---|
| MB 440-436848/1-A | 10/23/2017 09:43 | 436848 | | 25 | 25 |
| LCS 440-436848/2-A | 10/23/2017 09:43 | 436848 | | 25 | 25 |
| 440-194571-G-9-B MS ^5 | 10/23/2017 09:43 | 436848 | | 25 | 25 |
| 440-194571-G-9-C MSD ^5 | 10/23/2017 09:43 | 436848 | | 25 | 25 |
| 440-194754-14 | 10/23/2017 09:43 | 436848 | | 25 | 25 |

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Prep Method: 3005A

| Lab Sample ID | Preparation Date | Prep Batch | Initial Weight | Initial Volume (mL) | Final Volume (mL) |
|---|---|---|---|---|---|
| MB 440-437120/1-A | 10/24/2017 11:30 | 437120 | | 25 | 25 |
| LCS 440-437120/2-A | 10/24/2017 11:30 | 437120 | | 25 | 25 |
| 440-194525-D-1-C MS | 10/24/2017 11:30 | 437120 | | 25 | 25 |
| 440-194525-D-1-D MSD | 10/24/2017 11:30 | 437120 | | 25 | 25 |
| 440-194754-9 | 10/24/2017 11:30 | 437120 | | 25 | 25 |

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Irvine Job No.: 440-194754-1

SDG No.:

Prep Method: 3050B

| Lab Sample ID | Preparation Date | Prep Batch | Initial Weight (g) | Initial Volume | Final Volume (mL) |
|---|---|---|---|---|---|
| MB 440-437212/1-A ^5 | 10/24/2017 16:29 | 437212 | 2.02 | | 50 |
| LCS 440-437212/2-A ^5 | 10/24/2017 16:29 | 437212 | 2.03 | | 50 |
| 440-194754-6 | 10/24/2017 16:29 | 437212 | 2.01 | | 50 |
| 440-194754-6 MS | 10/24/2017 16:29 | 437212 | 2.01 | | 50 |
| 440-194754-6 MSD | 10/24/2017 16:29 | 437212 | 2.02 | | 50 |
| 440-194754-2 | 10/24/2017 16:29 | 437212 | 2.03 | | 50 |
| 440-194754-3 | 10/24/2017 16:29 | 437212 | 2.00 | | 50 |
| 440-194754-4 | 10/24/2017 16:29 | 437212 | 2.03 | | 50 |
| 440-194754-5 | 10/24/2017 16:29 | 437212 | 2.01 | | 50 |
| 440-194754-7 | 10/24/2017 16:29 | 437212 | 2.01 | | 50 |
| 440-194754-8 | 10/24/2017 16:29 | 437212 | 2.02 | | 50 |
| 440-194754-10 | 10/24/2017 16:29 | 437212 | 2.02 | | 50 |
| 440-194754-11 | 10/24/2017 16:29 | 437212 | 2.01 | | 50 |
| 440-194754-12 | 10/24/2017 16:29 | 437212 | 2.02 | | 50 |
| 440-194754-13 | 10/24/2017 16:29 | 437212 | 2.03 | | 50 |
| 440-194754-15 | 10/24/2017 16:29 | 437212 | 2.00 | | 50 |
| 440-194754-16 | 10/24/2017 16:29 | 437212 | 2.00 | | 50 |
| 440-194754-17 | 10/24/2017 16:29 | 437212 | 2.01 | | 50 |
| 440-194754-18 | 10/24/2017 16:29 | 437212 | 2.00 | | 50 |

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Instrument ID: ICP7  Analysis Method: 6010B

Start Date: 10/26/2017 10:18  End Date: 10/26/2017 13:14

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Cr | | | | | | | | | | | | | | | | | | | | | | | | |
| STD0 440-437651/1 IC | | | 10:18 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| STD1 440-437651/2 IC | | | 10:21 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| STD2 440-437651/3 IC | | | 10:23 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| STD3 440-437651/4 IC | | | 10:25 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ICV 440-437651/5 | 1 | | 10:29 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ICB 440-437651/6 | 1 | | 10:33 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ICSA 440-437651/7 | 1 | | 10:36 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ICSAB 440-437651/8 | 1 | | 10:39 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ICIS 440-437651/9 | 1 | | 10:42 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 440-437651/10 | | | 10:45 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:47 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CRI 440-437651/12 | 1 | | 10:50 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 440-437651/13 | 1 | | 12:49 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 440-437651/14 | 1 | | 12:51 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:08 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-11 | 10 | T | 13:10 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 440-437651/17 | 1 | | 13:12 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 440-437651/18 | 1 | | 13:14 | X | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Instrument ID: ICP8  Analysis Method: 6010B

Start Date: 10/23/2017 09:23  End Date: 10/23/2017 19:03

| Lab Sample Id | D/F | Type | Time | Analytes |
|---|---|---|---|---|
| | | | | Cr |
| ICIS 440-437064/1 | 1 | | 09:23 | X |
| STD1 440-437064/2 IC | | | 09:25 | X |
| STD2 440-437064/3 IC | | | 09:27 | X |
| STD3 440-437064/4 IC | | | 09:29 | X |
| ICV 440-437064/5 | 1 | | 09:32 | X |
| ICB 440-437064/6 | 1 | | 09:36 | X |
| ZZZZZZ | | | 09:38 | |
| ICSAB 440-437064/8 | 1 | | 09:42 | X |
| ICSA 440-437064/9 | 1 | | 09:47 | X |
| ZZZZZZ | | | 09:49 | |
| RINSE 440-437064/11 | | | 09:51 | |
| ZZZZZZ | | | 09:53 | |
| CRI 440-437064/13 | 1 | | 09:55 | X |
| CCV 440-437064/14 | 1 | | 18:10 | X |
| CCB 440-437064/15 | 1 | | 18:12 | X |
| MB 440-436848/1-A | 1 | R | 18:16 | X |
| LCS 440-436848/2-A | 1 | R | 18:18 | X |
| ZZZZZZ | | | 18:20 | |
| 440-194571-G-9-B MS ^5 | 5 | R | 18:22 | X |
| 440-194571-G-9-C MSD ^5 | 5 | R | 18:24 | X |
| 440-194571-G-9-D PDS ^5 | 5 | R | 18:26 | X |
| 440-194571-G-9-A SD ^25 | 25 | R | 18:28 | X |
| ZZZZZZ | | | 18:30 | |
| ZZZZZZ | | | 18:32 | |
| ZZZZZZ | | | 18:34 | |
| CCV 440-437064/26 | 1 | | 18:36 | X |
| CCB 440-437064/27 | 1 | | 18:39 | X |
| ZZZZZZ | | | 18:41 | |
| ZZZZZZ | | | 18:43 | |
| ZZZZZZ | | | 18:45 | |
| ZZZZZZ | | | 18:47 | |
| 440-194754-14 | 1 | R | 18:49 | X |
| CCV 440-437064/33 | 1 | | 19:01 | X |
| CCB 440-437064/34 | 1 | | 19:03 | X |

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Instrument ID: ICP8  Analysis Method: 6010B

Start Date: 10/25/2017 08:11  End Date: 10/25/2017 17:43

| Lab Sample Id | D/F | Type | Time | Analytes |
|---|---|---|---|---|
| | | | | Cr |
| ICIS 440-437474/1 | 1 | | 08:11 | X |
| STD1 440-437474/2 IC | | | 08:13 | X |
| STD2 440-437474/3 IC | | | 08:15 | X |
| STD3 440-437474/4 IC | | | 08:17 | X |
| ICV 440-437474/5 | 1 | | 08:19 | X |
| ICB 440-437474/6 | 1 | | 08:23 | X |
| ICSA 440-437474/7 | 1 | | 08:26 | X |
| ZZZZZZ | | | 08:28 | |
| ICSAB 440-437474/9 | 1 | | 08:43 | X |
| ZZZZZZ | | | 08:47 | |
| RINSE 440-437474/11 | | | 08:49 | |
| ZZZZZZ | | | 08:51 | |
| CRI 440-437474/13 | 1 | | 08:53 | X |
| ZZZZZZ | | | 16:18 | |
| ZZZZZZ | | | 16:20 | |
| CCV 440-437474/16 | 1 | | 16:26 | X |
| CCB 440-437474/17 | 1 | | 16:28 | X |
| MB 440-437212/1-A ^5 | 5 | T | 16:30 | X |
| LCS 440-437212/2-A ^5 | 5 | T | 16:32 | X |
| 440-194754-6 | 5 | T | 16:34 | X |
| 440-194754-6 MS | 5 | T | 16:36 | X |
| 440-194754-6 MSD | 5 | T | 16:38 | X |
| 440-194754-6 PDS | 5 | T | 16:40 | X |
| 440-194754-6 SD | 25 | T | 16:42 | X |
| 440-194754-2 | 5 | T | 16:45 | X |
| 440-194754-3 | 5 | T | 16:47 | X |
| 440-194754-4 | 5 | T | 16:49 | X |
| CCV 440-437474/28 | 1 | | 16:51 | X |
| CCB 440-437474/29 | 1 | | 16:53 | X |
| 440-194754-5 | 5 | T | 16:55 | X |
| 440-194754-7 | 5 | T | 16:57 | X |
| 440-194754-8 | 5 | T | 16:59 | X |
| 440-194754-10 | 5 | T | 17:01 | X |
| ZZZZZZ | | | 17:03 | |
| 440-194754-12 | 5 | T | 17:05 | X |
| 440-194754-13 | 5 | T | 17:07 | X |
| 440-194754-15 | 5 | T | 17:09 | X |
| 440-194754-16 | 5 | T | 17:12 | X |
| 440-194754-17 | 5 | T | 17:14 | X |
| CCV 440-437474/40 | 1 | | 17:16 | X |
| CCB 440-437474/41 | | | 17:18 | |
| CCB 440-437474/42 | 1 | | 17:31 | X |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Instrument ID: ICP8  Analysis Method: 6010B

Start Date: 10/25/2017 08:11  End Date: 10/25/2017 17:43

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Cr | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-18 | 5 | T | 17:33 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:35 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:37 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:39 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 440-437474/47 | 1 | | 17:41 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 440-437474/48 | 1 | | 17:43 | X | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Instrument ID: ICP9  Analysis Method: 6010B

Start Date: 10/25/2017 11:07  End Date: 10/25/2017 14:56

| Lab Sample Id | D/F | Type | Time | Analytes |
|---|---|---|---|---|
| | | | | Cr |
| ICIS 440-437423/1 | 1 | | 11:07 | X |
| STD1 440-437423/2 IC | | | 11:09 | X |
| STD2 440-437423/3 IC | | | 11:11 | X |
| STD3 440-437423/4 IC | | | 11:13 | X |
| ICV 440-437423/5 | 1 | | 11:16 | X |
| ZZZZZZ | | | 11:19 | |
| ICB 440-437423/7 | 1 | | 11:21 | X |
| ICSA 440-437423/8 | 1 | | 11:23 | X |
| ICSAB 440-437423/9 | 1 | | 11:25 | X |
| ZZZZZZ | | | 11:31 | |
| RINSE 440-437423/11 | | | 11:33 | |
| ZZZZZZ | | | 11:35 | |
| CRI 440-437423/13 | 1 | | 11:37 | X |
| ZZZZZZ | | | 12:50 | |
| ZZZZZZ | | | 12:52 | |
| CCV 440-437423/16 | 1 | | 13:10 | X |
| CCB 440-437423/17 | 1 | | 13:12 | X |
| MB 440-437120/1-A | 1 | R | 13:16 | X |
| LCS 440-437120/2-A | 1 | R | 13:19 | X |
| ZZZZZZ | | | 13:21 | |
| 440-194525-D-1-C MS | 1 | R | 13:23 | X |
| 440-194525-D-1-D MSD | 1 | R | 13:25 | X |
| 440-194525-D-1-E PDS | 1 | R | 13:27 | X |
| 440-194525-D-1-B SD ^5 | 5 | R | 13:29 | X |
| ZZZZZZ | | | 13:31 | |
| ZZZZZZ | | | 13:33 | |
| 440-194754-9 | 5 | R | 13:35 | X |
| ZZZZZZ | | | 13:37 | |
| ZZZZZZ | | | 13:39 | |
| CCV 440-437423/30 | 1 | | 14:07 | X |
| CCB 440-437423/31 | 1 | | 14:09 | X |
| ZZZZZZ | | | 14:11 | |
| ZZZZZZ | | | 14:13 | |
| ZZZZZZ | | | 14:15 | |
| ZZZZZZ | | | 14:17 | |
| ZZZZZZ | | | 14:19 | |
| ZZZZZZ | | | 14:21 | |
| ZZZZZZ | | | 14:23 | |
| ZZZZZZ | | | 14:25 | |
| ZZZZZZ | | | 14:27 | |
| ZZZZZZ | | | 14:29 | |
| CCV 440-437423/42 | | | 14:32 | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Instrument ID: ICP9  Analysis Method: 6010B

Start Date: 10/25/2017 11:07  End Date: 10/25/2017 14:56

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Cr | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 440-437423/43 | | | 14:34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:39 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 440-437423/45 | | | 14:54 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 440-437423/46 | | | 14:56 | | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
R = Total Recoverable

FORM XIII-IN

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Batch Number: 436848  Batch Start Date: 10/23/17 09:43  Batch Analyst: Nguyen, Quynh 1

Batch Method: 3005A  Batch End Date: 10/23/17 14:26

| Lab Sample ID | Client Sample ID | Method Chain | Basis | Initial pH | InitialAmount | FinalAmount | ME HCl 00384 | ME HNO3 00400 | ME ICP2 ICV1A 00051 |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-436848/1 | | 3005A, 6010B | | | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| LCS 440-436848/2 | | 3005A, 6010B | | | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-194571-G-9 MS | | 3005A, 6010B | R | <2 | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-194571-G-9 MSD | | 3005A, 6010B | R | <2 | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-194571-G-9 PDS | | 3005A, 6010B | R | <2 | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-194754-G-14 | VER-01D-70.0-201 71020-EB | 3005A, 6010B | R | <2 | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | ME ICP2 ICV1B 00045 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-436848/1 | | 3005A, 6010B | | | | | | | |
| LCS 440-436848/2 | | 3005A, 6010B | | 250 uL | | | | | |
| 440-194571-G-9 MS | | 3005A, 6010B | R | 250 uL | | | | | |
| 440-194571-G-9 MSD | | 3005A, 6010B | R | 250 uL | | | | | |
| 440-194571-G-9 PDS | | 3005A, 6010B | R | 250 uL | | | | | |
| 440-194754-G-14 | VER-01D-70.0-201 71020-EB | 3005A, 6010B | R | | | | | | |

| Batch Notes | |
|---|---|
| Pipette/Syringe/Dispenser ID | 201 |
| Thermometer ID | P67 CF -1.0 LOC B11 |
| Digestion Tube/Cup ID | 1705110 |

| Basis | Basis Description |
|---|---|
| R | Total Recoverable |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Batch Number: 437120  Batch Start Date: 10/24/17 11:30  Batch Analyst: Nguyen, Quynh 1

Batch Method: 3005A  Batch End Date: 10/24/17 16:49

| Lab Sample ID | Client Sample ID | Method Chain | Basis | Initial pH | InitialAmount | FinalAmount | ME HCl 00384 | ME HNO3 00400 | ME ICP2 ICV1A 00051 |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-437120/1 | | 3005A, 6010B | | | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| LCS 440-437120/2 | | 3005A, 6010B | | | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-194525-D-1 MS | | 3005A, 6010B | R | <2 | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-194525-D-1 MSD | | 3005A, 6010B | R | <2 | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-194525-D-1 PDS | | 3005A, 6010B | R | <2 | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-194754-G-9 | VER-01D-35.0-20171020 | 3005A, 6010B | R | <2 | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | ME ICP2 ICV1B 00045 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-437120/1 | | 3005A, 6010B | | | | | | | |
| LCS 440-437120/2 | | 3005A, 6010B | | 250 uL | | | | | |
| 440-194525-D-1 MS | | 3005A, 6010B | R | 250 uL | | | | | |
| 440-194525-D-1 MSD | | 3005A, 6010B | R | 250 uL | | | | | |
| 440-194525-D-1 PDS | | 3005A, 6010B | R | 250 uL | | | | | |
| 440-194754-G-9 | VER-01D-35.0-20171020 | 3005A, 6010B | R | | | | | | |

| Batch Notes | |
|---|---|
| Pipette/Syringe/Dispenser ID | 201 |
| Thermometer ID | P67 Cf -1.0 LOC B11 |
| Digestion Tube/Cup ID | 1705110 |

| Basis | Basis Description |
|---|---|
| R | Total Recoverable |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Batch Number: 437212  Batch Start Date: 10/24/17 16:29  Batch Analyst: Tolentino, Danilo

Batch Method: 3050B  Batch End Date: 10/25/17 15:17

| Lab Sample ID | Client Sample ID | Method Chain | Basis | CalcMsg | InitialAmount | FinalAmount | ME 1:1 HNO3 00252 | ME 30% H2O2 00067 | ME HCl 00382 |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-437212/1 | | 3050B, 6010B | | CALC NOT SET TO RUN | 2.02 g | 50 mL | 5 mL | 3 mL | 5 mL |
| LCS 440-437212/2 | | 3050B, 6010B | | CALC NOT SET TO RUN | 2.03 g | 50 mL | 5 mL | 3 mL | 5 mL |
| 440-194754-A-6 | VER-01D-20.0-20171020 | 3050B, 6010B | T | CALC NOT SET TO RUN | 2.01 g | 50 mL | 5 mL | 3 mL | 5 mL |
| 440-194754-A-6 MS | VER-01D-20.0-20171020 | 3050B, 6010B | T | CALC NOT SET TO RUN | 2.01 g | 50 mL | 5 mL | 3 mL | 5 mL |
| 440-194754-A-6 MSD | VER-01D-20.0-20171020 | 3050B, 6010B | T | CALC NOT SET TO RUN | 2.02 g | 50 mL | 5 mL | 3 mL | 5 mL |
| 440-194754-A-2 | VER-01D-5.0-20171020 | 3050B, 6010B | T | CALC NOT SET TO RUN | 2.03 g | 50 mL | 5 mL | 3 mL | 5 mL |
| 440-194754-A-3 | VER-01D-10.0-20171020 | 3050B, 6010B | T | CALC NOT SET TO RUN | 2.00 g | 50 mL | 5 mL | 3 mL | 5 mL |
| 440-194754-A-4 | VER-01D-10.0-20171020-FD | 3050B, 6010B | T | CALC NOT SET TO RUN | 2.03 g | 50 mL | 5 mL | 3 mL | 5 mL |
| 440-194754-A-5 | VER-01D-15.0-20171020 | 3050B, 6010B | T | CALC NOT SET TO RUN | 2.01 g | 50 mL | 5 mL | 3 mL | 5 mL |
| 440-194754-A-7 | VER-01D-25.0-20171020 | 3050B, 6010B | T | CALC NOT SET TO RUN | 2.01 g | 50 mL | 5 mL | 3 mL | 5 mL |
| 440-194754-A-8 | VER-01D-30.0-20171020 | 3050B, 6010B | T | CALC NOT SET TO RUN | 2.02 g | 50 mL | 5 mL | 3 mL | 5 mL |
| 440-194754-A-10 | VER-01D-40.0-20171020 | 3050B, 6010B | T | CALC NOT SET TO RUN | 2.02 g | 50 mL | 5 mL | 3 mL | 5 mL |
| 440-194754-A-11 | VER-01D-50.0-20171020 | 3050B, 6010B | T | CALC NOT SET TO RUN | 2.01 g | 50 mL | 5 mL | 3 mL | 5 mL |
| 440-194754-A-12 | VER-01D-60.0-20171020 | 3050B, 6010B | T | CALC NOT SET TO RUN | 2.02 g | 50 mL | 5 mL | 3 mL | 5 mL |
| 440-194754-A-13 | VER-01D-70.0-20171020 | 3050B, 6010B | T | CALC NOT SET TO RUN | 2.03 g | 50 mL | 5 mL | 3 mL | 5 mL |
| 440-194754-A-15 | VER-01D-80.0-20171020 | 3050B, 6010B | T | CALC NOT SET TO RUN | 2.00 g | 50 mL | 5 mL | 3 mL | 5 mL |
| 440-194754-A-16 | VER-01D-100.0-20171020 | 3050B, 6010B | T | CALC NOT SET TO RUN | 2.00 g | 50 mL | 5 mL | 3 mL | 5 mL |
| 440-194754-A-17 | VER-01D-110.0-20171020 | 3050B, 6010B | T | CALC NOT SET TO RUN | 2.01 g | 50 mL | 5 mL | 3 mL | 5 mL |
| 440-194754-A-18 | VER-01D-110.0-20171020-FD | 3050B, 6010B | T | CALC NOT SET TO RUN | 2.00 g | 50 mL | 5 mL | 3 mL | 5 mL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | ME HNO3 00399 | ME ICP SPKE A 00029 | ME ICP SPKE B 00027 | | | |
|---|---|---|---|---|---|---|---|---|---|

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Batch Number: 437212  Batch Start Date: 10/24/17 16:29  Batch Analyst: Tolentino, Danilo

Batch Method: 3050B  Batch End Date: 10/25/17 15:17

| Lab Sample ID | Client Sample ID | Method Chain | Basis | ME HNO3 00399 | ME ICP SPKE A 00029 | ME ICP SPKE B 00027 | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-437212/1 | | 3050B, 6010B | | 5 mL | | | | | |
| LCS 440-437212/2 | | 3050B, 6010B | | 5 mL | 1 mL | 1 mL | | | |
| 440-194754-A-6 | VER-01D-20.0-20171020 | 3050B, 6010B | T | 5 mL | | | | | |
| 440-194754-A-6 MS | VER-01D-20.0-20171020 | 3050B, 6010B | T | 5 mL | 1 mL | 1 mL | | | |
| 440-194754-A-6 MSD | VER-01D-20.0-20171020 | 3050B, 6010B | T | 5 mL | 1 mL | 1 mL | | | |
| 440-194754-A-2 | VER-01D-5.0-20171020 | 3050B, 6010B | T | 5 mL | | | | | |
| 440-194754-A-3 | VER-01D-10.0-20171020 | 3050B, 6010B | T | 5 mL | | | | | |
| 440-194754-A-4 | VER-01D-10.0-20171020-FD | 3050B, 6010B | T | 5 mL | | | | | |
| 440-194754-A-5 | VER-01D-15.0-20171020 | 3050B, 6010B | T | 5 mL | | | | | |
| 440-194754-A-7 | VER-01D-25.0-20171020 | 3050B, 6010B | T | 5 mL | | | | | |
| 440-194754-A-8 | VER-01D-30.0-20171020 | 3050B, 6010B | T | 5 mL | | | | | |
| 440-194754-A-10 | VER-01D-40.0-20171020 | 3050B, 6010B | T | 5 mL | | | | | |
| 440-194754-A-11 | VER-01D-50.0-20171020 | 3050B, 6010B | T | 5 mL | | | | | |
| 440-194754-A-12 | VER-01D-60.0-20171020 | 3050B, 6010B | T | 5 mL | | | | | |
| 440-194754-A-13 | VER-01D-70.0-20171020 | 3050B, 6010B | T | 5 mL | | | | | |
| 440-194754-A-15 | VER-01D-80.0-20171020 | 3050B, 6010B | T | 5 mL | | | | | |
| 440-194754-A-16 | VER-01D-100.0-20171020 | 3050B, 6010B | T | 5 mL | | | | | |
| 440-194754-A-17 | VER-01D-110.0-20171020 | 3050B, 6010B | T | 5 mL | | | | | |
| 440-194754-A-18 | VER-01D-110.0-20171020-FD | 3050B, 6010B | T | 5 mL | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Batch Number: 437212  Batch Start Date: 10/24/17 16:29  Batch Analyst: Tolentino, Danilo

Batch Method: 3050B  Batch End Date: 10/25/17 15:17

| Batch Notes | |
|---|---|
| Balance ID | 57 |
| Batch Comment | Spike A & B = 1000 uL |
| Blank Soil Lot Number | 22569094 |
| First End time | 12:50 |
| Filter Paper ID | 17-048 Gr. 389 |
| Hydrogen Peroxide ID | 172277 |
| Lot # of hydrochloric acid | 0000175648 |
| Logbook ID for diluted Nitric | 4400842 |
| Lot # of Nitric Acid | 0000166089 |
| Hot Block ID | 5 |
| Oven, Bath or Block Temperature 1 | 94 Degrees C |
| Oven, Bath or Block Temperature 2 | 94 Degrees C |
| Pipette/Syringe/Dispenser ID | #902 |
| Perform Calculation (0=No, 1=Yes) | 0 |
| First Start time | 08:50 (10/25/17) |
| Thermometer ID | P-091 (Loc A#42) CF = -1.00 |
| Digestion Tube/Cup ID | 1705110 |
| Uncorrected Temperature | 95 CF = -1.00 Celsius |
| Uncorrected Temperature 2 | 95 CF = -1.00 Degrees C |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

**Sample Information Detail Report**
**Document Name: CP 171026-1**

**File Description**
ICP7 6010B/200.7 IEC 171024_ICP7 1233

**Parameters Common to All Samples**

| | |
|---|---|
| Volume Units | L |
| Weight Units | mg |

**Parameters That Vary By Sample**

| Sample No | A/S Location | Sample ID | Batch ID |
|---|---|---|---|
| 1 | 1 | STD0 4447504 | |
| 2 | 2 | STD1 4447507 | |
| 3 | 3 | STD2 4447506 | |
| 4 | 4 | STD3 4447505 | |
| 5 | 7 | ICV 4447508 | |
| 6 | 1 | ICB 4447504 | |
| 7 | 9 | ICSA 4447509 | |
| 8 | 10 | ICSAB 4447510 | |
| 9 | 8 | ICIS 4447536 | |
| 10 | 8 | RINSE 4447537 | |
| 11 | 5 | XCRI 4447534 | |
| 12 | 6 | CRI 4447535 | |
| 13 | 11 | mb 440-437009_1-a@2 | 437009 |
| 14 | 12 | lcs 440-437009_2-a@ | 437009 |
| 15 | 13 | 440-194799-c-1-a@20 | 437009 |
| 16 | 14 | 440-194799-c-1-aMS2 | 437009 |
| 17 | 15 | 440-194799-c-1-aMSD | 437009 |
| 18 | 16 | 440-194799-c-1-aSD@ | 437009 |
| 19 | 17 | 440-194758-a-1-a@20 | 437009 |
| 20 | 18 | 440-192979-a-7-e@20 | 437009 |
| 21 | 19 | 440-192979-a-13-d@2 | 437009 |
| 22 | 20 | 440-192979-a-17-f22 | 437009 |
| 23 | 4 | CCV 4447505 | |
| 24 | 1 | CCB 4447504 | |
| 25 | 1 | CCB 4447504 | |
| 26 | 17 | 440-194758-a-1-a@20 | 437009 |
| 27 | 21 | 440-192850-a-4-d@20 | 437009 |
| 28 | 22 | 440-192850-a-10-d@2 | 437009 |
| 29 | 23 | 440-192850-a-11-b@2 | 437009 |
| 30 | 24 | 440-192979-b-1-e@20 | 437009 |
| 31 | 25 | mb 440-436767_1-c | 437524 |
| 32 | 26 | lcs 440-436767_2-c | 437524 |
| 33 | 27 | 440-194417-e-1-e | 437524 |
| 34 | 28 | 440-194417-e-1-f ms | 437524 |
| 35 | 29 | 440-194417-e-1-g ms | 437524 |
| 36 | 4 | CCV 4447505 | |
| 37 | 1 | CCB 4447504 | |
| 38 | 30 | 440-194417-e-1-ePDS | 437524 |
| 39 | 31 | 440-194417-e-1-eSD@ | 437524 |
| 40 | 32 | mb 440-437263_1-c | 437521 |
| 41 | 33 | lcs 440-437263_2-c | 437521 |
| 42 | 34 | 440-194392-a-1-f | 437521 |
| 43 | 35 | 440-194392-a-1-g ms | 437521 |
| 44 | 36 | 440-194392-a-1-h ms | 437521 |
| 45 | 37 | 440-194392-a-1-fPDS | 437521 |
| 46 | 38 | 440-194392-a-1-fSD@ | 437521 |
| 47 | 39 | 440-194816-b-1-f | 437521 |
| 48 | 4 | CCV 4447505 | |
| 49 | 1 | CCB 4447504 | |
| 50 | 40 | 440-192979-b-1-g | 437521 |
| 51 | 41 | 440-194876-a-1-a@25 | 437212 |
| 52 | 42 | 440-194754-a-11-b@1 | 437212 |
| 53 | 4 | CCV 4447505 | |
| 54 | 1 | CCB 4447504 | |
| 55 | 43 | mb 440-437362_1-a | 437362 |
| 56 | 44 | lcs 440-437362_2-a | 437362 |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| | | | |
|---|---|---|---|
| 57 | 45 | 440-194887-e-1-a@50 | 437362 |
| 58 | 46 | 440-194887-e-1-b ms | 437362 |
| 59 | 47 | 440-194887-e-1-c ms | 437362 |
| 60 | 48 | 440-194887-e-2-a@50 | 437362 |
| 61 | 49 | 440-194887-e-3-a | 437362 |
| 62 | 50 | 440-194887-e-4-a | 437362 |
| 63 | 51 | 440-194887-e-5-a | 437362 |
| 64 | 52 | 440-194887-e-6-a | 437362 |
| 65 | 4 | CCV 4447505 | |
| 66 | 1 | CCB 4447504 | |
| 67 | 53 | 440-194887-e-7-a | 437362 |
| 68 | 54 | 440-194887-e-9-a | 437362 |
| 69 | 55 | 440-194887-e-10-a | 437362 |
| 70 | 56 | 440-194887-e-15-a | 437362 |
| 71 | 57 | 440-194887-e-16-a | 437362 |
| 72 | 58 | 440-194887-e-16-b m | 437362 |
| 73 | 59 | 440-194887-e-16-c m | 437362 |
| 74 | 4 | CCV 4447505 | |
| 75 | 1 | CCB 4447504 | |
| 76 | 4 | CCV 4447505 | |
| 77 | 1 | CCB 4447504 | |
| 78 | 60 | mb 440-436767_1-c | 437524 |
| 79 | 61 | 440-194417-e-1-f ms | 437524 |
| 80 | 45 | 440-194887-e-1-a@5 | 437362 |
| 81 | 46 | 440-194887-e-1-b ms | 437362 |
| 82 | 47 | 440-194887-e-1-c ms | 437362 |
| 83 | 48 | 440-194887-e-2-a@5 | 437362 |
| 84 | 4 | CCV 4447505 | |
| 85 | 1 | CCB 4447504 | |
| 86 | 191 | mb 440-437566_1-a@5 | 437566 |
| 87 | 192 | lcs 440-437566_2-a@ | 437566 |
| 88 | 193 | 440-194910-e-1-e@5 | 437566 |
| 89 | 194 | 440-194910-e-1-f ms | 437566 |
| 90 | 195 | 440-194910-e-1-g ms | 437566 |
| 91 | 196 | 440-194910-e-1-ePDS | 437566 |
| 92 | 197 | 440-194910-e-1-eSD@ | 437566 |
| 93 | 198 | 440-194910-e-2-c@5 | 437566 |
| 94 | 199 | 440-194693-a-2-b@5 | 437566 |
| 95 | 200 | 440-194571-a-2-c@5 | 437566 |
| 96 | 4 | CCV 4447505 | |
| 97 | 1 | CCB 4447504 | |
| 98 | 4 | CCV 4447505 | |
| 99 | 1 | CCB 4447504 | |
| 100 | 193 | 440-194910-e-1-e@5 | 437566 |
| 101 | 201 | 440-194571-a-3-c@5 | 437566 |
| 102 | 202 | 440-194571-a-4-c@5 | 437566 |
| 103 | 203 | 440-194571-a-5-c@5 | 437566 |
| 104 | 204 | 440-194571-a-7-c@5 | 437566 |
| 105 | 205 | 440-194571-a-8-c@5 | 437566 |
| 106 | 206 | 440-194571-a-10-c@5 | 437566 |
| 107 | 207 | 440-194571-a-11-c@6 | 437566 |
| 108 | 208 | 440-194571-a-12-c@5 | 437566 |
| 109 | 4 | CCV 4447505 | NO SOLUTION |
| 110 | 1 | CCB 4447504 | NO SOLUTION |
| 111 | 4 | CCV 4447505 | |
| 112 | 1 | CCB 4447504 | |
| 113 | 209 | 440-194571-a-13-c@5 | 437566 |
| 114 | 210 | 440-194571-a-14-c@5 | 437566 |
| 115 | 211 | 440-194571-a-15-c@5 | 437566 |
| 116 | 212 | 440-194571-a-16-c@5 | 437566 |
| 117 | 213 | 440-194571-a-17-c@5 | 437566 |
| 118 | 214 | 440-194571-a-6-g@5 | 437566 |
| 119 | 215 | 440-194571-a-6-h ms | 437566 |
| 120 | 216 | 440-194571-a-6-i ms | 437566 |
| 121 | 4 | CCV 4447505 | |
| 122 | 1 | CCB 4447504 | |
| 123 | 8 | RINSE | |


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| | | | |
|---|---|---|---|
| 124 | 4 | CCV 4447505 | |
| 125 | 1 | CCB 4447504 | |
| 126 | 193 | 440-194910-e-1-e@5 | 437566 |
| 127 | 4 | CCV 4447505 | |
| 128 | 1 | CCB 4447504 | |

| Sample No | Analysis Requested | Analyst Name | Sample Units * |
|---|---|---|---|
| 1 | 171026MECAL | | mg/L |
| 2 | 171026MECAL | | mg/L |
| 3 | 171026MECAL | | mg/L |
| 4 | 171026MECAL | | mg/L |
| 5 | | | mg/L |
| 6 | | | mg/L |
| 7 | | | mg/L |
| 8 | | | mg/L |
| 9 | | | mg/L |
| 10 | | | mg/L |
| 11 | | | mg/L |
| 12 | | | mg/L |
| 13 | CAM STLC | EN | mg/L |
| 14 | CAM STLC | EN | mg/L |
| 15 | CAM STLC | EN | mg/L |
| 16 | CAM STLC | EN | mg/L |
| 17 | CAM STLC | EN | mg/L |
| 18 | CAM STLC | EN | mg/L |
| 19 | CAM STLC | EN | mg/L |
| 20 | CAM STLC | EN | mg/L |
| 21 | CAM STLC | EN | mg/L |
| 22 | CAM STLC | EN | mg/L |
| 23 | | | mg/L |
| 24 | | | mg/L |
| 25 | | | mg/L |
| 26 | CAM STLC | EN | mg/L |
| 27 | CAM STLC | EN | mg/L |
| 28 | CAM STLC | EN | mg/L |
| 29 | CAM STLC | EN | mg/L |
| 30 | CAM STLC | EN | mg/L |
| 31 | CAM TCLP | EN | mg/L |
| 32 | CAM TCLP | EN | mg/L |
| 33 | CAM TCLP | EN | mg/L |
| 34 | CAM TCLP | EN | mg/L |
| 35 | CAM TCLP | EN | mg/L |
| 36 | | | mg/L |
| 37 | | | mg/L |
| 38 | CAM TCLP | EN | mg/L |
| 39 | CAM TCLP | EN | mg/L |
| 40 | CAM TCLP | EN | mg/L |
| 41 | CAM TCLP | EN | mg/L |
| 42 | CAM TCLP | EN | mg/L |
| 43 | CAM TCLP | EN | mg/L |
| 44 | CAM TCLP | EN | mg/L |
| 45 | CAM TCLP | EN | mg/L |
| 46 | CAM TCLP | EN | mg/L |
| 47 | CAM TCLP | EN | mg/L |
| 48 | | | mg/L |
| 49 | | | mg/L |
| 50 | CAM TCLP | EN | mg/L |
| 51 | ZN SOIL | BH | mg/L |
| 52 | CR SOIL | BH | mg/L |
| 53 | | | mg/L |
| 54 | | | mg/L |
| 55 | CRFEMN 200.7 | BH | mg/L |
| 56 | CRFEMN 200.7 | BH | mg/L |
| 57 | CRFEMN 200.7 | BH | mg/L |
| 58 | CRFEMN 200.7 | BH | mg/L |
| 59 | CRFEMN 200.7 | BH | mg/L |
| 60 | CRFEMN 200.7 | BH | mg/L |


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| | | | |
|---|---|---|---|
| 61 | CRFEMN 200.7 | BH | mg/L |
| 62 | CRFEMN 200.7 | BH | mg/L |
| 63 | CRFEMN 200.7 | BH | mg/L |
| 64 | CRFEMN 200.7 | BH | mg/L |
| 65 | | | mg/L |
| 66 | | | mg/L |
| 67 | CRFEMN 200.7 | BH | mg/L |
| 68 | CRFEMN 200.7 | BH | mg/L |
| 69 | CRFEMN 200.7 | BH | mg/L |
| 70 | CRFEMN 200.7 | BH | mg/L |
| 71 | CRFEMN 200.7 | BH | mg/L |
| 72 | CRFEMN 200.7 | BH | mg/L |
| 73 | CRFEMN 200.7 | BH | mg/L |
| 74 | | | mg/L |
| 75 | | | mg/L |
| 76 | | | mg/L |
| 77 | | | mg/L |
| 78 | CAM TCLP | EN | mg/L |
| 79 | CAM TCLP | EN | mg/L |
| 80 | CRFEMN 200.7 | BH | mg/L |
| 81 | CRFEMN 200.7 | BH | mg/L |
| 82 | CRFEMN 200.7 | BH | mg/L |
| 83 | CRFEMN 200.7 | BH | mg/L |
| 84 | | | mg/L |
| 85 | | | mg/L |
| 86 | CAM SOIL | KE | mg/L |
| 87 | CAM SOIL | KE | mg/L |
| 88 | CAM SOIL | KE | mg/L |
| 89 | CAM SOIL | KE | mg/L |
| 90 | CAM SOIL | KE | mg/L |
| 91 | CAM SOIL | KE | mg/L |
| 92 | CAM SOIL | KE | mg/L |
| 93 | CAM SOIL | KE | mg/L |
| 94 | CR SOIL | KE | mg/L |
| 95 | CR SOIL | KE | mg/L |
| 96 | | | mg/L |
| 97 | | | mg/L |
| 98 | | | mg/L |
| 99 | | | mg/L |
| 100 | CAM SOIL | KE | mg/L |
| 101 | CR SOIL | KE | mg/L |
| 102 | CR SOIL | KE | mg/L |
| 103 | CR SOIL | KE | mg/L |
| 104 | CR SOIL | KE | mg/L |
| 105 | CR SOIL | KE | mg/L |
| 106 | CR SOIL | KE | mg/L |
| 107 | CR SOIL | KE | mg/L |
| 108 | CR SOIL | KE | mg/L |
| 109 | | | mg/L |
| 110 | | | mg/L |
| 111 | | | mg/L |
| 112 | | | mg/L |
| 113 | CR SOIL | KE | mg/L |
| 114 | CR SOIL | KE | mg/L |
| 115 | CR SOIL | KE | mg/L |
| 116 | CR SOIL | KE | mg/L |
| 117 | CR SOIL | KE | mg/L |
| 118 | CR SOIL | KE | mg/L |
| 119 | CR SOIL | KE | mg/L |
| 120 | CR SOIL | KE | mg/L |
| 121 | | | mg/L |
| 122 | | | mg/L |
| 123 | | | mg/L |
| 124 | | | mg/L |
| 125 | | | mg/L |
| 126 | CAM SOIL | KE | mg/L |
| 127 | | | mg/L |


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| | |
|---|---|
| 128 | mg/L |


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Reprocessing Begun
Logged In Analyst: IRVINSTICP7 Technique: ICP Continuous

Results Data Set (original): 171026-1 ICP7
Results Library (original): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb
Results Data Set (reprocessed):
Results Library (reprocessed):

==========

Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/25/2017 10:38:52 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

==========

Sequence No.: 1 Autosampler Location: 1
Sample ID: STD0 4447504 Date Collected: 10/26/2017 10:18:56 AM
Analyst: Data Type: Reprocessed on 10/26/2017 11:10:00 AM
Logged In Analyst (Original) : IRVINSTICP7
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time:

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Nebulizer Parameters: STD0 4447504

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 195.0 kPa | 0.65 L/min |

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Mean Data: STD0 4447504

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| Y 371.029 | 2562836.8 | 26157.54 | 1.02% | 100.0 | % |
| Ag 328.068† | -0.9 | 36.44 | >999.9% | [0.00] | mg/L |
| Al 308.215† | 4459.4 | 28.80 | 0.65% | [0.00] | mg/L |
| As 188.979† | -14.2 | 0.12 | 0.86% | [0.00] | mg/L |
| B 249.677† | 34.3 | 2.93 | 8.53% | [0.00] | mg/L |
| Ba 233.527† | -32.9 | 0.58 | 1.76% | [0.00] | mg/L |
| Be 313.107† | -2049.3 | 5.26 | 0.26% | [0.00] | mg/L |
| Ca 315.887† | 42.2 | 7.57 | 17.95% | [0.00] | mg/L |
| Cd 214.440† | -4.4 | 0.14 | 3.26% | [0.00] | mg/L |
| Co 228.616† | -101.6 | 0.99 | 0.98% | [0.00] | mg/L |
| Cr 205.560† | 1.6 | 0.05 | 3.34% | [0.00] | mg/L |
| Cu 324.752† | 1358.1 | 53.65 | 3.95% | [0.00] | mg/L |
| Fe 238.204† | 25.5 | 0.23 | 0.89% | [0.00] | mg/L |
| K 766.490† | -97.6 | 18.95 | 19.42% | [0.00] | mg/L |
| Li 610.362† | 137.9 | 43.51 | 31.56% | [0.00] | mg/L |
| Mg 279.077† | 4.7 | 0.31 | 6.55% | [0.00] | mg/L |
| Mn 257.610† | 229.2 | 19.89 | 8.68% | [0.00] | mg/L |
| Mo 202.031† | -14.9 | 2.43 | 16.30% | [0.00] | mg/L |
| Na 589.592† | -26.0 | 43.40 | 166.70% | [0.00] | mg/L |
| Ni 231.604† | -81.0 | 0.41 | 0.51% | [0.00] | mg/L |
| P 214.914† | 5.4 | 2.23 | 41.57% | [0.00] | mg/L |
| Pb 220.353† | 49.5 | 0.15 | 0.31% | [0.00] | mg/L |
| Sb 206.836† | 6.9 | 2.32 | 33.66% | [0.00] | mg/L |
| Se 196.026† | 26.1 | 2.87 | 10.99% | [0.00] | mg/L |
| Si 251.611† | 149.9 | 2.72 | 1.81% | [0.00] | mg/L |
| Sn 189.927† | 30.7 | 6.72 | 21.89% | [0.00] | mg/L |
| Sr 421.552† | -805.6 | 13.73 | 1.70% | [0.00] | mg/L |
| Ti 334.903† | 129.9 | 32.72 | 25.18% | [0.00] | mg/L |
| Tl 190.801† | -8.0 | 1.54 | 19.25% | [0.00] | mg/L |
| V 292.402† | 66.3 | 10.03 | 15.13% | [0.00] | mg/L |
| Zn 213.857† | 49.8 | 1.33 | 2.66% | [0.00] | mg/L |
| Zr 343.823† | 407.8 | 8.14 | 2.00% | [0.00] | mg/L |
| W 207.912† | 57.2 | 0.18 | 0.32% | [0.00] | mg/L |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/25/2017 10:38:52 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 2 Autosampler Location: 2
Sample ID: STD1 4447507 Date Collected: 10/26/2017 10:21:35 AM
Analyst: Data Type: Reprocessed on 10/26/2017 11:10:01 AM
Logged In Analyst (Original) : IRVINSTICP7
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time:

Nebulizer Parameters: STD1 4447507

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 195.0 kPa | 0.65 L/min |

Mean Data: STD1 4447507

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| Y 371.029 | 2619674.8 | 16878.39 | 0.64% | 102.2 | % |
| Ag 328.068† | 201.5 | 39.72 | 19.71% | [0.0025] | mg/L |
| As 188.979† | 3.5 | 1.93 | 55.11% | [0.005] | mg/L |
| Ba 233.527† | 169.9 | 4.90 | 2.88% | [0.005] | mg/L |
| Be 313.107† | 4203.4 | 52.16 | 1.24% | [0.005] | mg/L |
| Ca 315.887† | 84.3 | 16.81 | 19.93% | [0.025] | mg/L |
| Cd 214.440† | 160.7 | 2.13 | 1.32% | [0.005] | mg/L |
| Co 228.616† | 47.8 | 4.54 | 9.48% | [0.005] | mg/L |
| Cr 205.560† | 67.0 | 1.65 | 2.47% | [0.005] | mg/L |
| Cu 324.752† | 587.7 | 9.59 | 1.63% | [0.005] | mg/L |
| Mg 279.077† | 66.1 | 3.03 | 4.58% | [0.025] | mg/L |
| Mn 257.610† | 798.5 | 14.23 | 1.78% | [0.005] | mg/L |
| Mo 202.031† | 28.5 | 4.51 | 15.82% | [0.005] | mg/L |
| Ni 231.604† | 58.4 | 3.07 | 5.25% | [0.005] | mg/L |
| Pb 220.353† | 9.3 | 2.53 | 27.14% | [0.005] | mg/L |
| Sb 206.836† | 2.2 | 2.41 | 111.87% | [0.005] | mg/L |
| Se 196.026† | 7.7 | 0.88 | 11.34% | [0.005] | mg/L |
| Si 251.611† | 494.5 | 1.10 | 0.22% | [0.025] | mg/L |
| Sr 421.552† | 3585.1 | 66.65 | 1.86% | [0.005] | mg/L |
| Ti 334.903† | 1265.6 | 57.46 | 4.54% | [0.005] | mg/L |
| Tl 190.801† | 0.8 | 0.49 | 63.43% | [0.005] | mg/L |
| V 292.402† | 157.1 | 16.43 | 10.45% | [0.005] | mg/L |
| Zn 213.857† | 180.2 | 4.19 | 2.32% | [0.005] | mg/L |
| Zr 343.823† | 491.5 | 2.22 | 0.45% | [0.005] | mg/L |
| W 207.912† | 9.6 | 3.74 | 39.02% | [0.005] | mg/L |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/25/2017 10:38:52 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

==========

**Sequence No.: 3** **Autosampler Location: 3**
**Sample ID: STD2 4447506** **Date Collected: 10/26/2017 10:23:26 AM**
**Analyst:** **Data Type: Reprocessed on 10/26/2017 11:10:02 AM**
**Logged In Analyst (Original) : IRVINSTICP7**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time:**

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**Nebulizer Parameters: STD2 4447506**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 194.0 kPa | 0.65 L/min |

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**Mean Data: STD2 4447506**

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| Y 371.029 | 2547174.9 | 8686.45 | 0.34% | 99.39 | % |
| Ag 328.068† | 4763.6 | 17.83 | 0.37% | [0.05] | mg/L |
| Al 308.215† | 997.5 | 9.88 | 0.99% | [0.1] | mg/L |
| As 188.979† | 66.1 | 1.75 | 2.65% | [0.1] | mg/L |
| B 249.677† | 4457.0 | 5.23 | 0.12% | [0.1] | mg/L |
| Ba 233.527† | 3478.5 | 3.89 | 0.11% | [0.1] | mg/L |
| Be 313.107† | 87562.0 | 132.42 | 0.15% | [0.1] | mg/L |
| Ca 315.887† | 1392.9 | 2.71 | 0.19% | [0.5] | mg/L |
| Cd 214.440† | 3336.6 | 5.16 | 0.15% | [0.1] | mg/L |
| Co 228.616† | 876.3 | 1.05 | 0.12% | [0.1] | mg/L |
| Cr 205.560† | 1311.2 | 15.43 | 1.18% | [0.1] | mg/L |
| Cu 324.752† | 11153.4 | 19.13 | 0.17% | [0.1] | mg/L |
| Fe 238.204† | 307.7 | 1.04 | 0.34% | [0.1] | mg/L |
| K 766.490† | 2528.1 | 22.74 | 0.90% | [1.0] | mg/L |
| Li 610.362† | 11098.4 | 68.27 | 0.62% | [0.1] | mg/L |
| Mg 279.077† | 1477.6 | 7.48 | 0.51% | [0.5] | mg/L |
| Mn 257.610† | 15440.6 | 6.51 | 0.04% | [0.1] | mg/L |
| Mo 202.031† | 658.7 | 5.63 | 0.86% | [0.1] | mg/L |
| Na 589.592† | 18424.3 | 71.32 | 0.39% | [1.0] | mg/L |
| Ni 231.604† | 1163.2 | 10.54 | 0.91% | [0.1] | mg/L |
| P 214.914† | 44.6 | 1.48 | 3.32% | [0.1] | mg/L |
| Pb 220.353† | 200.0 | 2.66 | 1.33% | [0.1] | mg/L |
| Sb 206.836† | 74.3 | 2.22 | 2.99% | [0.1] | mg/L |
| Se 196.026† | 79.6 | 4.24 | 5.32% | [0.1] | mg/L |
| Si 251.611† | 9125.4 | 10.19 | 0.11% | [0.5] | mg/L |
| Sn 189.927† | 249.8 | 3.38 | 1.35% | [0.1] | mg/L |
| Sr 421.552† | 70756.9 | 181.63 | 0.26% | [0.1] | mg/L |
| Ti 334.903† | 24971.6 | 47.31 | 0.19% | [0.1] | mg/L |
| Tl 190.801† | 58.6 | 1.54 | 2.63% | [0.1] | mg/L |
| V 292.402† | 3816.3 | 13.70 | 0.36% | [0.1] | mg/L |
| Zn 213.857† | 3688.7 | 0.24 | 0.01% | [0.1] | mg/L |
| Zr 343.823† | 13974.8 | 69.26 | 0.50% | [0.1] | mg/L |
| W 207.912† | 204.0 | 1.10 | 0.54% | [0.1] | mg/L |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/25/2017 10:38:52 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

**Sequence No.: 4** **Autosampler Location: 4**
**Sample ID: STD3 4447505** **Date Collected: 10/26/2017 10:25:57 AM**
**Analyst:** **Data Type: Reprocessed on 10/26/2017 11:10:03 AM**
**Logged In Analyst (Original) : IRVINSTICP7**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time:**

**Nebulizer Parameters: STD3 4447505**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 195.0 kPa | 0.65 L/min |

**Mean Data: STD3 4447505**

| Analyte | Mean Corrected Intensity | Std.Dev. | RSD | Conc. | Calib Units |
|---|---|---|---|---|---|
| Y 371.029 | 2578580.6 | 9242.63 | 0.36% | 100.6 | % |
| Ag 328.068† | 48549.3 | 258.24 | 0.53% | [0.5] | mg/L |
| Al 308.215† | 10187.4 | 136.98 | 1.34% | [1.0] | mg/L |
| As 188.979† | 675.5 | 4.69 | 0.69% | [1.0] | mg/L |
| B 249.677† | 42990.0 | 196.84 | 0.46% | [1.0] | mg/L |
| Ba 233.527† | 32724.2 | 245.11 | 0.75% | [1.0] | mg/L |
| Be 313.107† | 854446.7 | 3221.58 | 0.38% | [1.0] | mg/L |
| Ca 315.887† | 13597.0 | 99.79 | 0.73% | [5.0] | mg/L |
| Cd 214.440† | 31643.4 | 47.57 | 0.15% | [1.0] | mg/L |
| Co 228.616† | 8485.1 | 24.54 | 0.29% | [1.0] | mg/L |
| Cr 205.560† | 12692.1 | 118.20 | 0.93% | [1.0] | mg/L |
| Cu 324.752† | 113914.4 | 950.51 | 0.83% | [1.0] | mg/L |
| Fe 238.204† | 3088.6 | 7.14 | 0.23% | [1.0] | mg/L |
| K 766.490† | 25606.4 | 113.88 | 0.44% | [10.0] | mg/L |
| Li 610.362† | 113239.5 | 491.02 | 0.43% | [1.0] | mg/L |
| Mg 279.077† | 14014.7 | 107.94 | 0.77% | [5.0] | mg/L |
| Mn 257.610† | 156929.1 | 1027.66 | 0.65% | [1.0] | mg/L |
| Mo 202.031† | 6474.4 | 12.69 | 0.20% | [1.0] | mg/L |
| Na 589.592† | 179585.8 | 1285.14 | 0.72% | [10.0] | mg/L |
| Ni 231.604† | 11068.4 | 56.38 | 0.51% | [1.0] | mg/L |
| P 214.914† | 477.1 | 0.72 | 0.15% | [1.0] | mg/L |
| Pb 220.353† | 1947.7 | 13.08 | 0.67% | [1.0] | mg/L |
| Sb 206.836† | 752.9 | 2.35 | 0.31% | [1.0] | mg/L |
| Se 196.026† | 772.6 | 7.31 | 0.95% | [1.0] | mg/L |
| Si 251.611† | 89012.7 | 659.66 | 0.74% | [5.0] | mg/L |
| Sn 189.927† | 2478.4 | 6.18 | 0.25% | [1.0] | mg/L |
| Sr 421.552† | 696799.7 | 4931.45 | 0.71% | [1.0] | mg/L |
| Ti 334.903† | 248861.1 | 755.78 | 0.30% | [1.0] | mg/L |
| Tl 190.801† | 608.8 | 1.64 | 0.27% | [1.0] | mg/L |
| V 292.402† | 38974.7 | 353.99 | 0.91% | [1.0] | mg/L |
| Zn 213.857† | 35037.0 | 130.54 | 0.37% | [1.0] | mg/L |
| Zr 343.823† | 142773.1 | 814.37 | 0.57% | [1.00] | mg/L |
| W 207.912† | 2086.4 | 13.18 | 0.63% | [1.00] | mg/L |

**Calibration Summary**

| Analyte | Stds. | Equation | Intercept | Slope | Curvature | Corr. Coef. | Reslope |
|---|---|---|---|---|---|---|---|
| Ag 328.068 | 3 | Lin Thru 0 | 0.0 | 97080 | 0.00000 | 0.999998 | |
| Al 308.215 | 2 | Lin Thru 0 | 0.0 | 10190 | 0.00000 | 0.999998 | |
| As 188.979 | 3 | Lin Thru 0 | 0.0 | 675.3 | 0.00000 | 0.999998 | |
| B 249.677 | 2 | Lin Thru 0 | 0.0 | 43010 | 0.00000 | 0.999993 | |
| Ba 233.527 | 3 | Lin Thru 0 | 0.0 | 32740 | 0.00000 | 0.999981 | |
| Be 313.107 | 3 | Lin Thru 0 | 0.0 | 854700 | 0.00000 | 0.999997 | |
| Ca 315.887 | 3 | Lin Thru 0 | 0.0 | 2720 | 0.00000 | 0.999996 | |
| Cd 214.440 | 3 | Lin Thru 0 | 0.0 | 31660 | 0.00000 | 0.999985 | |
| Co 228.616 | 3 | Lin Thru 0 | 0.0 | 8488 | 0.00000 | 0.999995 | |
| Cr 205.560 | 3 | Lin Thru 0 | 0.0 | 12700 | 0.00000 | 0.999995 | |
| Cu 324.752 | 3 | Lin Thru 0 | 0.0 | 113900 | 0.00000 | 0.999998 | |
| Fe 238.204 | 2 | Lin Thru 0 | 0.0 | 3088 | 0.00000 | 1.000000 | |


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| | | | | | | |
|---|---|---|---|---|---|---|
| K 766.490 | 2 | Lin Thru 0 | 0.0 | 2560 | 0.00000 | 0.999999 |
| Li 610.362 | 2 | Lin Thru 0 | 0.0 | 113200 | 0.00000 | 0.999998 |
| Mg 279.077 | 3 | Lin Thru 0 | 0.0 | 2804 | 0.00000 | 0.999986 |
| Mn 257.610 | 3 | Lin Thru 0 | 0.0 | 156900 | 0.00000 | 0.999999 |
| Mo 202.031 | 3 | Lin Thru 0 | 0.0 | 6476 | 0.00000 | 0.999998 |
| Na 589.592 | 2 | Lin Thru 0 | 0.0 | 17960 | 0.00000 | 0.999997 |
| Ni 231.604 | 3 | Lin Thru 0 | 0.0 | 11070 | 0.00000 | 0.999987 |
| P 214.914 | 2 | Lin Thru 0 | 0.0 | 476.8 | 0.00000 | 0.999979 |
| Pb 220.353 | 3 | Lin Thru 0 | 0.0 | 1948 | 0.00000 | 0.999996 |
| Sb 206.836 | 3 | Lin Thru 0 | 0.0 | 752.8 | 0.00000 | 0.999997 |
| Se 196.026 | 3 | Lin Thru 0 | 0.0 | 772.8 | 0.00000 | 0.999983 |
| Si 251.611 | 3 | Lin Thru 0 | 0.0 | 17810 | 0.00000 | 0.999997 |
| Sn 189.927 | 2 | Lin Thru 0 | 0.0 | 2479 | 0.00000 | 1.000000 |
| Sr 421.552 | 3 | Lin Thru 0 | 0.0 | 696900 | 0.00000 | 0.999999 |
| Ti 334.903 | 3 | Lin Thru 0 | 0.0 | 248900 | 0.00000 | 1.000000 |
| Tl 190.801 | 3 | Lin Thru 0 | 0.0 | 608.6 | 0.00000 | 0.999986 |
| V 292.402 | 3 | Lin Thru 0 | 0.0 | 38970 | 0.00000 | 0.999997 |
| Zn 213.857 | 3 | Lin Thru 0 | 0.0 | 35060 | 0.00000 | 0.999986 |
| Zr 343.823 | 3 | Lin Thru 0 | 0.0 | 142700 | 0.00000 | 0.999997 |
| W 207.912 | 3 | Lin Thru 0 | 0.0 | 2086 | 0.00000 | 0.999997 |


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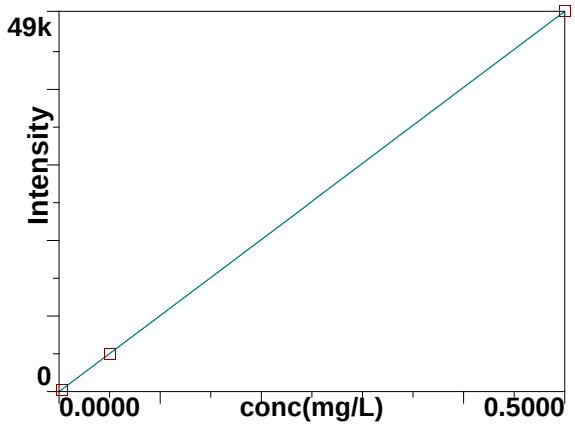
**Method: 170824_ICP7**
**Result: 171026-1 ICP7**

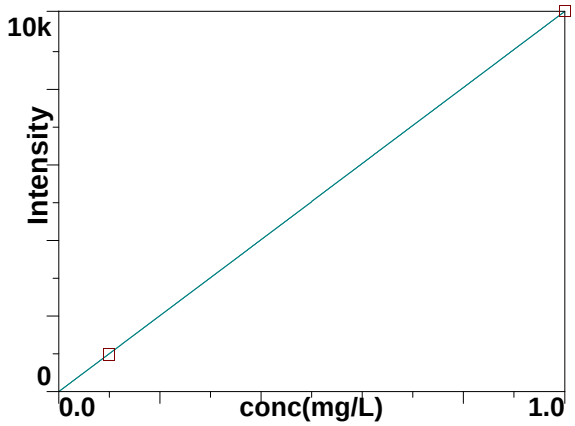
## Ag 328.068




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999998

1

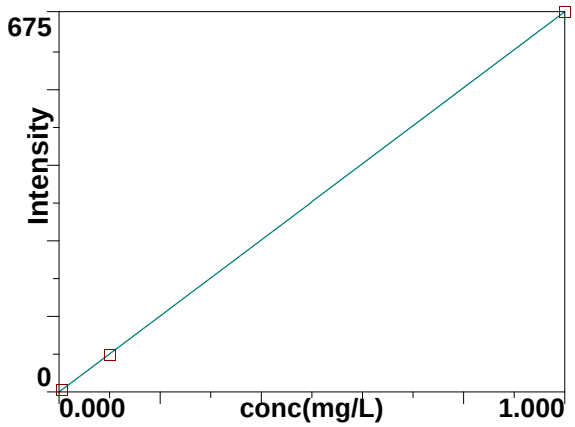
## Al 308.215




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999998

2

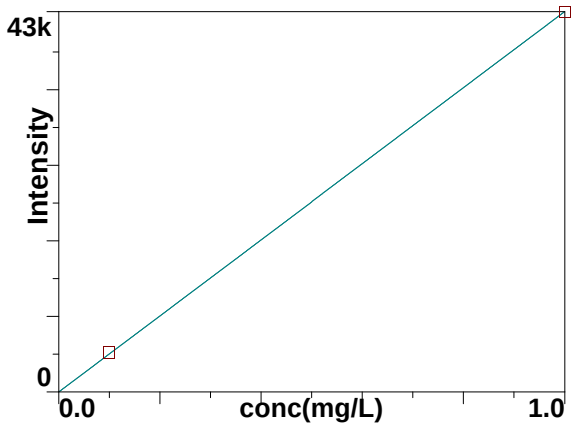
## As 188.979




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999998

3

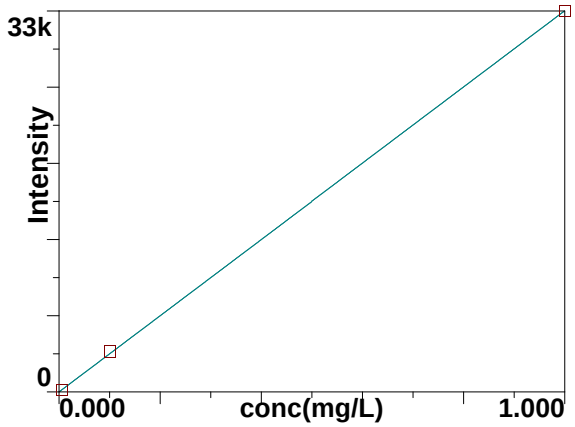
## B 249.677




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999993

4

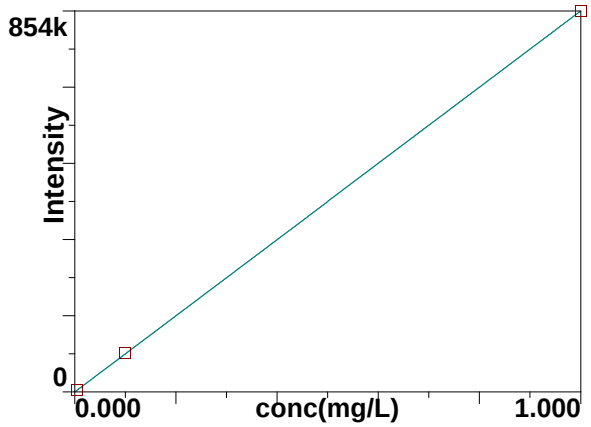
## Ba 233.527




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999981

5

## Be 313.107




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999997

6



Page 2054 of 2951
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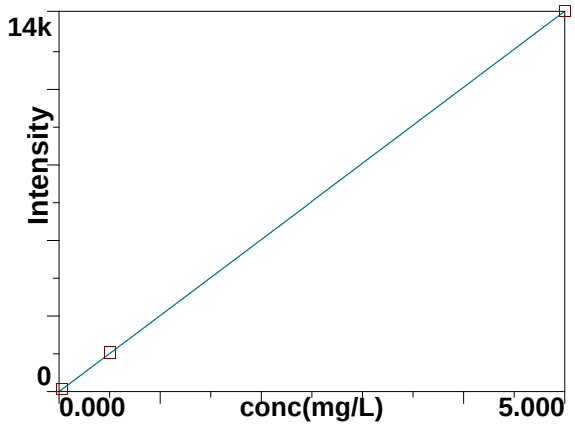
**Method: 170824_ICP7**
**Result: 171026-1 ICP7**

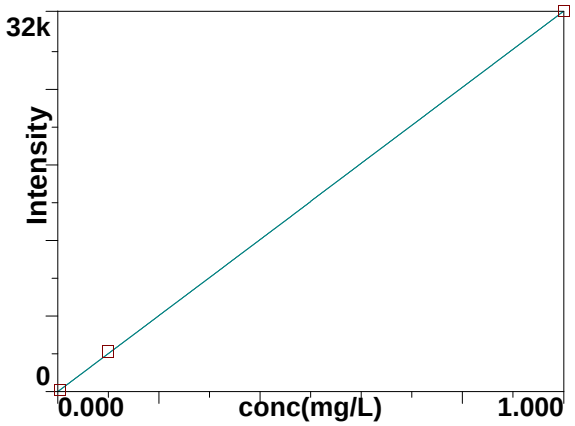
**Ca 315.887**




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999996

7

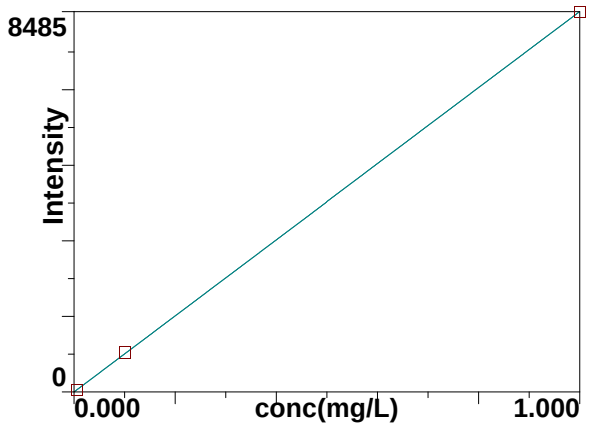
**Cd 214.440**




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999985

8

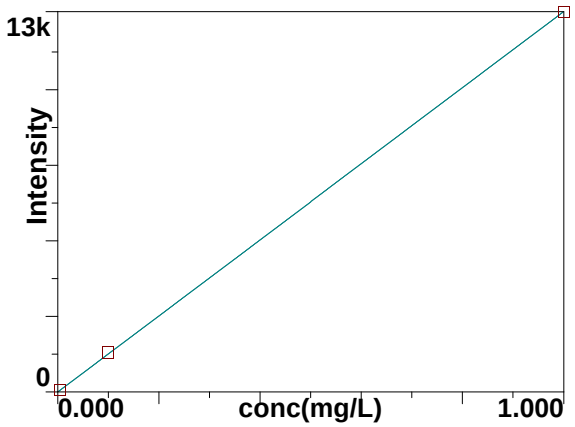
**Co 228.616**




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999995

9

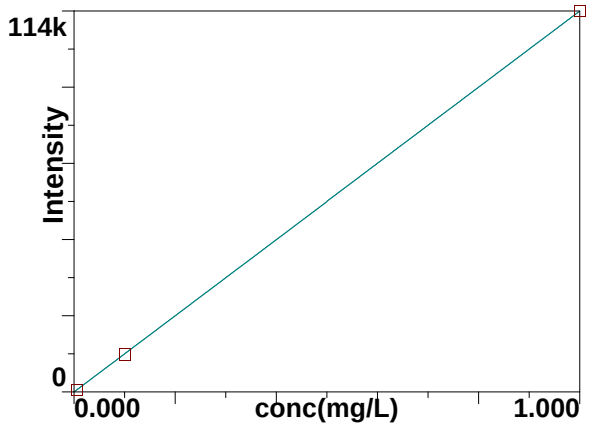
**Cr 205.560**




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999995

10

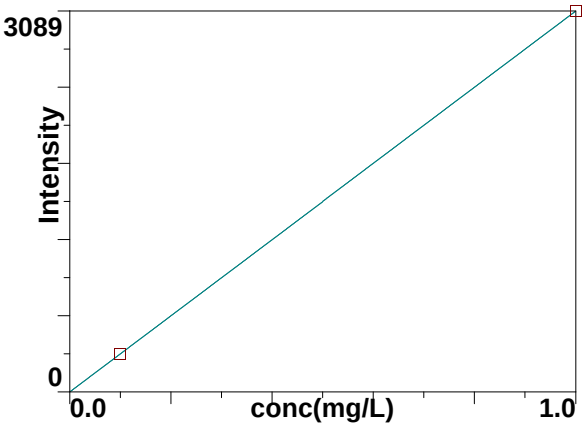
**Cu 324.752**




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999998

11

**Fe 238.204**




Calib Eq'n: Lin Thru 0
Corr Coeff: 1.000000

12





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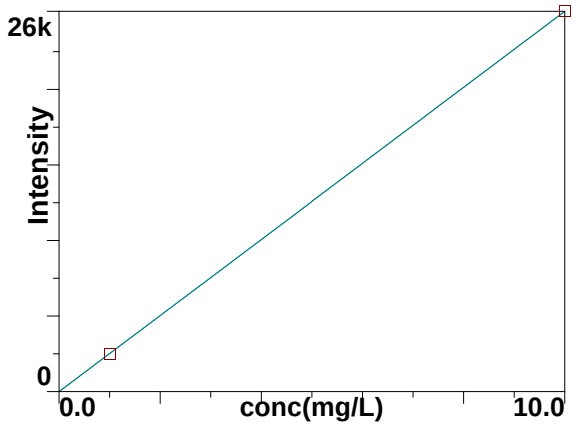
**Method: 170824_ICP7**
**Result: 171026-1 ICP7**

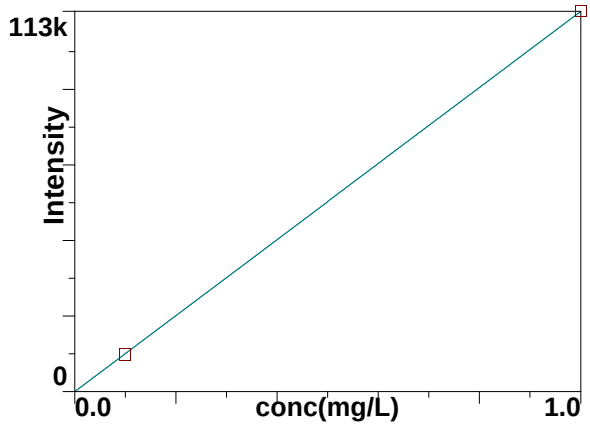
**K 766.490**




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999999

13

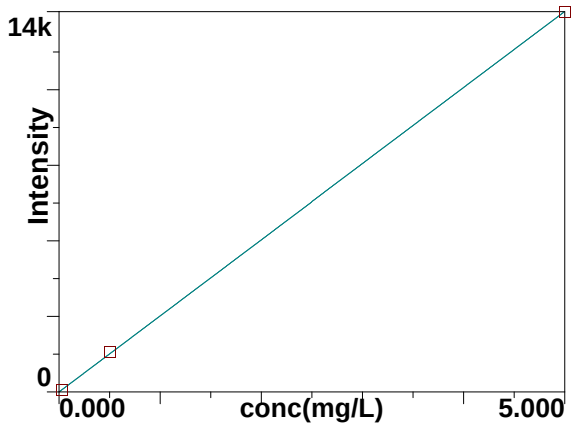
**Li 610.362**




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999998

14

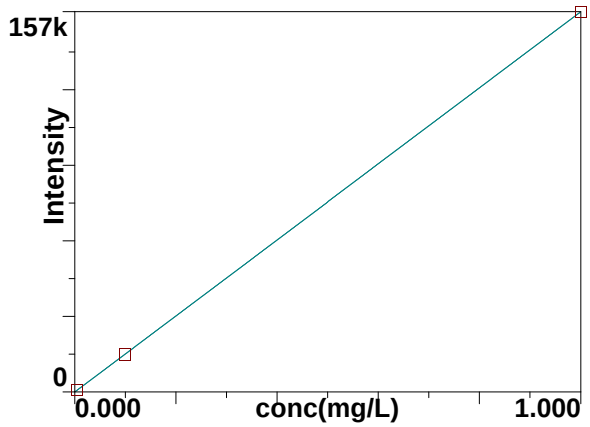
**Mg 279.077**




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999986

15

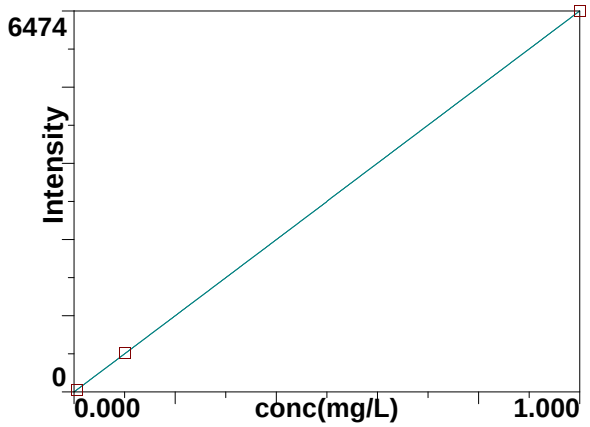
**Mn 257.610**




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999999

16

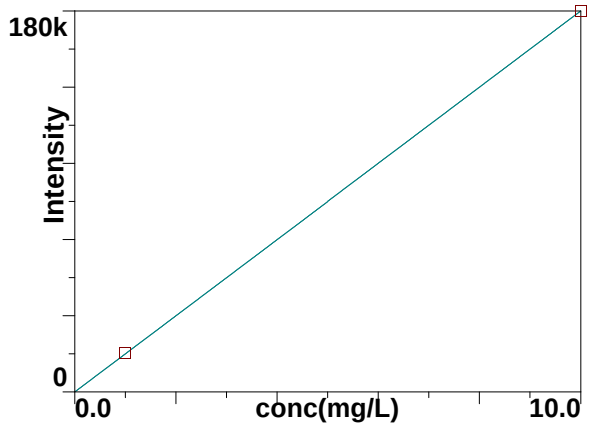
**Mo 202.031**




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999998

17

**Na 589.592**




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999997

18



Page 2056 of 2951
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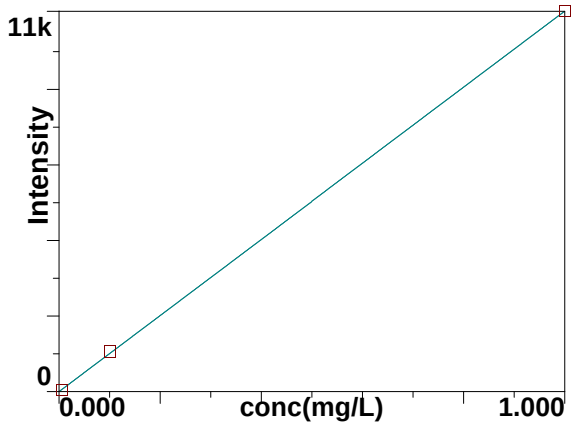
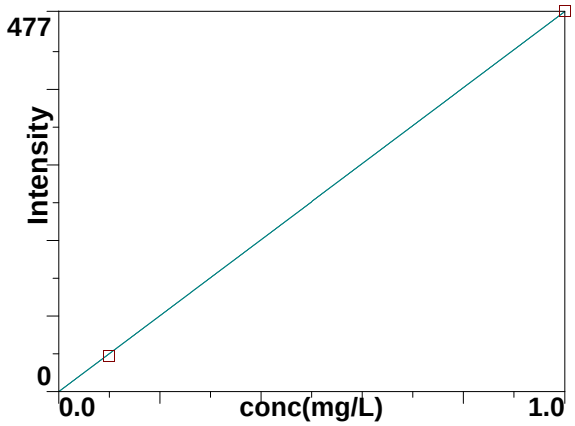
Ni 231.604




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999987

19

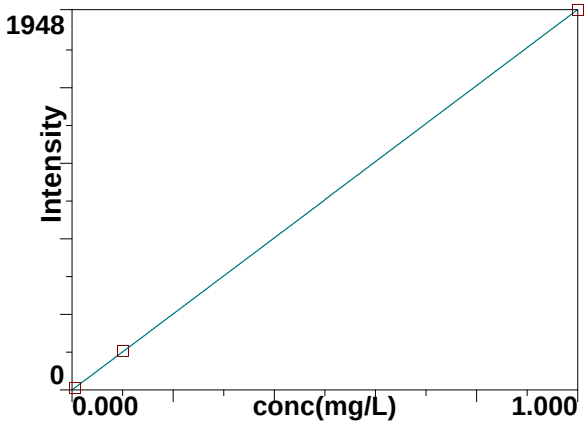
P 214.914




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999979

20

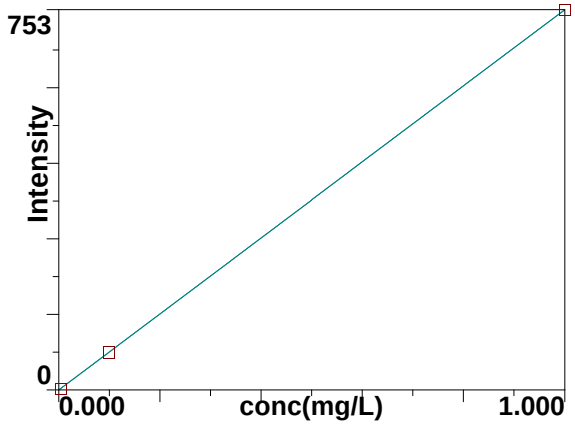
Pb 220.353




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999996

21

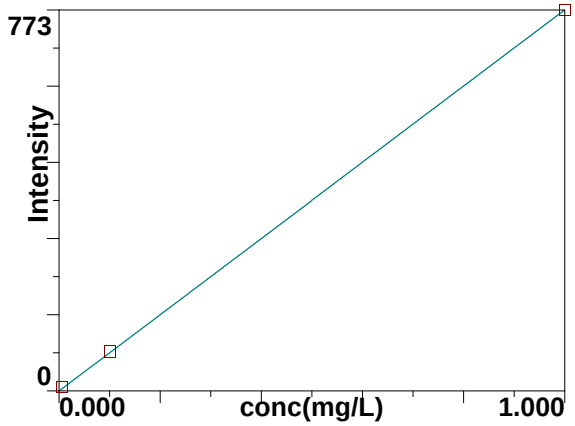
Sb 206.836




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999997

22

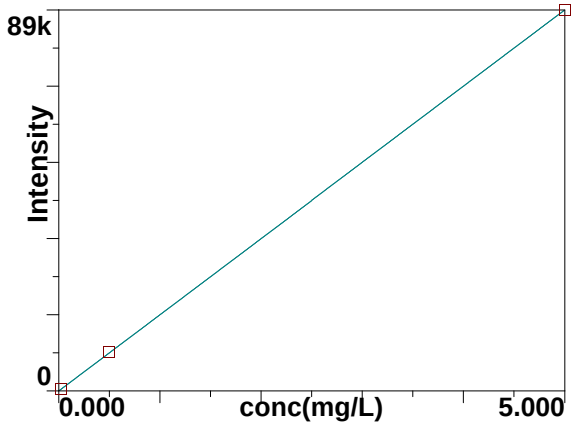
Se 196.026




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999983

23

Si 251.611




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999997

24



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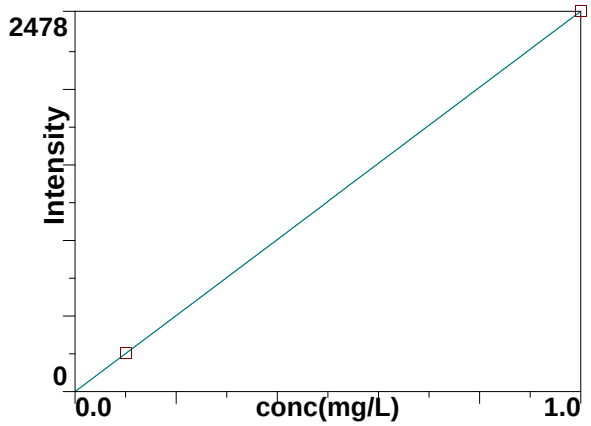
**Method: 170824_ICP7**
**Result: 171026-1 ICP7**

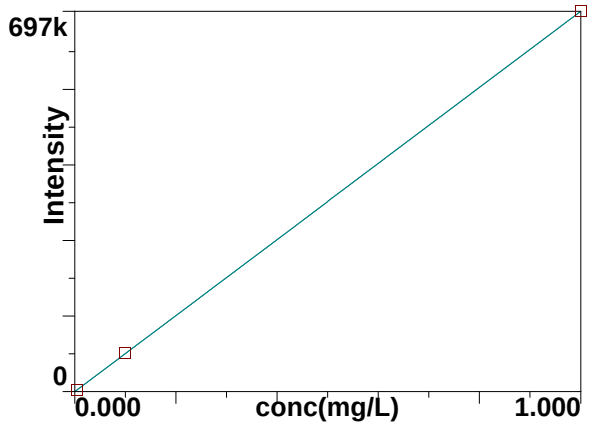
**Sn 189.927**




Calib Eq'n: Lin Thru 0
Corr Coeff: 1.000000

25

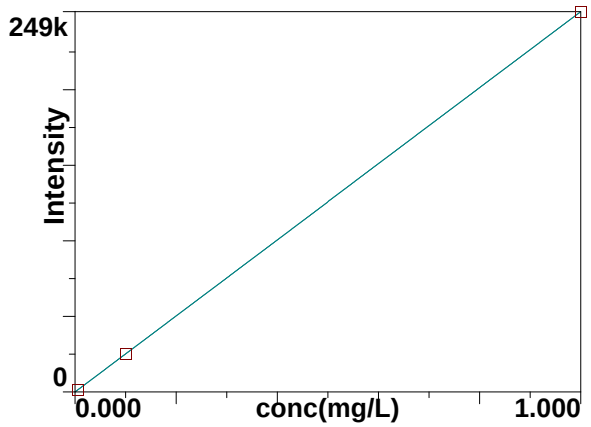
**Sr 421.552**




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999999

26

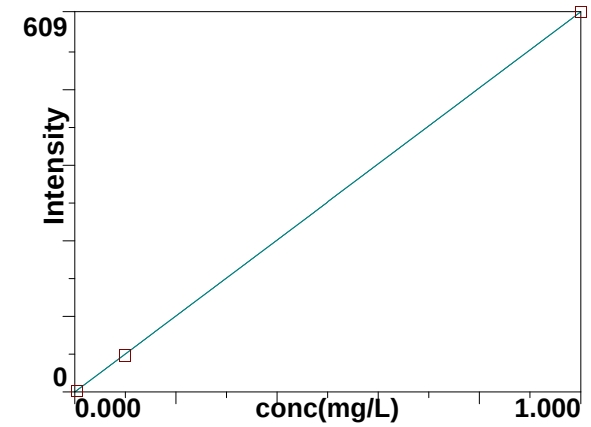
**Ti 334.903**




Calib Eq'n: Lin Thru 0
Corr Coeff: 1.000000

27

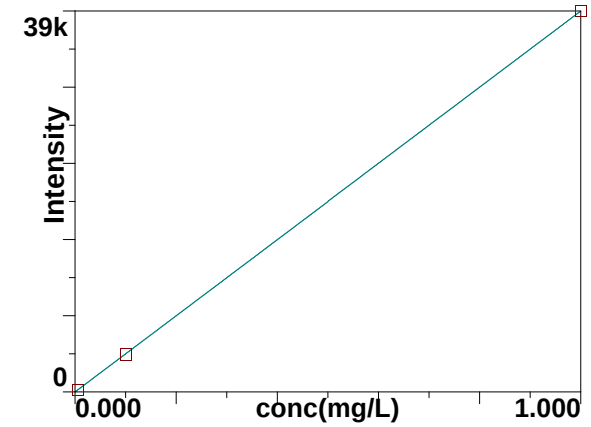
**Tl 190.801**




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999986

28

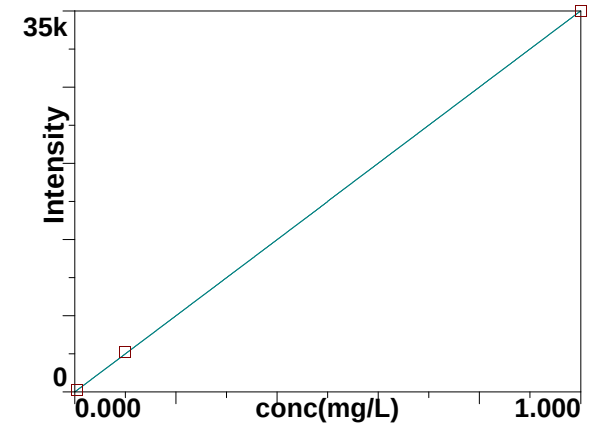
**V 292.402**




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999997

29

**Zn 213.857**




Calib Eq'n: Lin Thru 0
Corr Coeff: 0.999986

31





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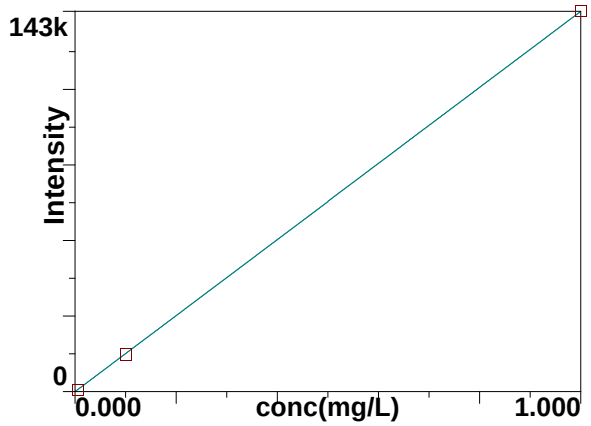
**Method: 170824_ICP7**
**Result: 171026-1 ICP7**

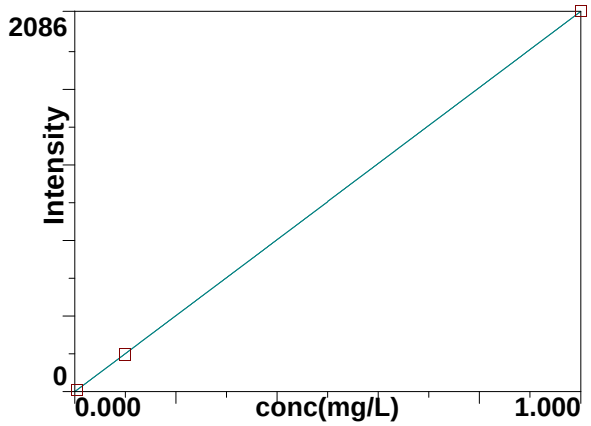
**Zr 343.823**




**Calib Eq'n:** Lin Thru 0
**Corr Coeff:** 0.999997

32

**W 207.912**




**Calib Eq'n:** Lin Thru 0
**Corr Coeff:** 0.999997

33





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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/25/2017 10:38:52 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 5 Autosampler Location: 7
Sample ID: ICV 4447508 Date Collected: 10/26/2017 10:29:07 AM
Analyst: Data Type: Reprocessed on 10/26/2017 11:10:05 AM
Logged In Analyst (Original) : IRVINSTICP7
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time:

Nebulizer Parameters: ICV 4447508

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 195.0 kPa | 0.65 L/min |

Mean Data: ICV 4447508

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2564928.9 | 100.1 | % | 1.77 | | | | 1.77% |
| Ag 328.068† | 47673.9 | 0.4848 | mg/L | 0.00282 | 0.4848 | mg/L | 0.00282 | 0.58% |
| Al 308.215† | 10199.1 | 0.9671 | mg/L | 0.01801 | 0.9671 | mg/L | 0.01801 | 1.86% |
| As 188.979† | 693.3 | 1.029 | mg/L | 0.0158 | 1.029 | mg/L | 0.0158 | 1.54% |
| B 249.677† | 42378.9 | 0.9786 | mg/L | 0.00648 | 0.9786 | mg/L | 0.00648 | 0.66% |
| Ba 233.527† | 32782.1 | 1.002 | mg/L | 0.0006 | 1.002 | mg/L | 0.0006 | 0.06% |
| Be 313.107† | 856204.7 | 1.002 | mg/L | 0.0100 | 1.002 | mg/L | 0.0100 | 1.00% |
| Ca 315.887† | 2777.0 | 1.024 | mg/L | 0.0170 | 1.024 | mg/L | 0.0170 | 1.66% |
| Cd 214.440† | 31668.9 | 1.001 | mg/L | 0.0046 | 1.001 | mg/L | 0.0046 | 0.46% |
| Co 228.616† | 8340.5 | 0.9810 | mg/L | 0.00862 | 0.9810 | mg/L | 0.00862 | 0.88% |
| Cr 205.560† | 12654.1 | 0.9964 | mg/L | 0.00246 | 0.9964 | mg/L | 0.00246 | 0.25% |
| Cu 324.752† | 115659.2 | 1.015 | mg/L | 0.0065 | 1.015 | mg/L | 0.0065 | 0.64% |
| Fe 238.204† | 3049.2 | 0.9888 | mg/L | 0.00805 | 0.9888 | mg/L | 0.00805 | 0.81% |
| K 766.490† | 26098.1 | 10.19 | mg/L | 0.012 | 10.19 | mg/L | 0.012 | 0.12% |
| Li 610.362† | 113050.8 | 0.9993 | mg/L | 0.00750 | 0.9993 | mg/L | 0.00750 | 0.75% |
| Mg 279.077† | 2990.9 | 1.068 | mg/L | 0.0176 | 1.068 | mg/L | 0.0176 | 1.65% |
| Mn 257.610† | 158683.3 | 1.011 | mg/L | 0.0002 | 1.011 | mg/L | 0.0002 | 0.02% |
| Mo 202.031† | 6428.5 | 0.9928 | mg/L | 0.00095 | 0.9928 | mg/L | 0.00095 | 0.10% |
| Na 589.592† | 185490.2 | 10.33 | mg/L | 0.144 | 10.33 | mg/L | 0.144 | 1.40% |
| Ni 231.604† | 11044.4 | 0.9983 | mg/L | 0.00460 | 0.9983 | mg/L | 0.00460 | 0.46% |
| P 214.914† | 474.6 | 0.9290 | mg/L | 0.01115 | 0.9290 | mg/L | 0.01115 | 1.20% |
| Pb 220.353† | 1962.6 | 1.009 | mg/L | 0.0166 | 1.009 | mg/L | 0.0166 | 1.64% |
| Sb 206.836† | 752.6 | 1.011 | mg/L | 0.0171 | 1.011 | mg/L | 0.0171 | 1.69% |
| Se 196.026† | 787.8 | 1.010 | mg/L | 0.0132 | 1.010 | mg/L | 0.0132 | 1.31% |
| Si 251.611† | 82479.0 | 4.556 | mg/L | 0.0170 | 4.556 | mg/L | 0.0170 | 0.37% |
| Sn 189.927† | 2524.4 | 1.024 | mg/L | 0.0171 | 1.024 | mg/L | 0.0171 | 1.67% |
| Sr 421.552† | 704773.2 | 1.011 | mg/L | 0.0049 | 1.011 | mg/L | 0.0049 | 0.49% |
| Ti 334.903† | 248441.1 | 0.9980 | mg/L | 0.01228 | 0.9980 | mg/L | 0.01228 | 1.23% |
| Tl 190.801† | 615.8 | 1.015 | mg/L | 0.0247 | 1.015 | mg/L | 0.0247 | 2.43% |
| V 292.402† | 38321.8 | 0.9867 | mg/L | 0.00215 | 0.9867 | mg/L | 0.00215 | 0.22% |
| Zn 213.857† | 35192.5 | 0.9973 | mg/L | 0.00193 | 0.9973 | mg/L | 0.00193 | 0.19% |
| Zr 343.823† | 142594.3 | 0.9990 | mg/L | 0.00490 | 0.9990 | mg/L | 0.00490 | 0.49% |
| W 207.912† | 2092.9 | 0.9967 | mg/L | 0.01687 | 0.9967 | mg/L | 0.01687 | 1.69% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/25/2017 10:38:52 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 6 Autosampler Location: 1
Sample ID: ICB 4447504 Date Collected: 10/26/2017 10:33:26 AM
Analyst: Data Type: Reprocessed on 10/26/2017 11:10:06 AM
Logged In Analyst (Original) : IRVINSTICP7
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time:

Nebulizer Parameters: ICB 4447504

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 195.0 kPa | 0.65 L/min |

Mean Data: ICB 4447504

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2578275.8 | 100.6 | % | 0.50 | | | | 0.50% |
| Ag 328.068† | -45.0 | -0.0005 | mg/L | 0.00000 | -0.0005 | mg/L | 0.00000 | 0.61% |
| Al 308.215† | -26.2 | -0.0026 | mg/L | 0.00458 | -0.0026 | mg/L | 0.00458 | 176.00% |
| As 188.979† | -1.2 | -0.0017 | mg/L | 0.00167 | -0.0017 | mg/L | 0.00167 | 96.76% |
| B 249.677† | 23.8 | 0.0005 | mg/L | 0.00015 | 0.0005 | mg/L | 0.00015 | 28.19% |
| Ba 233.527† | 2.5 | 0.0001 | mg/L | 0.00007 | 0.0001 | mg/L | 0.00007 | 87.37% |
| Be 313.107† | -57.4 | -0.0001 | mg/L | 0.00003 | -0.0001 | mg/L | 0.00003 | 41.65% |
| Ca 315.887† | 10.7 | 0.0040 | mg/L | 0.00183 | 0.0040 | mg/L | 0.00183 | 46.25% |
| Cd 214.440† | 1.4 | 0.0000 | mg/L | 0.00009 | 0.0000 | mg/L | 0.00009 | 204.80% |
| Co 228.616† | 2.2 | 0.0003 | mg/L | 0.00003 | 0.0003 | mg/L | 0.00003 | 10.51% |
| Cr 205.560† | 0.1 | 0.0000 | mg/L | 0.00002 | 0.0000 | mg/L | 0.00002 | 490.86% |
| Cu 324.752† | 84.5 | 0.0007 | mg/L | 0.00006 | 0.0007 | mg/L | 0.00006 | 7.89% |
| Fe 238.204† | 2.4 | 0.0008 | mg/L | 0.00041 | 0.0008 | mg/L | 0.00041 | 53.18% |
| K 766.490† | -17.7 | -0.0069 | mg/L | 0.01363 | -0.0069 | mg/L | 0.01363 | 197.02% |
| Li 610.362† | 146.0 | 0.0013 | mg/L | 0.00056 | 0.0013 | mg/L | 0.00056 | 43.58% |
| Mg 279.077† | -7.9 | -0.0028 | mg/L | 0.00254 | -0.0028 | mg/L | 0.00254 | 90.42% |
| Mn 257.610† | -15.3 | -0.0001 | mg/L | 0.00001 | -0.0001 | mg/L | 0.00001 | 8.72% |
| Mo 202.031† | 12.6 | 0.0019 | mg/L | 0.00007 | 0.0019 | mg/L | 0.00007 | 3.74% |
| Na 589.592† | 19.7 | 0.0011 | mg/L | 0.00044 | 0.0011 | mg/L | 0.00044 | 40.22% |
| Ni 231.604† | -0.8 | -0.0001 | mg/L | 0.00011 | -0.0001 | mg/L | 0.00011 | 151.98% |
| P 214.914† | -0.1 | -0.0003 | mg/L | 0.00292 | -0.0003 | mg/L | 0.00292 | 880.89% |
| Pb 220.353† | 2.6 | 0.0014 | mg/L | 0.00195 | 0.0014 | mg/L | 0.00195 | 143.66% |
| Sb 206.836† | -1.9 | -0.0025 | mg/L | 0.00072 | -0.0025 | mg/L | 0.00072 | 28.40% |
| Se 196.026† | 1.0 | 0.0013 | mg/L | 0.00857 | 0.0013 | mg/L | 0.00857 | 679.99% |
| Si 251.611† | 51.6 | 0.0027 | mg/L | 0.00067 | 0.0027 | mg/L | 0.00067 | 25.02% |
| Sn 189.927† | 1.5 | 0.0006 | mg/L | 0.00080 | 0.0006 | mg/L | 0.00080 | 129.06% |
| Sr 421.552† | 24.4 | 0.0000 | mg/L | 0.00003 | 0.0000 | mg/L | 0.00003 | 99.79% |
| Ti 334.903† | 258.2 | 0.0010 | mg/L | 0.00005 | 0.0010 | mg/L | 0.00005 | 4.67% |
| Tl 190.801† | -1.9 | -0.0031 | mg/L | 0.00322 | -0.0031 | mg/L | 0.00322 | 103.84% |
| V 292.402† | 9.2 | 0.0002 | mg/L | 0.00014 | 0.0002 | mg/L | 0.00014 | 60.94% |
| Zn 213.857† | -21.9 | -0.0006 | mg/L | 0.00008 | -0.0006 | mg/L | 0.00008 | 12.38% |
| Zr 343.823† | 26.3 | 0.0002 | mg/L | 0.00015 | 0.0002 | mg/L | 0.00015 | 84.02% |
| W 207.912† | 6.8 | 0.0033 | mg/L | 0.00011 | 0.0033 | mg/L | 0.00011 | 3.53% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/25/2017 10:38:52 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

==========

Sequence No.: 7 Autosampler Location: 9
Sample ID: ICSA 4447509 Date Collected: 10/26/2017 10:36:18 AM
Analyst: Data Type: Reprocessed on 10/26/2017 11:10:07 AM
Logged In Analyst (Original) : IRVINSTICP7
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time:

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Nebulizer Parameters: ICSA 4447509

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

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Mean Data: ICSA 4447509

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2362745.2 | 92.19 | % | 0.352 | | | | 0.38% |
| Ag 328.068† | -1106.8 | 0.0004 | mg/L | 0.00036 | 0.0004 | mg/L | 0.00036 | 93.34% |
| Al 308.215† | 6794242.4 | 666.9 | mg/L | 4.80 | 666.9 | mg/L | 4.80 | 0.72% |
| As 188.979† | -38.7 | -0.0120 | mg/L | 0.00558 | -0.0120 | mg/L | 0.00558 | 46.37% |
| B 249.677† | 49175.7 | -0.2946 | mg/L | 0.01303 | -0.2946 | mg/L | 0.01303 | 4.42% |
| Ba 233.527† | 165.3 | 0.0050 | mg/L | 0.00012 | 0.0050 | mg/L | 0.00012 | 2.42% |
| Be 313.107† | -424.7 | -0.0005 | mg/L | 0.00005 | -0.0005 | mg/L | 0.00005 | 9.44% |
| Ca 315.887† | 1658149.4 | 609.6 | mg/L | 3.18 | 609.6 | mg/L | 3.18 | 0.52% |
| Cd 214.440† | 349.9 | -0.0002 | mg/L | 0.00031 | -0.0002 | mg/L | 0.00031 | 162.35% |
| Co 228.616† | 61.1 | 0.0016 | mg/L | 0.00020 | 0.0016 | mg/L | 0.00020 | 12.02% |
| Cr 205.560† | -33.8 | 0.0002 | mg/L | 0.00027 | 0.0002 | mg/L | 0.00027 | 161.62% |
| Cu 324.752† | -5382.9 | -0.0043 | mg/L | 0.00069 | -0.0043 | mg/L | 0.00069 | 16.32% |
| Fe 238.204† | 1734080.5 | 561.5 | mg/L | 1.85 | 561.5 | mg/L | 1.85 | 0.33% |
| K 766.490† | -141.0 | -0.0551 | mg/L | 0.00898 | -0.0551 | mg/L | 0.00898 | 16.31% |
| Li 610.362† | -62284.6 | -0.0899 | mg/L | 0.00183 | -0.0899 | mg/L | 0.00183 | 2.04% |
| Mg 279.077† | 1691936.6 | 603.4 | mg/L | 4.89 | 603.4 | mg/L | 4.89 | 0.81% |
| Mn 257.610† | 469.1 | -0.0180 | mg/L | 0.00033 | -0.0180 | mg/L | 0.00033 | 1.86% |
| Mo 202.031† | -76.0 | 0.0025 | mg/L | 0.00166 | 0.0025 | mg/L | 0.00166 | 66.39% |
| Na 589.592† | 4691.6 | 0.2612 | mg/L | 0.00680 | 0.2612 | mg/L | 0.00680 | 2.60% |
| Ni 231.604† | 119.5 | 0.0013 | mg/L | 0.00013 | 0.0013 | mg/L | 0.00013 | 10.30% |
| P 214.914† | 106.8 | -0.0533 | mg/L | 0.01439 | -0.0533 | mg/L | 0.01439 | 27.00% |
| Pb 220.353† | 141.4 | 0.0026 | mg/L | 0.00275 | 0.0026 | mg/L | 0.00275 | 103.70% |
| Sb 206.836† | -27.8 | -0.0023 | mg/L | 0.00629 | -0.0023 | mg/L | 0.00629 | 268.98% |
| Se 196.026† | -178.7 | 0.0064 | mg/L | 0.00254 | 0.0064 | mg/L | 0.00254 | 39.70% |
| Si 251.611† | 59.6 | 0.0017 | mg/L | 0.00046 | 0.0017 | mg/L | 0.00046 | 27.73% |
| Sn 189.927† | -67.4 | 0.0256 | mg/L | 0.00144 | 0.0256 | mg/L | 0.00144 | 5.62% |
| Sr 421.552† | 1991.3 | -0.0149 | mg/L | 0.00010 | -0.0149 | mg/L | 0.00010 | 0.68% |
| Ti 334.903† | -1592.0 | 0.0026 | mg/L | 0.00017 | 0.0026 | mg/L | 0.00017 | 6.34% |
| Tl 190.801† | -9.9 | -0.0011 | mg/L | 0.00670 | -0.0011 | mg/L | 0.00670 | 624.28% |
| V 292.402† | -1770.7 | 0.0148 | mg/L | 0.00002 | 0.0148 | mg/L | 0.00002 | 0.14% |
| Zn 213.857† | 2944.9 | 0.0008 | mg/L | 0.00061 | 0.0008 | mg/L | 0.00061 | 73.42% |
| Zr 343.823† | 841.3 | 0.0059 | mg/L | 0.00010 | 0.0059 | mg/L | 0.00010 | 1.73% |
| W 207.912† | 8.3 | 0.0034 | mg/L | 0.00345 | 0.0034 | mg/L | 0.00345 | 100.47% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/25/2017 10:38:52 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 8 Autosampler Location: 10
Sample ID: ICSAB 4447510 Date Collected: 10/26/2017 10:39:11 AM
Analyst: Data Type: Reprocessed on 10/26/2017 11:10:08 AM
Logged In Analyst (Original) : IRVINSTICP7
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time:

Nebulizer Parameters: ICSAB 4447510

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 195.0 kPa | 0.65 L/min |

Mean Data: ICSAB 4447510

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2340086.8 | 91.31 | % | 0.843 | | | | 0.92% |
| Ag 328.068† | 24420.8 | 0.2605 | mg/L | 0.00115 | 0.2605 | mg/L | 0.00115 | 0.44% |
| Al 308.215† | 6796582.2 | 667.1 | mg/L | 1.82 | 667.1 | mg/L | 1.82 | 0.27% |
| As 188.979† | 295.9 | 0.4851 | mg/L | 0.00548 | 0.4851 | mg/L | 0.00548 | 1.13% |
| B 249.677† | 70223.1 | 0.1696 | mg/L | 0.01062 | 0.1696 | mg/L | 0.01062 | 6.26% |
| Ba 233.527† | 15711.3 | 0.4802 | mg/L | 0.00373 | 0.4802 | mg/L | 0.00373 | 0.78% |
| Be 313.107† | 387578.4 | 0.4535 | mg/L | 0.00343 | 0.4535 | mg/L | 0.00343 | 0.76% |
| Ca 315.887† | 1682983.6 | 618.7 | mg/L | 6.10 | 618.7 | mg/L | 6.10 | 0.99% |
| Cd 214.440† | 14266.0 | 0.4394 | mg/L | 0.00471 | 0.4394 | mg/L | 0.00471 | 1.07% |
| Co 228.616† | 3758.7 | 0.4364 | mg/L | 0.00386 | 0.4364 | mg/L | 0.00386 | 0.89% |
| Cr 205.560† | 5864.1 | 0.4646 | mg/L | 0.00542 | 0.4646 | mg/L | 0.00542 | 1.17% |
| Cu 324.752† | 55456.6 | 0.5306 | mg/L | 0.00446 | 0.5306 | mg/L | 0.00446 | 0.84% |
| Fe 238.204† | 1762209.1 | 570.6 | mg/L | 3.18 | 570.6 | mg/L | 3.18 | 0.56% |
| K 766.490† | 33625.1 | 13.13 | mg/L | 0.039 | 13.13 | mg/L | 0.039 | 0.30% |
| Li 610.362† | 39.1 | 0.4675 | mg/L | 0.00587 | 0.4675 | mg/L | 0.00587 | 1.26% |
| Mg 279.077† | 1687597.1 | 601.8 | mg/L | 1.04 | 601.8 | mg/L | 1.04 | 0.17% |
| Mn 257.610† | 69995.1 | 0.4252 | mg/L | 0.00401 | 0.4252 | mg/L | 0.00401 | 0.94% |
| Mo 202.031† | 2909.4 | 0.4638 | mg/L | 0.00110 | 0.4638 | mg/L | 0.00110 | 0.24% |
| Na 589.592† | 172846.6 | 9.622 | mg/L | 0.0501 | 9.622 | mg/L | 0.0501 | 0.52% |
| Ni 231.604† | 4814.8 | 0.4255 | mg/L | 0.00352 | 0.4255 | mg/L | 0.00352 | 0.83% |
| P 214.914† | 325.8 | 0.3691 | mg/L | 0.00694 | 0.3691 | mg/L | 0.00694 | 1.88% |
| Pb 220.353† | 973.5 | 0.4304 | mg/L | 0.00118 | 0.4304 | mg/L | 0.00118 | 0.27% |
| Sb 206.836† | 337.9 | 0.4887 | mg/L | 0.00396 | 0.4887 | mg/L | 0.00396 | 0.81% |
| Se 196.026† | 163.5 | 0.4489 | mg/L | 0.02541 | 0.4489 | mg/L | 0.02541 | 5.66% |
| Si 251.611† | 41710.6 | 2.307 | mg/L | 0.0223 | 2.307 | mg/L | 0.0223 | 0.97% |
| Sn 189.927† | 1012.6 | 0.4646 | mg/L | 0.00824 | 0.4646 | mg/L | 0.00824 | 1.77% |
| Sr 421.552† | 333107.6 | 0.4600 | mg/L | 0.00135 | 0.4600 | mg/L | 0.00135 | 0.29% |
| Ti 334.903† | 120366.5 | 0.4927 | mg/L | 0.00382 | 0.4927 | mg/L | 0.00382 | 0.78% |
| Tl 190.801† | 238.5 | 0.4087 | mg/L | 0.00876 | 0.4087 | mg/L | 0.00876 | 2.14% |
| V 292.402† | 17605.7 | 0.5145 | mg/L | 0.00468 | 0.5145 | mg/L | 0.00468 | 0.91% |
| Zn 213.857† | 19551.0 | 0.4708 | mg/L | 0.00348 | 0.4708 | mg/L | 0.00348 | 0.74% |
| Zr 343.823† | 69446.8 | 0.4865 | mg/L | 0.00208 | 0.4865 | mg/L | 0.00208 | 0.43% |
| W 207.912† | 921.4 | 0.4381 | mg/L | 0.00106 | 0.4381 | mg/L | 0.00106 | 0.24% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/25/2017 10:38:52 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 9 Autosampler Location: 8
Sample ID: ICIS 4447536 Date Collected: 10/26/2017 10:42:31 AM
Analyst: Data Type: Reprocessed on 10/26/2017 11:10:09 AM
Logged In Analyst (Original) : IRVINSTICP7
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time:

Nebulizer Parameters: ICIS 4447536

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: ICIS 4447536

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2658975.4 | 103.8 | % | 0.45 | | | | 0.43% |
| Ag 328.068† | -4.9 | -0.0001 | mg/L | 0.00066 | -0.0001 | mg/L | 0.00066 | >999.9% |
| Al 308.215† | 238.9 | 0.0234 | mg/L | 0.00192 | 0.0234 | mg/L | 0.00192 | 8.19% |
| As 188.979† | -3.7 | -0.0055 | mg/L | 0.00887 | -0.0055 | mg/L | 0.00887 | 161.88% |
| B 249.677† | 101.3 | 0.0023 | mg/L | 0.00003 | 0.0023 | mg/L | 0.00003 | 1.35% |
| Ba 233.527† | 21.9 | 0.0007 | mg/L | 0.00006 | 0.0007 | mg/L | 0.00006 | 8.30% |
| Be 313.107† | -30.6 | -0.0000 | mg/L | 0.00007 | -0.0000 | mg/L | 0.00007 | 208.98% |
| Ca 315.887† | 236.3 | 0.0869 | mg/L | 0.00073 | 0.0869 | mg/L | 0.00073 | 0.84% |
| Cd 214.440† | 5.4 | 0.0002 | mg/L | 0.00011 | 0.0002 | mg/L | 0.00011 | 64.66% |
| Co 228.616† | 7.1 | 0.0008 | mg/L | 0.00030 | 0.0008 | mg/L | 0.00030 | 36.51% |
| Cr 205.560† | 1.7 | 0.0001 | mg/L | 0.00005 | 0.0001 | mg/L | 0.00005 | 40.71% |
| Cu 324.752† | 161.1 | 0.0014 | mg/L | 0.00021 | 0.0014 | mg/L | 0.00021 | 15.11% |
| Fe 238.204† | 59.1 | 0.0191 | mg/L | 0.00166 | 0.0191 | mg/L | 0.00166 | 8.70% |
| K 766.490† | 37.2 | 0.0145 | mg/L | 0.00097 | 0.0145 | mg/L | 0.00097 | 6.71% |
| Li 610.362† | 120.4 | 0.0011 | mg/L | 0.00075 | 0.0011 | mg/L | 0.00075 | 66.43% |
| Mg 279.077† | 26.8 | 0.0096 | mg/L | 0.00149 | 0.0096 | mg/L | 0.00149 | 15.58% |
| Mn 257.610† | 28.1 | 0.0002 | mg/L | 0.00001 | 0.0002 | mg/L | 0.00001 | 2.80% |
| Mo 202.031† | 6.8 | 0.0011 | mg/L | 0.00026 | 0.0011 | mg/L | 0.00026 | 24.96% |
| Na 589.592† | 330.9 | 0.0184 | mg/L | 0.00036 | 0.0184 | mg/L | 0.00036 | 1.93% |
| Ni 231.604† | 7.0 | 0.0006 | mg/L | 0.00027 | 0.0006 | mg/L | 0.00027 | 42.49% |
| P 214.914† | -0.0 | -0.0002 | mg/L | 0.00422 | -0.0002 | mg/L | 0.00422 | >999.9% |
| Pb 220.353† | -0.6 | -0.0003 | mg/L | 0.00343 | -0.0003 | mg/L | 0.00343 | >999.9% |
| Sb 206.836† | 0.5 | 0.0006 | mg/L | 0.00180 | 0.0006 | mg/L | 0.00180 | 293.47% |
| Se 196.026† | 5.3 | 0.0068 | mg/L | 0.00803 | 0.0068 | mg/L | 0.00803 | 117.79% |
| Si 251.611† | 326.9 | 0.0183 | mg/L | 0.00051 | 0.0183 | mg/L | 0.00051 | 2.79% |
| Sn 189.927† | -10.1 | -0.0041 | mg/L | 0.00173 | -0.0041 | mg/L | 0.00173 | 42.58% |
| Sr 421.552† | 572.4 | 0.0008 | mg/L | 0.00015 | 0.0008 | mg/L | 0.00015 | 18.56% |
| Ti 334.903† | 115.1 | 0.0005 | mg/L | 0.00003 | 0.0005 | mg/L | 0.00003 | 6.51% |
| Tl 190.801† | 0.3 | 0.0005 | mg/L | 0.00262 | 0.0005 | mg/L | 0.00262 | 536.63% |
| V 292.402† | -17.4 | -0.0004 | mg/L | 0.00009 | -0.0004 | mg/L | 0.00009 | 20.12% |
| Zn 213.857† | 670.3 | 0.0191 | mg/L | 0.00012 | 0.0191 | mg/L | 0.00012 | 0.65% |
| Zr 343.823† | 12.0 | 0.0001 | mg/L | 0.00006 | 0.0001 | mg/L | 0.00006 | 75.40% |
| W 207.912† | 2.1 | 0.0009 | mg/L | 0.00095 | 0.0009 | mg/L | 0.00095 | 106.73% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/25/2017 10:38:52 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 10** **Autosampler Location: 8**
**Sample ID: RINSE 4447537** **Date Collected: 10/26/2017 10:45:11 AM**
**Analyst:** **Data Type: Reprocessed on 10/26/2017 11:10:09 AM**
**Logged In Analyst (Original) : IRVINSTICP7**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time:**

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**Nebulizer Parameters: RINSE 4447537**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

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**Mean Data: RINSE 4447537**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2632847.5 | 102.7 | % | 0.49 | | | | 0.47% |
| Ag 328.068† | -71.8 | -0.0007 | mg/L | 0.00022 | -0.0007 | mg/L | 0.00022 | 30.12% |
| Al 308.215† | 244.1 | 0.0240 | mg/L | 0.00739 | 0.0240 | mg/L | 0.00739 | 30.83% |
| As 188.979† | -5.4 | -0.0081 | mg/L | 0.00913 | -0.0081 | mg/L | 0.00913 | 113.24% |
| B 249.677† | 95.3 | 0.0022 | mg/L | 0.00008 | 0.0022 | mg/L | 0.00008 | 3.84% |
| Ba 233.527† | 25.1 | 0.0008 | mg/L | 0.00001 | 0.0008 | mg/L | 0.00001 | 1.64% |
| Be 313.107† | -96.4 | -0.0001 | mg/L | 0.00001 | -0.0001 | mg/L | 0.00001 | 11.64% |
| Ca 315.887† | 234.9 | 0.0864 | mg/L | 0.00103 | 0.0864 | mg/L | 0.00103 | 1.19% |
| Cd 214.440† | 4.2 | 0.0001 | mg/L | 0.00009 | 0.0001 | mg/L | 0.00009 | 68.29% |
| Co 228.616† | 3.5 | 0.0004 | mg/L | 0.00027 | 0.0004 | mg/L | 0.00027 | 65.15% |
| Cr 205.560† | 1.4 | 0.0001 | mg/L | 0.00018 | 0.0001 | mg/L | 0.00018 | 165.53% |
| Cu 324.752† | 208.8 | 0.0018 | mg/L | 0.00016 | 0.0018 | mg/L | 0.00016 | 8.84% |
| Fe 238.204† | 36.6 | 0.0119 | mg/L | 0.00056 | 0.0119 | mg/L | 0.00056 | 4.75% |
| K 766.490† | -21.4 | -0.0084 | mg/L | 0.03717 | -0.0084 | mg/L | 0.03717 | 444.69% |
| Li 610.362† | 66.0 | 0.0006 | mg/L | 0.00032 | 0.0006 | mg/L | 0.00032 | 49.56% |
| Mg 279.077† | 20.0 | 0.0071 | mg/L | 0.00183 | 0.0071 | mg/L | 0.00183 | 25.72% |
| Mn 257.610† | 28.9 | 0.0002 | mg/L | 0.00002 | 0.0002 | mg/L | 0.00002 | 13.22% |
| Mo 202.031† | 0.6 | 0.0001 | mg/L | 0.00004 | 0.0001 | mg/L | 0.00004 | 41.81% |
| Na 589.592† | 314.2 | 0.0175 | mg/L | 0.00023 | 0.0175 | mg/L | 0.00023 | 1.31% |
| Ni 231.604† | 4.6 | 0.0004 | mg/L | 0.00032 | 0.0004 | mg/L | 0.00032 | 77.77% |
| P 214.914† | -0.7 | -0.0014 | mg/L | 0.00048 | -0.0014 | mg/L | 0.00048 | 34.53% |
| Pb 220.353† | 4.1 | 0.0021 | mg/L | 0.00032 | 0.0021 | mg/L | 0.00032 | 14.88% |
| Sb 206.836† | -0.0 | -0.0001 | mg/L | 0.00432 | -0.0001 | mg/L | 0.00432 | >999.9% |
| Se 196.026† | 6.5 | 0.0084 | mg/L | 0.00784 | 0.0084 | mg/L | 0.00784 | 93.32% |
| Si 251.611† | 333.9 | 0.0188 | mg/L | 0.00016 | 0.0188 | mg/L | 0.00016 | 0.86% |
| Sn 189.927† | -5.7 | -0.0023 | mg/L | 0.00156 | -0.0023 | mg/L | 0.00156 | 68.24% |
| Sr 421.552† | 543.6 | 0.0008 | mg/L | 0.00004 | 0.0008 | mg/L | 0.00004 | 5.05% |
| Ti 334.903† | 96.6 | 0.0004 | mg/L | 0.00009 | 0.0004 | mg/L | 0.00009 | 22.72% |
| Tl 190.801† | -0.6 | -0.0009 | mg/L | 0.00034 | -0.0009 | mg/L | 0.00034 | 36.39% |
| V 292.402† | -14.7 | -0.0004 | mg/L | 0.00050 | -0.0004 | mg/L | 0.00050 | 132.17% |
| Zn 213.857† | 669.1 | 0.0191 | mg/L | 0.00007 | 0.0191 | mg/L | 0.00007 | 0.37% |
| Zr 343.823† | -39.6 | -0.0003 | mg/L | 0.00010 | -0.0003 | mg/L | 0.00010 | 35.75% |
| W 207.912† | -1.6 | -0.0009 | mg/L | 0.00009 | -0.0009 | mg/L | 0.00009 | 9.98% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/25/2017 10:38:52 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 11** **Autosampler Location: 5**
**Sample ID: XCRI 4447534** **Date Collected: 10/26/2017 10:47:50 AM**
**Analyst:** **Data Type: Reprocessed on 10/26/2017 11:10:10 AM**
**Logged In Analyst (Original) : IRVINSTICP7**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time:**

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**Nebulizer Parameters: XCRI 4447534**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 195.0 kPa | 0.65 L/min |

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**Mean Data: XCRI 4447534**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2674142.8 | 104.3 | % | 0.50 | | | | 0.48% |
| Ag 328.068† | 923.3 | 0.0089 | mg/L | 0.00009 | 0.0089 | mg/L | 0.00009 | 1.05% |
| Al 308.215† | 359.9 | 0.0347 | mg/L | 0.00779 | 0.0347 | mg/L | 0.00779 | 22.41% |
| As 188.979† | 4.7 | 0.0070 | mg/L | 0.00571 | 0.0070 | mg/L | 0.00571 | 81.46% |
| B 249.677† | 1896.2 | 0.0436 | mg/L | 0.00047 | 0.0436 | mg/L | 0.00047 | 1.09% |
| Ba 233.527† | 322.2 | 0.0098 | mg/L | 0.00001 | 0.0098 | mg/L | 0.00001 | 0.06% |
| Be 313.107† | 1546.2 | 0.0018 | mg/L | 0.00008 | 0.0018 | mg/L | 0.00008 | 4.50% |
| Ca 315.887† | 284.8 | 0.1052 | mg/L | 0.00130 | 0.1052 | mg/L | 0.00130 | 1.24% |
| Cd 214.440† | 158.6 | 0.0050 | mg/L | 0.00008 | 0.0050 | mg/L | 0.00008 | 1.50% |
| Co 228.616† | 88.9 | 0.0105 | mg/L | 0.00005 | 0.0105 | mg/L | 0.00005 | 0.49% |
| Cr 205.560† | 64.2 | 0.0050 | mg/L | 0.00003 | 0.0050 | mg/L | 0.00003 | 0.57% |
| Cu 324.752† | 1145.5 | 0.0101 | mg/L | 0.00002 | 0.0101 | mg/L | 0.00002 | 0.23% |
| Fe 238.204† | 124.9 | 0.0405 | mg/L | 0.00067 | 0.0405 | mg/L | 0.00067 | 1.66% |
| K 766.490† | 1167.0 | 0.4558 | mg/L | 0.02917 | 0.4558 | mg/L | 0.02917 | 6.40% |
| Li 610.362† | 5235.9 | 0.0463 | mg/L | 0.00096 | 0.0463 | mg/L | 0.00096 | 2.08% |
| Mg 279.077† | 54.5 | 0.0196 | mg/L | 0.00065 | 0.0196 | mg/L | 0.00065 | 3.32% |
| Mn 257.610† | 2946.8 | 0.0188 | mg/L | 0.00030 | 0.0188 | mg/L | 0.00030 | 1.62% |
| Mo 202.031† | 125.9 | 0.0194 | mg/L | 0.00005 | 0.0194 | mg/L | 0.00005 | 0.27% |
| Na 589.592† | 8937.8 | 0.4976 | mg/L | 0.00026 | 0.4976 | mg/L | 0.00026 | 0.05% |
| Ni 231.604† | 112.8 | 0.0102 | mg/L | 0.00026 | 0.0102 | mg/L | 0.00026 | 2.57% |
| P 214.914† | 17.6 | 0.0319 | mg/L | 0.00296 | 0.0319 | mg/L | 0.00296 | 9.26% |
| Pb 220.353† | 11.4 | 0.0059 | mg/L | 0.00192 | 0.0059 | mg/L | 0.00192 | 32.79% |
| Sb 206.836† | 7.3 | 0.0101 | mg/L | 0.00023 | 0.0101 | mg/L | 0.00023 | 2.25% |
| Se 196.026† | 10.8 | 0.0131 | mg/L | 0.00538 | 0.0131 | mg/L | 0.00538 | 41.05% |
| Si 251.611† | 921.3 | 0.0458 | mg/L | 0.00042 | 0.0458 | mg/L | 0.00042 | 0.92% |
| Sn 189.927† | 234.9 | 0.0948 | mg/L | 0.00150 | 0.0948 | mg/L | 0.00150 | 1.58% |
| Sr 421.552† | 13329.1 | 0.0191 | mg/L | 0.00013 | 0.0191 | mg/L | 0.00013 | 0.69% |
| Ti 334.903† | 1240.9 | 0.0050 | mg/L | 0.00011 | 0.0050 | mg/L | 0.00011 | 2.27% |
| Tl 190.801† | 4.8 | 0.0079 | mg/L | 0.00122 | 0.0079 | mg/L | 0.00122 | 15.37% |
| V 292.402† | 377.8 | 0.0097 | mg/L | 0.00035 | 0.0097 | mg/L | 0.00035 | 3.60% |
| Zn 213.857† | 790.5 | 0.0225 | mg/L | 0.00016 | 0.0225 | mg/L | 0.00016 | 0.69% |
| Zr 343.823† | 13711.1 | 0.0961 | mg/L | 0.00092 | 0.0961 | mg/L | 0.00092 | 0.95% |
| W 207.912† | 192.2 | 0.0920 | mg/L | 0.00019 | 0.0920 | mg/L | 0.00019 | 0.21% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/25/2017 10:38:52 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 12** **Autosampler Location: 6**
**Sample ID: CRI 4447535** **Date Collected: 10/26/2017 10:50:27 AM**
**Analyst:** **Data Type: Reprocessed on 10/26/2017 11:10:12 AM**
**Logged In Analyst (Original) : IRVINSTICP7**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time:**

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**Nebulizer Parameters: CRI 4447535**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 195.0 kPa | 0.65 L/min |

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**Mean Data: CRI 4447535**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2613968.0 | 102.0 | % | 0.03 | | | | 0.03% |
| Ag 328.068† | 1870.8 | 0.0180 | mg/L | 0.00112 | 0.0180 | mg/L | 0.00112 | 6.22% |
| Al 308.215† | 918.3 | 0.0890 | mg/L | 0.00068 | 0.0890 | mg/L | 0.00068 | 0.77% |
| As 188.979† | 10.5 | 0.0156 | mg/L | 0.00381 | 0.0156 | mg/L | 0.00381 | 24.43% |
| B 249.677† | 3885.3 | 0.0893 | mg/L | 0.00104 | 0.0893 | mg/L | 0.00104 | 1.17% |
| Ba 233.527† | 655.5 | 0.0200 | mg/L | 0.00025 | 0.0200 | mg/L | 0.00025 | 1.24% |
| Be 313.107† | 3178.0 | 0.0037 | mg/L | 0.00003 | 0.0037 | mg/L | 0.00003 | 0.86% |
| Ca 315.887† | 564.2 | 0.2084 | mg/L | 0.00134 | 0.2084 | mg/L | 0.00134 | 0.64% |
| Cd 214.440† | 325.4 | 0.0103 | mg/L | 0.00004 | 0.0103 | mg/L | 0.00004 | 0.38% |
| Co 228.616† | 174.9 | 0.0206 | mg/L | 0.00007 | 0.0206 | mg/L | 0.00007 | 0.36% |
| Cr 205.560† | 131.2 | 0.0102 | mg/L | 0.00005 | 0.0102 | mg/L | 0.00005 | 0.49% |
| Cu 324.752† | 2237.2 | 0.0196 | mg/L | 0.00051 | 0.0196 | mg/L | 0.00051 | 2.61% |
| Fe 238.204† | 250.8 | 0.0812 | mg/L | 0.00151 | 0.0812 | mg/L | 0.00151 | 1.86% |
| K 766.490† | 2521.4 | 0.9848 | mg/L | 0.06565 | 0.9848 | mg/L | 0.06565 | 6.67% |
| Li 610.362† | 10360.4 | 0.0917 | mg/L | 0.00005 | 0.0917 | mg/L | 0.00005 | 0.06% |
| Mg 279.077† | 139.4 | 0.0501 | mg/L | 0.01198 | 0.0501 | mg/L | 0.01198 | 23.94% |
| Mn 257.610† | 5963.0 | 0.0380 | mg/L | 0.00014 | 0.0380 | mg/L | 0.00014 | 0.38% |
| Mo 202.031† | 260.8 | 0.0403 | mg/L | 0.00070 | 0.0403 | mg/L | 0.00070 | 1.74% |
| Na 589.592† | 19221.4 | 1.070 | mg/L | 0.0541 | 1.070 | mg/L | 0.0541 | 5.06% |
| Ni 231.604† | 233.6 | 0.0211 | mg/L | 0.00055 | 0.0211 | mg/L | 0.00055 | 2.59% |
| P 214.914† | 40.3 | 0.0742 | mg/L | 0.01075 | 0.0742 | mg/L | 0.01075 | 14.49% |
| Pb 220.353† | 18.3 | 0.0094 | mg/L | 0.00124 | 0.0094 | mg/L | 0.00124 | 13.22% |
| Sb 206.836† | 12.3 | 0.0171 | mg/L | 0.00394 | 0.0171 | mg/L | 0.00394 | 23.02% |
| Se 196.026† | 21.7 | 0.0263 | mg/L | 0.00256 | 0.0263 | mg/L | 0.00256 | 9.75% |
| Si 251.611† | 1761.4 | 0.0866 | mg/L | 0.00095 | 0.0866 | mg/L | 0.00095 | 1.09% |
| Sn 189.927† | 483.4 | 0.1951 | mg/L | 0.00122 | 0.1951 | mg/L | 0.00122 | 0.62% |
| Sr 421.552† | 27249.2 | 0.0391 | mg/L | 0.00062 | 0.0391 | mg/L | 0.00062 | 1.60% |
| Ti 334.903† | 2507.3 | 0.0101 | mg/L | 0.00010 | 0.0101 | mg/L | 0.00010 | 0.95% |
| Tl 190.801† | 11.5 | 0.0189 | mg/L | 0.00087 | 0.0189 | mg/L | 0.00087 | 4.62% |
| V 292.402† | 752.5 | 0.0194 | mg/L | 0.00001 | 0.0194 | mg/L | 0.00001 | 0.04% |
| Zn 213.857† | 1540.5 | 0.0438 | mg/L | 0.00013 | 0.0438 | mg/L | 0.00013 | 0.29% |
| Zr 343.823† | 28217.1 | 0.1977 | mg/L | 0.00134 | 0.1977 | mg/L | 0.00134 | 0.68% |
| W 207.912† | 401.2 | 0.1920 | mg/L | 0.00028 | 0.1920 | mg/L | 0.00028 | 0.15% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/25/2017 10:38:52 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 13 Autosampler Location: 11
Sample ID: mb 440-437009_1-a@20 Date Collected: 10/26/2017 11:04:03 AM
Analyst: EN Data Type: Reprocessed on 10/26/2017 11:10:13 AM
Logged In Analyst (Original) : IRVINSTICP7
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time:

Nebulizer Parameters: mb 440-437009_1-a@20

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 195.0 kPa | 0.65 L/min |

Mean Data: mb 440-437009_1-a@20

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2598039.8 | 101.4 | % | 0.39 | | | | 0.39% |
| Ag 328.068† | -17.1 | -0.0002 | mg/L | 0.00047 | -0.0002 | mg/L | 0.00047 | 242.39% |
| Al 308.215† | 296.3 | 0.0291 | mg/L | 0.00547 | 0.0291 | mg/L | 0.00547 | 18.81% |
| As 188.979† | -3.3 | -0.0049 | mg/L | 0.00011 | -0.0049 | mg/L | 0.00011 | 2.23% |
| B 249.677† | 72.1 | 0.0017 | mg/L | 0.00003 | 0.0017 | mg/L | 0.00003 | 2.06% |
| Ba 233.527† | 6.7 | 0.0002 | mg/L | 0.00005 | 0.0002 | mg/L | 0.00005 | 22.74% |
| Be 313.107† | -229.8 | -0.0003 | mg/L | 0.00005 | -0.0003 | mg/L | 0.00005 | 17.09% |
| Ca 315.887† | 57.8 | 0.0213 | mg/L | 0.00382 | 0.0213 | mg/L | 0.00382 | 17.97% |
| Cd 214.440† | 1.7 | 0.0001 | mg/L | 0.00010 | 0.0001 | mg/L | 0.00010 | 174.29% |
| Co 228.616† | 1.3 | 0.0002 | mg/L | 0.00034 | 0.0002 | mg/L | 0.00034 | 217.71% |
| Cr 205.560† | 4.0 | 0.0003 | mg/L | 0.00018 | 0.0003 | mg/L | 0.00018 | 57.78% |
| Cu 324.752† | 259.0 | 0.0023 | mg/L | 0.00003 | 0.0023 | mg/L | 0.00003 | 1.26% |
| Fe 238.204† | 21.0 | 0.0068 | mg/L | 0.00078 | 0.0068 | mg/L | 0.00078 | 11.52% |
| K 766.490† | 65.1 | 0.0254 | mg/L | 0.02000 | 0.0254 | mg/L | 0.02000 | 78.67% |
| Li 610.362† | 93.9 | 0.0008 | mg/L | 0.00203 | 0.0008 | mg/L | 0.00203 | 240.28% |
| Mg 279.077† | -2.9 | -0.0010 | mg/L | 0.00376 | -0.0010 | mg/L | 0.00376 | 364.75% |
| Mn 257.610† | 10.2 | 0.0001 | mg/L | 0.00003 | 0.0001 | mg/L | 0.00003 | 52.68% |
| Mo 202.031† | 0.2 | 0.0000 | mg/L | 0.00046 | 0.0000 | mg/L | 0.00046 | >999.9% |
| Na 589.592† | 7110396.7 | 395.8 | mg/L | 0.09 | 395.8 | mg/L | 0.09 | 0.02% |
| Ni 231.604† | 56.6 | 0.0051 | mg/L | 0.00002 | 0.0051 | mg/L | 0.00002 | 0.46% |
| P 214.914† | -0.1 | -0.0003 | mg/L | 0.00594 | -0.0003 | mg/L | 0.00594 | >999.9% |
| Pb 220.353† | 1.7 | 0.0009 | mg/L | 0.00365 | 0.0009 | mg/L | 0.00365 | 428.96% |
| Sb 206.836† | -0.9 | -0.0012 | mg/L | 0.00259 | -0.0012 | mg/L | 0.00259 | 217.00% |
| Se 196.026† | 8.8 | 0.0114 | mg/L | 0.01027 | 0.0114 | mg/L | 0.01027 | 90.32% |
| Si 251.611† | 128.5 | 0.0071 | mg/L | 0.00000 | 0.0071 | mg/L | 0.00000 | 0.00% |
| Sn 189.927† | -1.7 | -0.0007 | mg/L | 0.00080 | -0.0007 | mg/L | 0.00080 | 114.44% |
| Sr 421.552† | 67.3 | 0.0001 | mg/L | 0.00003 | 0.0001 | mg/L | 0.00003 | 34.46% |
| Ti 334.903† | 42.1 | 0.0002 | mg/L | 0.00003 | 0.0002 | mg/L | 0.00003 | 18.67% |
| Tl 190.801† | -1.7 | -0.0028 | mg/L | 0.00093 | -0.0028 | mg/L | 0.00093 | 33.54% |
| V 292.402† | -4.5 | -0.0001 | mg/L | 0.00015 | -0.0001 | mg/L | 0.00015 | 128.67% |
| Zn 213.857† | 193.4 | 0.0055 | mg/L | 0.00001 | 0.0055 | mg/L | 0.00001 | 0.17% |
| Zr 343.823† | 386.5 | 0.0027 | mg/L | 0.00022 | 0.0027 | mg/L | 0.00022 | 8.27% |
| W 207.912† | 4.1 | 0.0019 | mg/L | 0.00038 | 0.0019 | mg/L | 0.00038 | 19.88% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/25/2017 10:38:52 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 14 Autosampler Location: 12
Sample ID: lcs 440-437009_2-a@20 Date Collected: 10/26/2017 11:06:51 AM
Analyst: EN Data Type: Reprocessed on 10/26/2017 11:10:14 AM
Logged In Analyst (Original) : IRVINSTICP7
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time:

Nebulizer Parameters: lcs 440-437009_2-a@20

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: lcs 440-437009_2-a@20

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2533320.1 | 98.85 | % | 0.329 | | | | 0.33% |
| Ag 328.068† | 47224.9 | 0.4802 | mg/L | 0.00297 | 0.4802 | mg/L | 0.00297 | 0.62% |
| Al 308.215† | 10837.3 | 1.028 | mg/L | 0.0128 | 1.028 | mg/L | 0.0128 | 1.24% |
| As 188.979† | 683.2 | 1.014 | mg/L | 0.0097 | 1.014 | mg/L | 0.0097 | 0.95% |
| B 249.677† | 42608.2 | 0.9840 | mg/L | 0.01075 | 0.9840 | mg/L | 0.01075 | 1.09% |
| Ba 233.527† | 31765.6 | 0.9709 | mg/L | 0.00904 | 0.9709 | mg/L | 0.00904 | 0.93% |
| Be 313.107† | 822583.7 | 0.9624 | mg/L | 0.00445 | 0.9624 | mg/L | 0.00445 | 0.46% |
| Ca 315.887† | 13895.9 | 5.112 | mg/L | 0.0120 | 5.112 | mg/L | 0.0120 | 0.24% |
| Cd 214.440† | 31025.1 | 0.9803 | mg/L | 0.01870 | 0.9803 | mg/L | 0.01870 | 1.91% |
| Co 228.616† | 8321.7 | 0.9788 | mg/L | 0.02469 | 0.9788 | mg/L | 0.02469 | 2.52% |
| Cr 205.560† | 12445.9 | 0.9799 | mg/L | 0.01158 | 0.9799 | mg/L | 0.01158 | 1.18% |
| Cu 324.752† | 114776.8 | 1.008 | mg/L | 0.0091 | 1.008 | mg/L | 0.0091 | 0.90% |
| Fe 238.204† | 3085.4 | 1.001 | mg/L | 0.0079 | 1.001 | mg/L | 0.0079 | 0.79% |
| K 766.490† | 33997.8 | 13.28 | mg/L | 0.073 | 13.28 | mg/L | 0.073 | 0.55% |
| Li 610.362† | 116552.9 | 1.033 | mg/L | 0.0131 | 1.033 | mg/L | 0.0131 | 1.27% |
| Mg 279.077† | 13226.0 | 4.718 | mg/L | 0.0287 | 4.718 | mg/L | 0.0287 | 0.61% |
| Mn 257.610† | 148352.5 | 0.9453 | mg/L | 0.00402 | 0.9453 | mg/L | 0.00402 | 0.43% |
| Mo 202.031† | 6434.7 | 0.9937 | mg/L | 0.00797 | 0.9937 | mg/L | 0.00797 | 0.80% |
| Na 589.592† | 7764243.1 | 432.2 | mg/L | 2.38 | 432.2 | mg/L | 2.38 | 0.55% |
| Ni 231.604† | 10517.8 | 0.9508 | mg/L | 0.00364 | 0.9508 | mg/L | 0.00364 | 0.38% |
| P 214.914† | 483.9 | 0.9492 | mg/L | 0.00037 | 0.9492 | mg/L | 0.00037 | 0.04% |
| Pb 220.353† | 1876.8 | 0.9649 | mg/L | 0.00320 | 0.9649 | mg/L | 0.00320 | 0.33% |
| Sb 206.836† | 739.6 | 0.9936 | mg/L | 0.00422 | 0.9936 | mg/L | 0.00422 | 0.42% |
| Se 196.026† | 755.9 | 0.9692 | mg/L | 0.00619 | 0.9692 | mg/L | 0.00619 | 0.64% |
| Si 251.611† | 79296.5 | 4.377 | mg/L | 0.0633 | 4.377 | mg/L | 0.0633 | 1.45% |
| Sn 189.927† | 2424.2 | 0.9828 | mg/L | 0.00592 | 0.9828 | mg/L | 0.00592 | 0.60% |
| Sr 421.552† | 662660.3 | 0.9507 | mg/L | 0.00506 | 0.9507 | mg/L | 0.00506 | 0.53% |
| Ti 334.903† | 247264.7 | 0.9933 | mg/L | 0.00232 | 0.9933 | mg/L | 0.00232 | 0.23% |
| Tl 190.801† | 558.3 | 0.9201 | mg/L | 0.00225 | 0.9201 | mg/L | 0.00225 | 0.24% |
| V 292.402† | 39288.5 | 1.011 | mg/L | 0.0100 | 1.011 | mg/L | 0.0100 | 0.99% |
| Zn 213.857† | 33762.6 | 0.9566 | mg/L | 0.01296 | 0.9566 | mg/L | 0.01296 | 1.35% |
| Zr 343.823† | 140887.2 | 0.9870 | mg/L | 0.00743 | 0.9870 | mg/L | 0.00743 | 0.75% |
| W 207.912† | 2072.8 | 0.9874 | mg/L | 0.00973 | 0.9874 | mg/L | 0.00973 | 0.99% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

==========

**Sequence No.: 3** **Autosampler Location: 13**
**Sample ID: 440-194799-c-1-a@20** **Date Collected: 10/26/2017 11:08:54 AM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: 440-194799-c-1-a@20**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

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**Mean Data: 440-194799-c-1-a@20**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2472543.8 | 96.48 | % | 4.942 | | | | 5.12% |
| Ag 328.068† | -9.2 | -0.0000 | mg/L | 0.00012 | -0.0000 | mg/L | 0.00012 | 549.06% |
| Al 308.215† | 1113506.9 | 109.3 | mg/L | 0.83 | 109.3 | mg/L | 0.83 | 0.76% |
| As 188.979† | 6.9 | 0.0115 | mg/L | 0.00894 | 0.0115 | mg/L | 0.00894 | 77.92% |
| B 249.677† | 10033.0 | 0.2210 | mg/L | 0.00469 | 0.2210 | mg/L | 0.00469 | 2.12% |
| Ba 233.527† | 420.4 | 0.0128 | mg/L | 0.00018 | 0.0128 | mg/L | 0.00018 | 1.41% |
| Be 313.107† | -187.0 | -0.0002 | mg/L | 0.00005 | -0.0002 | mg/L | 0.00005 | 23.14% |
| Ca 315.887† | 486752.7 | 178.9 | mg/L | 9.94 | 178.9 | mg/L | 9.94 | 5.55% |
| Cd 214.440† | 33.2 | 0.0001 | mg/L | 0.00006 | 0.0001 | mg/L | 0.00006 | 81.47% |
| Co 228.616† | 37.6 | 0.0043 | mg/L | 0.00074 | 0.0043 | mg/L | 0.00074 | 17.07% |
| Cr 205.560† | 4344.1 | 0.3422 | mg/L | 0.00645 | 0.3422 | mg/L | 0.00645 | 1.88% |
| Cu 324.752† | 2673.5 | 0.0238 | mg/L | 0.00062 | 0.0238 | mg/L | 0.00062 | 2.60% |
| Fe 238.204† | 14783.3 | 4.787 | mg/L | 0.2789 | 4.787 | mg/L | 0.2789 | 5.83% |
| K 766.490† | 547.8 | 0.2140 | mg/L | 0.01207 | 0.2140 | mg/L | 0.01207 | 5.64% |
| Li 610.362† | -11456.6 | 0.0339 | mg/L | 0.00592 | 0.0339 | mg/L | 0.00592 | 17.45% |
| Mg 279.077† | 58695.1 | 20.93 | mg/L | 0.402 | 20.93 | mg/L | 0.402 | 1.92% |
| Mn 257.610† | 136296.3 | 0.8679 | mg/L | 0.01336 | 0.8679 | mg/L | 0.01336 | 1.54% |
| Mo 202.031† | 55.9 | 0.0087 | mg/L | 0.00065 | 0.0087 | mg/L | 0.00065 | 7.40% |
| Na 589.592† | 7212133.9 | 401.5 | mg/L | 9.70 | 401.5 | mg/L | 9.70 | 2.42% |
| Ni 231.604† | 1261.2 | 0.1138 | mg/L | 0.00020 | 0.1138 | mg/L | 0.00020 | 0.18% |
| P 214.914† | 204.0 | 0.4540 | mg/L | 0.00265 | 0.4540 | mg/L | 0.00265 | 0.58% |
| Pb 220.353† | 34.4 | 0.0103 | mg/L | 0.00073 | 0.0103 | mg/L | 0.00073 | 7.08% |
| Sb 206.836† | 4.2 | 0.0080 | mg/L | 0.01055 | 0.0080 | mg/L | 0.01055 | 131.34% |
| Se 196.026† | -5.5 | -0.0059 | mg/L | 0.00251 | -0.0059 | mg/L | 0.00251 | 42.58% |
| Si 251.611† | 17354.5 | 0.9728 | mg/L | 0.01557 | 0.9728 | mg/L | 0.01557 | 1.60% |
| Sn 189.927† | 79.3 | 0.0227 | mg/L | 0.00270 | 0.0227 | mg/L | 0.00270 | 11.91% |
| Sr 421.552† | 59017.3 | 0.0795 | mg/L | 0.00397 | 0.0795 | mg/L | 0.00397 | 5.00% |
| Ti 334.903† | 5445.0 | 0.0245 | mg/L | 0.00006 | 0.0245 | mg/L | 0.00006 | 0.25% |
| Tl 190.801† | -3.4 | -0.0028 | mg/L | 0.00752 | -0.0028 | mg/L | 0.00752 | 269.24% |
| V 292.402† | 503.6 | 0.0146 | mg/L | 0.00034 | 0.0146 | mg/L | 0.00034 | 2.32% |
| Zn 213.857† | 4954.2 | 0.1393 | mg/L | 0.00207 | 0.1393 | mg/L | 0.00207 | 1.49% |
| Zr 343.823† | 668.7 | 0.0047 | mg/L | 0.00064 | 0.0047 | mg/L | 0.00064 | 13.76% |
| W 207.912† | 21.2 | 0.0092 | mg/L | 0.00304 | 0.0092 | mg/L | 0.00304 | 32.94% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 4** **Autosampler Location: 14**
**Sample ID: 440-194799-c-1-aMS220** **Date Collected: 10/26/2017 11:10:57 AM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: 440-194799-c-1-aMS220**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

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**Mean Data: 440-194799-c-1-aMS220**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2333725.2 | 91.06 | % | 0.408 | | | | 0.45% |
| Ag 328.068† | 48552.7 | 0.4939 | mg/L | 0.00187 | 0.4939 | mg/L | 0.00187 | 0.38% |
| Al 308.215† | 1147060.8 | 112.6 | mg/L | 0.23 | 112.6 | mg/L | 0.23 | 0.21% |
| As 188.979† | 683.7 | 1.016 | mg/L | 0.0019 | 1.016 | mg/L | 0.0019 | 0.19% |
| B 249.677† | 53378.8 | 1.223 | mg/L | 0.0058 | 1.223 | mg/L | 0.0058 | 0.48% |
| Ba 233.527† | 31735.7 | 0.9700 | mg/L | 0.00831 | 0.9700 | mg/L | 0.00831 | 0.86% |
| Be 313.107† | 836580.4 | 0.9788 | mg/L | 0.00172 | 0.9788 | mg/L | 0.00172 | 0.18% |
| Ca 315.887† | 483872.7 | 177.9 | mg/L | 0.64 | 177.9 | mg/L | 0.64 | 0.36% |
| Cd 214.440† | 29967.5 | 0.9459 | mg/L | 0.00839 | 0.9459 | mg/L | 0.00839 | 0.89% |
| Co 228.616† | 8435.9 | 0.9921 | mg/L | 0.00343 | 0.9921 | mg/L | 0.00343 | 0.35% |
| Cr 205.560† | 16753.3 | 1.319 | mg/L | 0.0151 | 1.319 | mg/L | 0.0151 | 1.15% |
| Cu 324.752† | 120789.1 | 1.061 | mg/L | 0.0059 | 1.061 | mg/L | 0.0059 | 0.55% |
| Fe 238.204† | 17202.8 | 5.572 | mg/L | 0.0148 | 5.572 | mg/L | 0.0148 | 0.27% |
| K 766.490† | 34319.2 | 13.40 | mg/L | 0.024 | 13.40 | mg/L | 0.024 | 0.18% |
| Li 610.362† | 103145.2 | 1.045 | mg/L | 0.0018 | 1.045 | mg/L | 0.0018 | 0.17% |
| Mg 279.077† | 73908.4 | 26.36 | mg/L | 0.195 | 26.36 | mg/L | 0.195 | 0.74% |
| Mn 257.610† | 291622.6 | 1.858 | mg/L | 0.0140 | 1.858 | mg/L | 0.0140 | 0.76% |
| Mo 202.031† | 6608.3 | 1.021 | mg/L | 0.0044 | 1.021 | mg/L | 0.0044 | 0.43% |
| Na 589.592† | 6883357.6 | 383.2 | mg/L | 2.07 | 383.2 | mg/L | 2.07 | 0.54% |
| Ni 231.604† | 11178.0 | 1.010 | mg/L | 0.0060 | 1.010 | mg/L | 0.0060 | 0.59% |
| P 214.914† | 688.8 | 1.407 | mg/L | 0.0074 | 1.407 | mg/L | 0.0074 | 0.53% |
| Pb 220.353† | 1838.4 | 0.9375 | mg/L | 0.00565 | 0.9375 | mg/L | 0.00565 | 0.60% |
| Sb 206.836† | 733.2 | 0.9879 | mg/L | 0.00975 | 0.9879 | mg/L | 0.00975 | 0.99% |
| Se 196.026† | 733.3 | 0.9414 | mg/L | 0.00110 | 0.9414 | mg/L | 0.00110 | 0.12% |
| Si 251.611† | 100441.2 | 5.564 | mg/L | 0.0376 | 5.564 | mg/L | 0.0376 | 0.68% |
| Sn 189.927† | 2410.0 | 0.9684 | mg/L | 0.00255 | 0.9684 | mg/L | 0.00255 | 0.26% |
| Sr 421.552† | 729611.5 | 1.042 | mg/L | 0.0054 | 1.042 | mg/L | 0.0054 | 0.52% |
| Ti 334.903† | 265242.0 | 1.068 | mg/L | 0.0104 | 1.068 | mg/L | 0.0104 | 0.97% |
| Tl 190.801† | 539.9 | 0.8931 | mg/L | 0.00074 | 0.8931 | mg/L | 0.00074 | 0.08% |
| V 292.402† | 39504.3 | 1.019 | mg/L | 0.0133 | 1.019 | mg/L | 0.0133 | 1.31% |
| Zn 213.857† | 38583.6 | 1.092 | mg/L | 0.0039 | 1.092 | mg/L | 0.0039 | 0.36% |
| Zr 343.823† | 142573.4 | 0.9988 | mg/L | 0.00789 | 0.9988 | mg/L | 0.00789 | 0.79% |
| W 207.912† | 2038.3 | 0.9699 | mg/L | 0.00375 | 0.9699 | mg/L | 0.00375 | 0.39% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 5** **Autosampler Location: 15**
**Sample ID: 440-194799-c-1-aMSD@20** **Date Collected: 10/26/2017 11:13:00 AM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: 440-194799-c-1-aMSD@20**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

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**Mean Data: 440-194799-c-1-aMSD@20**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2430548.4 | 94.84 | % | 0.723 | | | | 0.76% |
| Ag 328.068† | 48088.3 | 0.4892 | mg/L | 0.00252 | 0.4892 | mg/L | 0.00252 | 0.51% |
| Al 308.215† | 1141284.0 | 112.0 | mg/L | 0.28 | 112.0 | mg/L | 0.28 | 0.25% |
| As 188.979† | 691.2 | 1.027 | mg/L | 0.0074 | 1.027 | mg/L | 0.0074 | 0.72% |
| B 249.677† | 52819.5 | 1.210 | mg/L | 0.0044 | 1.210 | mg/L | 0.0044 | 0.37% |
| Ba 233.527† | 31441.2 | 0.9609 | mg/L | 0.00057 | 0.9609 | mg/L | 0.00057 | 0.06% |
| Be 313.107† | 840864.1 | 0.9838 | mg/L | 0.00363 | 0.9838 | mg/L | 0.00363 | 0.37% |
| Ca 315.887† | 464577.9 | 170.8 | mg/L | 4.27 | 170.8 | mg/L | 4.27 | 2.50% |
| Cd 214.440† | 29834.1 | 0.9417 | mg/L | 0.00318 | 0.9417 | mg/L | 0.00318 | 0.34% |
| Co 228.616† | 8490.3 | 0.9985 | mg/L | 0.00341 | 0.9985 | mg/L | 0.00341 | 0.34% |
| Cr 205.560† | 16526.2 | 1.301 | mg/L | 0.0015 | 1.301 | mg/L | 0.0015 | 0.12% |
| Cu 324.752† | 119308.5 | 1.048 | mg/L | 0.0019 | 1.048 | mg/L | 0.0019 | 0.18% |
| Fe 238.204† | 17234.3 | 5.582 | mg/L | 0.1770 | 5.582 | mg/L | 0.1770 | 3.17% |
| K 766.490† | 35015.9 | 13.68 | mg/L | 0.504 | 13.68 | mg/L | 0.504 | 3.68% |
| Li 610.362† | 102984.6 | 1.039 | mg/L | 0.0054 | 1.039 | mg/L | 0.0054 | 0.52% |
| Mg 279.077† | 73363.1 | 26.16 | mg/L | 0.087 | 26.16 | mg/L | 0.087 | 0.33% |
| Mn 257.610† | 289204.4 | 1.842 | mg/L | 0.0062 | 1.842 | mg/L | 0.0062 | 0.34% |
| Mo 202.031† | 6659.9 | 1.029 | mg/L | 0.0005 | 1.029 | mg/L | 0.0005 | 0.05% |
| Na 589.592† | 6845682.5 | 381.1 | mg/L | 20.42 | 381.1 | mg/L | 20.42 | 5.36% |
| Ni 231.604† | 11081.3 | 1.002 | mg/L | 0.0011 | 1.002 | mg/L | 0.0011 | 0.11% |
| P 214.914† | 695.4 | 1.420 | mg/L | 0.0086 | 1.420 | mg/L | 0.0086 | 0.61% |
| Pb 220.353† | 1843.9 | 0.9403 | mg/L | 0.00058 | 0.9403 | mg/L | 0.00058 | 0.06% |
| Sb 206.836† | 746.1 | 1.005 | mg/L | 0.0001 | 1.005 | mg/L | 0.0001 | 0.01% |
| Se 196.026† | 748.7 | 0.9613 | mg/L | 0.00093 | 0.9613 | mg/L | 0.00093 | 0.10% |
| Si 251.611† | 99686.2 | 5.521 | mg/L | 0.0143 | 5.521 | mg/L | 0.0143 | 0.26% |
| Sn 189.927† | 2424.8 | 0.9747 | mg/L | 0.00432 | 0.9747 | mg/L | 0.00432 | 0.44% |
| Sr 421.552† | 698415.6 | 0.9972 | mg/L | 0.01822 | 0.9972 | mg/L | 0.01822 | 1.83% |
| Ti 334.903† | 261851.0 | 1.054 | mg/L | 0.0034 | 1.054 | mg/L | 0.0034 | 0.33% |
| Tl 190.801† | 544.0 | 0.8995 | mg/L | 0.00950 | 0.8995 | mg/L | 0.00950 | 1.06% |
| V 292.402† | 38667.6 | 0.9970 | mg/L | 0.00235 | 0.9970 | mg/L | 0.00235 | 0.24% |
| Zn 213.857† | 38086.0 | 1.078 | mg/L | 0.0014 | 1.078 | mg/L | 0.0014 | 0.13% |
| Zr 343.823† | 141388.6 | 0.9905 | mg/L | 0.00087 | 0.9905 | mg/L | 0.00087 | 0.09% |
| W 207.912† | 2060.2 | 0.9805 | mg/L | 0.00400 | 0.9805 | mg/L | 0.00400 | 0.41% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 6** **Autosampler Location: 16**
**Sample ID: 440-194799-c-1-aSD@20** **Date Collected: 10/26/2017 11:15:03 AM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: 440-194799-c-1-aSD@20**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

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**Mean Data: 440-194799-c-1-aSD@20**

| Analyte | Mean Corrected Intensity | Conc. | Calib. Units | Std.Dev. | Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2388053.2 | 93.18 | % | 0.286 | | | | 0.31% |
| Ag 328.068† | 38.1 | 0.0004 | mg/L | 0.00060 | 0.0004 | mg/L | 0.00060 | 150.36% |
| Al 308.215† | 217530.5 | 21.35 | mg/L | 0.122 | 21.35 | mg/L | 0.122 | 0.57% |
| As 188.979† | -2.0 | -0.0027 | mg/L | 0.00719 | -0.0027 | mg/L | 0.00719 | 268.34% |
| B 249.677† | 2272.2 | 0.0504 | mg/L | 0.00004 | 0.0504 | mg/L | 0.00004 | 0.08% |
| Ba 233.527† | 88.7 | 0.0027 | mg/L | 0.00006 | 0.0027 | mg/L | 0.00006 | 2.16% |
| Be 313.107† | -315.3 | -0.0004 | mg/L | 0.00008 | -0.0004 | mg/L | 0.00008 | 22.31% |
| Ca 315.887† | 91281.0 | 33.56 | mg/L | 1.352 | 33.56 | mg/L | 1.352 | 4.03% |
| Cd 214.440† | 8.2 | 0.0001 | mg/L | 0.00017 | 0.0001 | mg/L | 0.00017 | 251.64% |
| Co 228.616† | 2.9 | 0.0003 | mg/L | 0.00013 | 0.0003 | mg/L | 0.00013 | 39.90% |
| Cr 205.560† | 920.0 | 0.0725 | mg/L | 0.00090 | 0.0725 | mg/L | 0.00090 | 1.24% |
| Cu 324.752† | 772.6 | 0.0069 | mg/L | 0.00017 | 0.0069 | mg/L | 0.00017 | 2.55% |
| Fe 238.204† | 2926.9 | 0.9477 | mg/L | 0.02718 | 0.9477 | mg/L | 0.02718 | 2.87% |
| K 766.490† | 20.8 | 0.0081 | mg/L | 0.02902 | 0.0081 | mg/L | 0.02902 | 357.17% |
| Li 610.362† | -1848.6 | 0.0090 | mg/L | 0.00075 | 0.0090 | mg/L | 0.00075 | 8.28% |
| Mg 279.077† | 12131.3 | 4.326 | mg/L | 0.0194 | 4.326 | mg/L | 0.0194 | 0.45% |
| Mn 257.610† | 27729.2 | 0.1766 | mg/L | 0.00136 | 0.1766 | mg/L | 0.00136 | 0.77% |
| Mo 202.031† | 27.7 | 0.0043 | mg/L | 0.00156 | 0.0043 | mg/L | 0.00156 | 36.37% |
| Na 589.592† | 1663608.0 | 92.61 | mg/L | 6.586 | 92.61 | mg/L | 6.586 | 7.11% |
| Ni 231.604† | 265.8 | 0.0240 | mg/L | 0.00035 | 0.0240 | mg/L | 0.00035 | 1.47% |
| P 214.914† | 40.7 | 0.0903 | mg/L | 0.00576 | 0.0903 | mg/L | 0.00576 | 6.39% |
| Pb 220.353† | 13.1 | 0.0053 | mg/L | 0.00000 | 0.0053 | mg/L | 0.00000 | 0.06% |
| Sb 206.836† | 7.2 | 0.0101 | mg/L | 0.00291 | 0.0101 | mg/L | 0.00291 | 28.85% |
| Se 196.026† | 4.0 | 0.0054 | mg/L | 0.00952 | 0.0054 | mg/L | 0.00952 | 175.47% |
| Si 251.611† | 3906.5 | 0.2189 | mg/L | 0.00247 | 0.2189 | mg/L | 0.00247 | 1.13% |
| Sn 189.927† | 21.3 | 0.0068 | mg/L | 0.00189 | 0.0068 | mg/L | 0.00189 | 27.69% |
| Sr 421.552† | 12398.4 | 0.0168 | mg/L | 0.00025 | 0.0168 | mg/L | 0.00025 | 1.51% |
| Ti 334.903† | 1136.4 | 0.0050 | mg/L | 0.00010 | 0.0050 | mg/L | 0.00010 | 1.90% |
| Tl 190.801† | -4.4 | -0.0067 | mg/L | 0.00114 | -0.0067 | mg/L | 0.00114 | 17.03% |
| V 292.402† | 101.5 | 0.0029 | mg/L | 0.00016 | 0.0029 | mg/L | 0.00016 | 5.57% |
| Zn 213.857† | 1112.7 | 0.0313 | mg/L | 0.00056 | 0.0313 | mg/L | 0.00056 | 1.77% |
| Zr 343.823† | 308.1 | 0.0022 | mg/L | 0.00029 | 0.0022 | mg/L | 0.00029 | 13.55% |
| W 207.912† | 7.8 | 0.0035 | mg/L | 0.00108 | 0.0035 | mg/L | 0.00108 | 30.51% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 7** **Autosampler Location: 17**
**Sample ID: 440-194758-a-1-a@20** **Date Collected: 10/26/2017 11:16:59 AM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: 440-194758-a-1-a@20**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: 440-194758-a-1-a@20**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2560565.8 | 99.91 | % | 0.189 | | | | 0.19% |
| Ag 328.068† | -2.5 | 0.0001 | mg/L | 0.00018 | 0.0001 | mg/L | 0.00018 | 131.02% |
| Al 308.215† | 4912.3 | 0.4795 | mg/L | 0.03448 | 0.4795 | mg/L | 0.03448 | 7.19% |
| As 188.979† | -2.3 | -0.0024 | mg/L | 0.00109 | -0.0024 | mg/L | 0.00109 | 44.46% |
| B 249.677† | 1476.4 | 0.0050 | mg/L | 0.00125 | 0.0050 | mg/L | 0.00125 | 24.84% |
| Ba 233.527† | 164.7 | 0.0050 | mg/L | 0.00002 | 0.0050 | mg/L | 0.00002 | 0.49% |
| Be 313.107† | 152.9 | 0.0002 | mg/L | 0.00020 | 0.0002 | mg/L | 0.00020 | 110.69% |
| Ca 315.887† | 28574.7 | 10.51 | mg/L | 0.466 | 10.51 | mg/L | 0.466 | 4.44% |
| Cd 214.440† | 45.9 | 0.0013 | mg/L | 0.00001 | 0.0013 | mg/L | 0.00001 | 0.54% |
| Co 228.616† | 785.6 | 0.0924 | mg/L | 0.00151 | 0.0924 | mg/L | 0.00151 | 1.64% |
| Cr 205.560† | 169.7 | 0.0134 | mg/L | 0.00004 | 0.0134 | mg/L | 0.00004 | 0.27% |
| Cu 324.752† | 2700.2 | 0.0246 | mg/L | 0.00032 | 0.0246 | mg/L | 0.00032 | 1.30% |
| Fe 238.204† | 35267.8 | 11.42 | mg/L | 0.346 | 11.42 | mg/L | 0.346 | 3.03% |
| K 766.490† | 1315.2 | 0.5137 | mg/L | 0.05215 | 0.5137 | mg/L | 0.05215 | 10.15% |
| Li 610.362† | -472.6 | 0.0038 | mg/L | 0.00171 | 0.0038 | mg/L | 0.00171 | 45.43% |
| Mg 279.077† | 1890.7 | 0.6753 | mg/L | 0.00835 | 0.6753 | mg/L | 0.00835 | 1.24% |
| Mn 257.610† | 28982.8 | 0.1847 | mg/L | 0.00075 | 0.1847 | mg/L | 0.00075 | 0.41% |
| Mo 202.031† | 20.1 | 0.0034 | mg/L | 0.00027 | 0.0034 | mg/L | 0.00027 | 7.80% |
| Na 589.592† | 6800113.2 | 378.6 | mg/L | 17.76 | 378.6 | mg/L | 17.76 | 4.69% |
| Ni 231.604† | 337.4 | 0.0304 | mg/L | 0.00020 | 0.0304 | mg/L | 0.00020 | 0.65% |
| P 214.914† | 46.2 | 0.0860 | mg/L | 0.00848 | 0.0860 | mg/L | 0.00848 | 9.87% |
| Pb 220.353† | 214476.0 | 110.1 | mg/L | 0.57 | 110.1 | mg/L | 0.57 | 0.52% |
| Sb 206.836† | 4.7 | 0.0063 | mg/L | 0.00745 | 0.0063 | mg/L | 0.00745 | 118.22% |
| Se 196.026† | 5.4 | 0.0117 | mg/L | 0.00368 | 0.0117 | mg/L | 0.00368 | 31.53% |
| Si 251.611† | 15868.6 | 0.8913 | mg/L | 0.00217 | 0.8913 | mg/L | 0.00217 | 0.24% |
| Sn 189.927† | 46.5 | 0.0200 | mg/L | 0.00035 | 0.0200 | mg/L | 0.00035 | 1.73% |
| Sr 421.552† | 13988.1 | 0.0198 | mg/L | 0.00109 | 0.0198 | mg/L | 0.00109 | 5.52% |
| Ti 334.903† | 4414.6 | 0.0179 | mg/L | 0.00003 | 0.0179 | mg/L | 0.00003 | 0.19% |
| Tl 190.801† | -0.6 | -0.0012 | mg/L | 0.00406 | -0.0012 | mg/L | 0.00406 | 336.16% |
| V 292.402† | 127.7 | 0.0045 | mg/L | 0.00017 | 0.0045 | mg/L | 0.00017 | 3.68% |
| Zn 213.857† | 39370.2 | 1.122 | mg/L | 0.0095 | 1.122 | mg/L | 0.0095 | 0.85% |
| Zr 343.823† | 1696.1 | 0.0119 | mg/L | 0.00016 | 0.0119 | mg/L | 0.00016 | 1.37% |
| W 207.912† | 17.3 | 0.0009 | mg/L | 0.00155 | 0.0009 | mg/L | 0.00155 | 173.62% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 8** **Autosampler Location: 18**
**Sample ID: 440-192979-a-7-e@20** **Date Collected: 10/26/2017 11:18:58 AM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: 440-192979-a-7-e@20**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: 440-192979-a-7-e@20**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2551588.2 | 99.56 | % | 3.108 | | | | 3.12% |
| Ag 328.068† | -74.5 | -0.0007 | mg/L | 0.00007 | -0.0007 | mg/L | 0.00007 | 9.22% |
| Al 308.215† | 12583.0 | 1.230 | mg/L | 0.0137 | 1.230 | mg/L | 0.0137 | 1.11% |
| As 188.979† | 3.3 | 0.0051 | mg/L | 0.00593 | 0.0051 | mg/L | 0.00593 | 116.58% |
| B 249.677† | 789.0 | 0.0111 | mg/L | 0.00001 | 0.0111 | mg/L | 0.00001 | 0.12% |
| Ba 233.527† | 9211.2 | 0.2813 | mg/L | 0.00321 | 0.2813 | mg/L | 0.00321 | 1.14% |
| Be 313.107† | -111.9 | -0.0001 | mg/L | 0.00003 | -0.0001 | mg/L | 0.00003 | 21.39% |
| Ca 315.887† | 65957.7 | 24.25 | mg/L | 0.915 | 24.25 | mg/L | 0.915 | 3.77% |
| Cd 214.440† | 44.3 | 0.0014 | mg/L | 0.00001 | 0.0014 | mg/L | 0.00001 | 0.42% |
| Co 228.616† | 104.0 | 0.0121 | mg/L | 0.00105 | 0.0121 | mg/L | 0.00105 | 8.64% |
| Cr 205.560† | 81.5 | 0.0064 | mg/L | 0.00014 | 0.0064 | mg/L | 0.00014 | 2.22% |
| Cu 324.752† | 4728.5 | 0.0417 | mg/L | 0.00029 | 0.0417 | mg/L | 0.00029 | 0.69% |
| Fe 238.204† | 8752.3 | 2.834 | mg/L | 0.0979 | 2.834 | mg/L | 0.0979 | 3.45% |
| K 766.490† | 2976.6 | 1.163 | mg/L | 0.0647 | 1.163 | mg/L | 0.0647 | 5.57% |
| Li 610.362† | -1652.1 | 0.0037 | mg/L | 0.00039 | 0.0037 | mg/L | 0.00039 | 10.40% |
| Mg 279.077† | 3799.3 | 1.355 | mg/L | 0.0180 | 1.355 | mg/L | 0.0180 | 1.33% |
| Mn 257.610† | 129192.7 | 0.8233 | mg/L | 0.01024 | 0.8233 | mg/L | 0.01024 | 1.24% |
| Mo 202.031† | 16.0 | 0.0025 | mg/L | 0.00023 | 0.0025 | mg/L | 0.00023 | 9.08% |
| Na 589.592† | 7471566.7 | 415.9 | mg/L | 9.62 | 415.9 | mg/L | 9.62 | 2.31% |
| Ni 231.604† | 204.2 | 0.0184 | mg/L | 0.00007 | 0.0184 | mg/L | 0.00007 | 0.35% |
| P 214.914† | 396.5 | 0.8288 | mg/L | 0.00686 | 0.8288 | mg/L | 0.00686 | 0.83% |
| Pb 220.353† | 372.7 | 0.1913 | mg/L | 0.00298 | 0.1913 | mg/L | 0.00298 | 1.56% |
| Sb 206.836† | 0.2 | 0.0003 | mg/L | 0.00042 | 0.0003 | mg/L | 0.00042 | 137.28% |
| Se 196.026† | 6.8 | 0.0093 | mg/L | 0.00286 | 0.0093 | mg/L | 0.00286 | 30.68% |
| Si 251.611† | 29642.7 | 1.664 | mg/L | 0.0427 | 1.664 | mg/L | 0.0427 | 2.56% |
| Sn 189.927† | 19.3 | 0.0071 | mg/L | 0.00131 | 0.0071 | mg/L | 0.00131 | 18.35% |
| Sr 421.552† | 135581.2 | 0.1938 | mg/L | 0.00700 | 0.1938 | mg/L | 0.00700 | 3.61% |
| Ti 334.903† | 13912.5 | 0.0563 | mg/L | 0.00134 | 0.0563 | mg/L | 0.00134 | 2.37% |
| Tl 190.801† | -4.0 | -0.0063 | mg/L | 0.00111 | -0.0063 | mg/L | 0.00111 | 17.64% |
| V 292.402† | 846.7 | 0.0220 | mg/L | 0.00045 | 0.0220 | mg/L | 0.00045 | 2.04% |
| Zn 213.857† | 13937.2 | 0.3971 | mg/L | 0.00608 | 0.3971 | mg/L | 0.00608 | 1.53% |
| Zr 343.823† | 492.3 | 0.0034 | mg/L | 0.00036 | 0.0034 | mg/L | 0.00036 | 10.37% |
| W 207.912† | 7.6 | 0.0010 | mg/L | 0.00048 | 0.0010 | mg/L | 0.00048 | 46.48% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 9** **Autosampler Location: 19**
**Sample ID: 440-192979-a-13-d@20** **Date Collected: 10/26/2017 11:21:02 AM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: 440-192979-a-13-d@20**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

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**Mean Data: 440-192979-a-13-d@20**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2352005.6 | 91.77 | % | 2.249 | | | | 2.45% |
| Ag 328.068† | -21.3 | -0.0002 | mg/L | 0.00026 | -0.0002 | mg/L | 0.00026 | 138.21% |
| Al 308.215† | 14392.1 | 1.407 | mg/L | 0.1992 | 1.407 | mg/L | 0.1992 | 14.15% |
| As 188.979† | -3.4 | -0.0048 | mg/L | 0.00687 | -0.0048 | mg/L | 0.00687 | 142.44% |
| B 249.677† | 773.8 | 0.0123 | mg/L | 0.00027 | 0.0123 | mg/L | 0.00027 | 2.19% |
| Ba 233.527† | 8606.3 | 0.2629 | mg/L | 0.00319 | 0.2629 | mg/L | 0.00319 | 1.21% |
| Be 313.107† | 302.7 | 0.0004 | mg/L | 0.00094 | 0.0004 | mg/L | 0.00094 | 264.79% |
| Ca 315.887† | 67025.8 | 24.64 | mg/L | 0.050 | 24.64 | mg/L | 0.050 | 0.20% |
| Cd 214.440† | 52.6 | 0.0016 | mg/L | 0.00049 | 0.0016 | mg/L | 0.00049 | 30.32% |
| Co 228.616† | 99.9 | 0.0116 | mg/L | 0.00011 | 0.0116 | mg/L | 0.00011 | 0.98% |
| Cr 205.560† | 77.5 | 0.0061 | mg/L | 0.00068 | 0.0061 | mg/L | 0.00068 | 11.17% |
| Cu 324.752† | 3476.6 | 0.0307 | mg/L | 0.00070 | 0.0307 | mg/L | 0.00070 | 2.29% |
| Fe 238.204† | 6804.5 | 2.203 | mg/L | 0.0113 | 2.203 | mg/L | 0.0113 | 0.51% |
| K 766.490† | 4278.5 | 1.671 | mg/L | 0.0029 | 1.671 | mg/L | 0.0029 | 0.17% |
| Li 610.362† | -1599.8 | 0.0045 | mg/L | 0.00040 | 0.0045 | mg/L | 0.00040 | 9.03% |
| Mg 279.077† | 5347.7 | 1.907 | mg/L | 0.1074 | 1.907 | mg/L | 0.1074 | 5.63% |
| Mn 257.610† | 124057.1 | 0.7906 | mg/L | 0.00360 | 0.7906 | mg/L | 0.00360 | 0.46% |
| Mo 202.031† | 10.6 | 0.0017 | mg/L | 0.00070 | 0.0017 | mg/L | 0.00070 | 41.40% |
| Na 589.592† | 7582443.6 | 422.1 | mg/L | 0.63 | 422.1 | mg/L | 0.63 | 0.15% |
| Ni 231.604† | 184.9 | 0.0167 | mg/L | 0.00001 | 0.0167 | mg/L | 0.00001 | 0.04% |
| P 214.914† | 409.1 | 0.8557 | mg/L | 0.00812 | 0.8557 | mg/L | 0.00812 | 0.95% |
| Pb 220.353† | 947.2 | 0.4862 | mg/L | 0.18419 | 0.4862 | mg/L | 0.18419 | 37.88% |
| Sb 206.836† | 0.3 | 0.0004 | mg/L | 0.00077 | 0.0004 | mg/L | 0.00077 | 188.97% |
| Se 196.026† | 3.3 | 0.0046 | mg/L | 0.00407 | 0.0046 | mg/L | 0.00407 | 89.23% |
| Si 251.611† | 32430.6 | 1.821 | mg/L | 0.0185 | 1.821 | mg/L | 0.0185 | 1.01% |
| Sn 189.927† | 21.1 | 0.0077 | mg/L | 0.00047 | 0.0077 | mg/L | 0.00047 | 6.13% |
| Sr 421.552† | 112060.2 | 0.1601 | mg/L | 0.00175 | 0.1601 | mg/L | 0.00175 | 1.09% |
| Ti 334.903† | 14352.5 | 0.0580 | mg/L | 0.00113 | 0.0580 | mg/L | 0.00113 | 1.94% |
| Tl 190.801† | -2.2 | -0.0033 | mg/L | 0.00349 | -0.0033 | mg/L | 0.00349 | 105.37% |
| V 292.402† | 1029.4 | 0.0266 | mg/L | 0.00045 | 0.0266 | mg/L | 0.00045 | 1.68% |
| Zn 213.857† | 16858.3 | 0.4805 | mg/L | 0.01305 | 0.4805 | mg/L | 0.01305 | 2.72% |
| Zr 343.823† | 527.1 | 0.0037 | mg/L | 0.00056 | 0.0037 | mg/L | 0.00056 | 15.07% |
| W 207.912† | 11.5 | 0.0023 | mg/L | 0.00176 | 0.0023 | mg/L | 0.00176 | 75.08% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 10** **Autosampler Location: 20**
**Sample ID: 440-192979-a-17-f220** **Date Collected: 10/26/2017 11:23:05 AM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: 440-192979-a-17-f220**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

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**Mean Data: 440-192979-a-17-f220**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2361601.3 | 92.15 | % | 2.171 | | | | 2.36% |
| Ag 328.068† | -59.4 | -0.0006 | mg/L | 0.00012 | -0.0006 | mg/L | 0.00012 | 21.55% |
| Al 308.215† | 11920.4 | 1.165 | mg/L | 0.0666 | 1.165 | mg/L | 0.0666 | 5.71% |
| As 188.979† | 4.4 | 0.0067 | mg/L | 0.00639 | 0.0067 | mg/L | 0.00639 | 95.23% |
| B 249.677† | 817.6 | 0.0116 | mg/L | 0.00016 | 0.0116 | mg/L | 0.00016 | 1.38% |
| Ba 233.527† | 8770.4 | 0.2679 | mg/L | 0.00881 | 0.2679 | mg/L | 0.00881 | 3.29% |
| Be 313.107† | -173.5 | -0.0002 | mg/L | 0.00010 | -0.0002 | mg/L | 0.00010 | 49.65% |
| Ca 315.887† | 67951.1 | 24.98 | mg/L | 0.892 | 24.98 | mg/L | 0.892 | 3.57% |
| Cd 214.440† | 39.6 | 0.0012 | mg/L | 0.00019 | 0.0012 | mg/L | 0.00019 | 15.41% |
| Co 228.616† | 77.4 | 0.0090 | mg/L | 0.00089 | 0.0090 | mg/L | 0.00089 | 9.95% |
| Cr 205.560† | 58.7 | 0.0046 | mg/L | 0.00039 | 0.0046 | mg/L | 0.00039 | 8.38% |
| Cu 324.752† | 3690.8 | 0.0326 | mg/L | 0.00172 | 0.0326 | mg/L | 0.00172 | 5.26% |
| Fe 238.204† | 8922.4 | 2.889 | mg/L | 0.1126 | 2.889 | mg/L | 0.1126 | 3.90% |
| K 766.490† | 3889.4 | 1.519 | mg/L | 0.1013 | 1.519 | mg/L | 0.1013 | 6.67% |
| Li 610.362† | -1729.1 | 0.0036 | mg/L | 0.00003 | 0.0036 | mg/L | 0.00003 | 0.81% |
| Mg 279.077† | 3790.3 | 1.352 | mg/L | 0.0508 | 1.352 | mg/L | 0.0508 | 3.76% |
| Mn 257.610† | 126336.3 | 0.8051 | mg/L | 0.00918 | 0.8051 | mg/L | 0.00918 | 1.14% |
| Mo 202.031† | 10.9 | 0.0018 | mg/L | 0.00018 | 0.0018 | mg/L | 0.00018 | 10.36% |
| Na 589.592† | 7483705.2 | 416.6 | mg/L | 9.86 | 416.6 | mg/L | 9.86 | 2.37% |
| Ni 231.604† | 151.0 | 0.0136 | mg/L | 0.00035 | 0.0136 | mg/L | 0.00035 | 2.55% |
| P 214.914† | 522.5 | 1.093 | mg/L | 0.0228 | 1.093 | mg/L | 0.0228 | 2.09% |
| Pb 220.353† | 277.6 | 0.1426 | mg/L | 0.00208 | 0.1426 | mg/L | 0.00208 | 1.46% |
| Sb 206.836† | -0.0 | -0.0000 | mg/L | 0.00347 | -0.0000 | mg/L | 0.00347 | >999.9% |
| Se 196.026† | 4.0 | 0.0058 | mg/L | 0.00504 | 0.0058 | mg/L | 0.00504 | 87.52% |
| Si 251.611† | 25496.6 | 1.431 | mg/L | 0.0562 | 1.431 | mg/L | 0.0562 | 3.93% |
| Sn 189.927† | 19.8 | 0.0073 | mg/L | 0.00039 | 0.0073 | mg/L | 0.00039 | 5.34% |
| Sr 421.552† | 116859.7 | 0.1670 | mg/L | 0.00513 | 0.1670 | mg/L | 0.00513 | 3.07% |
| Ti 334.903† | 13560.2 | 0.0549 | mg/L | 0.00250 | 0.0549 | mg/L | 0.00250 | 4.56% |
| Tl 190.801† | -3.8 | -0.0060 | mg/L | 0.00106 | -0.0060 | mg/L | 0.00106 | 17.74% |
| V 292.402† | 926.5 | 0.0241 | mg/L | 0.00061 | 0.0241 | mg/L | 0.00061 | 2.54% |
| Zn 213.857† | 16387.4 | 0.4670 | mg/L | 0.01975 | 0.4670 | mg/L | 0.01975 | 4.23% |
| Zr 343.823† | 400.2 | 0.0028 | mg/L | 0.00010 | 0.0028 | mg/L | 0.00010 | 3.51% |
| W 207.912† | 11.1 | 0.0023 | mg/L | 0.00236 | 0.0023 | mg/L | 0.00236 | 103.69% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 11** **Autosampler Location: 4**
**Sample ID: CCV 4447505** **Date Collected: 10/26/2017 11:25:07 AM**
**Analyst:** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: CCV 4447505**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: CCV 4447505**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2617196.8 | 102.1 | % | 0.46 | | | | 0.45% |
| Ag 328.068† | 48171.1 | 0.4899 | mg/L | 0.00050 | 0.4899 | mg/L | 0.00050 | 0.10% |
| Al 308.215† | 10165.4 | 0.9622 | mg/L | 0.00106 | 0.9622 | mg/L | 0.00106 | 0.11% |
| As 188.979† | 699.7 | 1.038 | mg/L | 0.0173 | 1.038 | mg/L | 0.0173 | 1.67% |
| B 249.677† | 42280.7 | 0.9762 | mg/L | 0.00096 | 0.9762 | mg/L | 0.00096 | 0.10% |
| Ba 233.527† | 32784.8 | 1.002 | mg/L | 0.0022 | 1.002 | mg/L | 0.0022 | 0.22% |
| Be 313.107† | 866613.1 | 1.014 | mg/L | 0.0046 | 1.014 | mg/L | 0.0046 | 0.45% |
| Ca 315.887† | 13922.5 | 5.122 | mg/L | 0.0303 | 5.122 | mg/L | 0.0303 | 0.59% |
| Cd 214.440† | 32344.9 | 1.022 | mg/L | 0.0103 | 1.022 | mg/L | 0.0103 | 1.01% |
| Co 228.616† | 8606.2 | 1.012 | mg/L | 0.0069 | 1.012 | mg/L | 0.0069 | 0.68% |
| Cr 205.560† | 12732.6 | 1.003 | mg/L | 0.0096 | 1.003 | mg/L | 0.0096 | 0.96% |
| Cu 324.752† | 112775.8 | 0.9902 | mg/L | 0.00035 | 0.9902 | mg/L | 0.00035 | 0.04% |
| Fe 238.204† | 3148.4 | 1.021 | mg/L | 0.0094 | 1.021 | mg/L | 0.0094 | 0.92% |
| K 766.490† | 27803.9 | 10.86 | mg/L | 0.057 | 10.86 | mg/L | 0.057 | 0.52% |
| Li 610.362† | 110445.2 | 0.9794 | mg/L | 0.00244 | 0.9794 | mg/L | 0.00244 | 0.25% |
| Mg 279.077† | 13975.2 | 4.985 | mg/L | 0.0094 | 4.985 | mg/L | 0.0094 | 0.19% |
| Mn 257.610† | 156216.7 | 0.9954 | mg/L | 0.00152 | 0.9954 | mg/L | 0.00152 | 0.15% |
| Mo 202.031† | 6396.7 | 0.9879 | mg/L | 0.00150 | 0.9879 | mg/L | 0.00150 | 0.15% |
| Na 589.592† | 205981.4 | 11.47 | mg/L | 0.093 | 11.47 | mg/L | 0.093 | 0.81% |
| Ni 231.604† | 11072.1 | 1.001 | mg/L | 0.0040 | 1.001 | mg/L | 0.0040 | 0.40% |
| P 214.914† | 486.3 | 0.9534 | mg/L | 0.00815 | 0.9534 | mg/L | 0.00815 | 0.85% |
| Pb 220.353† | 2020.6 | 1.039 | mg/L | 0.0049 | 1.039 | mg/L | 0.0049 | 0.47% |
| Sb 206.836† | 761.6 | 1.023 | mg/L | 0.0042 | 1.023 | mg/L | 0.0042 | 0.41% |
| Se 196.026† | 803.2 | 1.030 | mg/L | 0.0187 | 1.030 | mg/L | 0.0187 | 1.82% |
| Si 251.611† | 85454.5 | 4.722 | mg/L | 0.0145 | 4.722 | mg/L | 0.0145 | 0.31% |
| Sn 189.927† | 2542.3 | 1.031 | mg/L | 0.0068 | 1.031 | mg/L | 0.0068 | 0.66% |
| Sr 421.552† | 683633.7 | 0.9808 | mg/L | 0.00196 | 0.9808 | mg/L | 0.00196 | 0.20% |
| Ti 334.903† | 254824.7 | 1.024 | mg/L | 0.0008 | 1.024 | mg/L | 0.0008 | 0.08% |
| Tl 190.801† | 626.9 | 1.033 | mg/L | 0.0146 | 1.033 | mg/L | 0.0146 | 1.41% |
| V 292.402† | 39323.5 | 1.012 | mg/L | 0.0035 | 1.012 | mg/L | 0.0035 | 0.35% |
| Zn 213.857† | 35144.6 | 0.9958 | mg/L | 0.00285 | 0.9958 | mg/L | 0.00285 | 0.29% |
| Zr 343.823† | 142072.9 | 0.9953 | mg/L | 0.00089 | 0.9953 | mg/L | 0.00089 | 0.09% |
| W 207.912† | 2102.6 | 1.001 | mg/L | 0.0087 | 1.001 | mg/L | 0.0087 | 0.87% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 12** **Autosampler Location: 1**
**Sample ID: CCB 4447504** **Date Collected: 10/26/2017 11:27:06 AM**
**Analyst:** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: CCB 4447504**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

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**Mean Data: CCB 4447504**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2638662.7 | 103.0 | % | 0.73 | | | | 0.71% |
| Ag 328.068† | -38.5 | -0.0004 | mg/L | 0.00091 | -0.0004 | mg/L | 0.00091 | 229.55% |
| Al 308.215† | 113.7 | 0.0111 | mg/L | 0.00317 | 0.0111 | mg/L | 0.00317 | 28.60% |
| As 188.979† | -4.7 | -0.0070 | mg/L | 0.00356 | -0.0070 | mg/L | 0.00356 | 51.14% |
| B 249.677† | 52.7 | 0.0012 | mg/L | 0.00023 | 0.0012 | mg/L | 0.00023 | 18.98% |
| Ba 233.527† | 5.0 | 0.0002 | mg/L | 0.00001 | 0.0002 | mg/L | 0.00001 | 7.04% |
| Be 313.107† | -246.7 | -0.0003 | mg/L | 0.00003 | -0.0003 | mg/L | 0.00003 | 11.61% |
| Ca 315.887† | 20.5 | 0.0076 | mg/L | 0.00033 | 0.0076 | mg/L | 0.00033 | 4.31% |
| Cd 214.440† | -0.6 | -0.0000 | mg/L | 0.00009 | -0.0000 | mg/L | 0.00009 | 515.71% |
| Co 228.616† | 4.0 | 0.0005 | mg/L | 0.00051 | 0.0005 | mg/L | 0.00051 | 108.07% |
| Cr 205.560† | 1.2 | 0.0001 | mg/L | 0.00005 | 0.0001 | mg/L | 0.00005 | 50.34% |
| Cu 324.752† | 186.0 | 0.0016 | mg/L | 0.00010 | 0.0016 | mg/L | 0.00010 | 6.04% |
| Fe 238.204† | 4.4 | 0.0014 | mg/L | 0.00087 | 0.0014 | mg/L | 0.00087 | 61.32% |
| K 766.490† | 46.6 | 0.0182 | mg/L | 0.01139 | 0.0182 | mg/L | 0.01139 | 62.54% |
| Li 610.362† | 71.7 | 0.0006 | mg/L | 0.00017 | 0.0006 | mg/L | 0.00017 | 26.35% |
| Mg 279.077† | -6.4 | -0.0022 | mg/L | 0.00083 | -0.0022 | mg/L | 0.00083 | 37.18% |
| Mn 257.610† | -9.5 | -0.0001 | mg/L | 0.00003 | -0.0001 | mg/L | 0.00003 | 46.20% |
| Mo 202.031† | 77.4 | 0.0120 | mg/L | 0.00174 | 0.0120 | mg/L | 0.00174 | 14.52% |
| Na 589.592† | 1304.9 | 0.0726 | mg/L | 0.00108 | 0.0726 | mg/L | 0.00108 | 1.48% |
| Ni 231.604† | 8.6 | 0.0008 | mg/L | 0.00028 | 0.0008 | mg/L | 0.00028 | 36.77% |
| P 214.914† | -5.6 | -0.0120 | mg/L | 0.00215 | -0.0120 | mg/L | 0.00215 | 17.89% |
| Pb 220.353† | 8.9 | 0.0046 | mg/L | 0.00248 | 0.0046 | mg/L | 0.00248 | 53.79% |
| Sb 206.836† | 4.5 | 0.0062 | mg/L | 0.00540 | 0.0062 | mg/L | 0.00540 | 87.59% |
| Se 196.026† | 8.9 | 0.0114 | mg/L | 0.00136 | 0.0114 | mg/L | 0.00136 | 11.92% |
| Si 251.611† | 85.1 | 0.0044 | mg/L | 0.00001 | 0.0044 | mg/L | 0.00001 | 0.16% |
| Sn 189.927† | 2.4 | 0.0010 | mg/L | 0.00144 | 0.0010 | mg/L | 0.00144 | 149.88% |
| Sr 421.552† | 48.8 | 0.0001 | mg/L | 0.00008 | 0.0001 | mg/L | 0.00008 | 117.96% |
| Ti 334.903† | 151.3 | 0.0006 | mg/L | 0.00015 | 0.0006 | mg/L | 0.00015 | 23.95% |
| Tl 190.801† | -0.1 | -0.0001 | mg/L | 0.00203 | -0.0001 | mg/L | 0.00203 | >999.9% |
| V 292.402† | -3.7 | -0.0001 | mg/L | 0.00001 | -0.0001 | mg/L | 0.00001 | 11.32% |
| Zn 213.857† | 370.7 | 0.0106 | mg/L | 0.00064 | 0.0106 | mg/L | 0.00064 | 6.06% |
| Zr 343.823† | 5.7 | 0.0000 | mg/L | 0.00004 | 0.0000 | mg/L | 0.00004 | 96.33% |
| W 207.912† | 8.5 | 0.0040 | mg/L | 0.00003 | 0.0040 | mg/L | 0.00003 | 0.68% |


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**Analytical Sequence**
**Method: 170824_ICP7**

| Seq. | Loc. | ID | Status |
|---|---|---|---|
| 1 | 11 | mb 440-437009_1-a@20 | Analyzed |
| 2 | 12 | lcs 440-437009_2-a@20 | Analyzed |
| 3 | 13 | 440-194799-c-1-a@20 | Analyzed |
| 4 | 14 | 440-194799-c-1-aMS220 | Analyzed |
| 5 | 15 | 440-194799-c-1-aMSD@20 | Analyzed |
| 6 | 16 | 440-194799-c-1-aSD@20 | Analyzed |
| 7 | 17 | 440-194758-a-1-a@20 | Analyzed |
| 8 | 18 | 440-192979-a-7-e@20 | Analyzed |
| 9 | 19 | 440-192979-a-13-d@20 | Analyzed |
| 10 | 20 | 440-192979-a-17-f220 | Analyzed |
| 11 | 4 | CCV 4447505 | Analyzed |
| 12 | 1 | CCB 4447504 | Analyzed |


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**Analysis Begun**

**Start Time: 10/26/2017 11:35:38 AM** **Plasma On Time: 10/26/2017 9:24:37 AM**
**Logged In Analyst: IRVINSTICP7** **Technique: ICP Continuous**
**Spectrometer: Optima 8300** **Autosampler: ESI**

**Sample Information File: C:\Users\Public\PerkinElmer\ICP\Data\Sample Information\CP 171026-1.sif**
**Batch ID:**
**Results Data Set: 171026-1 ICP7**
**Results Library: C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb**

==========

**Sequence No.: 1** **Autosampler Location: 11**
**Sample ID: mb 440-437009_1-a@20** **Date Collected: 10/26/2017 11:35:51 AM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time:**
User canceled analysis.


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**Analysis Begun**

**Start Time: 10/26/2017 11:36:42 AM** **Plasma On Time: 10/26/2017 9:24:37 AM**
**Logged In Analyst: IRVINSTICP7** **Technique: ICP Continuous**
**Spectrometer: Optima 8300** **Autosampler: ESI**

**Sample Information File: C:\Users\Public\PerkinElmer\ICP\Data\Sample Information\CP 171026-1.sif**
**Batch ID:**
**Results Data Set: 171026-1 ICP7**
**Results Library: C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb**

==========

**Sequence No.: 1** **Autosampler Location: 1**
**Sample ID: CCB 4447504** **Date Collected: 10/26/2017 11:36:59 AM**
**Analyst:** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time:**

---

**Nebulizer Parameters: CCB 4447504**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

---

**Mean Data: CCB 4447504**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2653722.1 | 103.5 | % | 1.77 | | | | 1.70% |
| Ag 328.068† | -72.8 | -0.0008 | mg/L | 0.00087 | -0.0008 | mg/L | 0.00087 | 115.53% |
| Al 308.215† | 86.6 | 0.0085 | mg/L | 0.01031 | 0.0085 | mg/L | 0.01031 | 121.19% |
| As 188.979† | -2.9 | -0.0043 | mg/L | 0.00651 | -0.0043 | mg/L | 0.00651 | 151.77% |
| B 249.677† | 18.3 | 0.0004 | mg/L | 0.00008 | 0.0004 | mg/L | 0.00008 | 18.56% |
| Ba 233.527† | 5.2 | 0.0002 | mg/L | 0.00004 | 0.0002 | mg/L | 0.00004 | 25.53% |
| Be 313.107† | -203.4 | -0.0002 | mg/L | 0.00001 | -0.0002 | mg/L | 0.00001 | 5.45% |
| Ca 315.887† | 11.1 | 0.0041 | mg/L | 0.00117 | 0.0041 | mg/L | 0.00117 | 28.60% |
| Cd 214.440† | 2.4 | 0.0001 | mg/L | 0.00000 | 0.0001 | mg/L | 0.00000 | 3.07% |
| Co 228.616† | 4.3 | 0.0005 | mg/L | 0.00031 | 0.0005 | mg/L | 0.00031 | 60.01% |
| Cr 205.560† | -2.4 | -0.0002 | mg/L | 0.00026 | -0.0002 | mg/L | 0.00026 | 136.84% |
| Cu 324.752† | 125.9 | 0.0011 | mg/L | 0.00064 | 0.0011 | mg/L | 0.00064 | 58.07% |
| Fe 238.204† | 2.2 | 0.0007 | mg/L | 0.00009 | 0.0007 | mg/L | 0.00009 | 12.10% |
| K 766.490† | 10.0 | 0.0039 | mg/L | 0.01172 | 0.0039 | mg/L | 0.01172 | 298.54% |
| Li 610.362† | 21.5 | 0.0002 | mg/L | 0.00058 | 0.0002 | mg/L | 0.00058 | 302.16% |
| Mg 279.077† | -9.7 | -0.0035 | mg/L | 0.00106 | -0.0035 | mg/L | 0.00106 | 30.55% |
| Mn 257.610† | -15.8 | -0.0001 | mg/L | 0.00001 | -0.0001 | mg/L | 0.00001 | 8.56% |
| Mo 202.031† | -0.7 | -0.0001 | mg/L | 0.00045 | -0.0001 | mg/L | 0.00045 | 402.62% |
| Na 589.592† | 729.1 | 0.0406 | mg/L | 0.00078 | 0.0406 | mg/L | 0.00078 | 1.93% |
| Ni 231.604† | 5.2 | 0.0005 | mg/L | 0.00043 | 0.0005 | mg/L | 0.00043 | 92.01% |
| P 214.914† | -2.4 | -0.0050 | mg/L | 0.00161 | -0.0050 | mg/L | 0.00161 | 32.12% |
| Pb 220.353† | 3.4 | 0.0018 | mg/L | 0.00147 | 0.0018 | mg/L | 0.00147 | 83.71% |
| Sb 206.836† | -3.2 | -0.0043 | mg/L | 0.00249 | -0.0043 | mg/L | 0.00249 | 58.09% |
| Se 196.026† | -3.6 | -0.0046 | mg/L | 0.00359 | -0.0046 | mg/L | 0.00359 | 77.46% |
| Si 251.611† | 53.2 | 0.0031 | mg/L | 0.00007 | 0.0031 | mg/L | 0.00007 | 2.24% |
| Sn 189.927† | -0.8 | -0.0003 | mg/L | 0.00048 | -0.0003 | mg/L | 0.00048 | 142.00% |
| Sr 421.552† | 26.1 | 0.0000 | mg/L | 0.00006 | 0.0000 | mg/L | 0.00006 | 162.68% |
| Ti 334.903† | 22.7 | 0.0001 | mg/L | 0.00003 | 0.0001 | mg/L | 0.00003 | 30.75% |
| Tl 190.801† | 0.1 | 0.0001 | mg/L | 0.00117 | 0.0001 | mg/L | 0.00117 | 900.74% |
| V 292.402† | 2.0 | 0.0001 | mg/L | 0.00048 | 0.0001 | mg/L | 0.00048 | 935.43% |
| Zn 213.857† | 249.4 | 0.0071 | mg/L | 0.00010 | 0.0071 | mg/L | 0.00010 | 1.37% |
| Zr 343.823† | 25.6 | 0.0002 | mg/L | 0.00003 | 0.0002 | mg/L | 0.00003 | 14.59% |
| W 207.912† | -4.2 | -0.0020 | mg/L | 0.00028 | -0.0020 | mg/L | 0.00028 | 13.81% |


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**Analytical Sequence**
**Method: 170824_ICP7**

| Seq. | Loc. | ID | Status |
|---|---|---|---|
| 1 | 1 | CCB 4447504 | Analyzed |


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**Analysis Begun**

**Start Time: 10/26/2017 11:45:57 AM** **Plasma On Time: 10/26/2017 9:24:37 AM**
**Logged In Analyst: IRVINSTICP7** **Technique: ICP Continuous**
**Spectrometer: Optima 8300** **Autosampler: ESI**

**Sample Information File: C:\Users\Public\PerkinElmer\ICP\Data\Sample Information\CP 171026-1.sif**
**Batch ID:**
**Results Data Set: 171026-1 ICP7**
**Results Library: C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb**

==========

**Sequence No.: 1** **Autosampler Location: 17**
**Sample ID: 440-194758-a-1-a@200** **Date Collected: 10/26/2017 11:46:10 AM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time:**

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**Nebulizer Parameters: 440-194758-a-1-a@200**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: 440-194758-a-1-a@200**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2712221.5 | 105.8 | % | 1.26 | | | | 1.19% |
| Ag 328.068† | -32.5 | -0.0003 | mg/L | 0.00024 | -0.0003 | mg/L | 0.00024 | 75.20% |
| Al 308.215† | 374.7 | 0.0365 | mg/L | 0.00155 | 0.0365 | mg/L | 0.00155 | 4.23% |
| As 188.979† | -2.9 | -0.0041 | mg/L | 0.00414 | -0.0041 | mg/L | 0.00414 | 100.14% |
| B 249.677† | 176.5 | 0.0011 | mg/L | 0.00005 | 0.0011 | mg/L | 0.00005 | 4.22% |
| Ba 233.527† | 19.7 | 0.0006 | mg/L | 0.00014 | 0.0006 | mg/L | 0.00014 | 23.94% |
| Be 313.107† | -195.4 | -0.0002 | mg/L | 0.00009 | -0.0002 | mg/L | 0.00009 | 37.67% |
| Ca 315.887† | 2781.9 | 1.023 | mg/L | 0.0207 | 1.023 | mg/L | 0.0207 | 2.03% |
| Cd 214.440† | 1.3 | 0.0000 | mg/L | 0.00001 | 0.0000 | mg/L | 0.00001 | 44.84% |
| Co 228.616† | 85.1 | 0.0100 | mg/L | 0.00007 | 0.0100 | mg/L | 0.00007 | 0.74% |
| Cr 205.560† | 18.0 | 0.0014 | mg/L | 0.00000 | 0.0014 | mg/L | 0.00000 | 0.32% |
| Cu 324.752† | 405.1 | 0.0037 | mg/L | 0.00013 | 0.0037 | mg/L | 0.00013 | 3.44% |
| Fe 238.204† | 3636.4 | 1.177 | mg/L | 0.0172 | 1.177 | mg/L | 0.0172 | 1.46% |
| K 766.490† | 86.9 | 0.0339 | mg/L | 0.00694 | 0.0339 | mg/L | 0.00694 | 20.43% |
| Li 610.362† | -3.6 | 0.0007 | mg/L | 0.00036 | 0.0007 | mg/L | 0.00036 | 48.83% |
| Mg 279.077† | 176.6 | 0.0631 | mg/L | 0.00258 | 0.0631 | mg/L | 0.00258 | 4.09% |
| Mn 257.610† | 2914.3 | 0.0186 | mg/L | 0.00018 | 0.0186 | mg/L | 0.00018 | 0.94% |
| Mo 202.031† | 0.8 | 0.0001 | mg/L | 0.00019 | 0.0001 | mg/L | 0.00019 | 130.94% |
| Na 589.592† | 849217.4 | 47.28 | mg/L | 0.028 | 47.28 | mg/L | 0.028 | 0.06% |
| Ni 231.604† | 41.3 | 0.0037 | mg/L | 0.00014 | 0.0037 | mg/L | 0.00014 | 3.82% |
| P 214.914† | 2.3 | 0.0036 | mg/L | 0.00179 | 0.0036 | mg/L | 0.00179 | 49.03% |
| Pb 220.353† | 22757.1 | 11.68 | mg/L | 0.127 | 11.68 | mg/L | 0.127 | 1.09% |
| Sb 206.836† | 1.7 | 0.0023 | mg/L | 0.00067 | 0.0023 | mg/L | 0.00067 | 29.69% |
| Se 196.026† | -0.0 | 0.0005 | mg/L | 0.00389 | 0.0005 | mg/L | 0.00389 | 808.82% |
| Si 251.611† | 1685.9 | 0.0948 | mg/L | 0.00174 | 0.0948 | mg/L | 0.00174 | 1.84% |
| Sn 189.927† | -4.8 | -0.0018 | mg/L | 0.00273 | -0.0018 | mg/L | 0.00273 | 153.08% |
| Sr 421.552† | 1421.6 | 0.0020 | mg/L | 0.00005 | 0.0020 | mg/L | 0.00005 | 2.53% |
| Ti 334.903† | 454.0 | 0.0018 | mg/L | 0.00003 | 0.0018 | mg/L | 0.00003 | 1.51% |
| Tl 190.801† | -0.9 | -0.0014 | mg/L | 0.00297 | -0.0014 | mg/L | 0.00297 | 206.73% |
| V 292.402† | -13.8 | -0.0002 | mg/L | 0.00031 | -0.0002 | mg/L | 0.00031 | 136.56% |
| Zn 213.857† | 4049.6 | 0.1154 | mg/L | 0.00287 | 0.1154 | mg/L | 0.00287 | 2.49% |
| Zr 343.823† | 131.1 | 0.0009 | mg/L | 0.00004 | 0.0009 | mg/L | 0.00004 | 4.49% |
| W 207.912† | -1.0 | -0.0013 | mg/L | 0.00128 | -0.0013 | mg/L | 0.00128 | 101.54% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 2** **Autosampler Location: 21**
**Sample ID: 440-192850-a-4-d@20** **Date Collected: 10/26/2017 11:48:13 AM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: 440-192850-a-4-d@20**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: 440-192850-a-4-d@20**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2438276.0 | 95.14 | % | 6.062 | | | | 6.37% |
| Ag 328.068† | -16.9 | -0.0001 | mg/L | 0.00020 | -0.0001 | mg/L | 0.00020 | 174.64% |
| Al 308.215† | 9631.9 | 0.9414 | mg/L | 0.06115 | 0.9414 | mg/L | 0.06115 | 6.50% |
| As 188.979† | 4.5 | 0.0069 | mg/L | 0.00053 | 0.0069 | mg/L | 0.00053 | 7.72% |
| B 249.677† | 852.6 | 0.0114 | mg/L | 0.00028 | 0.0114 | mg/L | 0.00028 | 2.44% |
| Ba 233.527† | 4809.0 | 0.1469 | mg/L | 0.00481 | 0.1469 | mg/L | 0.00481 | 3.28% |
| Be 313.107† | -273.3 | -0.0003 | mg/L | 0.00016 | -0.0003 | mg/L | 0.00016 | 50.89% |
| Ca 315.887† | 42232.9 | 15.53 | mg/L | 0.994 | 15.53 | mg/L | 0.994 | 6.40% |
| Cd 214.440† | 45.0 | 0.0014 | mg/L | 0.00012 | 0.0014 | mg/L | 0.00012 | 8.36% |
| Co 228.616† | 80.4 | 0.0093 | mg/L | 0.00013 | 0.0093 | mg/L | 0.00013 | 1.39% |
| Cr 205.560† | 62.0 | 0.0049 | mg/L | 0.00019 | 0.0049 | mg/L | 0.00019 | 3.90% |
| Cu 324.752† | 3229.0 | 0.0286 | mg/L | 0.00176 | 0.0286 | mg/L | 0.00176 | 6.16% |
| Fe 238.204† | 10150.6 | 3.287 | mg/L | 0.1872 | 3.287 | mg/L | 0.1872 | 5.70% |
| K 766.490† | 3582.0 | 1.399 | mg/L | 0.1247 | 1.399 | mg/L | 0.1247 | 8.91% |
| Li 610.362† | -998.0 | 0.0029 | mg/L | 0.00189 | 0.0029 | mg/L | 0.00189 | 64.94% |
| Mg 279.077† | 4576.4 | 1.633 | mg/L | 0.0575 | 1.633 | mg/L | 0.0575 | 3.52% |
| Mn 257.610† | 106371.9 | 0.6779 | mg/L | 0.02440 | 0.6779 | mg/L | 0.02440 | 3.60% |
| Mo 202.031† | 4.3 | 0.0007 | mg/L | 0.00006 | 0.0007 | mg/L | 0.00006 | 7.80% |
| Na 589.592† | 7965184.7 | 443.4 | mg/L | 15.41 | 443.4 | mg/L | 15.41 | 3.48% |
| Ni 231.604† | 169.2 | 0.0152 | mg/L | 0.00097 | 0.0152 | mg/L | 0.00097 | 6.38% |
| P 214.914† | 269.5 | 0.5622 | mg/L | 0.01662 | 0.5622 | mg/L | 0.01662 | 2.96% |
| Pb 220.353† | 305.0 | 0.1565 | mg/L | 0.00581 | 0.1565 | mg/L | 0.00581 | 3.71% |
| Sb 206.836† | 1.6 | 0.0021 | mg/L | 0.00406 | 0.0021 | mg/L | 0.00406 | 191.31% |
| Se 196.026† | 4.7 | 0.0069 | mg/L | 0.00261 | 0.0069 | mg/L | 0.00261 | 38.04% |
| Si 251.611† | 23436.1 | 1.316 | mg/L | 0.0484 | 1.316 | mg/L | 0.0484 | 3.68% |
| Sn 189.927† | 10.4 | 0.0041 | mg/L | 0.00206 | 0.0041 | mg/L | 0.00206 | 50.46% |
| Sr 421.552† | 85886.4 | 0.1228 | mg/L | 0.00796 | 0.1228 | mg/L | 0.00796 | 6.49% |
| Ti 334.903† | 13775.7 | 0.0556 | mg/L | 0.00231 | 0.0556 | mg/L | 0.00231 | 4.16% |
| Tl 190.801† | -2.7 | -0.0041 | mg/L | 0.00547 | -0.0041 | mg/L | 0.00547 | 133.66% |
| V 292.402† | 925.3 | 0.0241 | mg/L | 0.00113 | 0.0241 | mg/L | 0.00113 | 4.70% |
| Zn 213.857† | 12697.2 | 0.3617 | mg/L | 0.01496 | 0.3617 | mg/L | 0.01496 | 4.14% |
| Zr 343.823† | 299.1 | 0.0021 | mg/L | 0.00043 | 0.0021 | mg/L | 0.00043 | 20.63% |
| W 207.912† | 6.9 | 0.0009 | mg/L | 0.00264 | 0.0009 | mg/L | 0.00264 | 279.03% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 3 Autosampler Location: 22
Sample ID: 440-192850-a-10-d@20 Date Collected: 10/26/2017 11:50:13 AM
Analyst: EN Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-192850-a-10-d@20

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 198.0 kPa | 0.65 L/min |

Mean Data: 440-192850-a-10-d@20

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2401096.1 | 93.69 | % | 1.001 | | | | 1.07% |
| Ag 328.068† | -54.6 | -0.0005 | mg/L | 0.00022 | -0.0005 | mg/L | 0.00022 | 40.82% |
| Al 308.215† | 8521.4 | 0.8341 | mg/L | 0.02053 | 0.8341 | mg/L | 0.02053 | 2.46% |
| As 188.979† | -4.2 | -0.0061 | mg/L | 0.00665 | -0.0061 | mg/L | 0.00665 | 108.63% |
| B 249.677† | 633.0 | 0.0099 | mg/L | 0.00001 | 0.0099 | mg/L | 0.00001 | 0.13% |
| Ba 233.527† | 8565.9 | 0.2616 | mg/L | 0.00220 | 0.2616 | mg/L | 0.00220 | 0.84% |
| Be 313.107† | -167.5 | -0.0002 | mg/L | 0.00015 | -0.0002 | mg/L | 0.00015 | 76.25% |
| Ca 315.887† | 22325.5 | 8.208 | mg/L | 0.0585 | 8.208 | mg/L | 0.0585 | 0.71% |
| Cd 214.440† | 37.2 | 0.0011 | mg/L | 0.00015 | 0.0011 | mg/L | 0.00015 | 13.38% |
| Co 228.616† | 53.2 | 0.0062 | mg/L | 0.00001 | 0.0062 | mg/L | 0.00001 | 0.20% |
| Cr 205.560† | 55.5 | 0.0044 | mg/L | 0.00045 | 0.0044 | mg/L | 0.00045 | 10.17% |
| Cu 324.752† | 2750.0 | 0.0243 | mg/L | 0.00002 | 0.0243 | mg/L | 0.00002 | 0.08% |
| Fe 238.204† | 5819.9 | 1.884 | mg/L | 0.0216 | 1.884 | mg/L | 0.0216 | 1.15% |
| K 766.490† | 1210.3 | 0.4727 | mg/L | 0.02337 | 0.4727 | mg/L | 0.02337 | 4.94% |
| Li 610.362† | -390.1 | 0.0028 | mg/L | 0.00037 | 0.0028 | mg/L | 0.00037 | 13.54% |
| Mg 279.077† | 3971.7 | 1.417 | mg/L | 0.0023 | 1.417 | mg/L | 0.0023 | 0.17% |
| Mn 257.610† | 67479.0 | 0.4300 | mg/L | 0.00103 | 0.4300 | mg/L | 0.00103 | 0.24% |
| Mo 202.031† | 7.0 | 0.0011 | mg/L | 0.00007 | 0.0011 | mg/L | 0.00007 | 6.04% |
| Na 589.592† | 7095004.5 | 395.0 | mg/L | 0.99 | 395.0 | mg/L | 0.99 | 0.25% |
| Ni 231.604† | 134.4 | 0.0121 | mg/L | 0.00005 | 0.0121 | mg/L | 0.00005 | 0.37% |
| P 214.914† | 113.2 | 0.2353 | mg/L | 0.00483 | 0.2353 | mg/L | 0.00483 | 2.05% |
| Pb 220.353† | 1157.0 | 0.5938 | mg/L | 0.00860 | 0.5938 | mg/L | 0.00860 | 1.45% |
| Sb 206.836† | -0.8 | -0.0011 | mg/L | 0.00183 | -0.0011 | mg/L | 0.00183 | 170.60% |
| Se 196.026† | 3.9 | 0.0055 | mg/L | 0.00405 | 0.0055 | mg/L | 0.00405 | 73.64% |
| Si 251.611† | 9568.3 | 0.5370 | mg/L | 0.00017 | 0.5370 | mg/L | 0.00017 | 0.03% |
| Sn 189.927† | 6.9 | 0.0028 | mg/L | 0.00243 | 0.0028 | mg/L | 0.00243 | 86.10% |
| Sr 421.552† | 58328.0 | 0.0835 | mg/L | 0.00072 | 0.0835 | mg/L | 0.00072 | 0.86% |
| Ti 334.903† | 10599.3 | 0.0427 | mg/L | 0.00038 | 0.0427 | mg/L | 0.00038 | 0.88% |
| Tl 190.801† | -1.8 | -0.0027 | mg/L | 0.00576 | -0.0027 | mg/L | 0.00576 | 214.71% |
| V 292.402† | 429.1 | 0.0112 | mg/L | 0.00024 | 0.0112 | mg/L | 0.00024 | 2.10% |
| Zn 213.857† | 18585.0 | 0.5298 | mg/L | 0.00006 | 0.5298 | mg/L | 0.00006 | 0.01% |
| Zr 343.823† | 281.8 | 0.0020 | mg/L | 0.00024 | 0.0020 | mg/L | 0.00024 | 12.05% |
| W 207.912† | 9.1 | 0.0009 | mg/L | 0.00094 | 0.0009 | mg/L | 0.00094 | 105.96% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 4 Autosampler Location: 23
Sample ID: 440-192850-a-11-b@20 Date Collected: 10/26/2017 11:52:11 AM
Analyst: EN Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-192850-a-11-b@20

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-192850-a-11-b@20

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2499809.5 | 97.54 | % | 0.668 | | | | 0.68% |
| Ag 328.068† | -72.2 | -0.0007 | mg/L | 0.00003 | -0.0007 | mg/L | 0.00003 | 4.61% |
| Al 308.215† | 4927.3 | 0.4819 | mg/L | 0.00348 | 0.4819 | mg/L | 0.00348 | 0.72% |
| As 188.979† | -2.9 | -0.0042 | mg/L | 0.00358 | -0.0042 | mg/L | 0.00358 | 84.35% |
| B 249.677† | 421.7 | 0.0062 | mg/L | 0.00010 | 0.0062 | mg/L | 0.00010 | 1.61% |
| Ba 233.527† | 4864.6 | 0.1486 | mg/L | 0.00191 | 0.1486 | mg/L | 0.00191 | 1.29% |
| Be 313.107† | -297.5 | -0.0003 | mg/L | 0.00004 | -0.0003 | mg/L | 0.00004 | 11.50% |
| Ca 315.887† | 16673.3 | 6.130 | mg/L | 0.0793 | 6.130 | mg/L | 0.0793 | 1.29% |
| Cd 214.440† | 20.1 | 0.0006 | mg/L | 0.00006 | 0.0006 | mg/L | 0.00006 | 9.82% |
| Co 228.616† | 45.6 | 0.0053 | mg/L | 0.00055 | 0.0053 | mg/L | 0.00055 | 10.29% |
| Cr 205.560† | 26.5 | 0.0021 | mg/L | 0.00021 | 0.0021 | mg/L | 0.00021 | 9.89% |
| Cu 324.752† | 1584.1 | 0.0140 | mg/L | 0.00027 | 0.0140 | mg/L | 0.00027 | 1.94% |
| Fe 238.204† | 4309.5 | 1.395 | mg/L | 0.0203 | 1.395 | mg/L | 0.0203 | 1.45% |
| K 766.490† | 1122.1 | 0.4383 | mg/L | 0.00313 | 0.4383 | mg/L | 0.00313 | 0.71% |
| Li 610.362† | -321.7 | 0.0018 | mg/L | 0.00015 | 0.0018 | mg/L | 0.00015 | 8.35% |
| Mg 279.077† | 2441.4 | 0.8709 | mg/L | 0.00513 | 0.8709 | mg/L | 0.00513 | 0.59% |
| Mn 257.610† | 51637.2 | 0.3291 | mg/L | 0.00202 | 0.3291 | mg/L | 0.00202 | 0.61% |
| Mo 202.031† | -0.1 | 0.0000 | mg/L | 0.00011 | 0.0000 | mg/L | 0.00011 | 450.43% |
| Na 589.592† | 6915714.7 | 385.0 | mg/L | 7.13 | 385.0 | mg/L | 7.13 | 1.85% |
| Ni 231.604† | 105.4 | 0.0095 | mg/L | 0.00023 | 0.0095 | mg/L | 0.00023 | 2.46% |
| P 214.914† | 253.9 | 0.5312 | mg/L | 0.01081 | 0.5312 | mg/L | 0.01081 | 2.03% |
| Pb 220.353† | 559.1 | 0.2869 | mg/L | 0.00144 | 0.2869 | mg/L | 0.00144 | 0.50% |
| Sb 206.836† | 0.3 | 0.0004 | mg/L | 0.00632 | 0.0004 | mg/L | 0.00632 | >999.9% |
| Se 196.026† | 6.2 | 0.0084 | mg/L | 0.00000 | 0.0084 | mg/L | 0.00000 | 0.01% |
| Si 251.611† | 7746.7 | 0.4349 | mg/L | 0.00614 | 0.4349 | mg/L | 0.00614 | 1.41% |
| Sn 189.927† | 3.6 | 0.0015 | mg/L | 0.00173 | 0.0015 | mg/L | 0.00173 | 118.16% |
| Sr 421.552† | 42846.5 | 0.0613 | mg/L | 0.00012 | 0.0613 | mg/L | 0.00012 | 0.19% |
| Ti 334.903† | 7192.8 | 0.0290 | mg/L | 0.00017 | 0.0290 | mg/L | 0.00017 | 0.59% |
| Tl 190.801† | -2.1 | -0.0034 | mg/L | 0.00209 | -0.0034 | mg/L | 0.00209 | 61.83% |
| V 292.402† | 401.6 | 0.0104 | mg/L | 0.00016 | 0.0104 | mg/L | 0.00016 | 1.49% |
| Zn 213.857† | 7484.2 | 0.2132 | mg/L | 0.00073 | 0.2132 | mg/L | 0.00073 | 0.34% |
| Zr 343.823† | 155.0 | 0.0011 | mg/L | 0.00034 | 0.0011 | mg/L | 0.00034 | 31.57% |
| W 207.912† | 4.5 | 0.0008 | mg/L | 0.00018 | 0.0008 | mg/L | 0.00018 | 23.63% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 5 Autosampler Location: 24
Sample ID: 440-192979-b-1-e@20 Date Collected: 10/26/2017 11:54:12 AM
Analyst: EN Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-192979-b-1-e@20

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-192979-b-1-e@20

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2501832.1 | 97.62 | % | 1.133 | | | | 1.16% |
| Ag 328.068† | -111.2 | -0.0011 | mg/L | 0.00029 | -0.0011 | mg/L | 0.00029 | 25.87% |
| Al 308.215† | 11192.5 | 1.095 | mg/L | 0.0059 | 1.095 | mg/L | 0.0059 | 0.54% |
| As 188.979† | 0.7 | 0.0012 | mg/L | 0.00550 | 0.0012 | mg/L | 0.00550 | 440.45% |
| B 249.677† | 894.4 | 0.0157 | mg/L | 0.00003 | 0.0157 | mg/L | 0.00003 | 0.18% |
| Ba 233.527† | 6601.4 | 0.2016 | mg/L | 0.00073 | 0.2016 | mg/L | 0.00073 | 0.36% |
| Be 313.107† | -302.4 | -0.0004 | mg/L | 0.00001 | -0.0004 | mg/L | 0.00001 | 4.22% |
| Ca 315.887† | 43966.7 | 16.16 | mg/L | 0.011 | 16.16 | mg/L | 0.011 | 0.07% |
| Cd 214.440† | 52.8 | 0.0016 | mg/L | 0.00001 | 0.0016 | mg/L | 0.00001 | 0.82% |
| Co 228.616† | 94.7 | 0.0110 | mg/L | 0.00027 | 0.0110 | mg/L | 0.00027 | 2.42% |
| Cr 205.560† | 67.0 | 0.0053 | mg/L | 0.00055 | 0.0053 | mg/L | 0.00055 | 10.32% |
| Cu 324.752† | 4674.2 | 0.0412 | mg/L | 0.00004 | 0.0412 | mg/L | 0.00004 | 0.09% |
| Fe 238.204† | 6147.1 | 1.990 | mg/L | 0.0207 | 1.990 | mg/L | 0.0207 | 1.04% |
| K 766.490† | 7330.9 | 2.863 | mg/L | 0.0373 | 2.863 | mg/L | 0.0373 | 1.30% |
| Li 610.362† | -1136.3 | 0.0022 | mg/L | 0.00034 | 0.0022 | mg/L | 0.00034 | 15.57% |
| Mg 279.077† | 4557.3 | 1.626 | mg/L | 0.0158 | 1.626 | mg/L | 0.0158 | 0.97% |
| Mn 257.610† | 102761.5 | 0.6549 | mg/L | 0.00234 | 0.6549 | mg/L | 0.00234 | 0.36% |
| Mo 202.031† | 8.4 | 0.0014 | mg/L | 0.00017 | 0.0014 | mg/L | 0.00017 | 12.91% |
| Na 589.592† | 6958857.0 | 387.4 | mg/L | 6.59 | 387.4 | mg/L | 6.59 | 1.70% |
| Ni 231.604† | 204.2 | 0.0184 | mg/L | 0.00022 | 0.0184 | mg/L | 0.00022 | 1.18% |
| P 214.914† | 348.0 | 0.7274 | mg/L | 0.00803 | 0.7274 | mg/L | 0.00803 | 1.10% |
| Pb 220.353† | 882.8 | 0.4531 | mg/L | 0.00043 | 0.4531 | mg/L | 0.00043 | 0.10% |
| Sb 206.836† | 1.6 | 0.0021 | mg/L | 0.00489 | 0.0021 | mg/L | 0.00489 | 236.19% |
| Se 196.026† | 4.5 | 0.0061 | mg/L | 0.00840 | 0.0061 | mg/L | 0.00840 | 137.90% |
| Si 251.611† | 26807.5 | 1.505 | mg/L | 0.0014 | 1.505 | mg/L | 0.0014 | 0.09% |
| Sn 189.927† | 13.3 | 0.0051 | mg/L | 0.00286 | 0.0051 | mg/L | 0.00286 | 56.49% |
| Sr 421.552† | 114392.1 | 0.1637 | mg/L | 0.00240 | 0.1637 | mg/L | 0.00240 | 1.47% |
| Ti 334.903† | 14995.7 | 0.0605 | mg/L | 0.00044 | 0.0605 | mg/L | 0.00044 | 0.73% |
| Tl 190.801† | -4.0 | -0.0062 | mg/L | 0.00650 | -0.0062 | mg/L | 0.00650 | 105.22% |
| V 292.402† | 803.0 | 0.0208 | mg/L | 0.00000 | 0.0208 | mg/L | 0.00000 | 0.02% |
| Zn 213.857† | 20552.2 | 0.5859 | mg/L | 0.00267 | 0.5859 | mg/L | 0.00267 | 0.46% |
| Zr 343.823† | 440.2 | 0.0031 | mg/L | 0.00006 | 0.0031 | mg/L | 0.00006 | 2.05% |
| W 207.912† | 12.5 | 0.0022 | mg/L | 0.00002 | 0.0022 | mg/L | 0.00002 | 0.79% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

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Sequence No.: 6 Autosampler Location: 25
Sample ID: mb 440-436767_1-c Date Collected: 10/26/2017 11:56:14 AM
Analyst: EN Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

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Nebulizer Parameters: mb 440-436767_1-c

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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Mean Data: mb 440-436767_1-c

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2668311.5 | 104.1 | % | 0.46 | | | | 0.44% |
| Ag 328.068† | -5.1 | -0.0001 | mg/L | 0.00047 | -0.0001 | mg/L | 0.00047 | 869.20% |
| Al 308.215† | 569.5 | 0.0559 | mg/L | 0.00296 | 0.0559 | mg/L | 0.00296 | 5.30% |
| As 188.979† | -2.6 | -0.0038 | mg/L | 0.00122 | -0.0038 | mg/L | 0.00122 | 31.83% |
| B 249.677† | 190.0 | 0.0043 | mg/L | 0.00023 | 0.0043 | mg/L | 0.00023 | 5.41% |
| Ba 233.527† | 18.8 | 0.0006 | mg/L | 0.00005 | 0.0006 | mg/L | 0.00005 | 8.38% |
| Be 313.107† | -192.8 | -0.0002 | mg/L | 0.00004 | -0.0002 | mg/L | 0.00004 | 18.26% |
| Ca 315.887† | 348.7 | 0.1282 | mg/L | 0.03130 | 0.1282 | mg/L | 0.03130 | 24.42% |
| Cd 214.440† | 3.5 | 0.0001 | mg/L | 0.00001 | 0.0001 | mg/L | 0.00001 | 5.56% |
| Co 228.616† | 4.3 | 0.0005 | mg/L | 0.00035 | 0.0005 | mg/L | 0.00035 | 70.55% |
| Cr 205.560† | 9.6 | 0.0008 | mg/L | 0.00003 | 0.0008 | mg/L | 0.00003 | 4.54% |
| Cu 324.752† | 238.0 | 0.0021 | mg/L | 0.00032 | 0.0021 | mg/L | 0.00032 | 15.46% |
| Fe 238.204† | 91.9 | 0.0298 | mg/L | 0.01039 | 0.0298 | mg/L | 0.01039 | 34.90% |
| K 766.490† | 23.8 | 0.0093 | mg/L | 0.02189 | 0.0093 | mg/L | 0.02189 | 235.39% |
| Li 610.362† | -29.9 | -0.0002 | mg/L | 0.00005 | -0.0002 | mg/L | 0.00005 | 27.17% |
| Mg 279.077† | 18.8 | 0.0067 | mg/L | 0.00085 | 0.0067 | mg/L | 0.00085 | 12.64% |
| Mn 257.610† | 177.5 | 0.0011 | mg/L | 0.00012 | 0.0011 | mg/L | 0.00012 | 10.51% |
| Mo 202.031† | 0.7 | 0.0001 | mg/L | 0.00049 | 0.0001 | mg/L | 0.00049 | 432.03% |
| Na 589.592† | 3023.1 | 0.1683 | mg/L | 0.00385 | 0.1683 | mg/L | 0.00385 | 2.29% |
| Ni 231.604† | 8.6 | 0.0008 | mg/L | 0.00020 | 0.0008 | mg/L | 0.00020 | 26.22% |
| P 214.914† | -1.0 | -0.0025 | mg/L | 0.00543 | -0.0025 | mg/L | 0.00543 | 220.72% |
| Pb 220.353† | 27.7 | 0.0142 | mg/L | 0.00327 | 0.0142 | mg/L | 0.00327 | 23.01% |
| Sb 206.836† | -1.0 | -0.0014 | mg/L | 0.00193 | -0.0014 | mg/L | 0.00193 | 142.94% |
| Se 196.026† | 6.3 | 0.0081 | mg/L | 0.00009 | 0.0081 | mg/L | 0.00009 | 1.12% |
| Si 251.611† | 156.2 | 0.0085 | mg/L | 0.00005 | 0.0085 | mg/L | 0.00005 | 0.60% |
| Sn 189.927† | -3.8 | -0.0015 | mg/L | 0.00051 | -0.0015 | mg/L | 0.00051 | 33.57% |
| Sr 421.552† | 512.0 | 0.0007 | mg/L | 0.00008 | 0.0007 | mg/L | 0.00008 | 11.22% |
| Ti 334.903† | 178.3 | 0.0007 | mg/L | 0.00013 | 0.0007 | mg/L | 0.00013 | 18.76% |
| Tl 190.801† | 1.2 | 0.0019 | mg/L | 0.00020 | 0.0019 | mg/L | 0.00020 | 10.28% |
| V 292.402† | -6.1 | -0.0002 | mg/L | 0.00013 | -0.0002 | mg/L | 0.00013 | 87.66% |
| Zn 213.857† | 153.5 | 0.0044 | mg/L | 0.00035 | 0.0044 | mg/L | 0.00035 | 8.02% |
| Zr 343.823† | 45.6 | 0.0003 | mg/L | 0.00010 | 0.0003 | mg/L | 0.00010 | 30.85% |
| W 207.912† | 11.2 | 0.0054 | mg/L | 0.00115 | 0.0054 | mg/L | 0.00115 | 21.43% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

==========

**Sequence No.: 7** **Autosampler Location: 26**
**Sample ID: lcs 440-436767_2-c** **Date Collected: 10/26/2017 11:58:47 AM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: lcs 440-436767_2-c**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 198.0 kPa | 0.65 L/min |

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**Mean Data: lcs 440-436767_2-c**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2645799.6 | 103.2 | % | 0.06 | | | | 0.05% |
| Ag 328.068† | 9214.7 | 0.0937 | mg/L | 0.00150 | 0.0937 | mg/L | 0.00150 | 1.60% |
| Al 308.215† | 2437.5 | 0.2321 | mg/L | 0.00937 | 0.2321 | mg/L | 0.00937 | 4.04% |
| As 188.979† | 130.5 | 0.1936 | mg/L | 0.00321 | 0.1936 | mg/L | 0.00321 | 1.66% |
| B 249.677† | 8084.4 | 0.1866 | mg/L | 0.00250 | 0.1866 | mg/L | 0.00250 | 1.34% |
| Ba 233.527† | 6510.7 | 0.1990 | mg/L | 0.00275 | 0.1990 | mg/L | 0.00275 | 1.38% |
| Be 313.107† | 163407.2 | 0.1912 | mg/L | 0.00067 | 0.1912 | mg/L | 0.00067 | 0.35% |
| Ca 315.887† | 2894.5 | 1.065 | mg/L | 0.0013 | 1.065 | mg/L | 0.0013 | 0.12% |
| Cd 214.440† | 6418.4 | 0.2028 | mg/L | 0.00155 | 0.2028 | mg/L | 0.00155 | 0.76% |
| Co 228.616† | 1827.9 | 0.2150 | mg/L | 0.00069 | 0.2150 | mg/L | 0.00069 | 0.32% |
| Cr 205.560† | 2678.7 | 0.2109 | mg/L | 0.00026 | 0.2109 | mg/L | 0.00026 | 0.12% |
| Cu 324.752† | 22626.2 | 0.1987 | mg/L | 0.00257 | 0.1987 | mg/L | 0.00257 | 1.29% |
| Fe 238.204† | 636.7 | 0.2065 | mg/L | 0.00024 | 0.2065 | mg/L | 0.00024 | 0.11% |
| K 766.490† | 5665.7 | 2.213 | mg/L | 0.0058 | 2.213 | mg/L | 0.0058 | 0.26% |
| Li 610.362† | 19957.8 | 0.1771 | mg/L | 0.00358 | 0.1771 | mg/L | 0.00358 | 2.02% |
| Mg 279.077† | 2932.4 | 1.046 | mg/L | 0.0039 | 1.046 | mg/L | 0.0039 | 0.37% |
| Mn 257.610† | 30210.4 | 0.1925 | mg/L | 0.00320 | 0.1925 | mg/L | 0.00320 | 1.66% |
| Mo 202.031† | 1332.2 | 0.2057 | mg/L | 0.00074 | 0.2057 | mg/L | 0.00074 | 0.36% |
| Na 589.592† | 48036.8 | 2.674 | mg/L | 0.0159 | 2.674 | mg/L | 0.0159 | 0.60% |
| Ni 231.604† | 2312.1 | 0.2090 | mg/L | 0.00149 | 0.2090 | mg/L | 0.00149 | 0.71% |
| P 214.914† | 89.7 | 0.1748 | mg/L | 0.00570 | 0.1748 | mg/L | 0.00570 | 3.26% |
| Pb 220.353† | 398.4 | 0.2048 | mg/L | 0.00271 | 0.2048 | mg/L | 0.00271 | 1.32% |
| Sb 206.836† | 149.5 | 0.2008 | mg/L | 0.00410 | 0.2008 | mg/L | 0.00410 | 2.04% |
| Se 196.026† | 136.2 | 0.1744 | mg/L | 0.00659 | 0.1744 | mg/L | 0.00659 | 3.78% |
| Si 251.611† | 16449.5 | 0.9085 | mg/L | 0.00971 | 0.9085 | mg/L | 0.00971 | 1.07% |
| Sn 189.927† | 485.2 | 0.1968 | mg/L | 0.00151 | 0.1968 | mg/L | 0.00151 | 0.77% |
| Sr 421.552† | 126823.2 | 0.1819 | mg/L | 0.00041 | 0.1819 | mg/L | 0.00041 | 0.22% |
| Ti 334.903† | 51770.7 | 0.2080 | mg/L | 0.00263 | 0.2080 | mg/L | 0.00263 | 1.27% |
| Tl 190.801† | 123.3 | 0.2031 | mg/L | 0.00581 | 0.2031 | mg/L | 0.00581 | 2.86% |
| V 292.402† | 7879.6 | 0.2029 | mg/L | 0.00262 | 0.2029 | mg/L | 0.00262 | 1.29% |
| Zn 213.857† | 6537.8 | 0.1851 | mg/L | 0.00314 | 0.1851 | mg/L | 0.00314 | 1.70% |
| Zr 343.823† | 27336.9 | 0.1915 | mg/L | 0.00182 | 0.1915 | mg/L | 0.00182 | 0.95% |
| W 207.912† | 416.8 | 0.1986 | mg/L | 0.00157 | 0.1986 | mg/L | 0.00157 | 0.79% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 8** **Autosampler Location: 27**
**Sample ID: 440-194417-e-1-e** **Date Collected: 10/26/2017 12:01:19 PM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: 440-194417-e-1-e**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 198.0 kPa | 0.65 L/min |

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**Mean Data: 440-194417-e-1-e**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2721447.4 | 106.2 | % | 0.81 | | | | 0.76% |
| Ag 328.068† | -19.3 | -0.0002 | mg/L | 0.00051 | -0.0002 | mg/L | 0.00051 | 295.85% |
| Al 308.215† | 2939.0 | 0.2868 | mg/L | 0.00158 | 0.2868 | mg/L | 0.00158 | 0.55% |
| As 188.979† | -4.6 | -0.0067 | mg/L | 0.00013 | -0.0067 | mg/L | 0.00013 | 1.97% |
| B 249.677† | 1299.1 | 0.0258 | mg/L | 0.00075 | 0.0258 | mg/L | 0.00075 | 2.91% |
| Ba 233.527† | 394.4 | 0.0120 | mg/L | 0.00025 | 0.0120 | mg/L | 0.00025 | 2.11% |
| Be 313.107† | -89.1 | -0.0001 | mg/L | 0.00014 | -0.0001 | mg/L | 0.00014 | 134.86% |
| Ca 315.887† | 22244.0 | 8.178 | mg/L | 0.0224 | 8.178 | mg/L | 0.0224 | 0.27% |
| Cd 214.440† | 7.4 | 0.0002 | mg/L | 0.00017 | 0.0002 | mg/L | 0.00017 | 77.44% |
| Co 228.616† | 20.1 | 0.0023 | mg/L | 0.00020 | 0.0023 | mg/L | 0.00020 | 8.73% |
| Cr 205.560† | 51.3 | 0.0040 | mg/L | 0.00005 | 0.0040 | mg/L | 0.00005 | 1.29% |
| Cu 324.752† | 598.7 | 0.0054 | mg/L | 0.00013 | 0.0054 | mg/L | 0.00013 | 2.43% |
| Fe 238.204† | 5319.6 | 1.722 | mg/L | 0.0030 | 1.722 | mg/L | 0.0030 | 0.17% |
| K 766.490† | 7413.1 | 2.895 | mg/L | 0.0292 | 2.895 | mg/L | 0.0292 | 1.01% |
| Li 610.362† | -68.5 | 0.0056 | mg/L | 0.00045 | 0.0056 | mg/L | 0.00045 | 8.00% |
| Mg 279.077† | 8185.8 | 2.919 | mg/L | 0.0010 | 2.919 | mg/L | 0.0010 | 0.03% |
| Mn 257.610† | 7710.2 | 0.0490 | mg/L | 0.00049 | 0.0490 | mg/L | 0.00049 | 1.01% |
| Mo 202.031† | 15.7 | 0.0025 | mg/L | 0.00004 | 0.0025 | mg/L | 0.00004 | 1.55% |
| Na 589.592† | 361149.6 | 20.10 | mg/L | 0.519 | 20.10 | mg/L | 0.519 | 2.58% |
| Ni 231.604† | 73.7 | 0.0066 | mg/L | 0.00066 | 0.0066 | mg/L | 0.00066 | 10.02% |
| P 214.914† | 2778.2 | 5.825 | mg/L | 0.0760 | 5.825 | mg/L | 0.0760 | 1.30% |
| Pb 220.353† | 21.8 | 0.0112 | mg/L | 0.00389 | 0.0112 | mg/L | 0.00389 | 34.66% |
| Sb 206.836† | -0.9 | -0.0011 | mg/L | 0.00375 | -0.0011 | mg/L | 0.00375 | 326.35% |
| Se 196.026† | 0.9 | 0.0019 | mg/L | 0.00103 | 0.0019 | mg/L | 0.00103 | 55.10% |
| Si 251.611† | 62368.6 | 3.502 | mg/L | 0.0203 | 3.502 | mg/L | 0.0203 | 0.58% |
| Sn 189.927† | 2.4 | 0.0008 | mg/L | 0.00085 | 0.0008 | mg/L | 0.00085 | 109.30% |
| Sr 421.552† | 29169.0 | 0.0416 | mg/L | 0.00021 | 0.0416 | mg/L | 0.00021 | 0.51% |
| Ti 334.903† | 1016.2 | 0.0042 | mg/L | 0.00037 | 0.0042 | mg/L | 0.00037 | 8.76% |
| Tl 190.801† | 1.3 | 0.0022 | mg/L | 0.00304 | 0.0022 | mg/L | 0.00304 | 140.72% |
| V 292.402† | 100.8 | 0.0028 | mg/L | 0.00018 | 0.0028 | mg/L | 0.00018 | 6.37% |
| Zn 213.857† | 689.0 | 0.0193 | mg/L | 0.00035 | 0.0193 | mg/L | 0.00035 | 1.80% |
| Zr 343.823† | 216.4 | 0.0015 | mg/L | 0.00023 | 0.0015 | mg/L | 0.00023 | 15.25% |
| W 207.912† | 6.8 | 0.0032 | mg/L | 0.00208 | 0.0032 | mg/L | 0.00208 | 66.12% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 9** **Autosampler Location: 28**
**Sample ID: 440-194417-e-1-f ms** **Date Collected: 10/26/2017 12:03:14 PM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: 440-194417-e-1-f ms**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: 440-194417-e-1-f ms**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2656295.9 | 103.6 | % | 0.40 | | | | 0.38% |
| Ag 328.068† | -32.6 | -0.0003 | mg/L | 0.00016 | -0.0003 | mg/L | 0.00016 | 52.24% |
| Al 308.215† | 3065.0 | 0.2992 | mg/L | 0.00359 | 0.2992 | mg/L | 0.00359 | 1.20% |
| As 188.979† | -5.9 | -0.0085 | mg/L | 0.00213 | -0.0085 | mg/L | 0.00213 | 24.88% |
| B 249.677† | 1244.5 | 0.0244 | mg/L | 0.00056 | 0.0244 | mg/L | 0.00056 | 2.28% |
| Ba 233.527† | 406.1 | 0.0124 | mg/L | 0.00004 | 0.0124 | mg/L | 0.00004 | 0.34% |
| Be 313.107† | -253.8 | -0.0003 | mg/L | 0.00006 | -0.0003 | mg/L | 0.00006 | 20.20% |
| Ca 315.887† | 22705.1 | 8.347 | mg/L | 0.0635 | 8.347 | mg/L | 0.0635 | 0.76% |
| Cd 214.440† | 2.3 | 0.0001 | mg/L | 0.00008 | 0.0001 | mg/L | 0.00008 | 138.24% |
| Co 228.616† | 15.6 | 0.0018 | mg/L | 0.00004 | 0.0018 | mg/L | 0.00004 | 2.01% |
| Cr 205.560† | 49.6 | 0.0039 | mg/L | 0.00013 | 0.0039 | mg/L | 0.00013 | 3.37% |
| Cu 324.752† | 592.3 | 0.0053 | mg/L | 0.00020 | 0.0053 | mg/L | 0.00020 | 3.74% |
| Fe 238.204† | 5444.2 | 1.763 | mg/L | 0.0058 | 1.763 | mg/L | 0.0058 | 0.33% |
| K 766.490† | 7827.1 | 3.057 | mg/L | 0.0049 | 3.057 | mg/L | 0.0049 | 0.16% |
| Li 610.362† | -236.3 | 0.0042 | mg/L | 0.00116 | 0.0042 | mg/L | 0.00116 | 27.46% |
| Mg 279.077† | 8420.8 | 3.003 | mg/L | 0.0507 | 3.003 | mg/L | 0.0507 | 1.69% |
| Mn 257.610† | 7811.4 | 0.0497 | mg/L | 0.00046 | 0.0497 | mg/L | 0.00046 | 0.92% |
| Mo 202.031† | 13.6 | 0.0021 | mg/L | 0.00032 | 0.0021 | mg/L | 0.00032 | 14.84% |
| Na 589.592† | 383162.2 | 21.33 | mg/L | 0.208 | 21.33 | mg/L | 0.208 | 0.98% |
| Ni 231.604† | 70.3 | 0.0063 | mg/L | 0.00008 | 0.0063 | mg/L | 0.00008 | 1.19% |
| P 214.914† | 2744.9 | 5.755 | mg/L | 0.0077 | 5.755 | mg/L | 0.0077 | 0.13% |
| Pb 220.353† | 14.8 | 0.0076 | mg/L | 0.00096 | 0.0076 | mg/L | 0.00096 | 12.59% |
| Sb 206.836† | -0.2 | -0.0002 | mg/L | 0.00567 | -0.0002 | mg/L | 0.00567 | >999.9% |
| Se 196.026† | 4.5 | 0.0065 | mg/L | 0.00080 | 0.0065 | mg/L | 0.00080 | 12.34% |
| Si 251.611† | 64090.6 | 3.599 | mg/L | 0.0334 | 3.599 | mg/L | 0.0334 | 0.93% |
| Sn 189.927† | 0.2 | -0.0001 | mg/L | 0.00028 | -0.0001 | mg/L | 0.00028 | 315.26% |
| Sr 421.552† | 29907.1 | 0.0427 | mg/L | 0.00002 | 0.0427 | mg/L | 0.00002 | 0.04% |
| Ti 334.903† | 977.7 | 0.0041 | mg/L | 0.00002 | 0.0041 | mg/L | 0.00002 | 0.47% |
| Tl 190.801† | -4.1 | -0.0067 | mg/L | 0.00341 | -0.0067 | mg/L | 0.00341 | 51.13% |
| V 292.402† | 99.6 | 0.0028 | mg/L | 0.00073 | 0.0028 | mg/L | 0.00073 | 26.56% |
| Zn 213.857† | 700.7 | 0.0196 | mg/L | 0.00007 | 0.0196 | mg/L | 0.00007 | 0.37% |
| Zr 343.823† | 177.3 | 0.0012 | mg/L | 0.00075 | 0.0012 | mg/L | 0.00075 | 60.54% |
| W 207.912† | 5.2 | 0.0024 | mg/L | 0.00090 | 0.0024 | mg/L | 0.00090 | 38.25% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 10** **Autosampler Location: 29**
**Sample ID: 440-194417-e-1-g msd** **Date Collected: 10/26/2017 12:05:11 PM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: 440-194417-e-1-g msd**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: 440-194417-e-1-g msd**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2568515.7 | 100.2 | % | 1.54 | | | | 1.53% |
| Ag 328.068† | 9133.7 | 0.0929 | mg/L | 0.00031 | 0.0929 | mg/L | 0.00031 | 0.34% |
| Al 308.215† | 5003.6 | 0.4825 | mg/L | 0.00346 | 0.4825 | mg/L | 0.00346 | 0.72% |
| As 188.979† | 121.7 | 0.1808 | mg/L | 0.00160 | 0.1808 | mg/L | 0.00160 | 0.88% |
| B 249.677† | 9131.1 | 0.2067 | mg/L | 0.00036 | 0.2067 | mg/L | 0.00036 | 0.18% |
| Ba 233.527† | 6691.2 | 0.2045 | mg/L | 0.00098 | 0.2045 | mg/L | 0.00098 | 0.48% |
| Be 313.107† | 159197.1 | 0.1863 | mg/L | 0.00159 | 0.1863 | mg/L | 0.00159 | 0.86% |
| Ca 315.887† | 24939.1 | 9.169 | mg/L | 0.2081 | 9.169 | mg/L | 0.2081 | 2.27% |
| Cd 214.440† | 6225.2 | 0.1967 | mg/L | 0.00079 | 0.1967 | mg/L | 0.00079 | 0.40% |
| Co 228.616† | 1758.7 | 0.2068 | mg/L | 0.00560 | 0.2068 | mg/L | 0.00560 | 2.71% |
| Cr 205.560† | 2621.3 | 0.2064 | mg/L | 0.00558 | 0.2064 | mg/L | 0.00558 | 2.70% |
| Cu 324.752† | 23055.4 | 0.2026 | mg/L | 0.00168 | 0.2026 | mg/L | 0.00168 | 0.83% |
| Fe 238.204† | 5811.2 | 1.882 | mg/L | 0.0550 | 1.882 | mg/L | 0.0550 | 2.92% |
| K 766.490† | 13197.3 | 5.155 | mg/L | 0.1700 | 5.155 | mg/L | 0.1700 | 3.30% |
| Li 610.362† | 19719.1 | 0.1811 | mg/L | 0.00068 | 0.1811 | mg/L | 0.00068 | 0.38% |
| Mg 279.077† | 11065.3 | 3.946 | mg/L | 0.0045 | 3.946 | mg/L | 0.0045 | 0.12% |
| Mn 257.610† | 37092.5 | 0.2363 | mg/L | 0.00118 | 0.2363 | mg/L | 0.00118 | 0.50% |
| Mo 202.031† | 1304.0 | 0.2014 | mg/L | 0.00602 | 0.2014 | mg/L | 0.00602 | 2.99% |
| Na 589.592† | 397450.6 | 22.13 | mg/L | 1.138 | 22.13 | mg/L | 1.138 | 5.14% |
| Ni 231.604† | 2268.6 | 0.2050 | mg/L | 0.00542 | 0.2050 | mg/L | 0.00542 | 2.64% |
| P 214.914† | 2857.6 | 5.979 | mg/L | 0.2018 | 5.979 | mg/L | 0.2018 | 3.37% |
| Pb 220.353† | 387.2 | 0.1991 | mg/L | 0.00521 | 0.1991 | mg/L | 0.00521 | 2.62% |
| Sb 206.836† | 144.8 | 0.1946 | mg/L | 0.00950 | 0.1946 | mg/L | 0.00950 | 4.88% |
| Se 196.026† | 135.8 | 0.1747 | mg/L | 0.00095 | 0.1747 | mg/L | 0.00095 | 0.54% |
| Si 251.611† | 79817.1 | 4.468 | mg/L | 0.0314 | 4.468 | mg/L | 0.0314 | 0.70% |
| Sn 189.927† | 474.4 | 0.1922 | mg/L | 0.00291 | 0.1922 | mg/L | 0.00291 | 1.51% |
| Sr 421.552† | 149761.8 | 0.2146 | mg/L | 0.00343 | 0.2146 | mg/L | 0.00343 | 1.60% |
| Ti 334.903† | 51669.3 | 0.2077 | mg/L | 0.00063 | 0.2077 | mg/L | 0.00063 | 0.30% |
| Tl 190.801† | 118.9 | 0.1959 | mg/L | 0.01051 | 0.1959 | mg/L | 0.01051 | 5.37% |
| V 292.402† | 7822.3 | 0.2016 | mg/L | 0.00082 | 0.2016 | mg/L | 0.00082 | 0.40% |
| Zn 213.857† | 7047.5 | 0.1994 | mg/L | 0.00060 | 0.1994 | mg/L | 0.00060 | 0.30% |
| Zr 343.823† | 26799.7 | 0.1877 | mg/L | 0.00016 | 0.1877 | mg/L | 0.00016 | 0.08% |
| W 207.912† | 399.3 | 0.1901 | mg/L | 0.00517 | 0.1901 | mg/L | 0.00517 | 2.72% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 11** **Autosampler Location: 4**
**Sample ID: CCV 4447505** **Date Collected: 10/26/2017 12:07:06 PM**
**Analyst:** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: CCV 4447505**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: CCV 4447505**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2642209.8 | 103.1 | % | 0.93 | | | | 0.90% |
| Ag 328.068† | 48301.5 | 0.4912 | mg/L | 0.00976 | 0.4912 | mg/L | 0.00976 | 1.99% |
| Al 308.215† | 10129.7 | 0.9585 | mg/L | 0.01872 | 0.9585 | mg/L | 0.01872 | 1.95% |
| As 188.979† | 687.0 | 1.019 | mg/L | 0.0102 | 1.019 | mg/L | 0.0102 | 1.00% |
| B 249.677† | 41990.1 | 0.9696 | mg/L | 0.02069 | 0.9696 | mg/L | 0.02069 | 2.13% |
| Ba 233.527† | 32431.2 | 0.9912 | mg/L | 0.01682 | 0.9912 | mg/L | 0.01682 | 1.70% |
| Be 313.107† | 845803.2 | 0.9896 | mg/L | 0.00656 | 0.9896 | mg/L | 0.00656 | 0.66% |
| Ca 315.887† | 13666.1 | 5.027 | mg/L | 0.0881 | 5.027 | mg/L | 0.0881 | 1.75% |
| Cd 214.440† | 32936.7 | 1.041 | mg/L | 0.0266 | 1.041 | mg/L | 0.0266 | 2.56% |
| Co 228.616† | 8858.6 | 1.042 | mg/L | 0.0215 | 1.042 | mg/L | 0.0215 | 2.06% |
| Cr 205.560† | 12791.3 | 1.007 | mg/L | 0.0192 | 1.007 | mg/L | 0.0192 | 1.90% |
| Cu 324.752† | 113752.5 | 0.9988 | mg/L | 0.01788 | 0.9988 | mg/L | 0.01788 | 1.79% |
| Fe 238.204† | 3098.7 | 1.005 | mg/L | 0.0184 | 1.005 | mg/L | 0.0184 | 1.83% |
| K 766.490† | 27964.7 | 10.92 | mg/L | 0.283 | 10.92 | mg/L | 0.283 | 2.59% |
| Li 610.362† | 111407.3 | 0.9878 | mg/L | 0.01664 | 0.9878 | mg/L | 0.01664 | 1.68% |
| Mg 279.077† | 13848.1 | 4.940 | mg/L | 0.0771 | 4.940 | mg/L | 0.0771 | 1.56% |
| Mn 257.610† | 153232.4 | 0.9764 | mg/L | 0.01515 | 0.9764 | mg/L | 0.01515 | 1.55% |
| Mo 202.031† | 6367.5 | 0.9834 | mg/L | 0.01311 | 0.9834 | mg/L | 0.01311 | 1.33% |
| Na 589.592† | 210580.3 | 11.72 | mg/L | 0.390 | 11.72 | mg/L | 0.390 | 3.33% |
| Ni 231.604† | 10935.2 | 0.9886 | mg/L | 0.02110 | 0.9886 | mg/L | 0.02110 | 2.13% |
| P 214.914† | 475.5 | 0.9319 | mg/L | 0.01468 | 0.9319 | mg/L | 0.01468 | 1.58% |
| Pb 220.353† | 1977.0 | 1.016 | mg/L | 0.0122 | 1.016 | mg/L | 0.0122 | 1.20% |
| Sb 206.836† | 739.9 | 0.9936 | mg/L | 0.00705 | 0.9936 | mg/L | 0.00705 | 0.71% |
| Se 196.026† | 780.2 | 1.001 | mg/L | 0.0092 | 1.001 | mg/L | 0.0092 | 0.92% |
| Si 251.611† | 85833.3 | 4.745 | mg/L | 0.0787 | 4.745 | mg/L | 0.0787 | 1.66% |
| Sn 189.927† | 2486.4 | 1.008 | mg/L | 0.0077 | 1.008 | mg/L | 0.0077 | 0.76% |
| Sr 421.552† | 673730.2 | 0.9666 | mg/L | 0.01220 | 0.9666 | mg/L | 0.01220 | 1.26% |
| Ti 334.903† | 256525.2 | 1.031 | mg/L | 0.0044 | 1.031 | mg/L | 0.0044 | 0.43% |
| Tl 190.801† | 625.1 | 1.030 | mg/L | 0.0214 | 1.030 | mg/L | 0.0214 | 2.08% |
| V 292.402† | 39976.4 | 1.029 | mg/L | 0.0214 | 1.029 | mg/L | 0.0214 | 2.08% |
| Zn 213.857† | 34973.3 | 0.9909 | mg/L | 0.01780 | 0.9909 | mg/L | 0.01780 | 1.80% |
| Zr 343.823† | 143073.8 | 1.002 | mg/L | 0.0202 | 1.002 | mg/L | 0.0202 | 2.02% |
| W 207.912† | 2058.3 | 0.9802 | mg/L | 0.00134 | 0.9802 | mg/L | 0.00134 | 0.14% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 12** **Autosampler Location: 1**
**Sample ID: CCB 4447504** **Date Collected: 10/26/2017 12:09:06 PM**
**Analyst:** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: CCB 4447504**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: CCB 4447504**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2643812.2 | 103.2 | % | 0.21 | | | | 0.20% |
| Ag 328.068† | 21.7 | 0.0002 | mg/L | 0.00018 | 0.0002 | mg/L | 0.00018 | 80.10% |
| Al 308.215† | -40.4 | -0.0041 | mg/L | 0.00959 | -0.0041 | mg/L | 0.00959 | 234.71% |
| As 188.979† | -3.3 | -0.0048 | mg/L | 0.00314 | -0.0048 | mg/L | 0.00314 | 64.85% |
| B 249.677† | 60.1 | 0.0014 | mg/L | 0.00021 | 0.0014 | mg/L | 0.00021 | 14.99% |
| Ba 233.527† | 10.0 | 0.0003 | mg/L | 0.00008 | 0.0003 | mg/L | 0.00008 | 26.46% |
| Be 313.107† | -48.1 | -0.0001 | mg/L | 0.00007 | -0.0001 | mg/L | 0.00007 | 130.94% |
| Ca 315.887† | 19.9 | 0.0073 | mg/L | 0.00029 | 0.0073 | mg/L | 0.00029 | 3.94% |
| Cd 214.440† | 8.0 | 0.0003 | mg/L | 0.00002 | 0.0003 | mg/L | 0.00002 | 5.95% |
| Co 228.616† | 7.3 | 0.0009 | mg/L | 0.00026 | 0.0009 | mg/L | 0.00026 | 30.13% |
| Cr 205.560† | 1.4 | 0.0001 | mg/L | 0.00003 | 0.0001 | mg/L | 0.00003 | 28.74% |
| Cu 324.752† | 174.2 | 0.0015 | mg/L | 0.00006 | 0.0015 | mg/L | 0.00006 | 3.67% |
| Fe 238.204† | 4.7 | 0.0015 | mg/L | 0.00020 | 0.0015 | mg/L | 0.00020 | 13.29% |
| K 766.490† | -22.6 | -0.0088 | mg/L | 0.01177 | -0.0088 | mg/L | 0.01177 | 133.62% |
| Li 610.362† | -108.6 | -0.0010 | mg/L | 0.00054 | -0.0010 | mg/L | 0.00054 | 56.92% |
| Mg 279.077† | 0.2 | 0.0001 | mg/L | 0.00199 | 0.0001 | mg/L | 0.00199 | >999.9% |
| Mn 257.610† | 7.3 | 0.0000 | mg/L | 0.00004 | 0.0000 | mg/L | 0.00004 | 83.36% |
| Mo 202.031† | 93.7 | 0.0145 | mg/L | 0.00199 | 0.0145 | mg/L | 0.00199 | 13.73% |
| Na 589.592† | 1321.3 | 0.0736 | mg/L | 0.00026 | 0.0736 | mg/L | 0.00026 | 0.35% |
| Ni 231.604† | 9.1 | 0.0008 | mg/L | 0.00005 | 0.0008 | mg/L | 0.00005 | 6.19% |
| P 214.914† | -0.2 | -0.0009 | mg/L | 0.00078 | -0.0009 | mg/L | 0.00078 | 88.40% |
| Pb 220.353† | 4.8 | 0.0025 | mg/L | 0.00217 | 0.0025 | mg/L | 0.00217 | 87.51% |
| Sb 206.836† | 4.1 | 0.0057 | mg/L | 0.00220 | 0.0057 | mg/L | 0.00220 | 38.57% |
| Se 196.026† | 2.6 | 0.0033 | mg/L | 0.00324 | 0.0033 | mg/L | 0.00324 | 97.44% |
| Si 251.611† | 120.4 | 0.0063 | mg/L | 0.00038 | 0.0063 | mg/L | 0.00038 | 6.06% |
| Sn 189.927† | -0.7 | -0.0003 | mg/L | 0.00004 | -0.0003 | mg/L | 0.00004 | 15.18% |
| Sr 421.552† | 156.2 | 0.0002 | mg/L | 0.00002 | 0.0002 | mg/L | 0.00002 | 8.71% |
| Ti 334.903† | 225.6 | 0.0009 | mg/L | 0.00029 | 0.0009 | mg/L | 0.00029 | 32.36% |
| Tl 190.801† | 0.2 | 0.0003 | mg/L | 0.00082 | 0.0003 | mg/L | 0.00082 | 273.03% |
| V 292.402† | 11.4 | 0.0003 | mg/L | 0.00009 | 0.0003 | mg/L | 0.00009 | 31.74% |
| Zn 213.857† | 317.1 | 0.0090 | mg/L | 0.00012 | 0.0090 | mg/L | 0.00012 | 1.37% |
| Zr 343.823† | 25.9 | 0.0002 | mg/L | 0.00021 | 0.0002 | mg/L | 0.00021 | 116.01% |
| W 207.912† | 9.8 | 0.0046 | mg/L | 0.00160 | 0.0046 | mg/L | 0.00160 | 34.64% |


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**Analytical Sequence**
**Method: 170824_ICP7**

| Seq. | Loc. | ID | Status |
|---|---|---|---|
| 1 | 17 | 440-194758-a-1-a@200 | Analyzed |
| 2 | 21 | 440-192850-a-4-d@20 | Analyzed |
| 3 | 22 | 440-192850-a-10-d@20 | Analyzed |
| 4 | 23 | 440-192850-a-11-b@20 | Analyzed |
| 5 | 24 | 440-192979-b-1-e@20 | Analyzed |
| 6 | 25 | mb 440-436767_1-c | Analyzed |
| 7 | 26 | lcs 440-436767_2-c | Analyzed |
| 8 | 27 | 440-194417-e-1-e | Analyzed |
| 9 | 28 | 440-194417-e-1-f ms | Analyzed |
| 10 | 29 | 440-194417-e-1-g msd | Analyzed |
| 11 | 4 | CCV 4447505 | Analyzed |
| 12 | 1 | CCB 4447504 | Analyzed |


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**Analysis Begun**

**Start Time: 10/26/2017 12:24:28 PM** **Plasma On Time: 10/26/2017 9:24:37 AM**
**Logged In Analyst: IRVINSTICP7** **Technique: ICP Continuous**
**Spectrometer: Optima 8300** **Autosampler: ESI**

**Sample Information File: C:\Users\Public\PerkinElmer\ICP\Data\Sample Information\CP 171026-1.sif**
**Batch ID:**
**Results Data Set: 171026-1 ICP7**
**Results Library: C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb**

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**Sequence No.: 1** **Autosampler Location: 30**
**Sample ID: 440-194417-e-1-ePDS** **Date Collected: 10/26/2017 12:24:41 PM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time:**

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**Nebulizer Parameters: 440-194417-e-1-ePDS**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 198.0 kPa | 0.65 L/min |

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**Mean Data: 440-194417-e-1-ePDS**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2642604.8 | 103.1 | % | 0.30 | | | | 0.30% |
| Ag 328.068† | 8634.8 | 0.0877 | mg/L | 0.00006 | 0.0877 | mg/L | 0.00006 | 0.06% |
| Al 308.215† | 4655.6 | 0.4485 | mg/L | 0.00404 | 0.4485 | mg/L | 0.00404 | 0.90% |
| As 188.979† | 119.7 | 0.1778 | mg/L | 0.00369 | 0.1778 | mg/L | 0.00369 | 2.07% |
| B 249.677† | 8658.5 | 0.1955 | mg/L | 0.00295 | 0.1955 | mg/L | 0.00295 | 1.51% |
| Ba 233.527† | 6265.1 | 0.1915 | mg/L | 0.00240 | 0.1915 | mg/L | 0.00240 | 1.25% |
| Be 313.107† | 149083.9 | 0.1744 | mg/L | 0.00032 | 0.1744 | mg/L | 0.00032 | 0.18% |
| Ca 315.887† | 25143.2 | 9.244 | mg/L | 0.0491 | 9.244 | mg/L | 0.0491 | 0.53% |
| Cd 214.440† | 5797.2 | 0.1832 | mg/L | 0.00153 | 0.1832 | mg/L | 0.00153 | 0.83% |
| Co 228.616† | 1692.5 | 0.1990 | mg/L | 0.00120 | 0.1990 | mg/L | 0.00120 | 0.60% |
| Cr 205.560† | 2493.7 | 0.1964 | mg/L | 0.00230 | 0.1964 | mg/L | 0.00230 | 1.17% |
| Cu 324.752† | 21649.9 | 0.1902 | mg/L | 0.00194 | 0.1902 | mg/L | 0.00194 | 1.02% |
| Fe 238.204† | 6021.7 | 1.950 | mg/L | 0.0068 | 1.950 | mg/L | 0.0068 | 0.35% |
| K 766.490† | 13127.4 | 5.127 | mg/L | 0.0600 | 5.127 | mg/L | 0.0600 | 1.17% |
| Li 610.362† | 18651.5 | 0.1717 | mg/L | 0.00138 | 0.1717 | mg/L | 0.00138 | 0.80% |
| Mg 279.077† | 10641.8 | 3.795 | mg/L | 0.0357 | 3.795 | mg/L | 0.0357 | 0.94% |
| Mn 257.610† | 34831.1 | 0.2219 | mg/L | 0.00176 | 0.2219 | mg/L | 0.00176 | 0.79% |
| Mo 202.031† | 1365.6 | 0.2109 | mg/L | 0.00208 | 0.2109 | mg/L | 0.00208 | 0.99% |
| Na 589.592† | 415501.7 | 23.13 | mg/L | 0.226 | 23.13 | mg/L | 0.226 | 0.98% |
| Ni 231.604† | 2147.2 | 0.1941 | mg/L | 0.00154 | 0.1941 | mg/L | 0.00154 | 0.79% |
| P 214.914† | 2841.4 | 5.945 | mg/L | 0.0500 | 5.945 | mg/L | 0.0500 | 0.84% |
| Pb 220.353† | 361.3 | 0.1858 | mg/L | 0.00192 | 0.1858 | mg/L | 0.00192 | 1.03% |
| Sb 206.836† | 144.3 | 0.1941 | mg/L | 0.00327 | 0.1941 | mg/L | 0.00327 | 1.68% |
| Se 196.026† | 126.4 | 0.1625 | mg/L | 0.00762 | 0.1625 | mg/L | 0.00762 | 4.69% |
| Si 251.611† | 78376.2 | 4.386 | mg/L | 0.0470 | 4.386 | mg/L | 0.0470 | 1.07% |
| Sn 189.927† | 492.6 | 0.1996 | mg/L | 0.00143 | 0.1996 | mg/L | 0.00143 | 0.72% |
| Sr 421.552† | 144274.0 | 0.2068 | mg/L | 0.00117 | 0.2068 | mg/L | 0.00117 | 0.57% |
| Ti 334.903† | 53543.2 | 0.2152 | mg/L | 0.00257 | 0.2152 | mg/L | 0.00257 | 1.19% |
| Tl 190.801† | 109.5 | 0.1807 | mg/L | 0.00227 | 0.1807 | mg/L | 0.00227 | 1.26% |
| V 292.402† | 7486.6 | 0.1929 | mg/L | 0.00238 | 0.1929 | mg/L | 0.00238 | 1.23% |
| Zn 213.857† | 6644.2 | 0.1879 | mg/L | 0.00244 | 0.1879 | mg/L | 0.00244 | 1.30% |
| Zr 343.823† | 28059.5 | 0.1966 | mg/L | 0.00236 | 0.1966 | mg/L | 0.00236 | 1.20% |
| W 207.912† | 415.8 | 0.1981 | mg/L | 0.00228 | 0.1981 | mg/L | 0.00228 | 1.15% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 2 Autosampler Location: 31
Sample ID: 440-194417-e-1-eSD@5 Date Collected: 10/26/2017 12:26:44 PM
Analyst: EN Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194417-e-1-eSD@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194417-e-1-eSD@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2680143.6 | 104.6 | % | 1.20 | | | | 1.15% |
| Ag 328.068† | -20.5 | -0.0002 | mg/L | 0.00005 | -0.0002 | mg/L | 0.00005 | 22.10% |
| Al 308.215† | 491.4 | 0.0479 | mg/L | 0.00248 | 0.0479 | mg/L | 0.00248 | 5.17% |
| As 188.979† | -1.3 | -0.0019 | mg/L | 0.00074 | -0.0019 | mg/L | 0.00074 | 38.22% |
| B 249.677† | 312.3 | 0.0064 | mg/L | 0.00018 | 0.0064 | mg/L | 0.00018 | 2.83% |
| Ba 233.527† | 86.6 | 0.0026 | mg/L | 0.00007 | 0.0026 | mg/L | 0.00007 | 2.56% |
| Be 313.107† | -111.5 | -0.0001 | mg/L | 0.00024 | -0.0001 | mg/L | 0.00024 | 185.51% |
| Ca 315.887† | 4495.3 | 1.653 | mg/L | 0.0021 | 1.653 | mg/L | 0.0021 | 0.13% |
| Cd 214.440† | 7.2 | 0.0002 | mg/L | 0.00018 | 0.0002 | mg/L | 0.00018 | 77.80% |
| Co 228.616† | 11.0 | 0.0013 | mg/L | 0.00018 | 0.0013 | mg/L | 0.00018 | 14.32% |
| Cr 205.560† | 15.8 | 0.0012 | mg/L | 0.00002 | 0.0012 | mg/L | 0.00002 | 1.85% |
| Cu 324.752† | 207.6 | 0.0018 | mg/L | 0.00044 | 0.0018 | mg/L | 0.00044 | 23.58% |
| Fe 238.204† | 1081.8 | 0.3503 | mg/L | 0.00109 | 0.3503 | mg/L | 0.00109 | 0.31% |
| K 766.490† | 1347.1 | 0.5262 | mg/L | 0.03185 | 0.5262 | mg/L | 0.03185 | 6.05% |
| Li 610.362† | 22.3 | 0.0014 | mg/L | 0.00079 | 0.0014 | mg/L | 0.00079 | 54.73% |
| Mg 279.077† | 1651.9 | 0.5891 | mg/L | 0.00059 | 0.5891 | mg/L | 0.00059 | 0.10% |
| Mn 257.610† | 1521.1 | 0.0097 | mg/L | 0.00020 | 0.0097 | mg/L | 0.00020 | 2.12% |
| Mo 202.031† | 10.7 | 0.0017 | mg/L | 0.00043 | 0.0017 | mg/L | 0.00043 | 26.00% |
| Na 589.592† | 66086.3 | 3.679 | mg/L | 0.1212 | 3.679 | mg/L | 0.1212 | 3.30% |
| Ni 231.604† | 23.8 | 0.0021 | mg/L | 0.00031 | 0.0021 | mg/L | 0.00031 | 14.38% |
| P 214.914† | 561.8 | 1.178 | mg/L | 0.0115 | 1.178 | mg/L | 0.0115 | 0.97% |
| Pb 220.353† | 0.5 | 0.0003 | mg/L | 0.00280 | 0.0003 | mg/L | 0.00280 | >999.9% |
| Sb 206.836† | -0.1 | -0.0001 | mg/L | 0.00013 | -0.0001 | mg/L | 0.00013 | 128.44% |
| Se 196.026† | -0.2 | -0.0002 | mg/L | 0.00121 | -0.0002 | mg/L | 0.00121 | 683.19% |
| Si 251.611† | 12658.6 | 0.7108 | mg/L | 0.00096 | 0.7108 | mg/L | 0.00096 | 0.13% |
| Sn 189.927† | -5.6 | -0.0023 | mg/L | 0.00020 | -0.0023 | mg/L | 0.00020 | 8.90% |
| Sr 421.552† | 6096.3 | 0.0087 | mg/L | 0.00014 | 0.0087 | mg/L | 0.00014 | 1.60% |
| Ti 334.903† | 245.5 | 0.0010 | mg/L | 0.00006 | 0.0010 | mg/L | 0.00006 | 6.39% |
| Tl 190.801† | -1.0 | -0.0016 | mg/L | 0.00035 | -0.0016 | mg/L | 0.00035 | 21.56% |
| V 292.402† | 4.0 | 0.0001 | mg/L | 0.00003 | 0.0001 | mg/L | 0.00003 | 20.56% |
| Zn 213.857† | 118.2 | 0.0033 | mg/L | 0.00023 | 0.0033 | mg/L | 0.00023 | 7.12% |
| Zr 343.823† | 22.6 | 0.0002 | mg/L | 0.00003 | 0.0002 | mg/L | 0.00003 | 21.62% |
| W 207.912† | 0.6 | 0.0003 | mg/L | 0.00105 | 0.0003 | mg/L | 0.00105 | 421.11% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 3 Autosampler Location: 32
Sample ID: mb 440-437263_1-c Date Collected: 10/26/2017 12:29:16 PM
Analyst: EN Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: mb 440-437263_1-c

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: mb 440-437263_1-c

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2583265.2 | 100.8 | % | 0.13 | | | | 0.13% |
| Ag 328.068† | 8.9 | 0.0001 | mg/L | 0.00033 | 0.0001 | mg/L | 0.00033 | 361.52% |
| Al 308.215† | 414.3 | 0.0406 | mg/L | 0.00075 | 0.0406 | mg/L | 0.00075 | 1.85% |
| As 188.979† | -2.0 | -0.0030 | mg/L | 0.00104 | -0.0030 | mg/L | 0.00104 | 34.37% |
| B 249.677† | 349.1 | 0.0081 | mg/L | 0.00009 | 0.0081 | mg/L | 0.00009 | 1.13% |
| Ba 233.527† | 9.3 | 0.0003 | mg/L | 0.00010 | 0.0003 | mg/L | 0.00010 | 35.98% |
| Be 313.107† | -393.2 | -0.0005 | mg/L | 0.00004 | -0.0005 | mg/L | 0.00004 | 9.61% |
| Ca 315.887† | 153.5 | 0.0564 | mg/L | 0.00629 | 0.0564 | mg/L | 0.00629 | 11.15% |
| Cd 214.440† | 1.1 | 0.0000 | mg/L | 0.00012 | 0.0000 | mg/L | 0.00012 | 349.73% |
| Co 228.616† | -1.4 | -0.0002 | mg/L | 0.00023 | -0.0002 | mg/L | 0.00023 | 142.64% |
| Cr 205.560† | 4.9 | 0.0004 | mg/L | 0.00005 | 0.0004 | mg/L | 0.00005 | 13.59% |
| Cu 324.752† | 8829.3 | 0.0775 | mg/L | 0.00016 | 0.0775 | mg/L | 0.00016 | 0.20% |
| Fe 238.204† | 19.9 | 0.0064 | mg/L | 0.00198 | 0.0064 | mg/L | 0.00198 | 30.70% |
| K 766.490† | 65.0 | 0.0254 | mg/L | 0.02485 | 0.0254 | mg/L | 0.02485 | 97.87% |
| Li 610.362† | -89.3 | -0.0007 | mg/L | 0.00005 | -0.0007 | mg/L | 0.00005 | 7.34% |
| Mg 279.077† | 6.9 | 0.0025 | mg/L | 0.00151 | 0.0025 | mg/L | 0.00151 | 61.34% |
| Mn 257.610† | -0.6 | -0.0000 | mg/L | 0.00003 | -0.0000 | mg/L | 0.00003 | 825.08% |
| Mo 202.031† | 2.8 | 0.0004 | mg/L | 0.00043 | 0.0004 | mg/L | 0.00043 | 97.62% |
| Na 589.592† | 7055069.5 | 392.8 | mg/L | 4.32 | 392.8 | mg/L | 4.32 | 1.10% |
| Ni 231.604† | 38.9 | 0.0035 | mg/L | 0.00004 | 0.0035 | mg/L | 0.00004 | 1.14% |
| P 214.914† | 0.1 | -0.0003 | mg/L | 0.00610 | -0.0003 | mg/L | 0.00610 | >999.9% |
| Pb 220.353† | 11.1 | 0.0056 | mg/L | 0.00056 | 0.0056 | mg/L | 0.00056 | 9.97% |
| Sb 206.836† | -2.0 | -0.0026 | mg/L | 0.00373 | -0.0026 | mg/L | 0.00373 | 142.48% |
| Se 196.026† | 3.9 | 0.0051 | mg/L | 0.00508 | 0.0051 | mg/L | 0.00508 | 100.46% |
| Si 251.611† | 962.9 | 0.0538 | mg/L | 0.00025 | 0.0538 | mg/L | 0.00025 | 0.46% |
| Sn 189.927† | 0.1 | 0.0000 | mg/L | 0.00009 | 0.0000 | mg/L | 0.00009 | 454.19% |
| Sr 421.552† | 316.0 | 0.0005 | mg/L | 0.00011 | 0.0005 | mg/L | 0.00011 | 23.81% |
| Ti 334.903† | 78.7 | 0.0003 | mg/L | 0.00005 | 0.0003 | mg/L | 0.00005 | 15.21% |
| Tl 190.801† | -0.6 | -0.0011 | mg/L | 0.00113 | -0.0011 | mg/L | 0.00113 | 107.65% |
| V 292.402† | -2.0 | -0.0001 | mg/L | 0.00004 | -0.0001 | mg/L | 0.00004 | 85.97% |
| Zn 213.857† | 1526.9 | 0.0434 | mg/L | 0.00008 | 0.0434 | mg/L | 0.00008 | 0.19% |
| Zr 343.823† | -0.8 | -0.0000 | mg/L | 0.00044 | -0.0000 | mg/L | 0.00044 | >999.9% |
| W 207.912† | 9.6 | 0.0043 | mg/L | 0.00127 | 0.0043 | mg/L | 0.00127 | 29.17% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 4** **Autosampler Location: 33**
**Sample ID: lcs 440-437263_2-c** **Date Collected: 10/26/2017 12:31:53 PM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: lcs 440-437263_2-c**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: lcs 440-437263_2-c**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2566574.5 | 100.1 | % | 0.55 | | | | 0.55% |
| Ag 328.068† | 9270.8 | 0.0943 | mg/L | 0.00181 | 0.0943 | mg/L | 0.00181 | 1.92% |
| Al 308.215† | 2434.2 | 0.2318 | mg/L | 0.00597 | 0.2318 | mg/L | 0.00597 | 2.58% |
| As 188.979† | 131.6 | 0.1953 | mg/L | 0.00067 | 0.1953 | mg/L | 0.00067 | 0.34% |
| B 249.677† | 7888.6 | 0.1821 | mg/L | 0.00218 | 0.1821 | mg/L | 0.00218 | 1.20% |
| Ba 233.527† | 6212.4 | 0.1899 | mg/L | 0.00324 | 0.1899 | mg/L | 0.00324 | 1.71% |
| Be 313.107† | 160356.3 | 0.1876 | mg/L | 0.00134 | 0.1876 | mg/L | 0.00134 | 0.71% |
| Ca 315.887† | 2824.9 | 1.039 | mg/L | 0.0085 | 1.039 | mg/L | 0.0085 | 0.82% |
| Cd 214.440† | 6321.5 | 0.1997 | mg/L | 0.00340 | 0.1997 | mg/L | 0.00340 | 1.70% |
| Co 228.616† | 1754.2 | 0.2063 | mg/L | 0.00036 | 0.2063 | mg/L | 0.00036 | 0.18% |
| Cr 205.560† | 2591.7 | 0.2041 | mg/L | 0.00202 | 0.2041 | mg/L | 0.00202 | 0.99% |
| Cu 324.752† | 22891.9 | 0.2010 | mg/L | 0.00202 | 0.2010 | mg/L | 0.00202 | 1.00% |
| Fe 238.204† | 639.4 | 0.2073 | mg/L | 0.00156 | 0.2073 | mg/L | 0.00156 | 0.75% |
| K 766.490† | 6522.1 | 2.547 | mg/L | 0.0097 | 2.547 | mg/L | 0.0097 | 0.38% |
| Li 610.362† | 21204.3 | 0.1881 | mg/L | 0.00030 | 0.1881 | mg/L | 0.00030 | 0.16% |
| Mg 279.077† | 2772.4 | 0.9889 | mg/L | 0.00847 | 0.9889 | mg/L | 0.00847 | 0.86% |
| Mn 257.610† | 28553.4 | 0.1819 | mg/L | 0.00138 | 0.1819 | mg/L | 0.00138 | 0.76% |
| Mo 202.031† | 1323.1 | 0.2043 | mg/L | 0.00071 | 0.2043 | mg/L | 0.00071 | 0.35% |
| Na 589.592† | 6257095.2 | 348.3 | mg/L | 11.00 | 348.3 | mg/L | 11.00 | 3.16% |
| Ni 231.604† | 2211.2 | 0.1999 | mg/L | 0.00149 | 0.1999 | mg/L | 0.00149 | 0.74% |
| P 214.914† | 92.1 | 0.1800 | mg/L | 0.00087 | 0.1800 | mg/L | 0.00087 | 0.48% |
| Pb 220.353† | 382.4 | 0.1966 | mg/L | 0.00084 | 0.1966 | mg/L | 0.00084 | 0.43% |
| Sb 206.836† | 145.2 | 0.1951 | mg/L | 0.00133 | 0.1951 | mg/L | 0.00133 | 0.68% |
| Se 196.026† | 142.5 | 0.1826 | mg/L | 0.00196 | 0.1826 | mg/L | 0.00196 | 1.07% |
| Si 251.611† | 16916.3 | 0.9348 | mg/L | 0.00802 | 0.9348 | mg/L | 0.00802 | 0.86% |
| Sn 189.927† | 468.9 | 0.1902 | mg/L | 0.00043 | 0.1902 | mg/L | 0.00043 | 0.23% |
| Sr 421.552† | 125951.8 | 0.1807 | mg/L | 0.00079 | 0.1807 | mg/L | 0.00079 | 0.44% |
| Ti 334.903† | 52566.5 | 0.2112 | mg/L | 0.00241 | 0.2112 | mg/L | 0.00241 | 1.14% |
| Tl 190.801† | 113.8 | 0.1876 | mg/L | 0.00215 | 0.1876 | mg/L | 0.00215 | 1.15% |
| V 292.402† | 7864.9 | 0.2025 | mg/L | 0.00233 | 0.2025 | mg/L | 0.00233 | 1.15% |
| Zn 213.857† | 6980.6 | 0.1978 | mg/L | 0.00390 | 0.1978 | mg/L | 0.00390 | 1.97% |
| Zr 343.823† | 27588.8 | 0.1933 | mg/L | 0.00153 | 0.1933 | mg/L | 0.00153 | 0.79% |
| W 207.912† | 412.2 | 0.1963 | mg/L | 0.00050 | 0.1963 | mg/L | 0.00050 | 0.25% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 5** **Autosampler Location: 34**
**Sample ID: 440-194392-a-1-f** **Date Collected: 10/26/2017 12:34:31 PM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: 440-194392-a-1-f**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

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**Mean Data: 440-194392-a-1-f**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2555134.0 | 99.70 | % | 0.543 | | | | 0.54% |
| Ag 328.068† | -27.4 | -0.0003 | mg/L | 0.00036 | -0.0003 | mg/L | 0.00036 | 128.95% |
| Al 308.215† | 912.8 | 0.0860 | mg/L | 0.00266 | 0.0860 | mg/L | 0.00266 | 3.09% |
| As 188.979† | -2.0 | -0.0030 | mg/L | 0.00041 | -0.0030 | mg/L | 0.00041 | 13.64% |
| B 249.677† | 1800.4 | 0.0414 | mg/L | 0.00020 | 0.0414 | mg/L | 0.00020 | 0.48% |
| Ba 233.527† | 3441.4 | 0.1051 | mg/L | 0.00039 | 0.1051 | mg/L | 0.00039 | 0.38% |
| Be 313.107† | -322.3 | -0.0004 | mg/L | 0.00004 | -0.0004 | mg/L | 0.00004 | 10.30% |
| Ca 315.887† | 69686.3 | 25.62 | mg/L | 0.155 | 25.62 | mg/L | 0.155 | 0.60% |
| Cd 214.440† | 43.9 | 0.0014 | mg/L | 0.00022 | 0.0014 | mg/L | 0.00022 | 15.87% |
| Co 228.616† | 20.3 | 0.0024 | mg/L | 0.00015 | 0.0024 | mg/L | 0.00015 | 6.32% |
| Cr 205.560† | 10.9 | 0.0009 | mg/L | 0.00021 | 0.0009 | mg/L | 0.00021 | 24.98% |
| Cu 324.752† | 393.5 | 0.0035 | mg/L | 0.00042 | 0.0035 | mg/L | 0.00042 | 12.04% |
| Fe 238.204† | 484.1 | 0.1567 | mg/L | 0.00041 | 0.1567 | mg/L | 0.00041 | 0.26% |
| K 766.490† | 2090.2 | 0.8164 | mg/L | 0.02898 | 0.8164 | mg/L | 0.02898 | 3.55% |
| Li 610.362† | -1518.1 | 0.0059 | mg/L | 0.00078 | 0.0059 | mg/L | 0.00078 | 13.15% |
| Mg 279.077† | 3159.9 | 1.127 | mg/L | 0.0170 | 1.127 | mg/L | 0.0170 | 1.51% |
| Mn 257.610† | 24903.5 | 0.1587 | mg/L | 0.00112 | 0.1587 | mg/L | 0.00112 | 0.71% |
| Mo 202.031† | 7.3 | 0.0011 | mg/L | 0.00031 | 0.0011 | mg/L | 0.00031 | 27.30% |
| Na 589.592† | 5071708.1 | 282.3 | mg/L | 1.03 | 282.3 | mg/L | 1.03 | 0.36% |
| Ni 231.604† | 46.9 | 0.0042 | mg/L | 0.00013 | 0.0042 | mg/L | 0.00013 | 3.10% |
| P 214.914† | -2.9 | -0.0065 | mg/L | 0.00185 | -0.0065 | mg/L | 0.00185 | 28.40% |
| Pb 220.353† | 8.1 | 0.0045 | mg/L | 0.00022 | 0.0045 | mg/L | 0.00022 | 4.98% |
| Sb 206.836† | 0.4 | 0.0006 | mg/L | 0.00112 | 0.0006 | mg/L | 0.00112 | 191.38% |
| Se 196.026† | 2.7 | 0.0034 | mg/L | 0.00137 | 0.0034 | mg/L | 0.00137 | 40.05% |
| Si 251.611† | 32896.0 | 1.847 | mg/L | 0.0184 | 1.847 | mg/L | 0.0184 | 1.00% |
| Sn 189.927† | 9.3 | 0.0023 | mg/L | 0.00110 | 0.0023 | mg/L | 0.00110 | 47.82% |
| Sr 421.552† | 47357.1 | 0.0672 | mg/L | 0.00036 | 0.0672 | mg/L | 0.00036 | 0.54% |
| Ti 334.903† | 49.4 | 0.0006 | mg/L | 0.00003 | 0.0006 | mg/L | 0.00003 | 4.34% |
| Tl 190.801† | 0.7 | 0.0013 | mg/L | 0.00084 | 0.0013 | mg/L | 0.00084 | 65.15% |
| V 292.402† | 7.2 | 0.0002 | mg/L | 0.00001 | 0.0002 | mg/L | 0.00001 | 4.98% |
| Zn 213.857† | 471.3 | 0.0134 | mg/L | 0.00005 | 0.0134 | mg/L | 0.00005 | 0.35% |
| Zr 343.823† | 15.8 | 0.0001 | mg/L | 0.00012 | 0.0001 | mg/L | 0.00012 | 112.48% |
| W 207.912† | 8.2 | 0.0038 | mg/L | 0.00127 | 0.0038 | mg/L | 0.00127 | 33.24% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 6** **Autosampler Location: 35**
**Sample ID: 440-194392-a-1-g ms** **Date Collected: 10/26/2017 12:37:09 PM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: 440-194392-a-1-g ms**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: 440-194392-a-1-g ms**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2555549.4 | 99.72 | % | 0.899 | | | | 0.90% |
| Ag 328.068† | 9204.2 | 0.0936 | mg/L | 0.00251 | 0.0936 | mg/L | 0.00251 | 2.68% |
| Al 308.215† | 3518.7 | 0.3340 | mg/L | 0.04096 | 0.3340 | mg/L | 0.04096 | 12.26% |
| As 188.979† | 127.2 | 0.1888 | mg/L | 0.00297 | 0.1888 | mg/L | 0.00297 | 1.57% |
| B 249.677† | 9686.0 | 0.2234 | mg/L | 0.00601 | 0.2234 | mg/L | 0.00601 | 2.69% |
| Ba 233.527† | 10101.3 | 0.3086 | mg/L | 0.00765 | 0.3086 | mg/L | 0.00765 | 2.48% |
| Be 313.107† | 158670.1 | 0.1856 | mg/L | 0.00039 | 0.1856 | mg/L | 0.00039 | 0.21% |
| Ca 315.887† | 86488.7 | 31.80 | mg/L | 0.347 | 31.80 | mg/L | 0.347 | 1.09% |
| Cd 214.440† | 6232.3 | 0.1969 | mg/L | 0.00416 | 0.1969 | mg/L | 0.00416 | 2.11% |
| Co 228.616† | 1740.0 | 0.2047 | mg/L | 0.00223 | 0.2047 | mg/L | 0.00223 | 1.09% |
| Cr 205.560† | 2545.4 | 0.2004 | mg/L | 0.00225 | 0.2004 | mg/L | 0.00225 | 1.12% |
| Cu 324.752† | 22733.6 | 0.1996 | mg/L | 0.00470 | 0.1996 | mg/L | 0.00470 | 2.36% |
| Fe 238.204† | 1234.3 | 0.3999 | mg/L | 0.00353 | 0.3999 | mg/L | 0.00353 | 0.88% |
| K 766.490† | 9064.8 | 3.540 | mg/L | 0.0706 | 3.540 | mg/L | 0.0706 | 2.00% |
| Li 610.362† | 19325.3 | 0.1947 | mg/L | 0.00404 | 0.1947 | mg/L | 0.00404 | 2.07% |
| Mg 279.077† | 6457.3 | 2.303 | mg/L | 0.0285 | 2.303 | mg/L | 0.0285 | 1.24% |
| Mn 257.610† | 58185.6 | 0.3708 | mg/L | 0.00919 | 0.3708 | mg/L | 0.00919 | 2.48% |
| Mo 202.031† | 1304.7 | 0.2015 | mg/L | 0.00186 | 0.2015 | mg/L | 0.00186 | 0.92% |
| Na 589.592† | 6209810.1 | 345.7 | mg/L | 3.94 | 345.7 | mg/L | 3.94 | 1.14% |
| Ni 231.604† | 2172.4 | 0.1964 | mg/L | 0.00197 | 0.1964 | mg/L | 0.00197 | 1.00% |
| P 214.914† | 92.3 | 0.1805 | mg/L | 0.00019 | 0.1805 | mg/L | 0.00019 | 0.11% |
| Pb 220.353† | 383.5 | 0.1976 | mg/L | 0.00347 | 0.1976 | mg/L | 0.00347 | 1.76% |
| Sb 206.836† | 143.9 | 0.1935 | mg/L | 0.00176 | 0.1935 | mg/L | 0.00176 | 0.91% |
| Se 196.026† | 140.3 | 0.1798 | mg/L | 0.00300 | 0.1798 | mg/L | 0.00300 | 1.67% |
| Si 251.611† | 56570.6 | 3.162 | mg/L | 0.0814 | 3.162 | mg/L | 0.0814 | 2.57% |
| Sn 189.927† | 477.3 | 0.1918 | mg/L | 0.00234 | 0.1918 | mg/L | 0.00234 | 1.22% |
| Sr 421.552† | 183817.2 | 0.2628 | mg/L | 0.00318 | 0.2628 | mg/L | 0.00318 | 1.21% |
| Ti 334.903† | 51235.2 | 0.2063 | mg/L | 0.00503 | 0.2063 | mg/L | 0.00503 | 2.44% |
| Tl 190.801† | 111.5 | 0.1839 | mg/L | 0.00383 | 0.1839 | mg/L | 0.00383 | 2.08% |
| V 292.402† | 7833.3 | 0.2017 | mg/L | 0.00514 | 0.2017 | mg/L | 0.00514 | 2.55% |
| Zn 213.857† | 7007.4 | 0.1985 | mg/L | 0.00413 | 0.1985 | mg/L | 0.00413 | 2.08% |
| Zr 343.823† | 27140.7 | 0.1901 | mg/L | 0.00380 | 0.1901 | mg/L | 0.00380 | 2.00% |
| W 207.912† | 401.7 | 0.1913 | mg/L | 0.00035 | 0.1913 | mg/L | 0.00035 | 0.18% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 7** **Autosampler Location: 36**
**Sample ID: 440-194392-a-1-h msd** **Date Collected: 10/26/2017 12:39:47 PM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: 440-194392-a-1-h msd**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: 440-194392-a-1-h msd**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2575319.9 | 100.5 | % | 0.38 | | | | 0.38% |
| Ag 328.068† | 9252.6 | 0.0941 | mg/L | 0.00043 | 0.0941 | mg/L | 0.00043 | 0.45% |
| Al 308.215† | 2901.0 | 0.2741 | mg/L | 0.00708 | 0.2741 | mg/L | 0.00708 | 2.58% |
| As 188.979† | 128.5 | 0.1907 | mg/L | 0.00052 | 0.1907 | mg/L | 0.00052 | 0.27% |
| B 249.677† | 9361.0 | 0.2159 | mg/L | 0.00220 | 0.2159 | mg/L | 0.00220 | 1.02% |
| Ba 233.527† | 9472.7 | 0.2894 | mg/L | 0.00090 | 0.2894 | mg/L | 0.00090 | 0.31% |
| Be 313.107† | 159320.8 | 0.1864 | mg/L | 0.00139 | 0.1864 | mg/L | 0.00139 | 0.75% |
| Ca 315.887† | 70511.3 | 25.92 | mg/L | 0.280 | 25.92 | mg/L | 0.280 | 1.08% |
| Cd 214.440† | 6245.7 | 0.1973 | mg/L | 0.00051 | 0.1973 | mg/L | 0.00051 | 0.26% |
| Co 228.616† | 1761.8 | 0.2072 | mg/L | 0.00102 | 0.2072 | mg/L | 0.00102 | 0.49% |
| Cr 205.560† | 2561.1 | 0.2017 | mg/L | 0.00037 | 0.2017 | mg/L | 0.00037 | 0.18% |
| Cu 324.752† | 23053.6 | 0.2024 | mg/L | 0.00169 | 0.2024 | mg/L | 0.00169 | 0.84% |
| Fe 238.204† | 1127.4 | 0.3654 | mg/L | 0.00152 | 0.3654 | mg/L | 0.00152 | 0.41% |
| K 766.490† | 8519.5 | 3.328 | mg/L | 0.0301 | 3.328 | mg/L | 0.0301 | 0.91% |
| Li 610.362† | 19859.7 | 0.1950 | mg/L | 0.00182 | 0.1950 | mg/L | 0.00182 | 0.93% |
| Mg 279.077† | 5747.7 | 2.050 | mg/L | 0.0077 | 2.050 | mg/L | 0.0077 | 0.37% |
| Mn 257.610† | 53454.6 | 0.3406 | mg/L | 0.00287 | 0.3406 | mg/L | 0.00287 | 0.84% |
| Mo 202.031† | 1322.9 | 0.2043 | mg/L | 0.00014 | 0.2043 | mg/L | 0.00014 | 0.07% |
| Na 589.592† | 5031014.9 | 280.1 | mg/L | 9.96 | 280.1 | mg/L | 9.96 | 3.56% |
| Ni 231.604† | 2186.8 | 0.1977 | mg/L | 0.00005 | 0.1977 | mg/L | 0.00005 | 0.03% |
| P 214.914† | 91.7 | 0.1791 | mg/L | 0.00566 | 0.1791 | mg/L | 0.00566 | 3.16% |
| Pb 220.353† | 379.4 | 0.1954 | mg/L | 0.00055 | 0.1954 | mg/L | 0.00055 | 0.28% |
| Sb 206.836† | 149.7 | 0.2012 | mg/L | 0.00300 | 0.2012 | mg/L | 0.00300 | 1.49% |
| Se 196.026† | 139.8 | 0.1791 | mg/L | 0.00185 | 0.1791 | mg/L | 0.00185 | 1.03% |
| Si 251.611† | 49831.7 | 2.783 | mg/L | 0.0205 | 2.783 | mg/L | 0.0205 | 0.74% |
| Sn 189.927† | 486.2 | 0.1958 | mg/L | 0.00264 | 0.1958 | mg/L | 0.00264 | 1.35% |
| Sr 421.552† | 173056.0 | 0.2476 | mg/L | 0.00157 | 0.2476 | mg/L | 0.00157 | 0.63% |
| Ti 334.903† | 52009.1 | 0.2093 | mg/L | 0.00248 | 0.2093 | mg/L | 0.00248 | 1.18% |
| Tl 190.801† | 110.8 | 0.1827 | mg/L | 0.00527 | 0.1827 | mg/L | 0.00527 | 2.88% |
| V 292.402† | 7957.1 | 0.2049 | mg/L | 0.00244 | 0.2049 | mg/L | 0.00244 | 1.19% |
| Zn 213.857† | 6869.3 | 0.1945 | mg/L | 0.00116 | 0.1945 | mg/L | 0.00116 | 0.60% |
| Zr 343.823† | 27680.7 | 0.1939 | mg/L | 0.00146 | 0.1939 | mg/L | 0.00146 | 0.75% |
| W 207.912† | 406.3 | 0.1935 | mg/L | 0.00080 | 0.1935 | mg/L | 0.00080 | 0.41% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 8** **Autosampler Location: 37**
**Sample ID: 440-194392-a-1-fPDS** **Date Collected: 10/26/2017 12:42:25 PM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: 440-194392-a-1-fPDS**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: 440-194392-a-1-fPDS**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2504692.0 | 97.73 | % | 0.585 | | | | 0.60% |
| Ag 328.068† | 9671.6 | 0.0984 | mg/L | 0.00080 | 0.0984 | mg/L | 0.00080 | 0.81% |
| Al 308.215† | 3220.4 | 0.3052 | mg/L | 0.00428 | 0.3052 | mg/L | 0.00428 | 1.40% |
| As 188.979† | 132.2 | 0.1962 | mg/L | 0.00517 | 0.1962 | mg/L | 0.00517 | 2.64% |
| B 249.677† | 9721.2 | 0.2242 | mg/L | 0.00092 | 0.2242 | mg/L | 0.00092 | 0.41% |
| Ba 233.527† | 9725.7 | 0.2972 | mg/L | 0.00019 | 0.2972 | mg/L | 0.00019 | 0.06% |
| Be 313.107† | 165149.9 | 0.1932 | mg/L | 0.00126 | 0.1932 | mg/L | 0.00126 | 0.65% |
| Ca 315.887† | 70630.6 | 25.97 | mg/L | 0.030 | 25.97 | mg/L | 0.030 | 0.11% |
| Cd 214.440† | 6503.0 | 0.2055 | mg/L | 0.00260 | 0.2055 | mg/L | 0.00260 | 1.26% |
| Co 228.616† | 1843.2 | 0.2168 | mg/L | 0.00180 | 0.2168 | mg/L | 0.00180 | 0.83% |
| Cr 205.560† | 2698.5 | 0.2125 | mg/L | 0.00200 | 0.2125 | mg/L | 0.00200 | 0.94% |
| Cu 324.752† | 23990.6 | 0.2107 | mg/L | 0.00091 | 0.2107 | mg/L | 0.00091 | 0.43% |
| Fe 238.204† | 1174.9 | 0.3808 | mg/L | 0.01199 | 0.3808 | mg/L | 0.01199 | 3.15% |
| K 766.490† | 8668.8 | 3.386 | mg/L | 0.0072 | 3.386 | mg/L | 0.0072 | 0.21% |
| Li 610.362† | 20666.1 | 0.2021 | mg/L | 0.00144 | 0.2021 | mg/L | 0.00144 | 0.71% |
| Mg 279.077† | 5866.1 | 2.092 | mg/L | 0.0108 | 2.092 | mg/L | 0.0108 | 0.51% |
| Mn 257.610† | 54480.1 | 0.3471 | mg/L | 0.00010 | 0.3471 | mg/L | 0.00010 | 0.03% |
| Mo 202.031† | 1365.8 | 0.2109 | mg/L | 0.00191 | 0.2109 | mg/L | 0.00191 | 0.91% |
| Na 589.592† | 5308800.5 | 295.5 | mg/L | 2.94 | 295.5 | mg/L | 2.94 | 1.00% |
| Ni 231.604† | 2289.2 | 0.2069 | mg/L | 0.00153 | 0.2069 | mg/L | 0.00153 | 0.74% |
| P 214.914† | 96.8 | 0.1894 | mg/L | 0.00711 | 0.1894 | mg/L | 0.00711 | 3.75% |
| Pb 220.353† | 399.0 | 0.2055 | mg/L | 0.00278 | 0.2055 | mg/L | 0.00278 | 1.35% |
| Sb 206.836† | 143.2 | 0.1925 | mg/L | 0.00044 | 0.1925 | mg/L | 0.00044 | 0.23% |
| Se 196.026† | 149.0 | 0.1909 | mg/L | 0.00137 | 0.1909 | mg/L | 0.00137 | 0.72% |
| Si 251.611† | 49885.8 | 2.786 | mg/L | 0.0137 | 2.786 | mg/L | 0.0137 | 0.49% |
| Sn 189.927† | 497.9 | 0.2005 | mg/L | 0.00049 | 0.2005 | mg/L | 0.00049 | 0.25% |
| Sr 421.552† | 179238.4 | 0.2564 | mg/L | 0.00014 | 0.2564 | mg/L | 0.00014 | 0.05% |
| Ti 334.903† | 53294.0 | 0.2145 | mg/L | 0.00094 | 0.2145 | mg/L | 0.00094 | 0.44% |
| Tl 190.801† | 116.7 | 0.1924 | mg/L | 0.00416 | 0.1924 | mg/L | 0.00416 | 2.16% |
| V 292.402† | 8279.4 | 0.2132 | mg/L | 0.00276 | 0.2132 | mg/L | 0.00276 | 1.29% |
| Zn 213.857† | 7211.3 | 0.2042 | mg/L | 0.00033 | 0.2042 | mg/L | 0.00033 | 0.16% |
| Zr 343.823† | 28691.0 | 0.2010 | mg/L | 0.00101 | 0.2010 | mg/L | 0.00101 | 0.50% |
| W 207.912† | 423.0 | 0.2015 | mg/L | 0.00008 | 0.2015 | mg/L | 0.00008 | 0.04% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 9** **Autosampler Location: 38**
**Sample ID: 440-194392-a-1-fSD@5** **Date Collected: 10/26/2017 12:45:02 PM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: 440-194392-a-1-fSD@5**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: 440-194392-a-1-fSD@5**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2688196.6 | 104.9 | % | 1.29 | | | | 1.23% |
| Ag 328.068† | -42.2 | -0.0004 | mg/L | 0.00036 | -0.0004 | mg/L | 0.00036 | 82.97% |
| Al 308.215† | -38.7 | -0.0045 | mg/L | 0.00039 | -0.0045 | mg/L | 0.00039 | 8.83% |
| As 188.979† | -2.7 | -0.0040 | mg/L | 0.00426 | -0.0040 | mg/L | 0.00426 | 107.32% |
| B 249.677† | 403.2 | 0.0093 | mg/L | 0.00025 | 0.0093 | mg/L | 0.00025 | 2.68% |
| Ba 233.527† | 668.4 | 0.0204 | mg/L | 0.00016 | 0.0204 | mg/L | 0.00016 | 0.78% |
| Be 313.107† | -124.3 | -0.0001 | mg/L | 0.00002 | -0.0001 | mg/L | 0.00002 | 10.41% |
| Ca 315.887† | 12626.5 | 4.642 | mg/L | 0.0431 | 4.642 | mg/L | 0.0431 | 0.93% |
| Cd 214.440† | 14.5 | 0.0005 | mg/L | 0.00017 | 0.0005 | mg/L | 0.00017 | 37.23% |
| Co 228.616† | 14.7 | 0.0017 | mg/L | 0.00010 | 0.0017 | mg/L | 0.00010 | 6.02% |
| Cr 205.560† | 5.8 | 0.0005 | mg/L | 0.00011 | 0.0005 | mg/L | 0.00011 | 24.31% |
| Cu 324.752† | 198.1 | 0.0017 | mg/L | 0.00023 | 0.0017 | mg/L | 0.00023 | 13.48% |
| Fe 238.204† | 98.3 | 0.0318 | mg/L | 0.00070 | 0.0318 | mg/L | 0.00070 | 2.20% |
| K 766.490† | 430.1 | 0.1680 | mg/L | 0.05190 | 0.1680 | mg/L | 0.05190 | 30.90% |
| Li 610.362† | -267.4 | 0.0011 | mg/L | 0.00030 | 0.0011 | mg/L | 0.00030 | 26.12% |
| Mg 279.077† | 677.9 | 0.2417 | mg/L | 0.00369 | 0.2417 | mg/L | 0.00369 | 1.53% |
| Mn 257.610† | 4807.6 | 0.0306 | mg/L | 0.00041 | 0.0306 | mg/L | 0.00041 | 1.34% |
| Mo 202.031† | 2.8 | 0.0004 | mg/L | 0.00003 | 0.0004 | mg/L | 0.00003 | 6.90% |
| Na 589.592† | 1011908.3 | 56.33 | mg/L | 1.713 | 56.33 | mg/L | 1.713 | 3.04% |
| Ni 231.604† | 16.9 | 0.0015 | mg/L | 0.00040 | 0.0015 | mg/L | 0.00040 | 25.87% |
| P 214.914† | -4.9 | -0.0102 | mg/L | 0.00176 | -0.0102 | mg/L | 0.00176 | 17.19% |
| Pb 220.353† | 1.1 | 0.0006 | mg/L | 0.00344 | 0.0006 | mg/L | 0.00344 | 550.28% |
| Sb 206.836† | -3.7 | -0.0049 | mg/L | 0.00208 | -0.0049 | mg/L | 0.00208 | 42.25% |
| Se 196.026† | 2.9 | 0.0037 | mg/L | 0.00102 | 0.0037 | mg/L | 0.00102 | 27.20% |
| Si 251.611† | 6679.0 | 0.3751 | mg/L | 0.00514 | 0.3751 | mg/L | 0.00514 | 1.37% |
| Sn 189.927† | -1.7 | -0.0009 | mg/L | 0.00007 | -0.0009 | mg/L | 0.00007 | 6.98% |
| Sr 421.552† | 9382.3 | 0.0133 | mg/L | 0.00014 | 0.0133 | mg/L | 0.00014 | 1.07% |
| Ti 334.903† | 45.0 | 0.0002 | mg/L | 0.00017 | 0.0002 | mg/L | 0.00017 | 68.67% |
| Tl 190.801† | -0.3 | -0.0006 | mg/L | 0.00340 | -0.0006 | mg/L | 0.00340 | 613.72% |
| V 292.402† | -10.1 | -0.0003 | mg/L | 0.00062 | -0.0003 | mg/L | 0.00062 | 242.15% |
| Zn 213.857† | 77.7 | 0.0022 | mg/L | 0.00003 | 0.0022 | mg/L | 0.00003 | 1.55% |
| Zr 343.823† | -42.5 | -0.0003 | mg/L | 0.00006 | -0.0003 | mg/L | 0.00006 | 19.63% |
| W 207.912† | -3.2 | -0.0015 | mg/L | 0.00065 | -0.0015 | mg/L | 0.00065 | 42.34% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 10 Autosampler Location: 39
Sample ID: 440-194816-b-1-f Date Collected: 10/26/2017 12:47:39 PM
Analyst: EN Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194816-b-1-f

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194816-b-1-f

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2550372.4 | 99.51 | % | 0.332 | | | | 0.33% |
| Ag 328.068† | 4.0 | 0.0002 | mg/L | 0.00003 | 0.0002 | mg/L | 0.00003 | 13.60% |
| Al 308.215† | 391.7 | 0.0205 | mg/L | 0.01417 | 0.0205 | mg/L | 0.01417 | 69.17% |
| As 188.979† | -5.9 | -0.0082 | mg/L | 0.01167 | -0.0082 | mg/L | 0.01167 | 142.66% |
| B 249.677† | 10233.0 | 0.2145 | mg/L | 0.00187 | 0.2145 | mg/L | 0.00187 | 0.87% |
| Ba 233.527† | 1636.5 | 0.0500 | mg/L | 0.00050 | 0.0500 | mg/L | 0.00050 | 1.01% |
| Be 313.107† | -145.3 | -0.0002 | mg/L | 0.00029 | -0.0002 | mg/L | 0.00029 | 172.96% |
| Ca 315.887† | 288396.2 | 106.0 | mg/L | 0.28 | 106.0 | mg/L | 0.28 | 0.26% |
| Cd 214.440† | 26.7 | 0.0008 | mg/L | 0.00007 | 0.0008 | mg/L | 0.00007 | 9.49% |
| Co 228.616† | 1364.1 | 0.1607 | mg/L | 0.00046 | 0.1607 | mg/L | 0.00046 | 0.29% |
| Cr 205.560† | 16.9 | 0.0015 | mg/L | 0.00001 | 0.0015 | mg/L | 0.00001 | 0.68% |
| Cu 324.752† | 4056.4 | 0.0362 | mg/L | 0.00055 | 0.0362 | mg/L | 0.00055 | 1.51% |
| Fe 238.204† | 28249.4 | 9.147 | mg/L | 0.0503 | 9.147 | mg/L | 0.0503 | 0.55% |
| K 766.490† | 12997.7 | 5.077 | mg/L | 0.0127 | 5.077 | mg/L | 0.0127 | 0.25% |
| Li 610.362† | 7030.1 | 0.1421 | mg/L | 0.00021 | 0.1421 | mg/L | 0.00021 | 0.15% |
| Mg 279.077† | 19445.1 | 6.936 | mg/L | 0.0940 | 6.936 | mg/L | 0.0940 | 1.36% |
| Mn 257.610† | 69685.6 | 0.4439 | mg/L | 0.00437 | 0.4439 | mg/L | 0.00437 | 0.98% |
| Mo 202.031† | 2153.3 | 0.3328 | mg/L | 0.00190 | 0.3328 | mg/L | 0.00190 | 0.57% |
| Na 589.592† | 5960709.9 | 331.8 | mg/L | 3.31 | 331.8 | mg/L | 3.31 | 1.00% |
| Ni 231.604† | 8424.0 | 0.7607 | mg/L | 0.01737 | 0.7607 | mg/L | 0.01737 | 2.28% |
| P 214.914† | 17.7 | 0.0253 | mg/L | 0.00094 | 0.0253 | mg/L | 0.00094 | 3.70% |
| Pb 220.353† | 3.4 | 0.0039 | mg/L | 0.00141 | 0.0039 | mg/L | 0.00141 | 35.98% |
| Sb 206.836† | -4.1 | -0.0004 | mg/L | 0.00212 | -0.0004 | mg/L | 0.00212 | 602.52% |
| Se 196.026† | -5.2 | -0.0032 | mg/L | 0.00101 | -0.0032 | mg/L | 0.00101 | 31.67% |
| Si 251.611† | 64432.5 | 3.614 | mg/L | 0.0329 | 3.614 | mg/L | 0.0329 | 0.91% |
| Sn 189.927† | 32.6 | 0.0086 | mg/L | 0.00077 | 0.0086 | mg/L | 0.00077 | 8.95% |
| Sr 421.552† | 146454.6 | 0.2071 | mg/L | 0.00056 | 0.2071 | mg/L | 0.00056 | 0.27% |
| Ti 334.903† | -382.7 | 0.0000 | mg/L | 0.00048 | 0.0000 | mg/L | 0.00048 | >999.9% |
| Tl 190.801† | -2.0 | -0.0036 | mg/L | 0.00142 | -0.0036 | mg/L | 0.00142 | 39.75% |
| V 292.402† | -1.4 | 0.0011 | mg/L | 0.00075 | 0.0011 | mg/L | 0.00075 | 70.52% |
| Zn 213.857† | 9149.9 | 0.2560 | mg/L | 0.00442 | 0.2560 | mg/L | 0.00442 | 1.73% |
| Zr 343.823† | 142.8 | 0.0010 | mg/L | 0.00034 | 0.0010 | mg/L | 0.00034 | 34.22% |
| W 207.912† | 15.5 | 0.0057 | mg/L | 0.00496 | 0.0057 | mg/L | 0.00496 | 86.77% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 11** **Autosampler Location: 4**
**Sample ID: CCV 4447505** **Date Collected: 10/26/2017 12:49:36 PM**
**Analyst:** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: CCV 4447505**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: CCV 4447505**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2727718.4 | 106.4 | % | 0.25 | | | | 0.23% |
| Ag 328.068† | 47284.5 | 0.4809 | mg/L | 0.00205 | 0.4809 | mg/L | 0.00205 | 0.43% |
| Al 308.215† | 9603.1 | 0.9073 | mg/L | 0.00096 | 0.9073 | mg/L | 0.00096 | 0.11% |
| As 188.979† | 665.4 | 0.9872 | mg/L | 0.00756 | 0.9872 | mg/L | 0.00756 | 0.77% |
| B 249.677† | 40570.1 | 0.9368 | mg/L | 0.00595 | 0.9368 | mg/L | 0.00595 | 0.63% |
| Ba 233.527† | 31085.3 | 0.9501 | mg/L | 0.00405 | 0.9501 | mg/L | 0.00405 | 0.43% |
| Be 313.107† | 807909.1 | 0.9452 | mg/L | 0.00159 | 0.9452 | mg/L | 0.00159 | 0.17% |
| Ca 315.887† | 13558.6 | 4.988 | mg/L | 0.0426 | 4.988 | mg/L | 0.0426 | 0.85% |
| Cd 214.440† | 31783.8 | 1.004 | mg/L | 0.0105 | 1.004 | mg/L | 0.0105 | 1.05% |
| Co 228.616† | 8657.7 | 1.018 | mg/L | 0.0110 | 1.018 | mg/L | 0.0110 | 1.08% |
| Cr 205.560† | 12346.5 | 0.9721 | mg/L | 0.01211 | 0.9721 | mg/L | 0.01211 | 1.25% |
| Cu 324.752† | 110521.6 | 0.9704 | mg/L | 0.00826 | 0.9704 | mg/L | 0.00826 | 0.85% |
| Fe 238.204† | 3126.0 | 1.014 | mg/L | 0.0120 | 1.014 | mg/L | 0.0120 | 1.19% |
| K 766.490† | 26726.5 | 10.44 | mg/L | 0.231 | 10.44 | mg/L | 0.231 | 2.21% |
| Li 610.362† | 109147.3 | 0.9678 | mg/L | 0.01012 | 0.9678 | mg/L | 0.01012 | 1.05% |
| Mg 279.077† | 13293.7 | 4.742 | mg/L | 0.0268 | 4.742 | mg/L | 0.0268 | 0.56% |
| Mn 257.610† | 146331.2 | 0.9325 | mg/L | 0.00193 | 0.9325 | mg/L | 0.00193 | 0.21% |
| Mo 202.031† | 6228.9 | 0.9619 | mg/L | 0.02282 | 0.9619 | mg/L | 0.02282 | 2.37% |
| Na 589.592† | 203680.2 | 11.34 | mg/L | 0.391 | 11.34 | mg/L | 0.391 | 3.44% |
| Ni 231.604† | 10595.2 | 0.9578 | mg/L | 0.00706 | 0.9578 | mg/L | 0.00706 | 0.74% |
| P 214.914† | 457.5 | 0.8968 | mg/L | 0.00883 | 0.8968 | mg/L | 0.00883 | 0.98% |
| Pb 220.353† | 1925.0 | 0.9896 | mg/L | 0.00006 | 0.9896 | mg/L | 0.00006 | 0.01% |
| Sb 206.836† | 707.2 | 0.9501 | mg/L | 0.00044 | 0.9501 | mg/L | 0.00044 | 0.05% |
| Se 196.026† | 757.5 | 0.9719 | mg/L | 0.00375 | 0.9719 | mg/L | 0.00375 | 0.39% |
| Si 251.611† | 82695.7 | 4.571 | mg/L | 0.0270 | 4.571 | mg/L | 0.0270 | 0.59% |
| Sn 189.927† | 2402.5 | 0.9743 | mg/L | 0.00305 | 0.9743 | mg/L | 0.00305 | 0.31% |
| Sr 421.552† | 662827.0 | 0.9510 | mg/L | 0.01216 | 0.9510 | mg/L | 0.01216 | 1.28% |
| Ti 334.903† | 255000.9 | 1.024 | mg/L | 0.0074 | 1.024 | mg/L | 0.0074 | 0.72% |
| Tl 190.801† | 607.6 | 1.001 | mg/L | 0.0068 | 1.001 | mg/L | 0.0068 | 0.68% |
| V 292.402† | 39944.5 | 1.028 | mg/L | 0.0085 | 1.028 | mg/L | 0.0085 | 0.83% |
| Zn 213.857† | 33757.9 | 0.9565 | mg/L | 0.00955 | 0.9565 | mg/L | 0.00955 | 1.00% |
| Zr 343.823† | 139398.0 | 0.9766 | mg/L | 0.00473 | 0.9766 | mg/L | 0.00473 | 0.48% |
| W 207.912† | 1963.3 | 0.9349 | mg/L | 0.00282 | 0.9349 | mg/L | 0.00282 | 0.30% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

==========

**Sequence No.: 12** **Autosampler Location: 1**
**Sample ID: CCB 4447504** **Date Collected: 10/26/2017 12:51:35 PM**
**Analyst:** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: CCB 4447504**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: CCB 4447504**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2693836.4 | 105.1 | % | 0.04 | | | | 0.03% |
| Ag 328.068† | -57.8 | -0.0006 | mg/L | 0.00015 | -0.0006 | mg/L | 0.00015 | 24.96% |
| Al 308.215† | -286.1 | -0.0282 | mg/L | 0.00769 | -0.0282 | mg/L | 0.00769 | 27.25% |
| As 188.979† | 0.3 | 0.0005 | mg/L | 0.00213 | 0.0005 | mg/L | 0.00213 | 437.44% |
| B 249.677† | 51.3 | 0.0012 | mg/L | 0.00002 | 0.0012 | mg/L | 0.00002 | 1.33% |
| Ba 233.527† | 8.4 | 0.0003 | mg/L | 0.00006 | 0.0003 | mg/L | 0.00006 | 22.17% |
| Be 313.107† | -138.2 | -0.0002 | mg/L | 0.00002 | -0.0002 | mg/L | 0.00002 | 13.39% |
| Ca 315.887† | 57.5 | 0.0211 | mg/L | 0.00013 | 0.0211 | mg/L | 0.00013 | 0.59% |
| Cd 214.440† | 5.2 | 0.0002 | mg/L | 0.00019 | 0.0002 | mg/L | 0.00019 | 118.52% |
| Co 228.616† | 8.4 | 0.0010 | mg/L | 0.00002 | 0.0010 | mg/L | 0.00002 | 2.41% |
| Cr 205.560† | 2.5 | 0.0002 | mg/L | 0.00014 | 0.0002 | mg/L | 0.00014 | 70.85% |
| Cu 324.752† | 127.1 | 0.0011 | mg/L | 0.00013 | 0.0011 | mg/L | 0.00013 | 11.28% |
| Fe 238.204† | 8.2 | 0.0027 | mg/L | 0.00016 | 0.0027 | mg/L | 0.00016 | 6.21% |
| K 766.490† | 47.2 | 0.0184 | mg/L | 0.00399 | 0.0184 | mg/L | 0.00399 | 21.65% |
| Li 610.362† | -6.7 | -0.0000 | mg/L | 0.00099 | -0.0000 | mg/L | 0.00099 | >999.9% |
| Mg 279.077† | 4.7 | 0.0017 | mg/L | 0.00135 | 0.0017 | mg/L | 0.00135 | 78.71% |
| Mn 257.610† | -1.5 | -0.0000 | mg/L | 0.00001 | -0.0000 | mg/L | 0.00001 | 107.39% |
| Mo 202.031† | 86.3 | 0.0133 | mg/L | 0.00113 | 0.0133 | mg/L | 0.00113 | 8.49% |
| Na 589.592† | 3886.5 | 0.2164 | mg/L | 0.01514 | 0.2164 | mg/L | 0.01514 | 7.00% |
| Ni 231.604† | 15.5 | 0.0014 | mg/L | 0.00022 | 0.0014 | mg/L | 0.00022 | 15.60% |
| P 214.914† | -5.0 | -0.0107 | mg/L | 0.00896 | -0.0107 | mg/L | 0.00896 | 83.42% |
| Pb 220.353† | 2.0 | 0.0010 | mg/L | 0.00087 | 0.0010 | mg/L | 0.00087 | 84.22% |
| Sb 206.836† | 4.6 | 0.0063 | mg/L | 0.00269 | 0.0063 | mg/L | 0.00269 | 42.97% |
| Se 196.026† | 0.8 | 0.0011 | mg/L | 0.00373 | 0.0011 | mg/L | 0.00373 | 354.96% |
| Si 251.611† | 103.0 | 0.0055 | mg/L | 0.00005 | 0.0055 | mg/L | 0.00005 | 0.95% |
| Sn 189.927† | 1.4 | 0.0006 | mg/L | 0.00031 | 0.0006 | mg/L | 0.00031 | 53.07% |
| Sr 421.552† | 137.1 | 0.0002 | mg/L | 0.00008 | 0.0002 | mg/L | 0.00008 | 40.77% |
| Ti 334.903† | 182.4 | 0.0007 | mg/L | 0.00011 | 0.0007 | mg/L | 0.00011 | 15.33% |
| Tl 190.801† | 1.6 | 0.0026 | mg/L | 0.00225 | 0.0026 | mg/L | 0.00225 | 85.80% |
| V 292.402† | -4.0 | -0.0001 | mg/L | 0.00134 | -0.0001 | mg/L | 0.00134 | >999.9% |
| Zn 213.857† | 295.0 | 0.0084 | mg/L | 0.00007 | 0.0084 | mg/L | 0.00007 | 0.80% |
| Zr 343.823† | -59.9 | -0.0004 | mg/L | 0.00022 | -0.0004 | mg/L | 0.00022 | 52.47% |
| W 207.912† | 6.4 | 0.0030 | mg/L | 0.00017 | 0.0030 | mg/L | 0.00017 | 5.62% |


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**Analytical Sequence**
**Method: 170824_ICP7**

| Seq. | Loc. | ID | Status |
|---|---|---|---|
| 1 | 30 | 440-194417-e-1-ePDS | Analyzed |
| 2 | 31 | 440-194417-e-1-eSD@5 | Analyzed |
| 3 | 32 | mb 440-437263_1-c | Analyzed |
| 4 | 33 | lcs 440-437263_2-c | Analyzed |
| 5 | 34 | 440-194392-a-1-f | Analyzed |
| 6 | 35 | 440-194392-a-1-g ms | Analyzed |
| 7 | 36 | 440-194392-a-1-h msd | Analyzed |
| 8 | 37 | 440-194392-a-1-fPDS | Analyzed |
| 9 | 38 | 440-194392-a-1-fSD@5 | Analyzed |
| 10 | 39 | 440-194816-b-1-f | Analyzed |
| 11 | 4 | CCV 4447505 | Analyzed |
| 12 | 1 | CCB 4447504 | Analyzed |


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**Analysis Begun**

**Start Time: 10/26/2017 1:05:13 PM** **Plasma On Time: 10/26/2017 9:24:37 AM**
**Logged In Analyst: IRVINSTICP7** **Technique: ICP Continuous**
**Spectrometer: Optima 8300** **Autosampler: ESI**

**Sample Information File: C:\Users\Public\PerkinElmer\ICP\Data\Sample Information\CP 171026-1.sif**
**Batch ID:**
**Results Data Set: 171026-1 ICP7**
**Results Library: C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb**

==========

**Sequence No.: 1** **Autosampler Location: 40**
**Sample ID: 440-192979-b-1-g** **Date Collected: 10/26/2017 1:05:25 PM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time:**

---

**Nebulizer Parameters: 440-192979-b-1-g**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: 440-192979-b-1-g**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2580830.3 | 100.7 | % | 0.70 | | | | 0.69% |
| Ag 328.068† | 5.5 | 0.0001 | mg/L | 0.00014 | 0.0001 | mg/L | 0.00014 | 261.09% |
| Al 308.215† | 1176.4 | 0.1124 | mg/L | 0.00497 | 0.1124 | mg/L | 0.00497 | 4.42% |
| As 188.979† | 2.1 | 0.0031 | mg/L | 0.00378 | 0.0031 | mg/L | 0.00378 | 123.51% |
| B 249.677† | 2139.1 | 0.0494 | mg/L | 0.00054 | 0.0494 | mg/L | 0.00054 | 1.10% |
| Ba 233.527† | 2198.2 | 0.0671 | mg/L | 0.00031 | 0.0671 | mg/L | 0.00031 | 0.47% |
| Be 313.107† | -271.4 | -0.0003 | mg/L | 0.00003 | -0.0003 | mg/L | 0.00003 | 10.28% |
| Ca 315.887† | 42634.2 | 15.67 | mg/L | 0.186 | 15.67 | mg/L | 0.186 | 1.19% |
| Cd 214.440† | 28.7 | 0.0009 | mg/L | 0.00027 | 0.0009 | mg/L | 0.00027 | 29.71% |
| Co 228.616† | 36.9 | 0.0043 | mg/L | 0.00076 | 0.0043 | mg/L | 0.00076 | 17.49% |
| Cr 205.560† | 11.7 | 0.0009 | mg/L | 0.00013 | 0.0009 | mg/L | 0.00013 | 14.16% |
| Cu 324.752† | 871.1 | 0.0077 | mg/L | 0.00002 | 0.0077 | mg/L | 0.00002 | 0.27% |
| Fe 238.204† | 358.8 | 0.1162 | mg/L | 0.00153 | 0.1162 | mg/L | 0.00153 | 1.31% |
| K 766.490† | 10046.1 | 3.924 | mg/L | 0.0451 | 3.924 | mg/L | 0.0451 | 1.15% |
| Li 610.362† | -872.0 | 0.0041 | mg/L | 0.00016 | 0.0041 | mg/L | 0.00016 | 3.95% |
| Mg 279.077† | 4252.7 | 1.517 | mg/L | 0.0280 | 1.517 | mg/L | 0.0280 | 1.84% |
| Mn 257.610† | 70390.8 | 0.4486 | mg/L | 0.00809 | 0.4486 | mg/L | 0.00809 | 1.80% |
| Mo 202.031† | 13.8 | 0.0021 | mg/L | 0.00002 | 0.0021 | mg/L | 0.00002 | 0.93% |
| Na 589.592† | 5458571.4 | 303.9 | mg/L | 2.34 | 303.9 | mg/L | 2.34 | 0.77% |
| Ni 231.604† | 47.9 | 0.0043 | mg/L | 0.00065 | 0.0043 | mg/L | 0.00065 | 14.92% |
| P 214.914† | 226.1 | 0.4738 | mg/L | 0.01173 | 0.4738 | mg/L | 0.01173 | 2.48% |
| Pb 220.353† | 36.0 | 0.0186 | mg/L | 0.00054 | 0.0186 | mg/L | 0.00054 | 2.90% |
| Sb 206.836† | -3.0 | -0.0039 | mg/L | 0.00209 | -0.0039 | mg/L | 0.00209 | 53.46% |
| Se 196.026† | 1.1 | 0.0010 | mg/L | 0.00094 | 0.0010 | mg/L | 0.00094 | 92.35% |
| Si 251.611† | 8873.2 | 0.4978 | mg/L | 0.00694 | 0.4978 | mg/L | 0.00694 | 1.39% |
| Sn 189.927† | 6.7 | 0.0018 | mg/L | 0.00145 | 0.0018 | mg/L | 0.00145 | 78.46% |
| Sr 421.552† | 97480.5 | 0.1394 | mg/L | 0.00154 | 0.1394 | mg/L | 0.00154 | 1.10% |
| Ti 334.903† | 1244.7 | 0.0052 | mg/L | 0.00023 | 0.0052 | mg/L | 0.00023 | 4.35% |
| Tl 190.801† | -3.0 | -0.0049 | mg/L | 0.00521 | -0.0049 | mg/L | 0.00521 | 106.00% |
| V 292.402† | 53.2 | 0.0014 | mg/L | 0.00016 | 0.0014 | mg/L | 0.00016 | 11.44% |
| Zn 213.857† | 3877.1 | 0.1105 | mg/L | 0.00094 | 0.1105 | mg/L | 0.00094 | 0.85% |
| Zr 343.823† | 136.3 | 0.0010 | mg/L | 0.00055 | 0.0010 | mg/L | 0.00055 | 57.40% |
| W 207.912† | 14.2 | 0.0061 | mg/L | 0.00062 | 0.0061 | mg/L | 0.00062 | 10.20% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 2 Autosampler Location: 41
Sample ID: 440-194876-a-1-a@25 Date Collected: 10/26/2017 1:08:10 PM
Analyst: BH Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194876-a-1-a@25

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: 440-194876-a-1-a@25

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2537094.6 | 99.00 | % | 2.141 | | | | 2.16% |
| Ag 328.068† | 9.8 | -0.0004 | mg/L | 0.00053 | -0.0004 | mg/L | 0.00053 | 125.23% |
| Al 308.215† | 57870.6 | 5.681 | mg/L | 0.0855 | 5.681 | mg/L | 0.0855 | 1.51% |
| As 188.979† | 0.9 | 0.0013 | mg/L | 0.00254 | 0.0013 | mg/L | 0.00254 | 192.38% |
| B 249.677† | 5681.8 | 0.1315 | mg/L | 0.00298 | 0.1315 | mg/L | 0.00298 | 2.26% |
| Ba 233.527† | 711.3 | 0.0217 | mg/L | 0.00029 | 0.0217 | mg/L | 0.00029 | 1.35% |
| Be 313.107† | -188.8 | -0.0002 | mg/L | 0.00002 | -0.0002 | mg/L | 0.00002 | 9.22% |
| Ca 315.887† | 15407.7 | 5.665 | mg/L | 0.1316 | 5.665 | mg/L | 0.1316 | 2.32% |
| Cd 214.440† | 8.0 | 0.0002 | mg/L | 0.00013 | 0.0002 | mg/L | 0.00013 | 63.12% |
| Co 228.616† | 8.0 | 0.0007 | mg/L | 0.00005 | 0.0007 | mg/L | 0.00005 | 6.72% |
| Cr 205.560† | 94.8 | 0.0075 | mg/L | 0.00012 | 0.0075 | mg/L | 0.00012 | 1.56% |
| Cu 324.752† | 11451.0 | 0.1006 | mg/L | 0.00200 | 0.1006 | mg/L | 0.00200 | 1.98% |
| Fe 238.204† | 704.4 | 0.2281 | mg/L | 0.00441 | 0.2281 | mg/L | 0.00441 | 1.93% |
| K 766.490† | 198.5 | 0.0775 | mg/L | 0.00797 | 0.0775 | mg/L | 0.00797 | 10.27% |
| Li 610.362† | -142.9 | 0.0030 | mg/L | 0.00078 | 0.0030 | mg/L | 0.00078 | 25.72% |
| Mg 279.077† | 329.8 | 0.1177 | mg/L | 0.00135 | 0.1177 | mg/L | 0.00135 | 1.15% |
| Mn 257.610† | 1977.8 | 0.0126 | mg/L | 0.00020 | 0.0126 | mg/L | 0.00020 | 1.60% |
| Mo 202.031† | 1.4 | 0.0002 | mg/L | 0.00030 | 0.0002 | mg/L | 0.00030 | 135.12% |
| Na 589.592† | 27765.0 | 1.546 | mg/L | 0.3445 | 1.546 | mg/L | 0.3445 | 22.29% |
| Ni 231.604† | 29.0 | 0.0026 | mg/L | 0.00001 | 0.0026 | mg/L | 0.00001 | 0.42% |
| P 214.914† | 329.3 | 0.6886 | mg/L | 0.02417 | 0.6886 | mg/L | 0.02417 | 3.51% |
| Pb 220.353† | 6.1 | 0.0027 | mg/L | 0.00244 | 0.0027 | mg/L | 0.00244 | 91.05% |
| Sb 206.836† | 0.2 | 0.0001 | mg/L | 0.00062 | 0.0001 | mg/L | 0.00062 | 501.70% |
| Se 196.026† | 0.7 | 0.0009 | mg/L | 0.00541 | 0.0009 | mg/L | 0.00541 | 622.41% |
| Si 251.611† | 3363.5 | 0.1874 | mg/L | 0.00110 | 0.1874 | mg/L | 0.00110 | 0.59% |
| Sn 189.927† | 1011.0 | 0.4082 | mg/L | 0.00777 | 0.4082 | mg/L | 0.00777 | 1.90% |
| Sr 421.552† | 2833.5 | 0.0039 | mg/L | 0.00015 | 0.0039 | mg/L | 0.00015 | 3.75% |
| Ti 334.903† | 29483.6 | 0.1186 | mg/L | 0.00278 | 0.1186 | mg/L | 0.00278 | 2.35% |
| Tl 190.801† | 0.3 | 0.0017 | mg/L | 0.00055 | 0.0017 | mg/L | 0.00055 | 32.30% |
| V 292.402† | 117.3 | 0.0030 | mg/L | 0.00030 | 0.0030 | mg/L | 0.00030 | 10.10% |
| Zn 213.857† | 84751.0 | 2.417 | mg/L | 0.0256 | 2.417 | mg/L | 0.0256 | 1.06% |
| Zr 343.823† | 11611.4 | 0.0813 | mg/L | 0.00174 | 0.0813 | mg/L | 0.00174 | 2.14% |
| W 207.912† | 21.6 | -0.0055 | mg/L | 0.00029 | -0.0055 | mg/L | 0.00029 | 5.30% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 3 Autosampler Location: 42
Sample ID: 440-194754-a-11-b@10 Date Collected: 10/26/2017 1:10:42 PM
Analyst: BH Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194754-a-11-b@10

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: 440-194754-a-11-b@10

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2530012.4 | 98.72 | % | 0.866 | | | | 0.88% |
| Ag 328.068† | 78.4 | 0.0013 | mg/L | 0.00043 | 0.0013 | mg/L | 0.00043 | 33.06% |
| Al 308.215† | 347039.3 | 33.99 | mg/L | 0.146 | 33.99 | mg/L | 0.146 | 0.43% |
| As 188.979† | 19.2 | 0.0310 | mg/L | 0.00144 | 0.0310 | mg/L | 0.00144 | 4.65% |
| B 249.677† | 4953.8 | 0.0346 | mg/L | 0.00086 | 0.0346 | mg/L | 0.00086 | 2.49% |
| Ba 233.527† | 2165.3 | 0.0662 | mg/L | 0.00029 | 0.0662 | mg/L | 0.00029 | 0.43% |
| Be 313.107† | 1479.8 | 0.0017 | mg/L | 0.00009 | 0.0017 | mg/L | 0.00009 | 5.23% |
| Ca 315.887† | 1032758.7 | 379.7 | mg/L | 1.20 | 379.7 | mg/L | 1.20 | 0.32% |
| Cd 214.440† | 0.2 | 0.0002 | mg/L | 0.00001 | 0.0002 | mg/L | 0.00001 | 2.66% |
| Co 228.616† | 132.3 | 0.0139 | mg/L | 0.00011 | 0.0139 | mg/L | 0.00011 | 0.81% |
| Cr 205.560† | 746.1 | 0.0589 | mg/L | 0.00059 | 0.0589 | mg/L | 0.00059 | 1.00% |
| Cu 324.752† | 3432.8 | 0.0326 | mg/L | 0.00042 | 0.0326 | mg/L | 0.00042 | 1.29% |
| Fe 238.204† | 97171.0 | 31.46 | mg/L | 0.550 | 31.46 | mg/L | 0.550 | 1.75% |
| K 766.490† | 30226.9 | 11.81 | mg/L | 0.093 | 11.81 | mg/L | 0.093 | 0.79% |
| Li 610.362† | -18603.5 | 0.1223 | mg/L | 0.00064 | 0.1223 | mg/L | 0.00064 | 0.52% |
| Mg 279.077† | 654342.2 | 233.3 | mg/L | 0.12 | 233.3 | mg/L | 0.12 | 0.05% |
| Mn 257.610† | 216774.3 | 1.373 | mg/L | 0.0111 | 1.373 | mg/L | 0.0111 | 0.81% |
| Mo 202.031† | 21.7 | 0.0041 | mg/L | 0.00037 | 0.0041 | mg/L | 0.00037 | 8.96% |
| Na 589.592† | 91817.3 | 5.111 | mg/L | 0.0165 | 5.111 | mg/L | 0.0165 | 0.32% |
| Ni 231.604† | 339.8 | 0.0302 | mg/L | 0.00056 | 0.0302 | mg/L | 0.00056 | 1.85% |
| P 214.914† | 699.5 | 1.450 | mg/L | 0.0061 | 1.450 | mg/L | 0.0061 | 0.42% |
| Pb 220.353† | 45.8 | 0.0228 | mg/L | 0.00121 | 0.0228 | mg/L | 0.00121 | 5.30% |
| Sb 206.836† | -0.8 | 0.0005 | mg/L | 0.00074 | 0.0005 | mg/L | 0.00074 | 139.00% |
| Se 196.026† | -21.3 | -0.0153 | mg/L | 0.00131 | -0.0153 | mg/L | 0.00131 | 8.53% |
| Si 251.611† | 5821.6 | 0.3110 | mg/L | 0.00793 | 0.3110 | mg/L | 0.00793 | 2.55% |
| Sn 189.927† | 64.3 | 0.0129 | mg/L | 0.00075 | 0.0129 | mg/L | 0.00075 | 5.81% |
| Sr 421.552† | 333194.1 | 0.4671 | mg/L | 0.00850 | 0.4671 | mg/L | 0.00850 | 1.82% |
| Ti 334.903† | 179246.6 | 0.7258 | mg/L | 0.00469 | 0.7258 | mg/L | 0.00469 | 0.65% |
| Tl 190.801† | -4.2 | 0.0022 | mg/L | 0.00313 | 0.0022 | mg/L | 0.00313 | 139.97% |
| V 292.402† | 1898.8 | 0.0519 | mg/L | 0.00088 | 0.0519 | mg/L | 0.00088 | 1.69% |
| Zn 213.857† | 3609.2 | 0.0896 | mg/L | 0.00159 | 0.0896 | mg/L | 0.00159 | 1.78% |
| Zr 343.823† | 3916.5 | 0.0274 | mg/L | 0.00297 | 0.0274 | mg/L | 0.00297 | 10.82% |
| W 207.912† | -2.1 | -0.0017 | mg/L | 0.00045 | -0.0017 | mg/L | 0.00045 | 26.74% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 4 Autosampler Location: 4
Sample ID: CCV 4447505 Date Collected: 10/26/2017 1:12:38 PM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: CCV 4447505

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: CCV 4447505

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2690084.3 | 105.0 | % | 1.57 | | | | 1.49% |
| Ag 328.068† | 46398.2 | 0.4719 | mg/L | 0.01342 | 0.4719 | mg/L | 0.01342 | 2.84% |
| Al 308.215† | 10642.5 | 1.009 | mg/L | 0.0755 | 1.009 | mg/L | 0.0755 | 7.48% |
| As 188.979† | 659.8 | 0.9788 | mg/L | 0.01847 | 0.9788 | mg/L | 0.01847 | 1.89% |
| B 249.677† | 44779.4 | 1.035 | mg/L | 0.0303 | 1.035 | mg/L | 0.0303 | 2.93% |
| Ba 233.527† | 30227.9 | 0.9239 | mg/L | 0.02517 | 0.9239 | mg/L | 0.02517 | 2.72% |
| Be 313.107† | 800430.7 | 0.9365 | mg/L | 0.00229 | 0.9365 | mg/L | 0.00229 | 0.24% |
| Ca 315.887† | 14289.8 | 5.256 | mg/L | 0.0472 | 5.256 | mg/L | 0.0472 | 0.90% |
| Cd 214.440† | 31646.0 | 0.9998 | mg/L | 0.03395 | 0.9998 | mg/L | 0.03395 | 3.40% |
| Co 228.616† | 8614.7 | 1.013 | mg/L | 0.0342 | 1.013 | mg/L | 0.0342 | 3.37% |
| Cr 205.560† | 12111.3 | 0.9536 | mg/L | 0.01995 | 0.9536 | mg/L | 0.01995 | 2.09% |
| Cu 324.752† | 108220.1 | 0.9502 | mg/L | 0.02702 | 0.9502 | mg/L | 0.02702 | 2.84% |
| Fe 238.204† | 3255.9 | 1.056 | mg/L | 0.0064 | 1.056 | mg/L | 0.0064 | 0.61% |
| K 766.490† | 26568.3 | 10.38 | mg/L | 0.027 | 10.38 | mg/L | 0.027 | 0.26% |
| Li 610.362† | 107563.5 | 0.9540 | mg/L | 0.02703 | 0.9540 | mg/L | 0.02703 | 2.83% |
| Mg 279.077† | 14570.6 | 5.197 | mg/L | 0.5840 | 5.197 | mg/L | 0.5840 | 11.24% |
| Mn 257.610† | 142476.3 | 0.9079 | mg/L | 0.01718 | 0.9079 | mg/L | 0.01718 | 1.89% |
| Mo 202.031† | 6437.6 | 0.9942 | mg/L | 0.01640 | 0.9942 | mg/L | 0.01640 | 1.65% |
| Na 589.592† | 203682.8 | 11.34 | mg/L | 0.000 | 11.34 | mg/L | 0.000 | 0.00% |
| Ni 231.604† | 10292.7 | 0.9305 | mg/L | 0.02822 | 0.9305 | mg/L | 0.02822 | 3.03% |
| P 214.914† | 453.2 | 0.8887 | mg/L | 0.01238 | 0.8887 | mg/L | 0.01238 | 1.39% |
| Pb 220.353† | 1903.9 | 0.9788 | mg/L | 0.02276 | 0.9788 | mg/L | 0.02276 | 2.33% |
| Sb 206.836† | 697.3 | 0.9375 | mg/L | 0.02480 | 0.9375 | mg/L | 0.02480 | 2.65% |
| Se 196.026† | 757.1 | 0.9716 | mg/L | 0.02003 | 0.9716 | mg/L | 0.02003 | 2.06% |
| Si 251.611† | 101379.9 | 5.622 | mg/L | 0.1558 | 5.622 | mg/L | 0.1558 | 2.77% |
| Sn 189.927† | 2379.1 | 0.9648 | mg/L | 0.02396 | 0.9648 | mg/L | 0.02396 | 2.48% |
| Sr 421.552† | 664692.9 | 0.9536 | mg/L | 0.00820 | 0.9536 | mg/L | 0.00820 | 0.86% |
| Ti 334.903† | 255533.6 | 1.027 | mg/L | 0.0108 | 1.027 | mg/L | 0.0108 | 1.05% |
| Tl 190.801† | 610.2 | 1.006 | mg/L | 0.0233 | 1.006 | mg/L | 0.0233 | 2.32% |
| V 292.402† | 39442.0 | 1.015 | mg/L | 0.0332 | 1.015 | mg/L | 0.0332 | 3.27% |
| Zn 213.857† | 33001.8 | 0.9351 | mg/L | 0.02115 | 0.9351 | mg/L | 0.02115 | 2.26% |
| Zr 343.823† | 137968.5 | 0.9666 | mg/L | 0.02987 | 0.9666 | mg/L | 0.02987 | 3.09% |
| W 207.912† | 1912.9 | 0.9109 | mg/L | 0.02318 | 0.9109 | mg/L | 0.02318 | 2.54% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 5 Autosampler Location: 1
Sample ID: CCB 4447504 Date Collected: 10/26/2017 1:14:39 PM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: CCB 4447504

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: CCB 4447504

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2682425.6 | 104.7 | % | 0.33 | | | | 0.31% |
| Ag 328.068† | 27.9 | 0.0003 | mg/L | 0.00015 | 0.0003 | mg/L | 0.00015 | 52.24% |
| Al 308.215† | -223.1 | -0.0220 | mg/L | 0.00751 | -0.0220 | mg/L | 0.00751 | 34.09% |
| As 188.979† | -1.3 | -0.0019 | mg/L | 0.00062 | -0.0019 | mg/L | 0.00062 | 32.64% |
| B 249.677† | 65.2 | 0.0015 | mg/L | 0.00004 | 0.0015 | mg/L | 0.00004 | 2.85% |
| Ba 233.527† | 14.0 | 0.0004 | mg/L | 0.00000 | 0.0004 | mg/L | 0.00000 | 0.54% |
| Be 313.107† | -71.9 | -0.0001 | mg/L | 0.00008 | -0.0001 | mg/L | 0.00008 | 90.94% |
| Ca 315.887† | 223.9 | 0.0823 | mg/L | 0.00292 | 0.0823 | mg/L | 0.00292 | 3.55% |
| Cd 214.440† | 10.2 | 0.0003 | mg/L | 0.00016 | 0.0003 | mg/L | 0.00016 | 49.06% |
| Co 228.616† | 10.0 | 0.0012 | mg/L | 0.00052 | 0.0012 | mg/L | 0.00052 | 43.92% |
| Cr 205.560† | 2.5 | 0.0002 | mg/L | 0.00040 | 0.0002 | mg/L | 0.00040 | 204.75% |
| Cu 324.752† | 158.0 | 0.0014 | mg/L | 0.00010 | 0.0014 | mg/L | 0.00010 | 6.92% |
| Fe 238.204† | 28.5 | 0.0092 | mg/L | 0.00077 | 0.0092 | mg/L | 0.00077 | 8.32% |
| K 766.490† | 61.8 | 0.0241 | mg/L | 0.01424 | 0.0241 | mg/L | 0.01424 | 58.98% |
| Li 610.362† | 36.4 | 0.0004 | mg/L | 0.00012 | 0.0004 | mg/L | 0.00012 | 31.37% |
| Mg 279.077† | 94.5 | 0.0338 | mg/L | 0.00071 | 0.0338 | mg/L | 0.00071 | 2.09% |
| Mn 257.610† | 39.4 | 0.0003 | mg/L | 0.00002 | 0.0003 | mg/L | 0.00002 | 8.72% |
| Mo 202.031† | 86.3 | 0.0133 | mg/L | 0.00128 | 0.0133 | mg/L | 0.00128 | 9.59% |
| Na 589.592† | 1995.9 | 0.1111 | mg/L | 0.00149 | 0.1111 | mg/L | 0.00149 | 1.34% |
| Ni 231.604† | 22.7 | 0.0020 | mg/L | 0.00009 | 0.0020 | mg/L | 0.00009 | 4.58% |
| P 214.914† | -2.0 | -0.0045 | mg/L | 0.00229 | -0.0045 | mg/L | 0.00229 | 51.20% |
| Pb 220.353† | 6.4 | 0.0033 | mg/L | 0.00141 | 0.0033 | mg/L | 0.00141 | 42.76% |
| Sb 206.836† | 3.3 | 0.0046 | mg/L | 0.00115 | 0.0046 | mg/L | 0.00115 | 24.70% |
| Se 196.026† | 3.5 | 0.0045 | mg/L | 0.00236 | 0.0045 | mg/L | 0.00236 | 52.72% |
| Si 251.611† | 149.0 | 0.0081 | mg/L | 0.00106 | 0.0081 | mg/L | 0.00106 | 13.09% |
| Sn 189.927† | -1.4 | -0.0006 | mg/L | 0.00037 | -0.0006 | mg/L | 0.00037 | 67.03% |
| Sr 421.552† | 296.2 | 0.0004 | mg/L | 0.00011 | 0.0004 | mg/L | 0.00011 | 26.73% |
| Ti 334.903† | 227.7 | 0.0009 | mg/L | 0.00007 | 0.0009 | mg/L | 0.00007 | 7.34% |
| Tl 190.801† | -0.1 | -0.0001 | mg/L | 0.00017 | -0.0001 | mg/L | 0.00017 | 116.90% |
| V 292.402† | 13.4 | 0.0003 | mg/L | 0.00070 | 0.0003 | mg/L | 0.00070 | 200.99% |
| Zn 213.857† | -7.6 | -0.0002 | mg/L | 0.00009 | -0.0002 | mg/L | 0.00009 | 40.24% |
| Zr 343.823† | -36.3 | -0.0003 | mg/L | 0.00002 | -0.0003 | mg/L | 0.00002 | 7.70% |
| W 207.912† | 5.0 | 0.0024 | mg/L | 0.00059 | 0.0024 | mg/L | 0.00059 | 24.85% |


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**Analytical Sequence**
**Method: 170824_ICP7**

| Seq. | Loc. | ID | Status |
|---|---|---|---|
| 1 | 40 | 440-192979-b-1-g | Analyzed |
| 2 | 41 | 440-194876-a-1-a@25 | Analyzed |
| 3 | 42 | 440-194754-a-11-b@10 | Analyzed |
| 4 | 4 | CCV 4447505 | Analyzed |
| 5 | 1 | CCB 4447504 | Analyzed |


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**Analysis Begun**

**Start Time: 10/26/2017 1:23:29 PM** **Plasma On Time: 10/26/2017 9:24:37 AM**
**Logged In Analyst: IRVINSTICP7** **Technique: ICP Continuous**
**Spectrometer: Optima 8300** **Autosampler: ESI**

**Sample Information File: C:\Users\Public\PerkinElmer\ICP\Data\Sample Information\CP 171026-1.sif**
**Batch ID:**
**Results Data Set: 171026-1 ICP7**
**Results Library: C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb**

==========

**Sequence No.: 1** **Autosampler Location: 43**
**Sample ID: mb 440-437362_1-a** **Date Collected: 10/26/2017 1:23:40 PM**
**Analyst: BH** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time:**

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**Nebulizer Parameters: mb 440-437362_1-a**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: mb 440-437362_1-a**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2715492.6 | 106.0 | % | 0.31 | | | | 0.29% |
| Ag 328.068† | -32.5 | -0.0003 | mg/L | 0.00010 | -0.0003 | mg/L | 0.00010 | 30.77% |
| Al 308.215† | -402.2 | -0.0395 | mg/L | 0.00177 | -0.0395 | mg/L | 0.00177 | 4.49% |
| As 188.979† | -1.4 | -0.0020 | mg/L | 0.00425 | -0.0020 | mg/L | 0.00425 | 208.75% |
| B 249.677† | 5.4 | 0.0001 | mg/L | 0.00014 | 0.0001 | mg/L | 0.00014 | 110.38% |
| Ba 233.527† | 11.8 | 0.0004 | mg/L | 0.00010 | 0.0004 | mg/L | 0.00010 | 26.98% |
| Be 313.107† | -97.1 | -0.0001 | mg/L | 0.00000 | -0.0001 | mg/L | 0.00000 | 2.29% |
| Ca 315.887† | 121.8 | 0.0448 | mg/L | 0.00036 | 0.0448 | mg/L | 0.00036 | 0.80% |
| Cd 214.440† | 8.3 | 0.0003 | mg/L | 0.00009 | 0.0003 | mg/L | 0.00009 | 33.51% |
| Co 228.616† | 12.1 | 0.0014 | mg/L | 0.00015 | 0.0014 | mg/L | 0.00015 | 10.79% |
| Cr 205.560† | 2.8 | 0.0002 | mg/L | 0.00019 | 0.0002 | mg/L | 0.00019 | 83.54% |
| Cu 324.752† | 146.9 | 0.0013 | mg/L | 0.00039 | 0.0013 | mg/L | 0.00039 | 29.86% |
| Fe 238.204† | 12.0 | 0.0039 | mg/L | 0.00052 | 0.0039 | mg/L | 0.00052 | 13.37% |
| K 766.490† | 70.4 | 0.0275 | mg/L | 0.01652 | 0.0275 | mg/L | 0.01652 | 60.07% |
| Li 610.362† | 40.0 | 0.0004 | mg/L | 0.00040 | 0.0004 | mg/L | 0.00040 | 102.60% |
| Mg 279.077† | 47.8 | 0.0170 | mg/L | 0.00052 | 0.0170 | mg/L | 0.00052 | 3.03% |
| Mn 257.610† | 12.4 | 0.0001 | mg/L | 0.00002 | 0.0001 | mg/L | 0.00002 | 23.01% |
| Mo 202.031† | 10.2 | 0.0016 | mg/L | 0.00019 | 0.0016 | mg/L | 0.00019 | 12.04% |
| Na 589.592† | 2064.9 | 0.1150 | mg/L | 0.00975 | 0.1150 | mg/L | 0.00975 | 8.48% |
| Ni 231.604† | 19.6 | 0.0018 | mg/L | 0.00050 | 0.0018 | mg/L | 0.00050 | 28.28% |
| P 214.914† | -1.0 | -0.0020 | mg/L | 0.00424 | -0.0020 | mg/L | 0.00424 | 209.78% |
| Pb 220.353† | 2.9 | 0.0015 | mg/L | 0.00042 | 0.0015 | mg/L | 0.00042 | 27.78% |
| Sb 206.836† | -4.1 | -0.0055 | mg/L | 0.00085 | -0.0055 | mg/L | 0.00085 | 15.43% |
| Se 196.026† | 2.3 | 0.0030 | mg/L | 0.00063 | 0.0030 | mg/L | 0.00063 | 21.16% |
| Si 251.611† | 26.7 | 0.0016 | mg/L | 0.00045 | 0.0016 | mg/L | 0.00045 | 28.43% |
| Sn 189.927† | -10.1 | -0.0041 | mg/L | 0.00143 | -0.0041 | mg/L | 0.00143 | 35.28% |
| Sr 421.552† | 191.6 | 0.0003 | mg/L | 0.00009 | 0.0003 | mg/L | 0.00009 | 31.64% |
| Ti 334.903† | 83.7 | 0.0003 | mg/L | 0.00007 | 0.0003 | mg/L | 0.00007 | 19.95% |
| Tl 190.801† | 1.5 | 0.0025 | mg/L | 0.00243 | 0.0025 | mg/L | 0.00243 | 97.40% |
| V 292.402† | -13.7 | -0.0003 | mg/L | 0.00004 | -0.0003 | mg/L | 0.00004 | 11.04% |
| Zn 213.857† | -15.6 | -0.0005 | mg/L | 0.00001 | -0.0005 | mg/L | 0.00001 | 1.40% |
| Zr 343.823† | -12.0 | -0.0001 | mg/L | 0.00042 | -0.0001 | mg/L | 0.00042 | 499.29% |
| W 207.912† | -3.7 | -0.0017 | mg/L | 0.00026 | -0.0017 | mg/L | 0.00026 | 14.68% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 2 Autosampler Location: 44
Sample ID: lcs 440-437362_2-a Date Collected: 10/26/2017 1:26:18 PM
Analyst: BH Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: lcs 440-437362_2-a

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: lcs 440-437362_2-a

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2716117.2 | 106.0 | % | 1.30 | | | | 1.23% |
| Ag 328.068† | 21544.2 | 0.2191 | mg/L | 0.00341 | 0.2191 | mg/L | 0.00341 | 1.55% |
| Al 308.215† | 4225.8 | 0.3985 | mg/L | 0.01199 | 0.3985 | mg/L | 0.01199 | 3.01% |
| As 188.979† | 307.8 | 0.4566 | mg/L | 0.00056 | 0.4566 | mg/L | 0.00056 | 0.12% |
| B 249.677† | 18306.1 | 0.4226 | mg/L | 0.00489 | 0.4226 | mg/L | 0.00489 | 1.16% |
| Ba 233.527† | 14158.1 | 0.4327 | mg/L | 0.00407 | 0.4327 | mg/L | 0.00407 | 0.94% |
| Be 313.107† | 368486.3 | 0.4311 | mg/L | 0.00273 | 0.4311 | mg/L | 0.00273 | 0.63% |
| Ca 315.887† | 6400.6 | 2.354 | mg/L | 0.0214 | 2.354 | mg/L | 0.0214 | 0.91% |
| Cd 214.440† | 15030.3 | 0.4749 | mg/L | 0.00396 | 0.4749 | mg/L | 0.00396 | 0.83% |
| Co 228.616† | 4342.6 | 0.5108 | mg/L | 0.00561 | 0.5108 | mg/L | 0.00561 | 1.10% |
| Cr 205.560† | 5708.2 | 0.4495 | mg/L | 0.00426 | 0.4495 | mg/L | 0.00426 | 0.95% |
| Cu 324.752† | 49695.8 | 0.4364 | mg/L | 0.00515 | 0.4364 | mg/L | 0.00515 | 1.18% |
| Fe 238.204† | 1495.0 | 0.4848 | mg/L | 0.00493 | 0.4848 | mg/L | 0.00493 | 1.02% |
| K 766.490† | 12112.2 | 4.731 | mg/L | 0.1208 | 4.731 | mg/L | 0.1208 | 2.55% |
| Li 610.362† | 49452.9 | 0.4386 | mg/L | 0.00569 | 0.4386 | mg/L | 0.00569 | 1.30% |
| Mg 279.077† | 6155.2 | 2.196 | mg/L | 0.0385 | 2.196 | mg/L | 0.0385 | 1.75% |
| Mn 257.610† | 65576.6 | 0.4179 | mg/L | 0.00483 | 0.4179 | mg/L | 0.00483 | 1.16% |
| Mo 202.031† | 2909.0 | 0.4492 | mg/L | 0.00657 | 0.4492 | mg/L | 0.00657 | 1.46% |
| Na 589.592† | 95576.8 | 5.321 | mg/L | 0.2062 | 5.321 | mg/L | 0.2062 | 3.87% |
| Ni 231.604† | 4911.2 | 0.4440 | mg/L | 0.00694 | 0.4440 | mg/L | 0.00694 | 1.56% |
| P 214.914† | 208.6 | 0.4093 | mg/L | 0.00496 | 0.4093 | mg/L | 0.00496 | 1.21% |
| Pb 220.353† | 896.7 | 0.4610 | mg/L | 0.00785 | 0.4610 | mg/L | 0.00785 | 1.70% |
| Sb 206.836† | 325.5 | 0.4373 | mg/L | 0.00790 | 0.4373 | mg/L | 0.00790 | 1.81% |
| Se 196.026† | 359.9 | 0.4621 | mg/L | 0.00170 | 0.4621 | mg/L | 0.00170 | 0.37% |
| Si 251.611† | 37319.7 | 2.063 | mg/L | 0.0223 | 2.063 | mg/L | 0.0223 | 1.08% |
| Sn 189.927† | 1101.1 | 0.4466 | mg/L | 0.01092 | 0.4466 | mg/L | 0.01092 | 2.45% |
| Sr 421.552† | 308122.5 | 0.4421 | mg/L | 0.01124 | 0.4421 | mg/L | 0.01124 | 2.54% |
| Ti 334.903† | 120966.2 | 0.4860 | mg/L | 0.00418 | 0.4860 | mg/L | 0.00418 | 0.86% |
| Tl 190.801† | 283.6 | 0.4673 | mg/L | 0.00771 | 0.4673 | mg/L | 0.00771 | 1.65% |
| V 292.402† | 18429.3 | 0.4744 | mg/L | 0.00660 | 0.4744 | mg/L | 0.00660 | 1.39% |
| Zn 213.857† | 15531.8 | 0.4401 | mg/L | 0.00353 | 0.4401 | mg/L | 0.00353 | 0.80% |
| Zr 343.823† | 63307.6 | 0.4435 | mg/L | 0.00517 | 0.4435 | mg/L | 0.00517 | 1.16% |
| W 207.912† | 871.4 | 0.4149 | mg/L | 0.00368 | 0.4149 | mg/L | 0.00368 | 0.89% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 3 Autosampler Location: 45
Sample ID: 440-194887-e-1-a@50 Date Collected: 10/26/2017 1:28:50 PM
Analyst: BH Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194887-e-1-a@50

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194887-e-1-a@50

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2671732.3 | 104.2 | % | 1.13 | | | | 1.09% |
| Ag 328.068† | -66.0 | -0.0007 | mg/L | 0.00030 | -0.0007 | mg/L | 0.00030 | 43.70% |
| Al 308.215† | -138.7 | -0.0157 | mg/L | 0.00183 | -0.0157 | mg/L | 0.00183 | 11.66% |
| As 188.979† | -0.2 | -0.0002 | mg/L | 0.00192 | -0.0002 | mg/L | 0.00192 | 848.67% |
| B 249.677† | 190.5 | 0.0044 | mg/L | 0.00005 | 0.0044 | mg/L | 0.00005 | 1.15% |
| Ba 233.527† | 24.7 | 0.0008 | mg/L | 0.00013 | 0.0008 | mg/L | 0.00013 | 17.69% |
| Be 313.107† | -110.3 | -0.0001 | mg/L | 0.00006 | -0.0001 | mg/L | 0.00006 | 43.68% |
| Ca 315.887† | 7942.4 | 2.920 | mg/L | 0.0062 | 2.920 | mg/L | 0.0062 | 0.21% |
| Cd 214.440† | 12.7 | 0.0004 | mg/L | 0.00002 | 0.0004 | mg/L | 0.00002 | 4.03% |
| Co 228.616† | 25.4 | 0.0030 | mg/L | 0.00004 | 0.0030 | mg/L | 0.00004 | 1.47% |
| Cr 205.560† | 328.8 | 0.0259 | mg/L | 0.00027 | 0.0259 | mg/L | 0.00027 | 1.04% |
| Cu 324.752† | 193.9 | 0.0017 | mg/L | 0.00015 | 0.0017 | mg/L | 0.00015 | 9.01% |
| Fe 238.204† | 22.5 | 0.0073 | mg/L | 0.00187 | 0.0073 | mg/L | 0.00187 | 25.73% |
| K 766.490† | 13248.7 | 5.175 | mg/L | 0.0327 | 5.175 | mg/L | 0.0327 | 0.63% |
| Li 610.362† | -35.0 | 0.0019 | mg/L | 0.00041 | 0.0019 | mg/L | 0.00041 | 21.53% |
| Mg 279.077† | 2902.2 | 1.035 | mg/L | 0.0197 | 1.035 | mg/L | 0.0197 | 1.90% |
| Mn 257.610† | 109292.0 | 0.6965 | mg/L | 0.01883 | 0.6965 | mg/L | 0.01883 | 2.70% |
| Mo 202.031† | 92.5 | 0.0143 | mg/L | 0.00193 | 0.0143 | mg/L | 0.00193 | 13.50% |
| Na 589.592† | 15425.5 | 0.8587 | mg/L | 0.01312 | 0.8587 | mg/L | 0.01312 | 1.53% |
| Ni 231.604† | 30.6 | 0.0028 | mg/L | 0.00017 | 0.0028 | mg/L | 0.00017 | 6.04% |
| P 214.914† | 1.0 | 0.0019 | mg/L | 0.00603 | 0.0019 | mg/L | 0.00603 | 325.00% |
| Pb 220.353† | 3.3 | 0.0016 | mg/L | 0.00123 | 0.0016 | mg/L | 0.00123 | 75.60% |
| Sb 206.836† | 2.7 | 0.0037 | mg/L | 0.00090 | 0.0037 | mg/L | 0.00090 | 24.13% |
| Se 196.026† | -1.7 | -0.0028 | mg/L | 0.01039 | -0.0028 | mg/L | 0.01039 | 372.33% |
| Si 251.611† | 4269.4 | 0.2393 | mg/L | 0.00538 | 0.2393 | mg/L | 0.00538 | 2.25% |
| Sn 189.927† | -1.6 | -0.0008 | mg/L | 0.00083 | -0.0008 | mg/L | 0.00083 | 103.71% |
| Sr 421.552† | 6801.2 | 0.0097 | mg/L | 0.00006 | 0.0097 | mg/L | 0.00006 | 0.63% |
| Ti 334.903† | 230.3 | 0.0010 | mg/L | 0.00011 | 0.0010 | mg/L | 0.00011 | 11.86% |
| Tl 190.801† | -0.7 | -0.0014 | mg/L | 0.00033 | -0.0014 | mg/L | 0.00033 | 23.45% |
| V 292.402† | 20.9 | 0.0006 | mg/L | 0.00032 | 0.0006 | mg/L | 0.00032 | 50.56% |
| Zn 213.857† | 87.3 | 0.0024 | mg/L | 0.00020 | 0.0024 | mg/L | 0.00020 | 8.30% |
| Zr 343.823† | 6.6 | 0.0000 | mg/L | 0.00028 | 0.0000 | mg/L | 0.00028 | 613.30% |
| W 207.912† | 6.7 | 0.0032 | mg/L | 0.00276 | 0.0032 | mg/L | 0.00276 | 86.29% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 4 Autosampler Location: 46
Sample ID: 440-194887-e-1-b ms@50 Date Collected: 10/26/2017 1:31:22 PM
Analyst: BH Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194887-e-1-b ms@50

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: 440-194887-e-1-b ms@50

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2711267.0 | 105.8 | % | 0.30 | | | | 0.28% |
| Ag 328.068† | 489.8 | 0.0050 | mg/L | 0.00031 | 0.0050 | mg/L | 0.00031 | 6.12% |
| Al 308.215† | -150.2 | -0.0169 | mg/L | 0.00019 | -0.0169 | mg/L | 0.00019 | 1.14% |
| As 188.979† | 4.3 | 0.0064 | mg/L | 0.00309 | 0.0064 | mg/L | 0.00309 | 47.98% |
| B 249.677† | 613.2 | 0.0142 | mg/L | 0.00031 | 0.0142 | mg/L | 0.00031 | 2.18% |
| Ba 233.527† | 349.0 | 0.0107 | mg/L | 0.00001 | 0.0107 | mg/L | 0.00001 | 0.06% |
| Be 313.107† | 8340.4 | 0.0098 | mg/L | 0.00001 | 0.0098 | mg/L | 0.00001 | 0.08% |
| Ca 315.887† | 7757.2 | 2.852 | mg/L | 0.0036 | 2.852 | mg/L | 0.0036 | 0.13% |
| Cd 214.440† | 356.6 | 0.0113 | mg/L | 0.00009 | 0.0113 | mg/L | 0.00009 | 0.78% |
| Co 228.616† | 110.7 | 0.0130 | mg/L | 0.00035 | 0.0130 | mg/L | 0.00035 | 2.71% |
| Cr 205.560† | 451.0 | 0.0355 | mg/L | 0.00002 | 0.0355 | mg/L | 0.00002 | 0.05% |
| Cu 324.752† | 1235.2 | 0.0108 | mg/L | 0.00030 | 0.0108 | mg/L | 0.00030 | 2.78% |
| Fe 238.204† | 44.0 | 0.0143 | mg/L | 0.00111 | 0.0143 | mg/L | 0.00111 | 7.77% |
| K 766.490† | 13059.8 | 5.101 | mg/L | 0.0457 | 5.101 | mg/L | 0.0457 | 0.90% |
| Li 610.362† | 1028.5 | 0.0112 | mg/L | 0.00023 | 0.0112 | mg/L | 0.00023 | 2.06% |
| Mg 279.077† | 2995.6 | 1.068 | mg/L | 0.0058 | 1.068 | mg/L | 0.0058 | 0.54% |
| Mn 257.610† | 105901.1 | 0.6749 | mg/L | 0.00120 | 0.6749 | mg/L | 0.00120 | 0.18% |
| Mo 202.031† | 30.0 | 0.0046 | mg/L | 0.00087 | 0.0046 | mg/L | 0.00087 | 18.76% |
| Na 589.592† | 16479.6 | 0.9174 | mg/L | 0.00954 | 0.9174 | mg/L | 0.00954 | 1.04% |
| Ni 231.604† | 148.2 | 0.0134 | mg/L | 0.00009 | 0.0134 | mg/L | 0.00009 | 0.67% |
| P 214.914† | 4.6 | 0.0095 | mg/L | 0.00111 | 0.0095 | mg/L | 0.00111 | 11.67% |
| Pb 220.353† | 10.6 | 0.0054 | mg/L | 0.00115 | 0.0054 | mg/L | 0.00115 | 21.53% |
| Sb 206.836† | 8.6 | 0.0114 | mg/L | 0.00148 | 0.0114 | mg/L | 0.00148 | 13.03% |
| Se 196.026† | 9.1 | 0.0113 | mg/L | 0.00309 | 0.0113 | mg/L | 0.00309 | 27.35% |
| Si 251.611† | 5572.0 | 0.3127 | mg/L | 0.00048 | 0.3127 | mg/L | 0.00048 | 0.16% |
| Sn 189.927† | 15.5 | 0.0062 | mg/L | 0.00191 | 0.0062 | mg/L | 0.00191 | 31.02% |
| Sr 421.552† | 13564.7 | 0.0194 | mg/L | 0.00012 | 0.0194 | mg/L | 0.00012 | 0.63% |
| Ti 334.903† | 2694.1 | 0.0109 | mg/L | 0.00010 | 0.0109 | mg/L | 0.00010 | 0.90% |
| Tl 190.801† | 6.9 | 0.0111 | mg/L | 0.00407 | 0.0111 | mg/L | 0.00407 | 36.71% |
| V 292.402† | 404.1 | 0.0105 | mg/L | 0.00023 | 0.0105 | mg/L | 0.00023 | 2.24% |
| Zn 213.857† | 369.3 | 0.0104 | mg/L | 0.00014 | 0.0104 | mg/L | 0.00014 | 1.37% |
| Zr 343.823† | 833.7 | 0.0058 | mg/L | 0.00020 | 0.0058 | mg/L | 0.00020 | 3.36% |
| W 207.912† | 1.9 | 0.0009 | mg/L | 0.00011 | 0.0009 | mg/L | 0.00011 | 12.85% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 5 Autosampler Location: 47
Sample ID: 440-194887-e-1-c msd@50 Date Collected: 10/26/2017 1:33:54 PM
Analyst: BH Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194887-e-1-c msd@50

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: 440-194887-e-1-c msd@50

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2674166.4 | 104.3 | % | 0.39 | | | | 0.37% |
| Ag 328.068† | 455.5 | 0.0046 | mg/L | 0.00020 | 0.0046 | mg/L | 0.00020 | 4.26% |
| Al 308.215† | -134.8 | -0.0154 | mg/L | 0.00347 | -0.0154 | mg/L | 0.00347 | 22.53% |
| As 188.979† | 6.5 | 0.0097 | mg/L | 0.00222 | 0.0097 | mg/L | 0.00222 | 22.84% |
| B 249.677† | 613.9 | 0.0142 | mg/L | 0.00041 | 0.0142 | mg/L | 0.00041 | 2.87% |
| Ba 233.527† | 340.8 | 0.0104 | mg/L | 0.00014 | 0.0104 | mg/L | 0.00014 | 1.37% |
| Be 313.107† | 8014.8 | 0.0094 | mg/L | 0.00011 | 0.0094 | mg/L | 0.00011 | 1.21% |
| Ca 315.887† | 7814.7 | 2.873 | mg/L | 0.0194 | 2.873 | mg/L | 0.0194 | 0.68% |
| Cd 214.440† | 348.0 | 0.0110 | mg/L | 0.00006 | 0.0110 | mg/L | 0.00006 | 0.52% |
| Co 228.616† | 106.2 | 0.0125 | mg/L | 0.00049 | 0.0125 | mg/L | 0.00049 | 3.94% |
| Cr 205.560† | 455.7 | 0.0359 | mg/L | 0.00069 | 0.0359 | mg/L | 0.00069 | 1.93% |
| Cu 324.752† | 1222.3 | 0.0107 | mg/L | 0.00024 | 0.0107 | mg/L | 0.00024 | 2.24% |
| Fe 238.204† | 40.5 | 0.0131 | mg/L | 0.00014 | 0.0131 | mg/L | 0.00014 | 1.03% |
| K 766.490† | 13236.7 | 5.170 | mg/L | 0.0382 | 5.170 | mg/L | 0.0382 | 0.74% |
| Li 610.362† | 1027.0 | 0.0112 | mg/L | 0.00023 | 0.0112 | mg/L | 0.00023 | 2.01% |
| Mg 279.077† | 2946.8 | 1.051 | mg/L | 0.0085 | 1.051 | mg/L | 0.0085 | 0.80% |
| Mn 257.610† | 104701.4 | 0.6673 | mg/L | 0.00720 | 0.6673 | mg/L | 0.00720 | 1.08% |
| Mo 202.031† | 23.3 | 0.0036 | mg/L | 0.00008 | 0.0036 | mg/L | 0.00008 | 2.34% |
| Na 589.592† | 16477.2 | 0.9173 | mg/L | 0.00304 | 0.9173 | mg/L | 0.00304 | 0.33% |
| Ni 231.604† | 138.8 | 0.0125 | mg/L | 0.00044 | 0.0125 | mg/L | 0.00044 | 3.52% |
| P 214.914† | 1.8 | 0.0035 | mg/L | 0.00451 | 0.0035 | mg/L | 0.00451 | 127.61% |
| Pb 220.353† | 12.0 | 0.0061 | mg/L | 0.00241 | 0.0061 | mg/L | 0.00241 | 39.51% |
| Sb 206.836† | 4.2 | 0.0054 | mg/L | 0.00411 | 0.0054 | mg/L | 0.00411 | 75.86% |
| Se 196.026† | 7.1 | 0.0087 | mg/L | 0.00186 | 0.0087 | mg/L | 0.00186 | 21.28% |
| Si 251.611† | 5526.0 | 0.3101 | mg/L | 0.00261 | 0.3101 | mg/L | 0.00261 | 0.84% |
| Sn 189.927† | 19.7 | 0.0078 | mg/L | 0.00054 | 0.0078 | mg/L | 0.00054 | 6.86% |
| Sr 421.552† | 13324.1 | 0.0190 | mg/L | 0.00020 | 0.0190 | mg/L | 0.00020 | 1.08% |
| Ti 334.903† | 2641.6 | 0.0107 | mg/L | 0.00004 | 0.0107 | mg/L | 0.00004 | 0.41% |
| Tl 190.801† | 6.9 | 0.0111 | mg/L | 0.00023 | 0.0111 | mg/L | 0.00023 | 2.04% |
| V 292.402† | 396.7 | 0.0103 | mg/L | 0.00034 | 0.0103 | mg/L | 0.00034 | 3.30% |
| Zn 213.857† | 364.1 | 0.0103 | mg/L | 0.00009 | 0.0103 | mg/L | 0.00009 | 0.88% |
| Zr 343.823† | 995.2 | 0.0070 | mg/L | 0.00006 | 0.0070 | mg/L | 0.00006 | 0.80% |
| W 207.912† | 1.9 | 0.0009 | mg/L | 0.00110 | 0.0009 | mg/L | 0.00110 | 127.21% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 6 Autosampler Location: 48
Sample ID: 440-194887-e-2-a@50 Date Collected: 10/26/2017 1:36:27 PM
Analyst: BH Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194887-e-2-a@50

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: 440-194887-e-2-a@50

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2669090.9 | 104.1 | % | 0.16 | | | | 0.16% |
| Ag 328.068† | 58.3 | 0.0006 | mg/L | 0.00046 | 0.0006 | mg/L | 0.00046 | 76.75% |
| Al 308.215† | -241.0 | -0.0244 | mg/L | 0.00206 | -0.0244 | mg/L | 0.00206 | 8.44% |
| As 188.979† | 1.2 | 0.0018 | mg/L | 0.00196 | 0.0018 | mg/L | 0.00196 | 108.46% |
| B 249.677† | 175.6 | 0.0041 | mg/L | 0.00011 | 0.0041 | mg/L | 0.00011 | 2.60% |
| Ba 233.527† | 12.6 | 0.0004 | mg/L | 0.00005 | 0.0004 | mg/L | 0.00005 | 12.12% |
| Be 313.107† | -139.0 | -0.0002 | mg/L | 0.00000 | -0.0002 | mg/L | 0.00000 | 2.03% |
| Ca 315.887† | 4115.4 | 1.513 | mg/L | 0.0013 | 1.513 | mg/L | 0.0013 | 0.09% |
| Cd 214.440† | 6.6 | 0.0002 | mg/L | 0.00002 | 0.0002 | mg/L | 0.00002 | 9.18% |
| Co 228.616† | 11.2 | 0.0013 | mg/L | 0.00033 | 0.0013 | mg/L | 0.00033 | 25.38% |
| Cr 205.560† | 458.0 | 0.0361 | mg/L | 0.00009 | 0.0361 | mg/L | 0.00009 | 0.25% |
| Cu 324.752† | 138.1 | 0.0012 | mg/L | 0.00045 | 0.0012 | mg/L | 0.00045 | 37.49% |
| Fe 238.204† | 4.0 | 0.0013 | mg/L | 0.00002 | 0.0013 | mg/L | 0.00002 | 1.30% |
| K 766.490† | 31192.6 | 12.18 | mg/L | 0.334 | 12.18 | mg/L | 0.334 | 2.74% |
| Li 610.362† | -42.8 | 0.0008 | mg/L | 0.00028 | 0.0008 | mg/L | 0.00028 | 36.76% |
| Mg 279.077† | 1391.9 | 0.4963 | mg/L | 0.00614 | 0.4963 | mg/L | 0.00614 | 1.24% |
| Mn 257.610† | 32707.0 | 0.2084 | mg/L | 0.00280 | 0.2084 | mg/L | 0.00280 | 1.34% |
| Mo 202.031† | 2.7 | 0.0004 | mg/L | 0.00010 | 0.0004 | mg/L | 0.00010 | 22.77% |
| Na 589.592† | 14141.3 | 0.7872 | mg/L | 0.03277 | 0.7872 | mg/L | 0.03277 | 4.16% |
| Ni 231.604† | 128.0 | 0.0116 | mg/L | 0.00002 | 0.0116 | mg/L | 0.00002 | 0.17% |
| P 214.914† | -2.7 | -0.0056 | mg/L | 0.00774 | -0.0056 | mg/L | 0.00774 | 137.64% |
| Pb 220.353† | 3.9 | 0.0020 | mg/L | 0.00122 | 0.0020 | mg/L | 0.00122 | 61.20% |
| Sb 206.836† | -1.9 | -0.0027 | mg/L | 0.00371 | -0.0027 | mg/L | 0.00371 | 136.87% |
| Se 196.026† | 2.0 | 0.0024 | mg/L | 0.00497 | 0.0024 | mg/L | 0.00497 | 207.03% |
| Si 251.611† | 5859.6 | 0.3291 | mg/L | 0.00206 | 0.3291 | mg/L | 0.00206 | 0.63% |
| Sn 189.927† | -5.9 | -0.0025 | mg/L | 0.00271 | -0.0025 | mg/L | 0.00271 | 109.43% |
| Sr 421.552† | 3590.2 | 0.0051 | mg/L | 0.00000 | 0.0051 | mg/L | 0.00000 | 0.09% |
| Ti 334.903† | 44.6 | 0.0002 | mg/L | 0.00008 | 0.0002 | mg/L | 0.00008 | 42.74% |
| Tl 190.801† | -1.0 | -0.0018 | mg/L | 0.00366 | -0.0018 | mg/L | 0.00366 | 206.66% |
| V 292.402† | 1.4 | 0.0002 | mg/L | 0.00020 | 0.0002 | mg/L | 0.00020 | 128.89% |
| Zn 213.857† | 6.2 | 0.0001 | mg/L | 0.00015 | 0.0001 | mg/L | 0.00015 | 149.02% |
| Zr 343.823† | 52.4 | 0.0004 | mg/L | 0.00000 | 0.0004 | mg/L | 0.00000 | 0.69% |
| W 207.912† | -3.7 | -0.0018 | mg/L | 0.00194 | -0.0018 | mg/L | 0.00194 | 107.96% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 7 Autosampler Location: 49
Sample ID: 440-194887-e-3-a Date Collected: 10/26/2017 1:38:59 PM
Analyst: BH Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194887-e-3-a

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: 440-194887-e-3-a

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2607369.9 | 101.7 | % | 1.34 | | | | 1.32% |
| Ag 328.068† | 22.3 | 0.0002 | mg/L | 0.00024 | 0.0002 | mg/L | 0.00024 | 104.68% |
| Al 308.215† | 258.2 | -0.0055 | mg/L | 0.00290 | -0.0055 | mg/L | 0.00290 | 52.83% |
| As 188.979† | -7.0 | -0.0081 | mg/L | 0.00091 | -0.0081 | mg/L | 0.00091 | 11.32% |
| B 249.677† | 6214.7 | 0.1443 | mg/L | 0.00050 | 0.1443 | mg/L | 0.00050 | 0.35% |
| Ba 233.527† | 2262.7 | 0.0691 | mg/L | 0.00068 | 0.0691 | mg/L | 0.00068 | 0.98% |
| Be 313.107† | -271.0 | -0.0003 | mg/L | 0.00006 | -0.0003 | mg/L | 0.00006 | 22.04% |
| Ca 315.887† | 471527.2 | 173.4 | mg/L | 1.38 | 173.4 | mg/L | 1.38 | 0.80% |
| Cd 214.440† | -10.4 | -0.0001 | mg/L | 0.00024 | -0.0001 | mg/L | 0.00024 | 234.04% |
| Co 228.616† | 14.5 | 0.0017 | mg/L | 0.00074 | 0.0017 | mg/L | 0.00074 | 43.56% |
| Cr 205.560† | 10213.1 | 0.8044 | mg/L | 0.00432 | 0.8044 | mg/L | 0.00432 | 0.54% |
| Cu 324.752† | 367.7 | 0.0032 | mg/L | 0.00004 | 0.0032 | mg/L | 0.00004 | 1.23% |
| Fe 238.204† | 245.5 | 0.0795 | mg/L | 0.00164 | 0.0795 | mg/L | 0.00164 | 2.06% |
| K 766.490† | 3898.8 | 1.523 | mg/L | 0.0418 | 1.523 | mg/L | 0.0418 | 2.74% |
| Li 610.362† | -11297.3 | 0.0311 | mg/L | 0.00047 | 0.0311 | mg/L | 0.00047 | 1.50% |
| Mg 279.077† | 159325.7 | 56.81 | mg/L | 0.442 | 56.81 | mg/L | 0.442 | 0.78% |
| Mn 257.610† | 51569.9 | 0.3267 | mg/L | 0.00177 | 0.3267 | mg/L | 0.00177 | 0.54% |
| Mo 202.031† | 13.4 | 0.0021 | mg/L | 0.00047 | 0.0021 | mg/L | 0.00047 | 22.48% |
| Na 589.592† | 653559.7 | 36.38 | mg/L | 1.743 | 36.38 | mg/L | 1.743 | 4.79% |
| Ni 231.604† | 37.7 | 0.0034 | mg/L | 0.00008 | 0.0034 | mg/L | 0.00008 | 2.34% |
| P 214.914† | 16.4 | 0.0344 | mg/L | 0.00503 | 0.0344 | mg/L | 0.00503 | 14.65% |
| Pb 220.353† | -1.3 | 0.0013 | mg/L | 0.00043 | 0.0013 | mg/L | 0.00043 | 32.09% |
| Sb 206.836† | 2.0 | -0.0013 | mg/L | 0.00337 | -0.0013 | mg/L | 0.00337 | 262.51% |
| Se 196.026† | 373.8 | 0.4835 | mg/L | 0.00397 | 0.4835 | mg/L | 0.00397 | 0.82% |
| Si 251.611† | 176399.4 | 9.902 | mg/L | 0.0534 | 9.902 | mg/L | 0.0534 | 0.54% |
| Sn 189.927† | 52.3 | 0.0113 | mg/L | 0.00020 | 0.0113 | mg/L | 0.00020 | 1.81% |
| Sr 421.552† | 423652.4 | 0.6029 | mg/L | 0.00585 | 0.6029 | mg/L | 0.00585 | 0.97% |
| Ti 334.903† | 20.1 | 0.0025 | mg/L | 0.00120 | 0.0025 | mg/L | 0.00120 | 48.07% |
| Tl 190.801† | 1.7 | 0.0039 | mg/L | 0.00277 | 0.0039 | mg/L | 0.00277 | 71.51% |
| V 292.402† | 43.5 | 0.0038 | mg/L | 0.00040 | 0.0038 | mg/L | 0.00040 | 10.65% |
| Zn 213.857† | 130.2 | 0.0013 | mg/L | 0.00050 | 0.0013 | mg/L | 0.00050 | 39.71% |
| Zr 343.823† | -10.3 | -0.0001 | mg/L | 0.00017 | -0.0001 | mg/L | 0.00017 | 236.19% |
| W 207.912† | -3.1 | -0.0015 | mg/L | 0.00036 | -0.0015 | mg/L | 0.00036 | 23.49% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 8 Autosampler Location: 50
Sample ID: 440-194887-e-4-a Date Collected: 10/26/2017 1:41:36 PM
Analyst: BH Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194887-e-4-a

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: 440-194887-e-4-a

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2642994.8 | 103.1 | % | 0.05 | | | | 0.05% |
| Ag 328.068† | 32.2 | 0.0003 | mg/L | 0.00017 | 0.0003 | mg/L | 0.00017 | 50.28% |
| Al 308.215† | 1168.7 | 0.0874 | mg/L | 0.00228 | 0.0874 | mg/L | 0.00228 | 2.61% |
| As 188.979† | -5.0 | -0.0073 | mg/L | 0.00328 | -0.0073 | mg/L | 0.00328 | 44.99% |
| B 249.677† | 8638.5 | 0.2000 | mg/L | 0.00033 | 0.2000 | mg/L | 0.00033 | 0.17% |
| Ba 233.527† | 13076.5 | 0.3993 | mg/L | 0.00099 | 0.3993 | mg/L | 0.00099 | 0.25% |
| Be 313.107† | -247.8 | -0.0003 | mg/L | 0.00002 | -0.0003 | mg/L | 0.00002 | 6.26% |
| Ca 315.887† | 430039.5 | 158.1 | mg/L | 1.59 | 158.1 | mg/L | 1.59 | 1.00% |
| Cd 214.440† | -2.2 | 0.0001 | mg/L | 0.00016 | 0.0001 | mg/L | 0.00016 | 133.12% |
| Co 228.616† | 9.8 | 0.0011 | mg/L | 0.00020 | 0.0011 | mg/L | 0.00020 | 17.52% |
| Cr 205.560† | 43.2 | 0.0034 | mg/L | 0.00113 | 0.0034 | mg/L | 0.00113 | 33.12% |
| Cu 324.752† | 378.8 | 0.0034 | mg/L | 0.00011 | 0.0034 | mg/L | 0.00011 | 3.17% |
| Fe 238.204† | 1060.7 | 0.3434 | mg/L | 0.00220 | 0.3434 | mg/L | 0.00220 | 0.64% |
| K 766.490† | 4014.2 | 1.568 | mg/L | 0.0426 | 1.568 | mg/L | 0.0426 | 2.72% |
| Li 610.362† | -10258.4 | 0.0288 | mg/L | 0.00210 | 0.0288 | mg/L | 0.00210 | 7.29% |
| Mg 279.077† | 137238.6 | 48.94 | mg/L | 0.209 | 48.94 | mg/L | 0.209 | 0.43% |
| Mn 257.610† | 85752.8 | 0.5448 | mg/L | 0.00191 | 0.5448 | mg/L | 0.00191 | 0.35% |
| Mo 202.031† | 5.2 | 0.0008 | mg/L | 0.00057 | 0.0008 | mg/L | 0.00057 | 70.82% |
| Na 589.592† | 620426.2 | 34.54 | mg/L | 1.190 | 34.54 | mg/L | 1.190 | 3.45% |
| Ni 231.604† | 40.8 | 0.0037 | mg/L | 0.00026 | 0.0037 | mg/L | 0.00026 | 7.07% |
| P 214.914† | 29.8 | 0.0623 | mg/L | 0.00417 | 0.0623 | mg/L | 0.00417 | 6.70% |
| Pb 220.353† | -0.7 | 0.0015 | mg/L | 0.00043 | 0.0015 | mg/L | 0.00043 | 29.72% |
| Sb 206.836† | -0.1 | -0.0001 | mg/L | 0.00200 | -0.0001 | mg/L | 0.00200 | >999.9% |
| Se 196.026† | -0.1 | -0.0004 | mg/L | 0.00415 | -0.0004 | mg/L | 0.00415 | >999.9% |
| Si 251.611† | 302232.0 | 16.97 | mg/L | 0.001 | 16.97 | mg/L | 0.001 | 0.01% |
| Sn 189.927† | 48.1 | 0.0105 | mg/L | 0.00232 | 0.0105 | mg/L | 0.00232 | 22.01% |
| Sr 421.552† | 353452.3 | 0.5026 | mg/L | 0.00437 | 0.5026 | mg/L | 0.00437 | 0.87% |
| Ti 334.903† | 1000.3 | 0.0064 | mg/L | 0.00011 | 0.0064 | mg/L | 0.00011 | 1.76% |
| Tl 190.801† | -0.0 | 0.0010 | mg/L | 0.00544 | 0.0010 | mg/L | 0.00544 | 528.82% |
| V 292.402† | 53.4 | 0.0014 | mg/L | 0.00009 | 0.0014 | mg/L | 0.00009 | 6.29% |
| Zn 213.857† | 129.6 | 0.0015 | mg/L | 0.00025 | 0.0015 | mg/L | 0.00025 | 16.39% |
| Zr 343.823† | -37.5 | -0.0003 | mg/L | 0.00010 | -0.0003 | mg/L | 0.00010 | 36.84% |
| W 207.912† | -2.1 | -0.0011 | mg/L | 0.00029 | -0.0011 | mg/L | 0.00029 | 27.58% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 9 Autosampler Location: 51
Sample ID: 440-194887-e-5-a Date Collected: 10/26/2017 1:44:09 PM
Analyst: BH Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194887-e-5-a

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: 440-194887-e-5-a

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2587194.0 | 101.0 | % | 1.42 | | | | 1.40% |
| Ag 328.068† | 82.4 | 0.0010 | mg/L | 0.00014 | 0.0010 | mg/L | 0.00014 | 13.74% |
| Al 308.215† | 57223.9 | 5.575 | mg/L | 0.0075 | 5.575 | mg/L | 0.0075 | 0.14% |
| As 188.979† | 4.4 | 0.0069 | mg/L | 0.00223 | 0.0069 | mg/L | 0.00223 | 32.34% |
| B 249.677† | 9057.4 | 0.1942 | mg/L | 0.00211 | 0.1942 | mg/L | 0.00211 | 1.08% |
| Ba 233.527† | 12520.4 | 0.3825 | mg/L | 0.00431 | 0.3825 | mg/L | 0.00431 | 1.13% |
| Be 313.107† | -115.0 | -0.0001 | mg/L | 0.00001 | -0.0001 | mg/L | 0.00001 | 9.68% |
| Ca 315.887† | 443624.1 | 163.1 | mg/L | 2.75 | 163.1 | mg/L | 2.75 | 1.69% |
| Cd 214.440† | 5.2 | 0.0002 | mg/L | 0.00011 | 0.0002 | mg/L | 0.00011 | 48.19% |
| Co 228.616† | 41.6 | 0.0043 | mg/L | 0.00067 | 0.0043 | mg/L | 0.00067 | 15.57% |
| Cr 205.560† | 451.5 | 0.0356 | mg/L | 0.00033 | 0.0356 | mg/L | 0.00033 | 0.94% |
| Cu 324.752† | 3337.0 | 0.0298 | mg/L | 0.00044 | 0.0298 | mg/L | 0.00044 | 1.47% |
| Fe 238.204† | 19726.8 | 6.387 | mg/L | 0.1346 | 6.387 | mg/L | 0.1346 | 2.11% |
| K 766.490† | 128765.6 | 50.29 | mg/L | 0.800 | 50.29 | mg/L | 0.800 | 1.59% |
| Li 610.362† | -9804.0 | 0.0365 | mg/L | 0.00294 | 0.0365 | mg/L | 0.00294 | 8.05% |
| Mg 279.077† | 141661.1 | 50.52 | mg/L | 0.817 | 50.52 | mg/L | 0.817 | 1.62% |
| Mn 257.610† | 970693.5 | 6.185 | mg/L | 0.0837 | 6.185 | mg/L | 0.0837 | 1.35% |
| Mo 202.031† | 83.5 | 0.0131 | mg/L | 0.00056 | 0.0131 | mg/L | 0.00056 | 4.31% |
| Na 589.592† | 885016.8 | 49.27 | mg/L | 0.464 | 49.27 | mg/L | 0.464 | 0.94% |
| Ni 231.604† | 332.4 | 0.0299 | mg/L | 0.00099 | 0.0299 | mg/L | 0.00099 | 3.32% |
| P 214.914† | 70.2 | 0.1431 | mg/L | 0.00568 | 0.1431 | mg/L | 0.00568 | 3.97% |
| Pb 220.353† | 11.2 | 0.0059 | mg/L | 0.00069 | 0.0059 | mg/L | 0.00069 | 11.69% |
| Sb 206.836† | -4.5 | -0.0056 | mg/L | 0.00087 | -0.0056 | mg/L | 0.00087 | 15.48% |
| Se 196.026† | 0.2 | -0.0018 | mg/L | 0.00317 | -0.0018 | mg/L | 0.00317 | 172.94% |
| Si 251.611† | 444751.4 | 24.97 | mg/L | 0.046 | 24.97 | mg/L | 0.046 | 0.18% |
| Sn 189.927† | 43.9 | 0.0108 | mg/L | 0.00054 | 0.0108 | mg/L | 0.00054 | 4.98% |
| Sr 421.552† | 400691.8 | 0.5702 | mg/L | 0.00953 | 0.5702 | mg/L | 0.00953 | 1.67% |
| Ti 334.903† | 68042.1 | 0.2758 | mg/L | 0.01848 | 0.2758 | mg/L | 0.01848 | 6.70% |
| Tl 190.801† | -3.2 | -0.0043 | mg/L | 0.00247 | -0.0043 | mg/L | 0.00247 | 56.84% |
| V 292.402† | 5311.2 | 0.1370 | mg/L | 0.00279 | 0.1370 | mg/L | 0.00279 | 2.03% |
| Zn 213.857† | 1770.0 | 0.0475 | mg/L | 0.00173 | 0.0475 | mg/L | 0.00173 | 3.64% |
| Zr 343.823† | 511.7 | 0.0036 | mg/L | 0.00011 | 0.0036 | mg/L | 0.00011 | 3.21% |
| W 207.912† | 7.4 | 0.0032 | mg/L | 0.00148 | 0.0032 | mg/L | 0.00148 | 46.17% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 10 Autosampler Location: 52
Sample ID: 440-194887-e-6-a Date Collected: 10/26/2017 1:46:06 PM
Analyst: BH Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194887-e-6-a

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: 440-194887-e-6-a

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2402964.9 | 93.76 | % | 1.173 | | | | 1.25% |
| Ag 328.068† | -46.8 | -0.0005 | mg/L | 0.00025 | -0.0005 | mg/L | 0.00025 | 51.85% |
| Al 308.215† | 3806.4 | 0.3432 | mg/L | 0.02071 | 0.3432 | mg/L | 0.02071 | 6.03% |
| As 188.979† | -6.2 | -0.0090 | mg/L | 0.00010 | -0.0090 | mg/L | 0.00010 | 1.11% |
| B 249.677† | 7256.2 | 0.1673 | mg/L | 0.00237 | 0.1673 | mg/L | 0.00237 | 1.42% |
| Ba 233.527† | 7935.2 | 0.2423 | mg/L | 0.00219 | 0.2423 | mg/L | 0.00219 | 0.90% |
| Be 313.107† | -357.9 | -0.0004 | mg/L | 0.00002 | -0.0004 | mg/L | 0.00002 | 5.13% |
| Ca 315.887† | 492103.9 | 180.9 | mg/L | 12.31 | 180.9 | mg/L | 12.31 | 6.80% |
| Cd 214.440† | -10.5 | -0.0001 | mg/L | 0.00032 | -0.0001 | mg/L | 0.00032 | 262.07% |
| Co 228.616† | 3.1 | 0.0003 | mg/L | 0.00015 | 0.0003 | mg/L | 0.00015 | 45.37% |
| Cr 205.560† | 353.4 | 0.0278 | mg/L | 0.00036 | 0.0278 | mg/L | 0.00036 | 1.29% |
| Cu 324.752† | 734.0 | 0.0065 | mg/L | 0.00013 | 0.0065 | mg/L | 0.00013 | 1.93% |
| Fe 238.204† | 1679.6 | 0.5438 | mg/L | 0.02238 | 0.5438 | mg/L | 0.02238 | 4.12% |
| K 766.490† | 110711.7 | 43.24 | mg/L | 3.788 | 43.24 | mg/L | 3.788 | 8.76% |
| Li 610.362† | -10399.6 | 0.0447 | mg/L | 0.01044 | 0.0447 | mg/L | 0.01044 | 23.34% |
| Mg 279.077† | 152144.3 | 54.25 | mg/L | 1.244 | 54.25 | mg/L | 1.244 | 2.29% |
| Mn 257.610† | 55267.4 | 0.3504 | mg/L | 0.01715 | 0.3504 | mg/L | 0.01715 | 4.90% |
| Mo 202.031† | -2.1 | -0.0003 | mg/L | 0.00022 | -0.0003 | mg/L | 0.00022 | 70.54% |
| Na 589.592† | 786975.2 | 43.81 | mg/L | 4.887 | 43.81 | mg/L | 4.887 | 11.15% |
| Ni 231.604† | 46.8 | 0.0042 | mg/L | 0.00039 | 0.0042 | mg/L | 0.00039 | 9.14% |
| P 214.914† | 28.9 | 0.0601 | mg/L | 0.00084 | 0.0601 | mg/L | 0.00084 | 1.39% |
| Pb 220.353† | 1.4 | 0.0029 | mg/L | 0.00423 | 0.0029 | mg/L | 0.00423 | 147.61% |
| Sb 206.836† | -1.2 | -0.0017 | mg/L | 0.00377 | -0.0017 | mg/L | 0.00377 | 216.75% |
| Se 196.026† | -2.3 | -0.0030 | mg/L | 0.01091 | -0.0030 | mg/L | 0.01091 | 362.40% |
| Si 251.611† | 185903.6 | 10.44 | mg/L | 0.065 | 10.44 | mg/L | 0.065 | 0.62% |
| Sn 189.927† | 58.9 | 0.0137 | mg/L | 0.00111 | 0.0137 | mg/L | 0.00111 | 8.09% |
| Sr 421.552† | 510381.0 | 0.7271 | mg/L | 0.04139 | 0.7271 | mg/L | 0.04139 | 5.69% |
| Ti 334.903† | 3409.7 | 0.0164 | mg/L | 0.00768 | 0.0164 | mg/L | 0.00768 | 46.94% |
| Tl 190.801† | -1.1 | -0.0004 | mg/L | 0.00046 | -0.0004 | mg/L | 0.00046 | 115.41% |
| V 292.402† | 121.1 | 0.0033 | mg/L | 0.00002 | 0.0033 | mg/L | 0.00002 | 0.60% |
| Zn 213.857† | 305.7 | 0.0063 | mg/L | 0.00013 | 0.0063 | mg/L | 0.00013 | 2.04% |
| Zr 343.823† | 100.0 | 0.0007 | mg/L | 0.00011 | 0.0007 | mg/L | 0.00011 | 16.35% |
| W 207.912† | 2.1 | 0.0009 | mg/L | 0.00063 | 0.0009 | mg/L | 0.00063 | 67.23% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 11 Autosampler Location: 4
Sample ID: CCV 4447505 Date Collected: 10/26/2017 1:48:39 PM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: CCV 4447505

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: CCV 4447505

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2599217.0 | 101.4 | % | 1.24 | | | | 1.23% |
| Ag 328.068† | 47599.8 | 0.4841 | mg/L | 0.00419 | 0.4841 | mg/L | 0.00419 | 0.86% |
| Al 308.215† | 10159.8 | 0.9614 | mg/L | 0.02348 | 0.9614 | mg/L | 0.02348 | 2.44% |
| As 188.979† | 667.4 | 0.9902 | mg/L | 0.01718 | 0.9902 | mg/L | 0.01718 | 1.74% |
| B 249.677† | 46046.9 | 1.064 | mg/L | 0.0109 | 1.064 | mg/L | 0.0109 | 1.02% |
| Ba 233.527† | 30799.5 | 0.9414 | mg/L | 0.00833 | 0.9414 | mg/L | 0.00833 | 0.88% |
| Be 313.107† | 803283.6 | 0.9398 | mg/L | 0.00042 | 0.9398 | mg/L | 0.00042 | 0.04% |
| Ca 315.887† | 13851.4 | 5.095 | mg/L | 0.0344 | 5.095 | mg/L | 0.0344 | 0.68% |
| Cd 214.440† | 32677.0 | 1.032 | mg/L | 0.0152 | 1.032 | mg/L | 0.0152 | 1.47% |
| Co 228.616† | 8897.1 | 1.046 | mg/L | 0.0153 | 1.046 | mg/L | 0.0153 | 1.46% |
| Cr 205.560† | 12502.1 | 0.9844 | mg/L | 0.01119 | 0.9844 | mg/L | 0.01119 | 1.14% |
| Cu 324.752† | 110315.1 | 0.9686 | mg/L | 0.00762 | 0.9686 | mg/L | 0.00762 | 0.79% |
| Fe 238.204† | 3232.8 | 1.048 | mg/L | 0.0113 | 1.048 | mg/L | 0.0113 | 1.08% |
| K 766.490† | 26145.3 | 10.21 | mg/L | 0.223 | 10.21 | mg/L | 0.223 | 2.19% |
| Li 610.362† | 110141.9 | 0.9767 | mg/L | 0.00882 | 0.9767 | mg/L | 0.00882 | 0.90% |
| Mg 279.077† | 13443.8 | 4.795 | mg/L | 0.0377 | 4.795 | mg/L | 0.0377 | 0.79% |
| Mn 257.610† | 145851.3 | 0.9294 | mg/L | 0.00720 | 0.9294 | mg/L | 0.00720 | 0.77% |
| Mo 202.031† | 6258.2 | 0.9665 | mg/L | 0.01001 | 0.9665 | mg/L | 0.01001 | 1.04% |
| Na 589.592† | 199104.7 | 11.08 | mg/L | 0.295 | 11.08 | mg/L | 0.295 | 2.66% |
| Ni 231.604† | 10622.1 | 0.9603 | mg/L | 0.00633 | 0.9603 | mg/L | 0.00633 | 0.66% |
| P 214.914† | 452.9 | 0.8875 | mg/L | 0.00785 | 0.8875 | mg/L | 0.00785 | 0.88% |
| Pb 220.353† | 1953.5 | 1.004 | mg/L | 0.0157 | 1.004 | mg/L | 0.0157 | 1.57% |
| Sb 206.836† | 703.4 | 0.9450 | mg/L | 0.01606 | 0.9450 | mg/L | 0.01606 | 1.70% |
| Se 196.026† | 766.2 | 0.9833 | mg/L | 0.01136 | 0.9833 | mg/L | 0.01136 | 1.16% |
| Si 251.611† | 103936.9 | 5.765 | mg/L | 0.0506 | 5.765 | mg/L | 0.0506 | 0.88% |
| Sn 189.927† | 2402.6 | 0.9744 | mg/L | 0.01532 | 0.9744 | mg/L | 0.01532 | 1.57% |
| Sr 421.552† | 670795.5 | 0.9624 | mg/L | 0.01205 | 0.9624 | mg/L | 0.01205 | 1.25% |
| Ti 334.903† | 259833.4 | 1.044 | mg/L | 0.0129 | 1.044 | mg/L | 0.0129 | 1.24% |
| Tl 190.801† | 619.6 | 1.021 | mg/L | 0.0195 | 1.021 | mg/L | 0.0195 | 1.91% |
| V 292.402† | 40914.3 | 1.053 | mg/L | 0.0100 | 1.053 | mg/L | 0.0100 | 0.95% |
| Zn 213.857† | 33765.9 | 0.9567 | mg/L | 0.00433 | 0.9567 | mg/L | 0.00433 | 0.45% |
| Zr 343.823† | 141029.3 | 0.9880 | mg/L | 0.01048 | 0.9880 | mg/L | 0.01048 | 1.06% |
| W 207.912† | 1940.7 | 0.9241 | mg/L | 0.01660 | 0.9241 | mg/L | 0.01660 | 1.80% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 12 Autosampler Location: 1
Sample ID: CCB 4447504 Date Collected: 10/26/2017 1:50:38 PM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: CCB 4447504

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: CCB 4447504

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2600304.3 | 101.5 | % | 0.74 | | | | 0.73% |
| Ag 328.068† | -9.4 | -0.0001 | mg/L | 0.00049 | -0.0001 | mg/L | 0.00049 | 517.76% |
| Al 308.215† | -186.5 | -0.0184 | mg/L | 0.00061 | -0.0184 | mg/L | 0.00061 | 3.30% |
| As 188.979† | -3.2 | -0.0047 | mg/L | 0.00147 | -0.0047 | mg/L | 0.00147 | 31.15% |
| B 249.677† | 65.6 | 0.0015 | mg/L | 0.00029 | 0.0015 | mg/L | 0.00029 | 19.19% |
| Ba 233.527† | 12.0 | 0.0004 | mg/L | 0.00006 | 0.0004 | mg/L | 0.00006 | 17.64% |
| Be 313.107† | -237.6 | -0.0003 | mg/L | 0.00003 | -0.0003 | mg/L | 0.00003 | 9.99% |
| Ca 315.887† | 235.6 | 0.0866 | mg/L | 0.01043 | 0.0866 | mg/L | 0.01043 | 12.03% |
| Cd 214.440† | 7.0 | 0.0002 | mg/L | 0.00009 | 0.0002 | mg/L | 0.00009 | 41.01% |
| Co 228.616† | 4.8 | 0.0006 | mg/L | 0.00042 | 0.0006 | mg/L | 0.00042 | 72.80% |
| Cr 205.560† | 3.0 | 0.0002 | mg/L | 0.00017 | 0.0002 | mg/L | 0.00017 | 70.86% |
| Cu 324.752† | 190.9 | 0.0017 | mg/L | 0.00006 | 0.0017 | mg/L | 0.00006 | 3.36% |
| Fe 238.204† | 7.8 | 0.0025 | mg/L | 0.00002 | 0.0025 | mg/L | 0.00002 | 0.77% |
| K 766.490† | 141.2 | 0.0551 | mg/L | 0.01559 | 0.0551 | mg/L | 0.01559 | 28.27% |
| Li 610.362† | 77.1 | 0.0007 | mg/L | 0.00029 | 0.0007 | mg/L | 0.00029 | 38.30% |
| Mg 279.077† | 44.5 | 0.0159 | mg/L | 0.00150 | 0.0159 | mg/L | 0.00150 | 9.41% |
| Mn 257.610† | 263.9 | 0.0017 | mg/L | 0.00021 | 0.0017 | mg/L | 0.00021 | 12.34% |
| Mo 202.031† | 77.7 | 0.0120 | mg/L | 0.00178 | 0.0120 | mg/L | 0.00178 | 14.82% |
| Na 589.592† | 1569.7 | 0.0874 | mg/L | 0.00028 | 0.0874 | mg/L | 0.00028 | 0.32% |
| Ni 231.604† | 15.9 | 0.0014 | mg/L | 0.00031 | 0.0014 | mg/L | 0.00031 | 21.63% |
| P 214.914† | -2.8 | -0.0062 | mg/L | 0.00161 | -0.0062 | mg/L | 0.00161 | 26.09% |
| Pb 220.353† | 7.7 | 0.0040 | mg/L | 0.00042 | 0.0040 | mg/L | 0.00042 | 10.48% |
| Sb 206.836† | 1.8 | 0.0026 | mg/L | 0.00401 | 0.0026 | mg/L | 0.00401 | 153.11% |
| Se 196.026† | 0.9 | 0.0012 | mg/L | 0.01044 | 0.0012 | mg/L | 0.01044 | 871.04% |
| Si 251.611† | 201.7 | 0.0110 | mg/L | 0.00068 | 0.0110 | mg/L | 0.00068 | 6.12% |
| Sn 189.927† | 0.6 | 0.0003 | mg/L | 0.00151 | 0.0003 | mg/L | 0.00151 | 583.70% |
| Sr 421.552† | 393.9 | 0.0006 | mg/L | 0.00012 | 0.0006 | mg/L | 0.00012 | 20.46% |
| Ti 334.903† | 185.6 | 0.0007 | mg/L | 0.00000 | 0.0007 | mg/L | 0.00000 | 0.60% |
| Tl 190.801† | 1.7 | 0.0028 | mg/L | 0.00366 | 0.0028 | mg/L | 0.00366 | 130.80% |
| V 292.402† | 0.7 | 0.0000 | mg/L | 0.00035 | 0.0000 | mg/L | 0.00035 | >999.9% |
| Zn 213.857† | -20.6 | -0.0006 | mg/L | 0.00019 | -0.0006 | mg/L | 0.00019 | 31.69% |
| Zr 343.823† | -60.3 | -0.0004 | mg/L | 0.00027 | -0.0004 | mg/L | 0.00027 | 63.39% |
| W 207.912† | 5.6 | 0.0027 | mg/L | 0.00086 | 0.0027 | mg/L | 0.00086 | 31.80% |


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**Analytical Sequence**
**Method: 170824_ICP7**

| Seq. | Loc. | ID | Status |
|---|---|---|---|
| 1 | 43 | mb 440-437362_1-a | Analyzed |
| 2 | 44 | lcs 440-437362_2-a | Analyzed |
| 3 | 45 | 440-194887-e-1-a@50 | Analyzed |
| 4 | 46 | 440-194887-e-1-b ms@50 | Analyzed |
| 5 | 47 | 440-194887-e-1-c msd@50 | Analyzed |
| 6 | 48 | 440-194887-e-2-a@50 | Analyzed |
| 7 | 49 | 440-194887-e-3-a | Analyzed |
| 8 | 50 | 440-194887-e-4-a | Analyzed |
| 9 | 51 | 440-194887-e-5-a | Analyzed |
| 10 | 52 | 440-194887-e-6-a | Analyzed |
| 11 | 4 | CCV 4447505 | Analyzed |
| 12 | 1 | CCB 4447504 | Analyzed |


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**Analysis Begun**

**Start Time: 10/26/2017 2:11:51 PM** **Plasma On Time: 10/26/2017 9:24:37 AM**
**Logged In Analyst: IRVINSTICP7** **Technique: ICP Continuous**
**Spectrometer: Optima 8300** **Autosampler: ESI**

**Sample Information File: C:\Users\Public\PerkinElmer\ICP\Data\Sample Information\CP 171026-1.sif**
**Batch ID:**
**Results Data Set: 171026-1 ICP7**
**Results Library: C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb**

==========

**Sequence No.: 1** **Autosampler Location: 53**
**Sample ID: 440-194887-e-7-a** **Date Collected: 10/26/2017 2:12:01 PM**
**Analyst: BH** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time:**

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**Nebulizer Parameters: 440-194887-e-7-a**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: 440-194887-e-7-a**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2657792.9 | 103.7 | % | 0.82 | | | | 0.79% |
| Ag 328.068† | 15.8 | 0.0002 | mg/L | 0.00052 | 0.0002 | mg/L | 0.00052 | 290.65% |
| Al 308.215† | 2587.0 | 0.2249 | mg/L | 0.01421 | 0.2249 | mg/L | 0.01421 | 6.32% |
| As 188.979† | -2.8 | -0.0041 | mg/L | 0.00846 | -0.0041 | mg/L | 0.00846 | 208.52% |
| B 249.677† | 9763.5 | 0.2250 | mg/L | 0.00079 | 0.2250 | mg/L | 0.00079 | 0.35% |
| Ba 233.527† | 2281.5 | 0.0697 | mg/L | 0.00052 | 0.0697 | mg/L | 0.00052 | 0.75% |
| Be 313.107† | -281.7 | -0.0003 | mg/L | 0.00001 | -0.0003 | mg/L | 0.00001 | 2.89% |
| Ca 315.887† | 470015.8 | 172.8 | mg/L | 3.87 | 172.8 | mg/L | 3.87 | 2.24% |
| Cd 214.440† | -1.4 | 0.0001 | mg/L | 0.00002 | 0.0001 | mg/L | 0.00002 | 17.28% |
| Co 228.616† | 12.5 | 0.0014 | mg/L | 0.00057 | 0.0014 | mg/L | 0.00057 | 39.35% |
| Cr 205.560† | 26.1 | 0.0021 | mg/L | 0.00013 | 0.0021 | mg/L | 0.00013 | 6.53% |
| Cu 324.752† | 335.2 | 0.0030 | mg/L | 0.00042 | 0.0030 | mg/L | 0.00042 | 13.87% |
| Fe 238.204† | 2394.6 | 0.7753 | mg/L | 0.00410 | 0.7753 | mg/L | 0.00410 | 0.53% |
| K 766.490† | 3468.2 | 1.355 | mg/L | 0.0331 | 1.355 | mg/L | 0.0331 | 2.44% |
| Li 610.362† | -11050.5 | 0.0329 | mg/L | 0.00189 | 0.0329 | mg/L | 0.00189 | 5.76% |
| Mg 279.077† | 136935.3 | 48.83 | mg/L | 0.153 | 48.83 | mg/L | 0.153 | 0.31% |
| Mn 257.610† | 83987.1 | 0.5336 | mg/L | 0.00241 | 0.5336 | mg/L | 0.00241 | 0.45% |
| Mo 202.031† | 3.9 | 0.0006 | mg/L | 0.00025 | 0.0006 | mg/L | 0.00025 | 40.13% |
| Na 589.592† | 672361.8 | 37.43 | mg/L | 1.934 | 37.43 | mg/L | 1.934 | 5.17% |
| Ni 231.604† | 38.9 | 0.0035 | mg/L | 0.00032 | 0.0035 | mg/L | 0.00032 | 9.00% |
| P 214.914† | 78.2 | 0.1635 | mg/L | 0.00046 | 0.1635 | mg/L | 0.00046 | 0.28% |
| Pb 220.353† | -6.3 | -0.0012 | mg/L | 0.00116 | -0.0012 | mg/L | 0.00116 | 95.34% |
| Sb 206.836† | 1.6 | 0.0022 | mg/L | 0.00189 | 0.0022 | mg/L | 0.00189 | 86.44% |
| Se 196.026† | -7.7 | -0.0100 | mg/L | 0.01692 | -0.0100 | mg/L | 0.01692 | 169.25% |
| Si 251.611† | 433098.2 | 24.32 | mg/L | 0.029 | 24.32 | mg/L | 0.029 | 0.12% |
| Sn 189.927† | 46.9 | 0.0093 | mg/L | 0.00207 | 0.0093 | mg/L | 0.00207 | 22.26% |
| Sr 421.552† | 391108.8 | 0.5562 | mg/L | 0.01101 | 0.5562 | mg/L | 0.01101 | 1.98% |
| Ti 334.903† | 2611.1 | 0.0130 | mg/L | 0.00197 | 0.0130 | mg/L | 0.00197 | 15.07% |
| Tl 190.801† | -2.7 | -0.0033 | mg/L | 0.00253 | -0.0033 | mg/L | 0.00253 | 77.60% |
| V 292.402† | 44.0 | 0.0012 | mg/L | 0.00002 | 0.0012 | mg/L | 0.00002 | 1.73% |
| Zn 213.857† | 111.3 | 0.0010 | mg/L | 0.00015 | 0.0010 | mg/L | 0.00015 | 15.11% |
| Zr 343.823† | 8.9 | 0.0001 | mg/L | 0.00007 | 0.0001 | mg/L | 0.00007 | 113.74% |
| W 207.912† | -2.0 | -0.0010 | mg/L | 0.00065 | -0.0010 | mg/L | 0.00065 | 65.70% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 2 Autosampler Location: 54
Sample ID: 440-194887-e-9-a Date Collected: 10/26/2017 2:14:03 PM
Analyst: BH Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194887-e-9-a

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194887-e-9-a

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2636067.1 | 102.9 | % | 1.08 | | | | 1.05% |
| Ag 328.068† | 25.1 | 0.0003 | mg/L | 0.00026 | 0.0003 | mg/L | 0.00026 | 99.46% |
| Al 308.215† | -85.4 | -0.0328 | mg/L | 0.00709 | -0.0328 | mg/L | 0.00709 | 21.62% |
| As 188.979† | -2.2 | -0.0031 | mg/L | 0.00647 | -0.0031 | mg/L | 0.00647 | 209.39% |
| B 249.677† | 6980.2 | 0.1623 | mg/L | 0.00202 | 0.1623 | mg/L | 0.00202 | 1.25% |
| Ba 233.527† | 2148.9 | 0.0656 | mg/L | 0.00045 | 0.0656 | mg/L | 0.00045 | 0.68% |
| Be 313.107† | -295.8 | -0.0003 | mg/L | 0.00002 | -0.0003 | mg/L | 0.00002 | 5.50% |
| Ca 315.887† | 401445.2 | 147.6 | mg/L | 0.15 | 147.6 | mg/L | 0.15 | 0.10% |
| Cd 214.440† | -9.3 | -0.0001 | mg/L | 0.00008 | -0.0001 | mg/L | 0.00008 | 75.60% |
| Co 228.616† | 8.2 | 0.0010 | mg/L | 0.00030 | 0.0010 | mg/L | 0.00030 | 30.63% |
| Cr 205.560† | 438.5 | 0.0345 | mg/L | 0.00038 | 0.0345 | mg/L | 0.00038 | 1.09% |
| Cu 324.752† | 298.6 | 0.0026 | mg/L | 0.00012 | 0.0026 | mg/L | 0.00012 | 4.40% |
| Fe 238.204† | 24.7 | 0.0080 | mg/L | 0.00013 | 0.0080 | mg/L | 0.00013 | 1.57% |
| K 766.490† | 3984.7 | 1.556 | mg/L | 0.0418 | 1.556 | mg/L | 0.0418 | 2.69% |
| Li 610.362† | -8882.9 | 0.0330 | mg/L | 0.00116 | 0.0330 | mg/L | 0.00116 | 3.53% |
| Mg 279.077† | 127055.1 | 45.30 | mg/L | 0.672 | 45.30 | mg/L | 0.672 | 1.48% |
| Mn 257.610† | 718.1 | 0.0030 | mg/L | 0.00003 | 0.0030 | mg/L | 0.00003 | 0.91% |
| Mo 202.031† | 3.1 | 0.0005 | mg/L | 0.00018 | 0.0005 | mg/L | 0.00018 | 37.36% |
| Na 589.592† | 597684.8 | 33.27 | mg/L | 0.993 | 33.27 | mg/L | 0.993 | 2.98% |
| Saturated within auto integration window (code 4) | | | | | | | | |
| Ni 231.604† | 31.2 | 0.0028 | mg/L | 0.00052 | 0.0028 | mg/L | 0.00052 | 18.41% |
| P 214.914† | 11.8 | 0.0247 | mg/L | 0.00088 | 0.0247 | mg/L | 0.00088 | 3.57% |
| Pb 220.353† | -1.5 | 0.0011 | mg/L | 0.00127 | 0.0011 | mg/L | 0.00127 | 119.55% |
| Sb 206.836† | -1.8 | -0.0026 | mg/L | 0.00098 | -0.0026 | mg/L | 0.00098 | 38.07% |
| Se 196.026† | -2.2 | -0.0028 | mg/L | 0.00452 | -0.0028 | mg/L | 0.00452 | 160.98% |
| Si 251.611† | 188555.0 | 10.59 | mg/L | 0.177 | 10.59 | mg/L | 0.177 | 1.68% |
| Sn 189.927† | 43.6 | 0.0092 | mg/L | 0.00237 | 0.0092 | mg/L | 0.00237 | 25.75% |
| Sr 421.552† | 377787.0 | 0.5378 | mg/L | 0.00197 | 0.5378 | mg/L | 0.00197 | 0.37% |
| Ti 334.903† | -626.9 | -0.0003 | mg/L | 0.00001 | -0.0003 | mg/L | 0.00001 | 2.91% |
| Tl 190.801† | -0.0 | 0.0011 | mg/L | 0.00071 | 0.0011 | mg/L | 0.00071 | 67.20% |
| V 292.402† | 86.7 | 0.0023 | mg/L | 0.00039 | 0.0023 | mg/L | 0.00039 | 16.81% |
| Zn 213.857† | 192.1 | 0.0035 | mg/L | 0.00017 | 0.0035 | mg/L | 0.00017 | 4.92% |
| Zr 343.823† | -46.4 | -0.0003 | mg/L | 0.00035 | -0.0003 | mg/L | 0.00035 | 108.36% |
| W 207.912† | 2.2 | 0.0010 | mg/L | 0.00120 | 0.0010 | mg/L | 0.00120 | 116.17% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 3 Autosampler Location: 55
Sample ID: 440-194887-e-10-a Date Collected: 10/26/2017 2:16:35 PM
Analyst: BH Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194887-e-10-a

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194887-e-10-a

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2600484.7 | 101.5 | % | 0.50 | | | | 0.49% |
| Ag 328.068† | 9.8 | 0.0001 | mg/L | 0.00048 | 0.0001 | mg/L | 0.00048 | 457.02% |
| Al 308.215† | 556.7 | 0.0302 | mg/L | 0.00812 | 0.0302 | mg/L | 0.00812 | 26.84% |
| As 188.979† | -8.1 | -0.0119 | mg/L | 0.00409 | -0.0119 | mg/L | 0.00409 | 34.39% |
| B 249.677† | 6983.4 | 0.1621 | mg/L | 0.00261 | 0.1621 | mg/L | 0.00261 | 1.61% |
| Ba 233.527† | 2212.9 | 0.0676 | mg/L | 0.00005 | 0.0676 | mg/L | 0.00005 | 0.07% |
| Be 313.107† | -363.8 | -0.0004 | mg/L | 0.00005 | -0.0004 | mg/L | 0.00005 | 11.88% |
| Ca 315.887† | 400240.3 | 147.1 | mg/L | 0.88 | 147.1 | mg/L | 0.88 | 0.60% |
| Cd 214.440† | -7.2 | -0.0000 | mg/L | 0.00019 | -0.0000 | mg/L | 0.00019 | 414.52% |
| Co 228.616† | 10.3 | 0.0012 | mg/L | 0.00017 | 0.0012 | mg/L | 0.00017 | 14.09% |
| Cr 205.560† | 448.7 | 0.0353 | mg/L | 0.00019 | 0.0353 | mg/L | 0.00019 | 0.54% |
| Cu 324.752† | 374.1 | 0.0033 | mg/L | 0.00012 | 0.0033 | mg/L | 0.00012 | 3.78% |
| Fe 238.204† | 356.3 | 0.1154 | mg/L | 0.00008 | 0.1154 | mg/L | 0.00008 | 0.07% |
| K 766.490† | 4039.9 | 1.578 | mg/L | 0.0553 | 1.578 | mg/L | 0.0553 | 3.50% |
| Li 610.362† | -8967.4 | 0.0319 | mg/L | 0.00142 | 0.0319 | mg/L | 0.00142 | 4.46% |
| Mg 279.077† | 127770.1 | 45.56 | mg/L | 0.692 | 45.56 | mg/L | 0.692 | 1.52% |
| Mn 257.610† | 824.6 | 0.0037 | mg/L | 0.00001 | 0.0037 | mg/L | 0.00001 | 0.37% |
| Mo 202.031† | -2.3 | -0.0004 | mg/L | 0.00061 | -0.0004 | mg/L | 0.00061 | 170.20% |
| Na 589.592† | 605815.3 | 33.73 | mg/L | 0.029 | 33.73 | mg/L | 0.029 | 0.09% |
| Ni 231.604† | 33.1 | 0.0030 | mg/L | 0.00044 | 0.0030 | mg/L | 0.00044 | 14.69% |
| P 214.914† | 13.4 | 0.0280 | mg/L | 0.00104 | 0.0280 | mg/L | 0.00104 | 3.73% |
| Pb 220.353† | -5.4 | -0.0010 | mg/L | 0.00148 | -0.0010 | mg/L | 0.00148 | 150.34% |
| Sb 206.836† | -2.4 | -0.0034 | mg/L | 0.00064 | -0.0034 | mg/L | 0.00064 | 18.74% |
| Se 196.026† | -3.5 | -0.0044 | mg/L | 0.01619 | -0.0044 | mg/L | 0.01619 | 363.94% |
| Si 251.611† | 192418.5 | 10.80 | mg/L | 0.143 | 10.80 | mg/L | 0.143 | 1.33% |
| Sn 189.927† | 48.3 | 0.0112 | mg/L | 0.00431 | 0.0112 | mg/L | 0.00431 | 38.61% |
| Sr 421.552† | 379922.9 | 0.5409 | mg/L | 0.00310 | 0.5409 | mg/L | 0.00310 | 0.57% |
| Ti 334.903† | 349.4 | 0.0036 | mg/L | 0.00047 | 0.0036 | mg/L | 0.00047 | 13.20% |
| Tl 190.801† | 0.2 | 0.0015 | mg/L | 0.00069 | 0.0015 | mg/L | 0.00069 | 44.79% |
| V 292.402† | 105.6 | 0.0028 | mg/L | 0.00027 | 0.0028 | mg/L | 0.00027 | 9.65% |
| Zn 213.857† | 129.7 | 0.0017 | mg/L | 0.00011 | 0.0017 | mg/L | 0.00011 | 6.46% |
| Zr 343.823† | -31.0 | -0.0002 | mg/L | 0.00004 | -0.0002 | mg/L | 0.00004 | 16.88% |
| W 207.912† | -2.4 | -0.0012 | mg/L | 0.00106 | -0.0012 | mg/L | 0.00106 | 88.42% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 4 Autosampler Location: 56
Sample ID: 440-194887-e-15-a Date Collected: 10/26/2017 2:19:12 PM
Analyst: BH Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194887-e-15-a

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194887-e-15-a

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2620040.9 | 102.2 | % | 1.08 | | | | 1.05% |
| Ag 328.068† | 88.9 | 0.0010 | mg/L | 0.00017 | 0.0010 | mg/L | 0.00017 | 16.98% |
| Al 308.215† | 338.8 | 0.0099 | mg/L | 0.00143 | 0.0099 | mg/L | 0.00143 | 14.39% |
| As 188.979† | 5.1 | 0.0079 | mg/L | 0.00560 | 0.0079 | mg/L | 0.00560 | 71.18% |
| B 249.677† | 5556.9 | 0.1166 | mg/L | 0.00019 | 0.1166 | mg/L | 0.00019 | 0.16% |
| Ba 233.527† | 3520.8 | 0.1076 | mg/L | 0.00017 | 0.1076 | mg/L | 0.00017 | 0.16% |
| Be 313.107† | -434.7 | -0.0005 | mg/L | 0.00001 | -0.0005 | mg/L | 0.00001 | 1.15% |
| Ca 315.887† | 76654.8 | 28.18 | mg/L | 0.152 | 28.18 | mg/L | 0.152 | 0.54% |
| Cd 214.440† | 0.7 | 0.0000 | mg/L | 0.00005 | 0.0000 | mg/L | 0.00005 | 129.25% |
| Co 228.616† | 14.7 | 0.0017 | mg/L | 0.00058 | 0.0017 | mg/L | 0.00058 | 34.11% |
| Cr 205.560† | 43.1 | 0.0034 | mg/L | 0.00017 | 0.0034 | mg/L | 0.00017 | 4.92% |
| Cu 324.752† | 970.3 | 0.0088 | mg/L | 0.00017 | 0.0088 | mg/L | 0.00017 | 1.95% |
| Fe 238.204† | 15115.0 | 4.894 | mg/L | 0.0203 | 4.894 | mg/L | 0.0203 | 0.41% |
| K 766.490† | 2020385.1 | 789.1 | mg/L | 5.01 | 789.1 | mg/L | 5.01 | 0.63% |
| Li 610.362† | -974.2 | 0.0127 | mg/L | 0.00107 | 0.0127 | mg/L | 0.00107 | 8.41% |
| Mg 279.077† | 55073.9 | 19.64 | mg/L | 0.048 | 19.64 | mg/L | 0.048 | 0.24% |
| Mn 257.610† | 1168337.3 | 7.446 | mg/L | 0.0108 | 7.446 | mg/L | 0.0108 | 0.14% |
| Mo 202.031† | 707.7 | 0.1094 | mg/L | 0.00066 | 0.1094 | mg/L | 0.00066 | 0.60% |
| Na 589.592† | 2683487.7 | 149.4 | mg/L | 2.56 | 149.4 | mg/L | 2.56 | 1.71% |
| Ni 231.604† | 145.5 | 0.0131 | mg/L | 0.00028 | 0.0131 | mg/L | 0.00028 | 2.11% |
| P 214.914† | 76.4 | 0.1545 | mg/L | 0.00496 | 0.1545 | mg/L | 0.00496 | 3.21% |
| Pb 220.353† | 1.8 | -0.0002 | mg/L | 0.00274 | -0.0002 | mg/L | 0.00274 | >999.9% |
| Sb 206.836† | -5.8 | -0.0060 | mg/L | 0.00014 | -0.0060 | mg/L | 0.00014 | 2.39% |
| Se 196.026† | 6.4 | 0.0044 | mg/L | 0.00031 | 0.0044 | mg/L | 0.00031 | 6.92% |
| Si 251.611† | 137828.7 | 7.737 | mg/L | 0.0461 | 7.737 | mg/L | 0.0461 | 0.60% |
| Sn 189.927† | 11.2 | 0.0037 | mg/L | 0.00288 | 0.0037 | mg/L | 0.00288 | 78.34% |
| Sr 421.552† | 117211.6 | 0.1674 | mg/L | 0.00015 | 0.1674 | mg/L | 0.00015 | 0.09% |
| Ti 334.903† | 408.7 | 0.0021 | mg/L | 0.00014 | 0.0021 | mg/L | 0.00014 | 6.92% |
| Tl 190.801† | -2.2 | -0.0069 | mg/L | 0.00363 | -0.0069 | mg/L | 0.00363 | 52.87% |
| V 292.402† | 1564.0 | 0.0407 | mg/L | 0.00010 | 0.0407 | mg/L | 0.00010 | 0.24% |
| Zn 213.857† | 83.4 | 0.0010 | mg/L | 0.00001 | 0.0010 | mg/L | 0.00001 | 0.74% |
| Zr 343.823† | 78.7 | 0.0006 | mg/L | 0.00013 | 0.0006 | mg/L | 0.00013 | 23.95% |
| W 207.912† | 19.5 | 0.0094 | mg/L | 0.00028 | 0.0094 | mg/L | 0.00028 | 3.02% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 5 Autosampler Location: 57
Sample ID: 440-194887-e-16-a Date Collected: 10/26/2017 2:21:12 PM
Analyst: BH Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194887-e-16-a

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194887-e-16-a

| Analyte | Mean Corrected Intensity | Calib. Conc. | Units | Std.Dev. | Sample Conc. | Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2428382.5 | 94.75 | % | 1.352 | | | | 1.43% |
| Ag 328.068† | 139.5 | 0.0015 | mg/L | 0.00009 | 0.0015 | mg/L | 0.00009 | 6.09% |
| Al 308.215† | 769.7 | 0.0217 | mg/L | 0.01210 | 0.0217 | mg/L | 0.01210 | 55.67% |
| As 188.979† | -8.8 | -0.0127 | mg/L | 0.00160 | -0.0127 | mg/L | 0.00160 | 12.67% |
| B 249.677† | 7407.1 | 0.1600 | mg/L | 0.00440 | 0.1600 | mg/L | 0.00440 | 2.75% |
| Ba 233.527† | 8061.4 | 0.2462 | mg/L | 0.00502 | 0.2462 | mg/L | 0.00502 | 2.04% |
| Be 313.107† | -428.2 | -0.0005 | mg/L | 0.00008 | -0.0005 | mg/L | 0.00008 | 15.79% |
| Ca 315.887† | 532720.3 | 195.8 | mg/L | 2.91 | 195.8 | mg/L | 2.91 | 1.49% |
| Cd 214.440† | -19.0 | -0.0004 | mg/L | 0.00004 | -0.0004 | mg/L | 0.00004 | 11.18% |
| Co 228.616† | 33.2 | 0.0039 | mg/L | 0.00019 | 0.0039 | mg/L | 0.00019 | 4.96% |
| Cr 205.560† | 100.1 | 0.0079 | mg/L | 0.00022 | 0.0079 | mg/L | 0.00022 | 2.83% |
| Cu 324.752† | 461.2 | 0.0044 | mg/L | 0.00013 | 0.0044 | mg/L | 0.00013 | 2.87% |
| Fe 238.204† | 14720.5 | 4.766 | mg/L | 0.0300 | 4.766 | mg/L | 0.0300 | 0.63% |
| K 766.490† | 46613.7 | 18.21 | mg/L | 0.136 | 18.21 | mg/L | 0.136 | 0.75% |
| Li 610.362† | -12365.4 | 0.0386 | mg/L | 0.00253 | 0.0386 | mg/L | 0.00253 | 6.53% |
| Mg 279.077† | 207573.8 | 74.02 | mg/L | 0.184 | 74.02 | mg/L | 0.184 | 0.25% |
| Mn 257.610† | 1468223.0 | 9.355 | mg/L | 0.0068 | 9.355 | mg/L | 0.0068 | 0.07% |
| Mo 202.031† | 21.4 | 0.0034 | mg/L | 0.00025 | 0.0034 | mg/L | 0.00025 | 7.34% |
| Na 589.592† | 1517027.8 | 84.45 | mg/L | 2.310 | 84.45 | mg/L | 2.310 | 2.74% |
| Ni 231.604† | 69.7 | 0.0062 | mg/L | 0.00019 | 0.0062 | mg/L | 0.00019 | 2.98% |
| P 214.914† | 41.2 | 0.0822 | mg/L | 0.00485 | 0.0822 | mg/L | 0.00485 | 5.90% |
| Pb 220.353† | 5.2 | 0.0030 | mg/L | 0.00091 | 0.0030 | mg/L | 0.00091 | 30.36% |
| Sb 206.836† | -1.7 | -0.0021 | mg/L | 0.00631 | -0.0021 | mg/L | 0.00631 | 295.46% |
| Se 196.026† | 14.4 | 0.0134 | mg/L | 0.00629 | 0.0134 | mg/L | 0.00629 | 46.88% |
| Si 251.611† | 196664.8 | 11.04 | mg/L | 0.311 | 11.04 | mg/L | 0.311 | 2.81% |
| Sn 189.927† | 54.9 | 0.0118 | mg/L | 0.00095 | 0.0118 | mg/L | 0.00095 | 8.02% |
| Sr 421.552† | 575841.1 | 0.8206 | mg/L | 0.01066 | 0.8206 | mg/L | 0.01066 | 1.30% |
| Ti 334.903† | 627.5 | 0.0054 | mg/L | 0.00064 | 0.0054 | mg/L | 0.00064 | 11.78% |
| Tl 190.801† | -6.3 | -0.0130 | mg/L | 0.00072 | -0.0130 | mg/L | 0.00072 | 5.50% |
| V 292.402† | 157.4 | 0.0046 | mg/L | 0.00027 | 0.0046 | mg/L | 0.00027 | 5.97% |
| Zn 213.857† | 99.8 | -0.0008 | mg/L | 0.00008 | -0.0008 | mg/L | 0.00008 | 9.10% |
| Zr 343.823† | 173.6 | 0.0012 | mg/L | 0.00016 | 0.0012 | mg/L | 0.00016 | 12.98% |
| W 207.912† | 6.3 | 0.0030 | mg/L | 0.00233 | 0.0030 | mg/L | 0.00233 | 77.18% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 6 Autosampler Location: 58
Sample ID: 440-194887-e-16-b ms Date Collected: 10/26/2017 2:23:10 PM
Analyst: BH Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194887-e-16-b ms

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 198.0 kPa | 0.65 L/min |

Mean Data: 440-194887-e-16-b ms

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2422387.4 | 94.52 | % | 0.344 | | | | 0.36% |
| Ag 328.068† | 20317.7 | 0.2065 | mg/L | 0.00131 | 0.2065 | mg/L | 0.00131 | 0.63% |
| Al 308.215† | 6154.8 | 0.5325 | mg/L | 0.00948 | 0.5325 | mg/L | 0.00948 | 1.78% |
| As 188.979† | 331.6 | 0.4923 | mg/L | 0.00278 | 0.4923 | mg/L | 0.00278 | 0.56% |
| B 249.677† | 26984.6 | 0.6119 | mg/L | 0.00749 | 0.6119 | mg/L | 0.00749 | 1.22% |
| Ba 233.527† | 22408.7 | 0.6847 | mg/L | 0.00840 | 0.6847 | mg/L | 0.00840 | 1.23% |
| Be 313.107† | 382059.8 | 0.4470 | mg/L | 0.00091 | 0.4470 | mg/L | 0.00091 | 0.20% |
| Ca 315.887† | 544640.4 | 200.2 | mg/L | 1.65 | 200.2 | mg/L | 1.65 | 0.82% |
| Cd 214.440† | 14867.5 | 0.4700 | mg/L | 0.00205 | 0.4700 | mg/L | 0.00205 | 0.44% |
| Co 228.616† | 4402.8 | 0.5178 | mg/L | 0.00506 | 0.5178 | mg/L | 0.00506 | 0.98% |
| Cr 205.560† | 5927.3 | 0.4667 | mg/L | 0.00278 | 0.4667 | mg/L | 0.00278 | 0.60% |
| Cu 324.752† | 53915.5 | 0.4738 | mg/L | 0.00516 | 0.4738 | mg/L | 0.00516 | 1.09% |
| Fe 238.204† | 16409.7 | 5.314 | mg/L | 0.0252 | 5.314 | mg/L | 0.0252 | 0.47% |
| K 766.490† | 60812.1 | 23.75 | mg/L | 0.431 | 23.75 | mg/L | 0.431 | 1.81% |
| Li 610.362† | 39828.0 | 0.5030 | mg/L | 0.00034 | 0.5030 | mg/L | 0.00034 | 0.07% |
| Mg 279.077† | 223929.3 | 79.85 | mg/L | 0.765 | 79.85 | mg/L | 0.765 | 0.96% |
| Mn 257.610† | 1522199.9 | 9.699 | mg/L | 0.0078 | 9.699 | mg/L | 0.0078 | 0.08% |
| Mo 202.031† | 3133.7 | 0.4841 | mg/L | 0.00249 | 0.4841 | mg/L | 0.00249 | 0.51% |
| Na 589.592† | 1592894.6 | 88.68 | mg/L | 2.542 | 88.68 | mg/L | 2.542 | 2.87% |
| Ni 231.604† | 4841.3 | 0.4376 | mg/L | 0.00211 | 0.4376 | mg/L | 0.00211 | 0.48% |
| P 214.914† | 277.7 | 0.5479 | mg/L | 0.00060 | 0.5479 | mg/L | 0.00060 | 0.11% |
| Pb 220.353† | 911.2 | 0.4688 | mg/L | 0.00492 | 0.4688 | mg/L | 0.00492 | 1.05% |
| Sb 206.836† | 336.6 | 0.4526 | mg/L | 0.00378 | 0.4526 | mg/L | 0.00378 | 0.83% |
| Se 196.026† | 379.9 | 0.4824 | mg/L | 0.01701 | 0.4824 | mg/L | 0.01701 | 3.53% |
| Si 251.611† | 232387.6 | 13.01 | mg/L | 0.125 | 13.01 | mg/L | 0.125 | 0.96% |
| Sn 189.927† | 1207.7 | 0.4793 | mg/L | 0.00819 | 0.4793 | mg/L | 0.00819 | 1.71% |
| Sr 421.552† | 876990.4 | 1.253 | mg/L | 0.0022 | 1.253 | mg/L | 0.0022 | 0.18% |
| Ti 334.903† | 129411.1 | 0.5228 | mg/L | 0.00614 | 0.5228 | mg/L | 0.00614 | 1.17% |
| Tl 190.801† | 276.9 | 0.4539 | mg/L | 0.00194 | 0.4539 | mg/L | 0.00194 | 0.43% |
| V 292.402† | 19650.9 | 0.5063 | mg/L | 0.00766 | 0.5063 | mg/L | 0.00766 | 1.51% |
| Zn 213.857† | 15708.7 | 0.4413 | mg/L | 0.00305 | 0.4413 | mg/L | 0.00305 | 0.69% |
| Zr 343.823† | 66657.2 | 0.4670 | mg/L | 0.00421 | 0.4670 | mg/L | 0.00421 | 0.90% |
| W 207.912† | 947.7 | 0.4514 | mg/L | 0.00204 | 0.4514 | mg/L | 0.00204 | 0.45% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 7 Autosampler Location: 59
Sample ID: 440-194887-e-16-c msd Date Collected: 10/26/2017 2:25:07 PM
Analyst: BH Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194887-e-16-c msd

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194887-e-16-c msd

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2522578.8 | 98.43 | % | 1.030 | | | | 1.05% |
| Ag 328.068† | 20203.7 | 0.2053 | mg/L | 0.00110 | 0.2053 | mg/L | 0.00110 | 0.53% |
| Al 308.215† | 5906.5 | 0.5092 | mg/L | 0.01036 | 0.5092 | mg/L | 0.01036 | 2.04% |
| As 188.979† | 322.3 | 0.4785 | mg/L | 0.00373 | 0.4785 | mg/L | 0.00373 | 0.78% |
| B 249.677† | 26704.4 | 0.6054 | mg/L | 0.00973 | 0.6054 | mg/L | 0.00973 | 1.61% |
| Ba 233.527† | 22215.1 | 0.6788 | mg/L | 0.01159 | 0.6788 | mg/L | 0.01159 | 1.71% |
| Be 313.107† | 380049.2 | 0.4446 | mg/L | 0.00076 | 0.4446 | mg/L | 0.00076 | 0.17% |
| Ca 315.887† | 541072.5 | 198.9 | mg/L | 2.14 | 198.9 | mg/L | 2.14 | 1.07% |
| Cd 214.440† | 14860.8 | 0.4698 | mg/L | 0.00841 | 0.4698 | mg/L | 0.00841 | 1.79% |
| Co 228.616† | 4294.5 | 0.5051 | mg/L | 0.00362 | 0.5051 | mg/L | 0.00362 | 0.72% |
| Cr 205.560† | 5840.4 | 0.4599 | mg/L | 0.00516 | 0.4599 | mg/L | 0.00516 | 1.12% |
| Cu 324.752† | 53652.5 | 0.4714 | mg/L | 0.00696 | 0.4714 | mg/L | 0.00696 | 1.48% |
| Fe 238.204† | 16419.2 | 5.317 | mg/L | 0.1066 | 5.317 | mg/L | 0.1066 | 2.00% |
| K 766.490† | 60293.4 | 23.55 | mg/L | 0.514 | 23.55 | mg/L | 0.514 | 2.18% |
| Li 610.362† | 39586.3 | 0.4998 | mg/L | 0.00267 | 0.4998 | mg/L | 0.00267 | 0.53% |
| Mg 279.077† | 210772.0 | 75.16 | mg/L | 0.406 | 75.16 | mg/L | 0.406 | 0.54% |
| Mn 257.610† | 1509062.4 | 9.615 | mg/L | 0.0075 | 9.615 | mg/L | 0.0075 | 0.08% |
| Mo 202.031† | 3133.7 | 0.4841 | mg/L | 0.00094 | 0.4841 | mg/L | 0.00094 | 0.19% |
| Na 589.592† | 1622965.4 | 90.35 | mg/L | 1.276 | 90.35 | mg/L | 1.276 | 1.41% |
| Ni 231.604† | 4768.2 | 0.4310 | mg/L | 0.00473 | 0.4310 | mg/L | 0.00473 | 1.10% |
| P 214.914† | 271.2 | 0.5345 | mg/L | 0.00897 | 0.5345 | mg/L | 0.00897 | 1.68% |
| Pb 220.353† | 886.0 | 0.4559 | mg/L | 0.00065 | 0.4559 | mg/L | 0.00065 | 0.14% |
| Sb 206.836† | 332.7 | 0.4475 | mg/L | 0.00227 | 0.4475 | mg/L | 0.00227 | 0.51% |
| Se 196.026† | 369.9 | 0.4696 | mg/L | 0.00972 | 0.4696 | mg/L | 0.00972 | 2.07% |
| Si 251.611† | 223625.5 | 12.52 | mg/L | 0.017 | 12.52 | mg/L | 0.017 | 0.14% |
| Sn 189.927† | 1181.8 | 0.4689 | mg/L | 0.00306 | 0.4689 | mg/L | 0.00306 | 0.65% |
| Sr 421.552† | 866678.5 | 1.238 | mg/L | 0.0191 | 1.238 | mg/L | 0.0191 | 1.54% |
| Ti 334.903† | 125849.0 | 0.5085 | mg/L | 0.00208 | 0.5085 | mg/L | 0.00208 | 0.41% |
| Tl 190.801† | 271.4 | 0.4448 | mg/L | 0.00222 | 0.4448 | mg/L | 0.00222 | 0.50% |
| V 292.402† | 19550.6 | 0.5037 | mg/L | 0.00601 | 0.5037 | mg/L | 0.00601 | 1.19% |
| Zn 213.857† | 15581.7 | 0.4379 | mg/L | 0.00315 | 0.4379 | mg/L | 0.00315 | 0.72% |
| Zr 343.823† | 66699.1 | 0.4673 | mg/L | 0.00776 | 0.4673 | mg/L | 0.00776 | 1.66% |
| W 207.912† | 937.8 | 0.4467 | mg/L | 0.00290 | 0.4467 | mg/L | 0.00290 | 0.65% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 8 Autosampler Location: 4
Sample ID: CCV 4447505 Date Collected: 10/26/2017 2:27:04 PM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: CCV 4447505

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: CCV 4447505

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2570733.4 | 100.3 | % | 0.23 | | | | 0.23% |
| Ag 328.068† | 47865.7 | 0.4867 | mg/L | 0.00896 | 0.4867 | mg/L | 0.00896 | 1.84% |
| Al 308.215† | 10193.8 | 0.9646 | mg/L | 0.02840 | 0.9646 | mg/L | 0.02840 | 2.94% |
| As 188.979† | 657.8 | 0.9759 | mg/L | 0.01686 | 0.9759 | mg/L | 0.01686 | 1.73% |
| B 249.677† | 46399.5 | 1.072 | mg/L | 0.0253 | 1.072 | mg/L | 0.0253 | 2.36% |
| Ba 233.527† | 30924.2 | 0.9452 | mg/L | 0.01944 | 0.9452 | mg/L | 0.01944 | 2.06% |
| Be 313.107† | 794817.4 | 0.9299 | mg/L | 0.00236 | 0.9299 | mg/L | 0.00236 | 0.25% |
| Ca 315.887† | 13665.3 | 5.027 | mg/L | 0.0193 | 5.027 | mg/L | 0.0193 | 0.38% |
| Cd 214.440† | 33381.2 | 1.055 | mg/L | 0.0161 | 1.055 | mg/L | 0.0161 | 1.53% |
| Co 228.616† | 8967.8 | 1.055 | mg/L | 0.0127 | 1.055 | mg/L | 0.0127 | 1.20% |
| Cr 205.560† | 12482.5 | 0.9829 | mg/L | 0.01748 | 0.9829 | mg/L | 0.01748 | 1.78% |
| Cu 324.752† | 111273.0 | 0.9770 | mg/L | 0.01787 | 0.9770 | mg/L | 0.01787 | 1.83% |
| Fe 238.204† | 3172.1 | 1.029 | mg/L | 0.0007 | 1.029 | mg/L | 0.0007 | 0.07% |
| K 766.490† | 25839.8 | 10.09 | mg/L | 0.099 | 10.09 | mg/L | 0.099 | 0.98% |
| Li 610.362† | 102787.3 | 0.9117 | mg/L | 0.00187 | 0.9117 | mg/L | 0.00187 | 0.21% |
| Mg 279.077† | 13520.6 | 4.823 | mg/L | 0.1321 | 4.823 | mg/L | 0.1321 | 2.74% |
| Mn 257.610† | 137707.7 | 0.8775 | mg/L | 0.00464 | 0.8775 | mg/L | 0.00464 | 0.53% |
| Mo 202.031† | 6289.1 | 0.9712 | mg/L | 0.02250 | 0.9712 | mg/L | 0.02250 | 2.32% |
| Na 589.592† | 193289.3 | 10.76 | mg/L | 0.129 | 10.76 | mg/L | 0.129 | 1.20% |
| Ni 231.604† | 10709.9 | 0.9682 | mg/L | 0.02406 | 0.9682 | mg/L | 0.02406 | 2.49% |
| P 214.914† | 448.2 | 0.8780 | mg/L | 0.01813 | 0.8780 | mg/L | 0.01813 | 2.07% |
| Pb 220.353† | 1931.6 | 0.9930 | mg/L | 0.01702 | 0.9930 | mg/L | 0.01702 | 1.71% |
| Sb 206.836† | 702.0 | 0.9433 | mg/L | 0.01538 | 0.9433 | mg/L | 0.01538 | 1.63% |
| Se 196.026† | 763.0 | 0.9792 | mg/L | 0.02262 | 0.9792 | mg/L | 0.02262 | 2.31% |
| Si 251.611† | 105876.3 | 5.874 | mg/L | 0.0927 | 5.874 | mg/L | 0.0927 | 1.58% |
| Sn 189.927† | 2385.8 | 0.9675 | mg/L | 0.01798 | 0.9675 | mg/L | 0.01798 | 1.86% |
| Sr 421.552† | 655116.0 | 0.9399 | mg/L | 0.00205 | 0.9399 | mg/L | 0.00205 | 0.22% |
| Ti 334.903† | 253708.3 | 1.019 | mg/L | 0.0035 | 1.019 | mg/L | 0.0035 | 0.34% |
| Tl 190.801† | 610.7 | 1.006 | mg/L | 0.0083 | 1.006 | mg/L | 0.0083 | 0.82% |
| V 292.402† | 41438.9 | 1.067 | mg/L | 0.0215 | 1.067 | mg/L | 0.0215 | 2.02% |
| Zn 213.857† | 34199.0 | 0.9690 | mg/L | 0.02330 | 0.9690 | mg/L | 0.02330 | 2.40% |
| Zr 343.823† | 143126.2 | 1.003 | mg/L | 0.0200 | 1.003 | mg/L | 0.0200 | 1.99% |
| W 207.912† | 1924.1 | 0.9160 | mg/L | 0.01292 | 0.9160 | mg/L | 0.01292 | 1.41% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 9 Autosampler Location: 1
Sample ID: CCB 4447504 Date Collected: 10/26/2017 2:29:03 PM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: CCB 4447504

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: CCB 4447504

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2469271.9 | 96.35 | % | 1.038 | | | | 1.08% |
| Ag 328.068† | 43.3 | 0.0004 | mg/L | 0.00074 | 0.0004 | mg/L | 0.00074 | 165.05% |
| Al 308.215† | 58.2 | 0.0056 | mg/L | 0.00565 | 0.0056 | mg/L | 0.00565 | 101.23% |
| As 188.979† | 0.7 | 0.0011 | mg/L | 0.00491 | 0.0011 | mg/L | 0.00491 | 445.64% |
| B 249.677† | 117.8 | 0.0027 | mg/L | 0.00051 | 0.0027 | mg/L | 0.00051 | 18.84% |
| Ba 233.527† | 20.1 | 0.0006 | mg/L | 0.00004 | 0.0006 | mg/L | 0.00004 | 7.07% |
| Be 313.107† | -246.1 | -0.0003 | mg/L | 0.00000 | -0.0003 | mg/L | 0.00000 | 1.17% |
| Ca 315.887† | 197.8 | 0.0727 | mg/L | 0.01183 | 0.0727 | mg/L | 0.01183 | 16.27% |
| Cd 214.440† | 18.0 | 0.0006 | mg/L | 0.00003 | 0.0006 | mg/L | 0.00003 | 4.50% |
| Co 228.616† | 7.8 | 0.0009 | mg/L | 0.00014 | 0.0009 | mg/L | 0.00014 | 15.14% |
| Cr 205.560† | 5.9 | 0.0005 | mg/L | 0.00019 | 0.0005 | mg/L | 0.00019 | 41.67% |
| Cu 324.752† | 318.5 | 0.0028 | mg/L | 0.00026 | 0.0028 | mg/L | 0.00026 | 9.32% |
| Fe 238.204† | 17.1 | 0.0056 | mg/L | 0.00034 | 0.0056 | mg/L | 0.00034 | 6.04% |
| K 766.490† | 29.6 | 0.0116 | mg/L | 0.01564 | 0.0116 | mg/L | 0.01564 | 135.27% |
| Li 610.362† | -7.6 | -0.0000 | mg/L | 0.00035 | -0.0000 | mg/L | 0.00035 | >999.9% |
| Mg 279.077† | 59.4 | 0.0212 | mg/L | 0.00248 | 0.0212 | mg/L | 0.00248 | 11.68% |
| Mn 257.610† | 448.4 | 0.0029 | mg/L | 0.00033 | 0.0029 | mg/L | 0.00033 | 11.73% |
| Mo 202.031† | 88.3 | 0.0136 | mg/L | 0.00187 | 0.0136 | mg/L | 0.00187 | 13.69% |
| Na 589.592† | 1702.7 | 0.0948 | mg/L | 0.00542 | 0.0948 | mg/L | 0.00542 | 5.71% |
| Ni 231.604† | 19.6 | 0.0018 | mg/L | 0.00042 | 0.0018 | mg/L | 0.00042 | 23.55% |
| P 214.914† | -0.2 | -0.0008 | mg/L | 0.00272 | -0.0008 | mg/L | 0.00272 | 332.55% |
| Pb 220.353† | 12.1 | 0.0063 | mg/L | 0.00112 | 0.0063 | mg/L | 0.00112 | 17.90% |
| Sb 206.836† | 3.2 | 0.0044 | mg/L | 0.00234 | 0.0044 | mg/L | 0.00234 | 52.65% |
| Se 196.026† | 5.8 | 0.0075 | mg/L | 0.00416 | 0.0075 | mg/L | 0.00416 | 55.56% |
| Si 251.611† | 271.1 | 0.0148 | mg/L | 0.00126 | 0.0148 | mg/L | 0.00126 | 8.54% |
| Sn 189.927† | 6.1 | 0.0025 | mg/L | 0.00118 | 0.0025 | mg/L | 0.00118 | 48.00% |
| Sr 421.552† | 451.0 | 0.0006 | mg/L | 0.00013 | 0.0006 | mg/L | 0.00013 | 20.14% |
| Ti 334.903† | 191.8 | 0.0008 | mg/L | 0.00008 | 0.0008 | mg/L | 0.00008 | 9.73% |
| Tl 190.801† | -0.7 | -0.0011 | mg/L | 0.00574 | -0.0011 | mg/L | 0.00574 | 526.07% |
| V 292.402† | 9.0 | 0.0002 | mg/L | 0.00040 | 0.0002 | mg/L | 0.00040 | 170.01% |
| Zn 213.857† | -20.4 | -0.0006 | mg/L | 0.00006 | -0.0006 | mg/L | 0.00006 | 10.19% |
| Zr 343.823† | -67.7 | -0.0005 | mg/L | 0.00005 | -0.0005 | mg/L | 0.00005 | 10.83% |
| W 207.912† | 11.7 | 0.0056 | mg/L | 0.00192 | 0.0056 | mg/L | 0.00192 | 34.09% |


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**Analytical Sequence**
**Method: 170824_ICP7**

| Seq. | Loc. | ID | Status |
|---|---|---|---|
| 1 | 53 | 440-194887-e-7-a | Analyzed |
| 2 | 54 | 440-194887-e-9-a | Analyzed |
| 3 | 55 | 440-194887-e-10-a | Analyzed |
| 4 | 56 | 440-194887-e-15-a | Analyzed |
| 5 | 57 | 440-194887-e-16-a | Analyzed |
| 6 | 58 | 440-194887-e-16-b ms | Analyzed |
| 7 | 59 | 440-194887-e-16-c msd | Analyzed |
| 8 | 4 | CCV 4447505 | Analyzed |
| 9 | 1 | CCB 4447504 | Analyzed |


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**Analysis Begun**

**Start Time: 10/26/2017 2:44:52 PM** **Plasma On Time: 10/26/2017 9:24:37 AM**
**Logged In Analyst: IRVINSTICP7** **Technique: ICP Continuous**
**Spectrometer: Optima 8300** **Autosampler: ESI**

**Sample Information File: C:\Users\Public\PerkinElmer\ICP\Data\Sample Information\CP 171026-1.sif**
**Batch ID:**
**Results Data Set: 171026-1 ICP7**
**Results Library: C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb**

==========

**Sequence No.: 1** **Autosampler Location: 4**
**Sample ID: CCV 4447505** **Date Collected: 10/26/2017 2:45:03 PM**
**Analyst:** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time:**

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**Nebulizer Parameters: CCV 4447505**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: CCV 4447505**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2640512.0 | 103.0 | % | 2.02 | | | | 1.96% |
| Ag 328.068† | 47592.9 | 0.4840 | mg/L | 0.00494 | 0.4840 | mg/L | 0.00494 | 1.02% |
| Al 308.215† | 10117.4 | 0.9571 | mg/L | 0.01286 | 0.9571 | mg/L | 0.01286 | 1.34% |
| As 188.979† | 679.4 | 1.008 | mg/L | 0.0383 | 1.008 | mg/L | 0.0383 | 3.80% |
| B 249.677† | 46228.5 | 1.068 | mg/L | 0.0097 | 1.068 | mg/L | 0.0097 | 0.91% |
| Ba 233.527† | 30849.6 | 0.9429 | mg/L | 0.00726 | 0.9429 | mg/L | 0.00726 | 0.77% |
| Be 313.107† | 802778.2 | 0.9392 | mg/L | 0.00397 | 0.9392 | mg/L | 0.00397 | 0.42% |
| Ca 315.887† | 13939.0 | 5.127 | mg/L | 0.1492 | 5.127 | mg/L | 0.1492 | 2.91% |
| Cd 214.440† | 33387.3 | 1.055 | mg/L | 0.0084 | 1.055 | mg/L | 0.0084 | 0.80% |
| Co 228.616† | 9061.1 | 1.066 | mg/L | 0.0018 | 1.066 | mg/L | 0.0018 | 0.17% |
| Cr 205.560† | 12585.7 | 0.9910 | mg/L | 0.01372 | 0.9910 | mg/L | 0.01372 | 1.38% |
| Cu 324.752† | 110696.1 | 0.9720 | mg/L | 0.00663 | 0.9720 | mg/L | 0.00663 | 0.68% |
| Fe 238.204† | 3261.2 | 1.058 | mg/L | 0.0232 | 1.058 | mg/L | 0.0232 | 2.19% |
| K 766.490† | 27384.7 | 10.70 | mg/L | 0.195 | 10.70 | mg/L | 0.195 | 1.82% |
| Li 610.362† | 109676.2 | 0.9726 | mg/L | 0.00367 | 0.9726 | mg/L | 0.00367 | 0.38% |
| Mg 279.077† | 13443.9 | 4.795 | mg/L | 0.0200 | 4.795 | mg/L | 0.0200 | 0.42% |
| Mn 257.610† | 144379.7 | 0.9200 | mg/L | 0.00886 | 0.9200 | mg/L | 0.00886 | 0.96% |
| Mo 202.031† | 6289.3 | 0.9713 | mg/L | 0.00818 | 0.9713 | mg/L | 0.00818 | 0.84% |
| Na 589.592† | 208814.9 | 11.62 | mg/L | 0.198 | 11.62 | mg/L | 0.198 | 1.71% |
| Ni 231.604† | 10728.2 | 0.9699 | mg/L | 0.01511 | 0.9699 | mg/L | 0.01511 | 1.56% |
| P 214.914† | 461.1 | 0.9043 | mg/L | 0.02256 | 0.9043 | mg/L | 0.02256 | 2.49% |
| Pb 220.353† | 1980.2 | 1.018 | mg/L | 0.0386 | 1.018 | mg/L | 0.0386 | 3.79% |
| Sb 206.836† | 714.3 | 0.9596 | mg/L | 0.03702 | 0.9596 | mg/L | 0.03702 | 3.86% |
| Se 196.026† | 768.5 | 0.9862 | mg/L | 0.03804 | 0.9862 | mg/L | 0.03804 | 3.86% |
| Si 251.611† | 104601.3 | 5.801 | mg/L | 0.0336 | 5.801 | mg/L | 0.0336 | 0.58% |
| Sn 189.927† | 2443.8 | 0.9911 | mg/L | 0.03701 | 0.9911 | mg/L | 0.03701 | 3.73% |
| Sr 421.552† | 669734.2 | 0.9609 | mg/L | 0.01221 | 0.9609 | mg/L | 0.01221 | 1.27% |
| Ti 334.903† | 260983.1 | 1.048 | mg/L | 0.0022 | 1.048 | mg/L | 0.0022 | 0.21% |
| Tl 190.801† | 631.2 | 1.040 | mg/L | 0.0338 | 1.040 | mg/L | 0.0338 | 3.25% |
| V 292.402† | 41077.3 | 1.057 | mg/L | 0.0155 | 1.057 | mg/L | 0.0155 | 1.47% |
| Zn 213.857† | 33973.2 | 0.9626 | mg/L | 0.01173 | 0.9626 | mg/L | 0.01173 | 1.22% |
| Zr 343.823† | 141448.1 | 0.9909 | mg/L | 0.00740 | 0.9909 | mg/L | 0.00740 | 0.75% |
| W 207.912† | 1959.8 | 0.9332 | mg/L | 0.02861 | 0.9332 | mg/L | 0.02861 | 3.07% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 2 Autosampler Location: 1
Sample ID: CCB 4447504 Date Collected: 10/26/2017 2:47:07 PM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: CCB 4447504

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: CCB 4447504

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2569550.8 | 100.3 | % | 0.43 | | | | 0.43% |
| Ag 328.068† | -73.4 | -0.0008 | mg/L | 0.00040 | -0.0008 | mg/L | 0.00040 | 52.79% |
| Al 308.215† | -48.0 | -0.0048 | mg/L | 0.00203 | -0.0048 | mg/L | 0.00203 | 42.14% |
| As 188.979† | -3.9 | -0.0057 | mg/L | 0.00307 | -0.0057 | mg/L | 0.00307 | 53.62% |
| B 249.677† | 75.5 | 0.0017 | mg/L | 0.00005 | 0.0017 | mg/L | 0.00005 | 2.69% |
| Ba 233.527† | 9.7 | 0.0003 | mg/L | 0.00001 | 0.0003 | mg/L | 0.00001 | 2.57% |
| Be 313.107† | -345.0 | -0.0004 | mg/L | 0.00001 | -0.0004 | mg/L | 0.00001 | 1.98% |
| Ca 315.887† | 54.6 | 0.0201 | mg/L | 0.00126 | 0.0201 | mg/L | 0.00126 | 6.29% |
| Cd 214.440† | 5.8 | 0.0002 | mg/L | 0.00000 | 0.0002 | mg/L | 0.00000 | 1.78% |
| Co 228.616† | 7.5 | 0.0009 | mg/L | 0.00039 | 0.0009 | mg/L | 0.00039 | 43.87% |
| Cr 205.560† | 2.5 | 0.0002 | mg/L | 0.00020 | 0.0002 | mg/L | 0.00020 | 101.67% |
| Cu 324.752† | 298.6 | 0.0026 | mg/L | 0.00038 | 0.0026 | mg/L | 0.00038 | 14.49% |
| Fe 238.204† | 10.1 | 0.0033 | mg/L | 0.00095 | 0.0033 | mg/L | 0.00095 | 29.06% |
| K 766.490† | 134.5 | 0.0525 | mg/L | 0.01301 | 0.0525 | mg/L | 0.01301 | 24.77% |
| Li 610.362† | 65.1 | 0.0006 | mg/L | 0.00070 | 0.0006 | mg/L | 0.00070 | 118.44% |
| Mg 279.077† | 4.5 | 0.0016 | mg/L | 0.00020 | 0.0016 | mg/L | 0.00020 | 11.96% |
| Mn 257.610† | 84.5 | 0.0005 | mg/L | 0.00011 | 0.0005 | mg/L | 0.00011 | 20.07% |
| Mo 202.031† | 81.5 | 0.0126 | mg/L | 0.00129 | 0.0126 | mg/L | 0.00129 | 10.26% |
| Na 589.592† | 943.8 | 0.0525 | mg/L | 0.00057 | 0.0525 | mg/L | 0.00057 | 1.08% |
| Ni 231.604† | 16.0 | 0.0014 | mg/L | 0.00044 | 0.0014 | mg/L | 0.00044 | 30.42% |
| P 214.914† | -4.4 | -0.0095 | mg/L | 0.00376 | -0.0095 | mg/L | 0.00376 | 39.46% |
| Pb 220.353† | 9.7 | 0.0050 | mg/L | 0.00063 | 0.0050 | mg/L | 0.00063 | 12.50% |
| Sb 206.836† | 1.2 | 0.0017 | mg/L | 0.00292 | 0.0017 | mg/L | 0.00292 | 168.41% |
| Se 196.026† | 3.9 | 0.0049 | mg/L | 0.00025 | 0.0049 | mg/L | 0.00025 | 5.01% |
| Si 251.611† | 136.3 | 0.0073 | mg/L | 0.00029 | 0.0073 | mg/L | 0.00029 | 3.97% |
| Sn 189.927† | 6.4 | 0.0026 | mg/L | 0.00192 | 0.0026 | mg/L | 0.00192 | 74.26% |
| Sr 421.552† | 177.6 | 0.0003 | mg/L | 0.00005 | 0.0003 | mg/L | 0.00005 | 18.92% |
| Ti 334.903† | 209.7 | 0.0008 | mg/L | 0.00004 | 0.0008 | mg/L | 0.00004 | 5.23% |
| Tl 190.801† | -0.4 | -0.0007 | mg/L | 0.00111 | -0.0007 | mg/L | 0.00111 | 158.93% |
| V 292.402† | 12.8 | 0.0003 | mg/L | 0.00036 | 0.0003 | mg/L | 0.00036 | 108.56% |
| Zn 213.857† | -24.8 | -0.0007 | mg/L | 0.00000 | -0.0007 | mg/L | 0.00000 | 0.18% |
| Zr 343.823† | -42.0 | -0.0003 | mg/L | 0.00025 | -0.0003 | mg/L | 0.00025 | 86.19% |
| W 207.912† | 7.2 | 0.0035 | mg/L | 0.00051 | 0.0035 | mg/L | 0.00051 | 14.56% |


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**Analytical Sequence**
**Method: 170824_ICP7**

| Seq. | Loc. | ID | Status |
|---|---|---|---|
| 1 | 4 | CCV 4447505 | Analyzed |
| 2 | 1 | CCB 4447504 | Analyzed |


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**Analysis Begun**

**Start Time: 10/26/2017 2:52:33 PM** **Plasma On Time: 10/26/2017 9:24:37 AM**
**Logged In Analyst: IRVINSTICP7** **Technique: ICP Continuous**
**Spectrometer: Optima 8300** **Autosampler: ESI**

**Sample Information File: C:\Users\Public\PerkinElmer\ICP\Data\Sample Information\CP 171026-1.sif**
**Batch ID:**
**Results Data Set: 171026-1 ICP7**
**Results Library: C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb**

==========

**Sequence No.: 1** **Autosampler Location: 60**
**Sample ID: mb 440-436767_1-c** **Date Collected: 10/26/2017 2:52:43 PM**
**Analyst: EN** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time:**

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**Nebulizer Parameters: mb 440-436767_1-c**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 198.0 kPa | 0.65 L/min |

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**Mean Data: mb 440-436767_1-c**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2708745.9 | 105.7 | % | 0.05 | | | | 0.05% |
| Ag 328.068† | 203.4 | 0.0021 | mg/L | 0.00026 | 0.0021 | mg/L | 0.00026 | 12.47% |
| Al 308.215† | 171.7 | 0.0168 | mg/L | 0.00195 | 0.0168 | mg/L | 0.00195 | 11.59% |
| As 188.979† | -1.0 | -0.0015 | mg/L | 0.00397 | -0.0015 | mg/L | 0.00397 | 259.16% |
| B 249.677† | 204.1 | 0.0047 | mg/L | 0.00011 | 0.0047 | mg/L | 0.00011 | 2.38% |
| Ba 233.527† | 15.2 | 0.0005 | mg/L | 0.00012 | 0.0005 | mg/L | 0.00012 | 24.89% |
| Be 313.107† | -157.5 | -0.0002 | mg/L | 0.00016 | -0.0002 | mg/L | 0.00016 | 86.62% |
| Ca 315.887† | 304.2 | 0.1118 | mg/L | 0.02050 | 0.1118 | mg/L | 0.02050 | 18.32% |
| Cd 214.440† | 11.3 | 0.0004 | mg/L | 0.00016 | 0.0004 | mg/L | 0.00016 | 45.09% |
| Co 228.616† | 6.8 | 0.0008 | mg/L | 0.00041 | 0.0008 | mg/L | 0.00041 | 51.35% |
| Cr 205.560† | 9.6 | 0.0008 | mg/L | 0.00007 | 0.0008 | mg/L | 0.00007 | 9.20% |
| Cu 324.752† | 209.9 | 0.0018 | mg/L | 0.00015 | 0.0018 | mg/L | 0.00015 | 8.09% |
| Fe 238.204† | 19.4 | 0.0063 | mg/L | 0.00145 | 0.0063 | mg/L | 0.00145 | 23.08% |
| K 766.490† | 1.8 | 0.0007 | mg/L | 0.00966 | 0.0007 | mg/L | 0.00966 | >999.9% |
| Li 610.362† | -35.6 | -0.0002 | mg/L | 0.00019 | -0.0002 | mg/L | 0.00019 | 81.16% |
| Mg 279.077† | 14.6 | 0.0052 | mg/L | 0.00651 | 0.0052 | mg/L | 0.00651 | 125.02% |
| Mn 257.610† | 147.4 | 0.0009 | mg/L | 0.00073 | 0.0009 | mg/L | 0.00073 | 77.51% |
| Mo 202.031† | 12.7 | 0.0020 | mg/L | 0.00023 | 0.0020 | mg/L | 0.00023 | 11.66% |
| Na 589.592† | 1276.2 | 0.0710 | mg/L | 0.01478 | 0.0710 | mg/L | 0.01478 | 20.80% |
| Ni 231.604† | 23.0 | 0.0021 | mg/L | 0.00014 | 0.0021 | mg/L | 0.00014 | 6.57% |
| P 214.914† | -3.2 | -0.0071 | mg/L | 0.00801 | -0.0071 | mg/L | 0.00801 | 112.39% |
| Pb 220.353† | 6.9 | 0.0036 | mg/L | 0.00312 | 0.0036 | mg/L | 0.00312 | 88.01% |
| Sb 206.836† | -4.0 | -0.0053 | mg/L | 0.00011 | -0.0053 | mg/L | 0.00011 | 2.00% |
| Se 196.026† | 2.5 | 0.0032 | mg/L | 0.01158 | 0.0032 | mg/L | 0.01158 | 361.56% |
| Si 251.611† | 125.1 | 0.0067 | mg/L | 0.00091 | 0.0067 | mg/L | 0.00091 | 13.61% |
| Sn 189.927† | -5.3 | -0.0021 | mg/L | 0.00036 | -0.0021 | mg/L | 0.00036 | 16.63% |
| Sr 421.552† | 711.9 | 0.0010 | mg/L | 0.00031 | 0.0010 | mg/L | 0.00031 | 30.22% |
| Ti 334.903† | 133.0 | 0.0005 | mg/L | 0.00040 | 0.0005 | mg/L | 0.00040 | 74.18% |
| Tl 190.801† | 0.3 | 0.0005 | mg/L | 0.00186 | 0.0005 | mg/L | 0.00186 | 351.91% |
| V 292.402† | 3.2 | 0.0001 | mg/L | 0.00027 | 0.0001 | mg/L | 0.00027 | 312.96% |
| Zn 213.857† | -12.0 | -0.0004 | mg/L | 0.00005 | -0.0004 | mg/L | 0.00005 | 14.08% |
| Zr 343.823† | 38.8 | 0.0003 | mg/L | 0.00024 | 0.0003 | mg/L | 0.00024 | 87.74% |
| W 207.912† | 12.2 | 0.0059 | mg/L | 0.00225 | 0.0059 | mg/L | 0.00225 | 38.30% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 2 Autosampler Location: 61
Sample ID: 440-194417-e-1-f ms Date Collected: 10/26/2017 2:55:21 PM
Analyst: EN Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194417-e-1-f ms

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194417-e-1-f ms

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2630389.9 | 102.6 | % | 0.10 | | | | 0.10% |
| Ag 328.068† | 9136.8 | 0.0930 | mg/L | 0.00085 | 0.0930 | mg/L | 0.00085 | 0.91% |
| Al 308.215† | 4677.1 | 0.4501 | mg/L | 0.00786 | 0.4501 | mg/L | 0.00786 | 1.75% |
| As 188.979† | 130.2 | 0.1933 | mg/L | 0.00406 | 0.1933 | mg/L | 0.00406 | 2.10% |
| B 249.677† | 9031.2 | 0.2039 | mg/L | 0.00361 | 0.2039 | mg/L | 0.00361 | 1.77% |
| Ba 233.527† | 6443.1 | 0.1969 | mg/L | 0.00170 | 0.1969 | mg/L | 0.00170 | 0.86% |
| Be 313.107† | 154655.2 | 0.1809 | mg/L | 0.00080 | 0.1809 | mg/L | 0.00080 | 0.44% |
| Ca 315.887† | 26827.6 | 9.863 | mg/L | 0.0853 | 9.863 | mg/L | 0.0853 | 0.86% |
| Cd 214.440† | 6338.2 | 0.2002 | mg/L | 0.00255 | 0.2002 | mg/L | 0.00255 | 1.27% |
| Co 228.616† | 1869.0 | 0.2198 | mg/L | 0.00047 | 0.2198 | mg/L | 0.00047 | 0.21% |
| Cr 205.560† | 2654.8 | 0.2090 | mg/L | 0.00136 | 0.2090 | mg/L | 0.00136 | 0.65% |
| Cu 324.752† | 22809.2 | 0.2004 | mg/L | 0.00271 | 0.2004 | mg/L | 0.00271 | 1.35% |
| Fe 238.204† | 6374.5 | 2.064 | mg/L | 0.0380 | 2.064 | mg/L | 0.0380 | 1.84% |
| K 766.490† | 13851.9 | 5.410 | mg/L | 0.0855 | 5.410 | mg/L | 0.0855 | 1.58% |
| Li 610.362† | 19812.6 | 0.1824 | mg/L | 0.00291 | 0.1824 | mg/L | 0.00291 | 1.60% |
| Mg 279.077† | 10891.2 | 3.884 | mg/L | 0.0552 | 3.884 | mg/L | 0.0552 | 1.42% |
| Mn 257.610† | 35314.7 | 0.2249 | mg/L | 0.00324 | 0.2249 | mg/L | 0.00324 | 1.44% |
| Mo 202.031† | 1324.9 | 0.2046 | mg/L | 0.00161 | 0.2046 | mg/L | 0.00161 | 0.79% |
| Na 589.592† | 445417.1 | 24.80 | mg/L | 0.210 | 24.80 | mg/L | 0.210 | 0.85% |
| Ni 231.604† | 2285.4 | 0.2066 | mg/L | 0.00232 | 0.2066 | mg/L | 0.00232 | 1.12% |
| P 214.914† | 2921.1 | 6.112 | mg/L | 0.0440 | 6.112 | mg/L | 0.0440 | 0.72% |
| Pb 220.353† | 389.6 | 0.2004 | mg/L | 0.00116 | 0.2004 | mg/L | 0.00116 | 0.58% |
| Sb 206.836† | 138.6 | 0.1864 | mg/L | 0.00298 | 0.1864 | mg/L | 0.00298 | 1.60% |
| Se 196.026† | 131.4 | 0.1691 | mg/L | 0.01225 | 0.1691 | mg/L | 0.01225 | 7.24% |
| Si 251.611† | 80353.0 | 4.497 | mg/L | 0.0588 | 4.497 | mg/L | 0.0588 | 1.31% |
| Sn 189.927† | 478.2 | 0.1938 | mg/L | 0.00311 | 0.1938 | mg/L | 0.00311 | 1.60% |
| Sr 421.552† | 153482.5 | 0.2199 | mg/L | 0.00045 | 0.2199 | mg/L | 0.00045 | 0.21% |
| Ti 334.903† | 53569.9 | 0.2153 | mg/L | 0.00244 | 0.2153 | mg/L | 0.00244 | 1.13% |
| Tl 190.801† | 119.5 | 0.1970 | mg/L | 0.00365 | 0.1970 | mg/L | 0.00365 | 1.85% |
| V 292.402† | 8248.1 | 0.2125 | mg/L | 0.00445 | 0.2125 | mg/L | 0.00445 | 2.09% |
| Zn 213.857† | 6898.1 | 0.1951 | mg/L | 0.00192 | 0.1951 | mg/L | 0.00192 | 0.98% |
| Zr 343.823† | 27183.1 | 0.1904 | mg/L | 0.00297 | 0.1904 | mg/L | 0.00297 | 1.56% |
| W 207.912† | 405.1 | 0.1929 | mg/L | 0.00103 | 0.1929 | mg/L | 0.00103 | 0.53% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 3 Autosampler Location: 45
Sample ID: 440-194887-e-1-a@5 Date Collected: 10/26/2017 2:57:19 PM
Analyst: BH Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194887-e-1-a@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194887-e-1-a@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2597662.7 | 101.4 | % | 0.26 | | | | 0.26% |
| Ag 328.068† | 15.2 | 0.0002 | mg/L | 0.00023 | 0.0002 | mg/L | 0.00023 | 145.21% |
| Al 308.215† | 489.1 | 0.0298 | mg/L | 0.00861 | 0.0298 | mg/L | 0.00861 | 28.88% |
| As 188.979† | -1.9 | -0.0021 | mg/L | 0.00226 | -0.0021 | mg/L | 0.00226 | 108.76% |
| B 249.677† | 1277.3 | 0.0297 | mg/L | 0.00042 | 0.0297 | mg/L | 0.00042 | 1.42% |
| Ba 233.527† | 106.9 | 0.0033 | mg/L | 0.00016 | 0.0033 | mg/L | 0.00016 | 4.79% |
| Be 313.107† | -280.5 | -0.0003 | mg/L | 0.00003 | -0.0003 | mg/L | 0.00003 | 9.80% |
| Ca 315.887† | 79437.6 | 29.20 | mg/L | 0.094 | 29.20 | mg/L | 0.094 | 0.32% |
| Cd 214.440† | 7.8 | 0.0003 | mg/L | 0.00016 | 0.0003 | mg/L | 0.00016 | 54.58% |
| Co 228.616† | 126.5 | 0.0149 | mg/L | 0.00010 | 0.0149 | mg/L | 0.00010 | 0.67% |
| Cr 205.560† | 3156.8 | 0.2486 | mg/L | 0.00181 | 0.2486 | mg/L | 0.00181 | 0.73% |
| Cu 324.752† | 325.2 | 0.0029 | mg/L | 0.00045 | 0.0029 | mg/L | 0.00045 | 15.70% |
| Fe 238.204† | 16.0 | 0.0052 | mg/L | 0.00215 | 0.0052 | mg/L | 0.00215 | 41.45% |
| K 766.490† | 144033.8 | 56.26 | mg/L | 0.015 | 56.26 | mg/L | 0.015 | 0.03% |
| Li 610.362† | -1332.3 | 0.0103 | mg/L | 0.00141 | 0.0103 | mg/L | 0.00141 | 13.68% |
| Mg 279.077† | 28032.6 | 9.998 | mg/L | 0.1398 | 9.998 | mg/L | 0.1398 | 1.40% |
| Mn 257.610† | 989708.1 | 6.307 | mg/L | 0.0187 | 6.307 | mg/L | 0.0187 | 0.30% |
| Mo 202.031† | 5.2 | 0.0008 | mg/L | 0.00009 | 0.0008 | mg/L | 0.00009 | 11.81% |
| Na 589.592† | 140806.1 | 7.839 | mg/L | 0.0431 | 7.839 | mg/L | 0.0431 | 0.55% |
| Saturated within auto integration window (code 4) | | | | | | | | |
| Ni 231.604† | 112.8 | 0.0102 | mg/L | 0.00040 | 0.0102 | mg/L | 0.00040 | 3.95% |
| P 214.914† | 2.6 | 0.0055 | mg/L | 0.00667 | 0.0055 | mg/L | 0.00667 | 120.81% |
| Pb 220.353† | 8.6 | 0.0035 | mg/L | 0.00280 | 0.0035 | mg/L | 0.00280 | 79.25% |
| Sb 206.836† | -0.5 | -0.0019 | mg/L | 0.00055 | -0.0019 | mg/L | 0.00055 | 29.63% |
| Se 196.026† | 4.0 | 0.0004 | mg/L | 0.00727 | 0.0004 | mg/L | 0.00727 | >999.9% |
| Si 251.611† | 40694.0 | 2.285 | mg/L | 0.0484 | 2.285 | mg/L | 0.0484 | 2.12% |
| Sn 189.927† | 13.3 | 0.0037 | mg/L | 0.00085 | 0.0037 | mg/L | 0.00085 | 22.76% |
| Sr 421.552† | 63901.1 | 0.0908 | mg/L | 0.00063 | 0.0908 | mg/L | 0.00063 | 0.69% |
| Ti 334.903† | -23.2 | 0.0003 | mg/L | 0.00002 | 0.0003 | mg/L | 0.00002 | 7.16% |
| Tl 190.801† | -0.7 | -0.0039 | mg/L | 0.00211 | -0.0039 | mg/L | 0.00211 | 54.12% |
| V 292.402† | -2.4 | 0.0008 | mg/L | 0.00010 | 0.0008 | mg/L | 0.00010 | 12.67% |
| Zn 213.857† | 26.1 | 0.0003 | mg/L | 0.00020 | 0.0003 | mg/L | 0.00020 | 77.21% |
| Zr 343.823† | -71.9 | -0.0005 | mg/L | 0.00021 | -0.0005 | mg/L | 0.00021 | 41.14% |
| W 207.912† | -2.5 | -0.0012 | mg/L | 0.00057 | -0.0012 | mg/L | 0.00057 | 46.94% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 4 Autosampler Location: 46
Sample ID: 440-194887-e-1-b ms@5 Date Collected: 10/26/2017 2:59:53 PM
Analyst: BH Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194887-e-1-b ms@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194887-e-1-b ms@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2626508.5 | 102.5 | % | 0.55 | | | | 0.54% |
| Ag 328.068† | 4734.7 | 0.0482 | mg/L | 0.00076 | 0.0482 | mg/L | 0.00076 | 1.57% |
| Al 308.215† | 1331.5 | 0.1099 | mg/L | 0.00339 | 0.1099 | mg/L | 0.00339 | 3.08% |
| As 188.979† | 59.1 | 0.0885 | mg/L | 0.00784 | 0.0885 | mg/L | 0.00784 | 8.86% |
| B 249.677† | 5243.0 | 0.1215 | mg/L | 0.00197 | 0.1215 | mg/L | 0.00197 | 1.62% |
| Ba 233.527† | 3240.1 | 0.0990 | mg/L | 0.00030 | 0.0990 | mg/L | 0.00030 | 0.30% |
| Be 313.107† | 82331.7 | 0.0963 | mg/L | 0.00084 | 0.0963 | mg/L | 0.00084 | 0.87% |
| Ca 315.887† | 74854.5 | 27.52 | mg/L | 0.695 | 27.52 | mg/L | 0.695 | 2.53% |
| Cd 214.440† | 3431.6 | 0.1084 | mg/L | 0.00034 | 0.1084 | mg/L | 0.00034 | 0.32% |
| Co 228.616† | 961.1 | 0.1130 | mg/L | 0.00023 | 0.1130 | mg/L | 0.00023 | 0.20% |
| Cr 205.560† | 4446.0 | 0.3502 | mg/L | 0.00061 | 0.3502 | mg/L | 0.00061 | 0.18% |
| Cu 324.752† | 11215.3 | 0.0985 | mg/L | 0.00152 | 0.0985 | mg/L | 0.00152 | 1.54% |
| Fe 238.204† | 324.8 | 0.1053 | mg/L | 0.00013 | 0.1053 | mg/L | 0.00013 | 0.12% |
| K 766.490† | 134653.0 | 52.59 | mg/L | 1.525 | 52.59 | mg/L | 1.525 | 2.90% |
| Li 610.362† | 9573.5 | 0.1053 | mg/L | 0.00030 | 0.1053 | mg/L | 0.00030 | 0.28% |
| Mg 279.077† | 28833.0 | 10.28 | mg/L | 0.113 | 10.28 | mg/L | 0.113 | 1.10% |
| Mn 257.610† | 1006821.2 | 6.416 | mg/L | 0.0010 | 6.416 | mg/L | 0.0010 | 0.02% |
| Mo 202.031† | 150.2 | 0.0232 | mg/L | 0.00025 | 0.0232 | mg/L | 0.00025 | 1.09% |
| Na 589.592† | 146226.1 | 8.140 | mg/L | 0.3040 | 8.140 | mg/L | 0.3040 | 3.73% |
| Ni 231.604† | 1202.6 | 0.1087 | mg/L | 0.00013 | 0.1087 | mg/L | 0.00013 | 0.12% |
| P 214.914† | 46.8 | 0.0961 | mg/L | 0.00156 | 0.0961 | mg/L | 0.00156 | 1.62% |
| Pb 220.353† | 57.2 | 0.0285 | mg/L | 0.00238 | 0.0285 | mg/L | 0.00238 | 8.35% |
| Sb 206.836† | 71.5 | 0.0936 | mg/L | 0.00335 | 0.0936 | mg/L | 0.00335 | 3.57% |
| Se 196.026† | 85.6 | 0.1057 | mg/L | 0.00719 | 0.1057 | mg/L | 0.00719 | 6.80% |
| Si 251.611† | 51960.8 | 2.915 | mg/L | 0.0247 | 2.915 | mg/L | 0.0247 | 0.85% |
| Sn 189.927† | 239.5 | 0.0956 | mg/L | 0.00029 | 0.0956 | mg/L | 0.00029 | 0.30% |
| Sr 421.552† | 124468.3 | 0.1778 | mg/L | 0.00298 | 0.1778 | mg/L | 0.00298 | 1.68% |
| Ti 334.903† | 26008.0 | 0.1048 | mg/L | 0.00129 | 0.1048 | mg/L | 0.00129 | 1.23% |
| Tl 190.801† | 58.2 | 0.0933 | mg/L | 0.00318 | 0.0933 | mg/L | 0.00318 | 3.41% |
| V 292.402† | 3972.9 | 0.1031 | mg/L | 0.00123 | 0.1031 | mg/L | 0.00123 | 1.20% |
| Zn 213.857† | 3575.0 | 0.1008 | mg/L | 0.00047 | 0.1008 | mg/L | 0.00047 | 0.46% |
| Zr 343.823† | 13164.0 | 0.0922 | mg/L | 0.00150 | 0.0922 | mg/L | 0.00150 | 1.63% |
| W 207.912† | 53.3 | 0.0249 | mg/L | 0.00026 | 0.0249 | mg/L | 0.00026 | 1.04% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 5 Autosampler Location: 47
Sample ID: 440-194887-e-1-c msd@5 Date Collected: 10/26/2017 3:02:25 PM
Analyst: BH Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194887-e-1-c msd@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194887-e-1-c msd@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2620004.2 | 102.2 | % | 0.62 | | | | 0.61% |
| Ag 328.068† | 4708.3 | 0.0479 | mg/L | 0.00083 | 0.0479 | mg/L | 0.00083 | 1.74% |
| Al 308.215† | 1234.0 | 0.1003 | mg/L | 0.00422 | 0.1003 | mg/L | 0.00422 | 4.21% |
| As 188.979† | 57.1 | 0.0854 | mg/L | 0.00094 | 0.0854 | mg/L | 0.00094 | 1.10% |
| B 249.677† | 5200.5 | 0.1206 | mg/L | 0.00069 | 0.1206 | mg/L | 0.00069 | 0.57% |
| Ba 233.527† | 3187.6 | 0.0974 | mg/L | 0.00005 | 0.0974 | mg/L | 0.00005 | 0.05% |
| Be 313.107† | 79736.1 | 0.0933 | mg/L | 0.00041 | 0.0933 | mg/L | 0.00041 | 0.44% |
| Ca 315.887† | 75864.4 | 27.89 | mg/L | 0.218 | 27.89 | mg/L | 0.218 | 0.78% |
| Cd 214.440† | 3356.9 | 0.1061 | mg/L | 0.00033 | 0.1061 | mg/L | 0.00033 | 0.31% |
| Co 228.616† | 942.8 | 0.1109 | mg/L | 0.00002 | 0.1109 | mg/L | 0.00002 | 0.02% |
| Cr 205.560† | 4437.3 | 0.3495 | mg/L | 0.00100 | 0.3495 | mg/L | 0.00100 | 0.29% |
| Cu 324.752† | 10899.0 | 0.0957 | mg/L | 0.00014 | 0.0957 | mg/L | 0.00014 | 0.14% |
| Fe 238.204† | 314.6 | 0.1020 | mg/L | 0.00130 | 0.1020 | mg/L | 0.00130 | 1.27% |
| K 766.490† | 137443.6 | 53.68 | mg/L | 0.133 | 53.68 | mg/L | 0.133 | 0.25% |
| Li 610.362† | 9266.1 | 0.1029 | mg/L | 0.00030 | 0.1029 | mg/L | 0.00030 | 0.29% |
| Mg 279.077† | 28889.1 | 10.30 | mg/L | 0.056 | 10.30 | mg/L | 0.056 | 0.55% |
| Mn 257.610† | 1009237.6 | 6.432 | mg/L | 0.0223 | 6.432 | mg/L | 0.0223 | 0.35% |
| Mo 202.031† | 143.7 | 0.0222 | mg/L | 0.00022 | 0.0222 | mg/L | 0.00022 | 1.00% |
| Na 589.592† | 151148.4 | 8.414 | mg/L | 0.0025 | 8.414 | mg/L | 0.0025 | 0.03% |
| Ni 231.604† | 1179.9 | 0.1067 | mg/L | 0.00046 | 0.1067 | mg/L | 0.00046 | 0.43% |
| P 214.914† | 42.0 | 0.0862 | mg/L | 0.00116 | 0.0862 | mg/L | 0.00116 | 1.35% |
| Pb 220.353† | 63.4 | 0.0317 | mg/L | 0.00004 | 0.0317 | mg/L | 0.00004 | 0.11% |
| Sb 206.836† | 72.3 | 0.0947 | mg/L | 0.00009 | 0.0947 | mg/L | 0.00009 | 0.10% |
| Se 196.026† | 83.1 | 0.1025 | mg/L | 0.00329 | 0.1025 | mg/L | 0.00329 | 3.21% |
| Si 251.611† | 51926.4 | 2.913 | mg/L | 0.0154 | 2.913 | mg/L | 0.0154 | 0.53% |
| Sn 189.927† | 238.9 | 0.0953 | mg/L | 0.00056 | 0.0953 | mg/L | 0.00056 | 0.59% |
| Sr 421.552† | 123922.0 | 0.1770 | mg/L | 0.00225 | 0.1770 | mg/L | 0.00225 | 1.27% |
| Ti 334.903† | 25420.4 | 0.1025 | mg/L | 0.00007 | 0.1025 | mg/L | 0.00007 | 0.06% |
| Tl 190.801† | 57.8 | 0.0926 | mg/L | 0.00572 | 0.0926 | mg/L | 0.00572 | 6.18% |
| V 292.402† | 3824.9 | 0.0993 | mg/L | 0.00109 | 0.0993 | mg/L | 0.00109 | 1.10% |
| Zn 213.857† | 3481.1 | 0.0982 | mg/L | 0.00024 | 0.0982 | mg/L | 0.00024 | 0.24% |
| Zr 343.823† | 13270.3 | 0.0930 | mg/L | 0.00034 | 0.0930 | mg/L | 0.00034 | 0.36% |
| W 207.912† | 47.3 | 0.0220 | mg/L | 0.00017 | 0.0220 | mg/L | 0.00017 | 0.75% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

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**Sequence No.: 6** **Autosampler Location: 48**
**Sample ID: 440-194887-e-2-a@5** **Date Collected: 10/26/2017 3:04:57 PM**
**Analyst: BH** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

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**Nebulizer Parameters: 440-194887-e-2-a@5**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: 440-194887-e-2-a@5**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2688204.8 | 104.9 | % | 0.67 | | | | 0.64% |
| Ag 328.068† | 31.6 | 0.0003 | mg/L | 0.00030 | 0.0003 | mg/L | 0.00030 | 92.18% |
| Al 308.215† | -108.1 | -0.0173 | mg/L | 0.00259 | -0.0173 | mg/L | 0.00259 | 14.99% |
| As 188.979† | -3.2 | -0.0038 | mg/L | 0.00005 | -0.0038 | mg/L | 0.00005 | 1.38% |
| B 249.677† | 1287.1 | 0.0299 | mg/L | 0.00018 | 0.0299 | mg/L | 0.00018 | 0.61% |
| Ba 233.527† | 53.6 | 0.0016 | mg/L | 0.00014 | 0.0016 | mg/L | 0.00014 | 8.58% |
| Be 313.107† | -297.1 | -0.0003 | mg/L | 0.00018 | -0.0003 | mg/L | 0.00018 | 53.18% |
| Ca 315.887† | 38116.8 | 14.01 | mg/L | 0.225 | 14.01 | mg/L | 0.225 | 1.60% |
| Cd 214.440† | 6.2 | 0.0002 | mg/L | 0.00006 | 0.0002 | mg/L | 0.00006 | 27.29% |
| Co 228.616† | 14.7 | 0.0017 | mg/L | 0.00030 | 0.0017 | mg/L | 0.00030 | 17.29% |
| Cr 205.560† | 4443.7 | 0.3500 | mg/L | 0.00117 | 0.3500 | mg/L | 0.00117 | 0.33% |
| Cu 324.752† | 322.7 | 0.0028 | mg/L | 0.00000 | 0.0028 | mg/L | 0.00000 | 0.16% |
| Fe 238.204† | 3.2 | 0.0011 | mg/L | 0.00101 | 0.0011 | mg/L | 0.00101 | 95.80% |
| K 766.490† | 335911.5 | 131.2 | mg/L | 1.11 | 131.2 | mg/L | 1.11 | 0.85% |
| Li 610.362† | -523.3 | 0.0060 | mg/L | 0.00115 | 0.0060 | mg/L | 0.00115 | 19.29% |
| Mg 279.077† | 13147.5 | 4.688 | mg/L | 0.0343 | 4.688 | mg/L | 0.0343 | 0.73% |
| Mn 257.610† | 296636.6 | 1.890 | mg/L | 0.0099 | 1.890 | mg/L | 0.0099 | 0.52% |
| Mo 202.031† | 3.8 | 0.0006 | mg/L | 0.00012 | 0.0006 | mg/L | 0.00012 | 20.37% |
| Na 589.592† | 132057.7 | 7.352 | mg/L | 0.0419 | 7.352 | mg/L | 0.0419 | 0.57% |
| Ni 231.604† | 1079.8 | 0.0975 | mg/L | 0.00009 | 0.0975 | mg/L | 0.00009 | 0.09% |
| P 214.914† | 1.8 | 0.0038 | mg/L | 0.00989 | 0.0038 | mg/L | 0.00989 | 260.14% |
| Pb 220.353† | 0.7 | 0.0002 | mg/L | 0.00027 | 0.0002 | mg/L | 0.00027 | 157.62% |
| Sb 206.836† | -1.5 | -0.0038 | mg/L | 0.00056 | -0.0038 | mg/L | 0.00056 | 14.78% |
| Se 196.026† | 9.2 | 0.0105 | mg/L | 0.00707 | 0.0105 | mg/L | 0.00707 | 67.28% |
| Si 251.611† | 54146.4 | 3.040 | mg/L | 0.0079 | 3.040 | mg/L | 0.0079 | 0.26% |
| Sn 189.927† | 5.8 | 0.0016 | mg/L | 0.00085 | 0.0016 | mg/L | 0.00085 | 54.36% |
| Sr 421.552† | 31817.3 | 0.0452 | mg/L | 0.00032 | 0.0452 | mg/L | 0.00032 | 0.71% |
| Ti 334.903† | 28.0 | 0.0003 | mg/L | 0.00001 | 0.0003 | mg/L | 0.00001 | 5.57% |
| Tl 190.801† | 1.7 | 0.0020 | mg/L | 0.00338 | 0.0020 | mg/L | 0.00338 | 165.80% |
| V 292.402† | -31.4 | 0.0003 | mg/L | 0.00021 | 0.0003 | mg/L | 0.00021 | 60.59% |
| Zn 213.857† | -13.7 | -0.0011 | mg/L | 0.00001 | -0.0011 | mg/L | 0.00001 | 1.18% |
| Zr 343.823† | 3.7 | 0.0000 | mg/L | 0.00024 | 0.0000 | mg/L | 0.00024 | 938.55% |
| W 207.912† | -3.1 | -0.0015 | mg/L | 0.00123 | -0.0015 | mg/L | 0.00123 | 82.83% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 7 Autosampler Location: 4
Sample ID: CCV 4447505 Date Collected: 10/26/2017 3:07:28 PM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: CCV 4447505

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: CCV 4447505

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2714379.1 | 105.9 | % | 1.14 | | | | 1.08% |
| Ag 328.068† | 46948.0 | 0.4774 | mg/L | 0.00222 | 0.4774 | mg/L | 0.00222 | 0.46% |
| Al 308.215† | 9954.7 | 0.9413 | mg/L | 0.00465 | 0.9413 | mg/L | 0.00465 | 0.49% |
| As 188.979† | 685.3 | 1.017 | mg/L | 0.0038 | 1.017 | mg/L | 0.0038 | 0.37% |
| B 249.677† | 45716.4 | 1.056 | mg/L | 0.0070 | 1.056 | mg/L | 0.0070 | 0.66% |
| Ba 233.527† | 30568.6 | 0.9343 | mg/L | 0.00749 | 0.9343 | mg/L | 0.00749 | 0.80% |
| Be 313.107† | 805018.2 | 0.9418 | mg/L | 0.00615 | 0.9418 | mg/L | 0.00615 | 0.65% |
| Ca 315.887† | 13827.0 | 5.086 | mg/L | 0.0167 | 5.086 | mg/L | 0.0167 | 0.33% |
| Cd 214.440† | 33106.9 | 1.046 | mg/L | 0.0057 | 1.046 | mg/L | 0.0057 | 0.54% |
| Co 228.616† | 8960.7 | 1.054 | mg/L | 0.0013 | 1.054 | mg/L | 0.0013 | 0.12% |
| Cr 205.560† | 12486.3 | 0.9832 | mg/L | 0.00336 | 0.9832 | mg/L | 0.00336 | 0.34% |
| Cu 324.752† | 108888.9 | 0.9561 | mg/L | 0.00075 | 0.9561 | mg/L | 0.00075 | 0.08% |
| Fe 238.204† | 3238.5 | 1.050 | mg/L | 0.0143 | 1.050 | mg/L | 0.0143 | 1.36% |
| K 766.490† | 27523.8 | 10.75 | mg/L | 0.204 | 10.75 | mg/L | 0.204 | 1.89% |
| Li 610.362† | 107600.3 | 0.9542 | mg/L | 0.00111 | 0.9542 | mg/L | 0.00111 | 0.12% |
| Mg 279.077† | 13359.7 | 4.765 | mg/L | 0.0449 | 4.765 | mg/L | 0.0449 | 0.94% |
| Mn 257.610† | 145259.7 | 0.9256 | mg/L | 0.00821 | 0.9256 | mg/L | 0.00821 | 0.89% |
| Mo 202.031† | 6260.8 | 0.9669 | mg/L | 0.00845 | 0.9669 | mg/L | 0.00845 | 0.87% |
| Na 589.592† | 210281.9 | 11.71 | mg/L | 0.242 | 11.71 | mg/L | 0.242 | 2.07% |
| Ni 231.604† | 10666.4 | 0.9643 | mg/L | 0.00000 | 0.9643 | mg/L | 0.00000 | 0.00% |
| P 214.914† | 458.3 | 0.8986 | mg/L | 0.00230 | 0.8986 | mg/L | 0.00230 | 0.26% |
| Pb 220.353† | 1976.6 | 1.016 | mg/L | 0.0060 | 1.016 | mg/L | 0.0060 | 0.59% |
| Sb 206.836† | 706.3 | 0.9488 | mg/L | 0.00702 | 0.9488 | mg/L | 0.00702 | 0.74% |
| Se 196.026† | 772.4 | 0.9913 | mg/L | 0.00257 | 0.9913 | mg/L | 0.00257 | 0.26% |
| Si 251.611† | 103034.3 | 5.714 | mg/L | 0.0036 | 5.714 | mg/L | 0.0036 | 0.06% |
| Sn 189.927† | 2434.7 | 0.9873 | mg/L | 0.00245 | 0.9873 | mg/L | 0.00245 | 0.25% |
| Sr 421.552† | 652336.3 | 0.9359 | mg/L | 0.01384 | 0.9359 | mg/L | 0.01384 | 1.48% |
| Ti 334.903† | 259208.1 | 1.041 | mg/L | 0.0009 | 1.041 | mg/L | 0.0009 | 0.08% |
| Tl 190.801† | 622.9 | 1.026 | mg/L | 0.0095 | 1.026 | mg/L | 0.0095 | 0.92% |
| V 292.402† | 40767.3 | 1.049 | mg/L | 0.0092 | 1.049 | mg/L | 0.0092 | 0.88% |
| Zn 213.857† | 33777.1 | 0.9570 | mg/L | 0.00513 | 0.9570 | mg/L | 0.00513 | 0.54% |
| Zr 343.823† | 139729.7 | 0.9789 | mg/L | 0.00221 | 0.9789 | mg/L | 0.00221 | 0.23% |
| W 207.912† | 1955.6 | 0.9312 | mg/L | 0.00003 | 0.9312 | mg/L | 0.00003 | 0.00% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 8 Autosampler Location: 1
Sample ID: CCB 4447504 Date Collected: 10/26/2017 3:09:27 PM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: CCB 4447504

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: CCB 4447504

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2663842.5 | 103.9 | % | 0.51 | | | | 0.49% |
| Ag 328.068† | -49.2 | -0.0005 | mg/L | 0.00048 | -0.0005 | mg/L | 0.00048 | 95.33% |
| Al 308.215† | -207.1 | -0.0204 | mg/L | 0.00398 | -0.0204 | mg/L | 0.00398 | 19.48% |
| As 188.979† | -2.0 | -0.0030 | mg/L | 0.00511 | -0.0030 | mg/L | 0.00511 | 168.20% |
| B 249.677† | 66.6 | 0.0015 | mg/L | 0.00010 | 0.0015 | mg/L | 0.00010 | 6.63% |
| Ba 233.527† | 9.5 | 0.0003 | mg/L | 0.00000 | 0.0003 | mg/L | 0.00000 | 1.63% |
| Be 313.107† | -213.4 | -0.0002 | mg/L | 0.00003 | -0.0002 | mg/L | 0.00003 | 11.22% |
| Ca 315.887† | 55.6 | 0.0204 | mg/L | 0.00017 | 0.0204 | mg/L | 0.00017 | 0.84% |
| Cd 214.440† | 8.5 | 0.0003 | mg/L | 0.00005 | 0.0003 | mg/L | 0.00005 | 17.91% |
| Co 228.616† | 10.0 | 0.0012 | mg/L | 0.00047 | 0.0012 | mg/L | 0.00047 | 39.64% |
| Cr 205.560† | 8.1 | 0.0006 | mg/L | 0.00010 | 0.0006 | mg/L | 0.00010 | 15.13% |
| Cu 324.752† | 182.1 | 0.0016 | mg/L | 0.00018 | 0.0016 | mg/L | 0.00018 | 11.45% |
| Fe 238.204† | 9.9 | 0.0032 | mg/L | 0.00054 | 0.0032 | mg/L | 0.00054 | 16.71% |
| K 766.490† | 163.6 | 0.0639 | mg/L | 0.00705 | 0.0639 | mg/L | 0.00705 | 11.03% |
| Li 610.362† | 145.5 | 0.0013 | mg/L | 0.00060 | 0.0013 | mg/L | 0.00060 | 45.79% |
| Mg 279.077† | 4.0 | 0.0015 | mg/L | 0.00076 | 0.0015 | mg/L | 0.00076 | 52.11% |
| Mn 257.610† | 559.5 | 0.0036 | mg/L | 0.00006 | 0.0036 | mg/L | 0.00006 | 1.64% |
| Mo 202.031† | 79.0 | 0.0122 | mg/L | 0.00186 | 0.0122 | mg/L | 0.00186 | 15.26% |
| Na 589.592† | 1012.0 | 0.0563 | mg/L | 0.00190 | 0.0563 | mg/L | 0.00190 | 3.37% |
| Ni 231.604† | 18.3 | 0.0016 | mg/L | 0.00029 | 0.0016 | mg/L | 0.00029 | 17.74% |
| P 214.914† | -2.4 | -0.0053 | mg/L | 0.00083 | -0.0053 | mg/L | 0.00083 | 15.72% |
| Pb 220.353† | 3.4 | 0.0018 | mg/L | 0.00015 | 0.0018 | mg/L | 0.00015 | 8.45% |
| Sb 206.836† | 0.5 | 0.0009 | mg/L | 0.00247 | 0.0009 | mg/L | 0.00247 | 272.52% |
| Se 196.026† | 1.1 | 0.0014 | mg/L | 0.00188 | 0.0014 | mg/L | 0.00188 | 133.52% |
| Si 251.611† | 159.2 | 0.0086 | mg/L | 0.00105 | 0.0086 | mg/L | 0.00105 | 12.16% |
| Sn 189.927† | 2.5 | 0.0010 | mg/L | 0.00051 | 0.0010 | mg/L | 0.00051 | 49.57% |
| Sr 421.552† | 195.5 | 0.0003 | mg/L | 0.00010 | 0.0003 | mg/L | 0.00010 | 34.35% |
| Ti 334.903† | 179.8 | 0.0007 | mg/L | 0.00003 | 0.0007 | mg/L | 0.00003 | 3.72% |
| Tl 190.801† | 1.3 | 0.0021 | mg/L | 0.00043 | 0.0021 | mg/L | 0.00043 | 20.79% |
| V 292.402† | -3.7 | -0.0001 | mg/L | 0.00024 | -0.0001 | mg/L | 0.00024 | 264.64% |
| Zn 213.857† | -23.2 | -0.0007 | mg/L | 0.00014 | -0.0007 | mg/L | 0.00014 | 21.10% |
| Zr 343.823† | 3.7 | 0.0000 | mg/L | 0.00017 | 0.0000 | mg/L | 0.00017 | 661.86% |
| W 207.912† | 5.7 | 0.0027 | mg/L | 0.00218 | 0.0027 | mg/L | 0.00218 | 79.72% |


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**Analytical Sequence**
**Method: 170824_ICP7**

| Seq. | Loc. | ID | Status |
|---|---|---|---|
| 1 | 60 | mb 440-436767_1-c | Analyzed |
| 2 | 61 | 440-194417-e-1-f ms | Analyzed |
| 3 | 45 | 440-194887-e-1-a@5 | Analyzed |
| 4 | 46 | 440-194887-e-1-b ms@5 | Analyzed |
| 5 | 47 | 440-194887-e-1-c msd@5 | Analyzed |
| 6 | 48 | 440-194887-e-2-a@5 | Analyzed |
| 7 | 4 | CCV 4447505 | Analyzed |
| 8 | 1 | CCB 4447504 | Analyzed |


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**Analysis Begun**

**Start Time: 10/26/2017 3:41:52 PM** **Plasma On Time: 10/26/2017 9:24:37 AM**
**Logged In Analyst: IRVINSTICP7** **Technique: ICP Continuous**
**Spectrometer: Optima 8300** **Autosampler: ESI**

**Sample Information File: C:\Users\Public\PerkinElmer\ICP\Data\Sample Information\CP 171026-1.sif**
**Batch ID:**
**Results Data Set: 171026-1 ICP7**
**Results Library: C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb**

==========

**Sequence No.: 1** **Autosampler Location: 191**
**Sample ID: mb 440-437566_1-a@5** **Date Collected: 10/26/2017 3:42:03 PM**
**Analyst: KE** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time:**

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**Nebulizer Parameters: mb 440-437566_1-a@5**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: mb 440-437566_1-a@5**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2730261.2 | 106.5 | % | 0.35 | | | | 0.33% |
| Ag 328.068† | 20.0 | 0.0002 | mg/L | 0.00042 | 0.0002 | mg/L | 0.00042 | 202.30% |
| Al 308.215† | -211.1 | -0.0208 | mg/L | 0.00484 | -0.0208 | mg/L | 0.00484 | 23.34% |
| As 188.979† | -2.5 | -0.0038 | mg/L | 0.00134 | -0.0038 | mg/L | 0.00134 | 35.63% |
| B 249.677† | 36.1 | 0.0008 | mg/L | 0.00004 | 0.0008 | mg/L | 0.00004 | 5.08% |
| Ba 233.527† | 11.4 | 0.0003 | mg/L | 0.00005 | 0.0003 | mg/L | 0.00005 | 13.24% |
| Be 313.107† | -277.4 | -0.0003 | mg/L | 0.00005 | -0.0003 | mg/L | 0.00005 | 14.45% |
| Ca 315.887† | 117.7 | 0.0433 | mg/L | 0.00071 | 0.0433 | mg/L | 0.00071 | 1.64% |
| Cd 214.440† | 3.0 | 0.0001 | mg/L | 0.00011 | 0.0001 | mg/L | 0.00011 | 112.52% |
| Co 228.616† | 13.7 | 0.0016 | mg/L | 0.00037 | 0.0016 | mg/L | 0.00037 | 22.61% |
| Cr 205.560† | 5.6 | 0.0004 | mg/L | 0.00032 | 0.0004 | mg/L | 0.00032 | 71.47% |
| Cu 324.752† | 360.6 | 0.0032 | mg/L | 0.00047 | 0.0032 | mg/L | 0.00047 | 14.96% |
| Fe 238.204† | 42.9 | 0.0139 | mg/L | 0.00133 | 0.0139 | mg/L | 0.00133 | 9.56% |
| K 766.490† | 111.7 | 0.0436 | mg/L | 0.02921 | 0.0436 | mg/L | 0.02921 | 66.93% |
| Li 610.362† | 95.9 | 0.0009 | mg/L | 0.00033 | 0.0009 | mg/L | 0.00033 | 38.04% |
| Mg 279.077† | 8.7 | 0.0031 | mg/L | 0.00042 | 0.0031 | mg/L | 0.00042 | 13.34% |
| Mn 257.610† | 1093.7 | 0.0070 | mg/L | 0.00029 | 0.0070 | mg/L | 0.00029 | 4.23% |
| Mo 202.031† | 10.7 | 0.0017 | mg/L | 0.00038 | 0.0017 | mg/L | 0.00038 | 23.11% |
| Na 589.592† | 1094.6 | 0.0609 | mg/L | 0.00539 | 0.0609 | mg/L | 0.00539 | 8.85% |
| Ni 231.604† | 23.6 | 0.0021 | mg/L | 0.00020 | 0.0021 | mg/L | 0.00020 | 9.30% |
| P 214.914† | -2.0 | -0.0043 | mg/L | 0.00279 | -0.0043 | mg/L | 0.00279 | 65.37% |
| Pb 220.353† | 4.8 | 0.0025 | mg/L | 0.00053 | 0.0025 | mg/L | 0.00053 | 21.38% |
| Sb 206.836† | -1.8 | -0.0024 | mg/L | 0.00730 | -0.0024 | mg/L | 0.00730 | 304.62% |
| Se 196.026† | -0.7 | -0.0008 | mg/L | 0.00306 | -0.0008 | mg/L | 0.00306 | 359.82% |
| Si 251.611† | 263.6 | 0.0149 | mg/L | 0.00022 | 0.0149 | mg/L | 0.00022 | 1.48% |
| Sn 189.927† | 9.3 | 0.0038 | mg/L | 0.00062 | 0.0038 | mg/L | 0.00062 | 16.36% |
| Sr 421.552† | 151.7 | 0.0002 | mg/L | 0.00006 | 0.0002 | mg/L | 0.00006 | 28.21% |
| Ti 334.903† | 93.6 | 0.0004 | mg/L | 0.00014 | 0.0004 | mg/L | 0.00014 | 36.84% |
| Tl 190.801† | -1.5 | -0.0025 | mg/L | 0.00221 | -0.0025 | mg/L | 0.00221 | 86.80% |
| V 292.402† | -22.8 | -0.0006 | mg/L | 0.00017 | -0.0006 | mg/L | 0.00017 | 28.61% |
| Zn 213.857† | -0.1 | -0.0000 | mg/L | 0.00019 | -0.0000 | mg/L | 0.00019 | 951.17% |
| Zr 343.823† | -18.6 | -0.0001 | mg/L | 0.00031 | -0.0001 | mg/L | 0.00031 | 240.18% |
| W 207.912† | -2.8 | -0.0013 | mg/L | 0.00019 | -0.0013 | mg/L | 0.00019 | 14.10% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 2 Autosampler Location: 192
Sample ID: lcs 440-437566_2-a@5 Date Collected: 10/26/2017 3:44:40 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: lcs 440-437566_2-a@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: lcs 440-437566_2-a@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2712546.9 | 105.8 | % | 0.68 | | | | 0.64% |
| Ag 328.068† | 17413.7 | 0.1794 | mg/L | 0.00188 | 0.1794 | mg/L | 0.00188 | 1.05% |
| Al 308.215† | 3531.4 | 0.3339 | mg/L | 0.00415 | 0.3339 | mg/L | 0.00415 | 1.24% |
| As 188.979† | 262.4 | 0.3890 | mg/L | 0.00298 | 0.3890 | mg/L | 0.00298 | 0.77% |
| B 249.677† | 15026.5 | 0.3483 | mg/L | 0.00301 | 0.3483 | mg/L | 0.00301 | 0.86% |
| Ba 233.527† | 11591.5 | 0.3543 | mg/L | 0.00507 | 0.3543 | mg/L | 0.00507 | 1.43% |
| Be 313.107† | 298842.7 | 0.3497 | mg/L | 0.00033 | 0.3497 | mg/L | 0.00033 | 0.10% |
| Ca 315.887† | 1188.6 | 0.4361 | mg/L | 0.00051 | 0.4361 | mg/L | 0.00051 | 0.12% |
| Cd 214.440† | 12558.0 | 0.3966 | mg/L | 0.00772 | 0.3966 | mg/L | 0.00772 | 1.95% |
| Co 228.616† | 3625.0 | 0.4264 | mg/L | 0.00147 | 0.4264 | mg/L | 0.00147 | 0.34% |
| Cr 205.560† | 4838.4 | 0.3812 | mg/L | 0.01048 | 0.3812 | mg/L | 0.01048 | 2.75% |
| Cu 324.752† | 42734.5 | 0.3752 | mg/L | 0.00498 | 0.3752 | mg/L | 0.00498 | 1.33% |
| Fe 238.204† | 1293.4 | 0.4194 | mg/L | 0.00126 | 0.4194 | mg/L | 0.00126 | 0.30% |
| K 766.490† | 10186.3 | 3.979 | mg/L | 0.0048 | 3.979 | mg/L | 0.0048 | 0.12% |
| Li 610.362† | 39858.2 | 0.3524 | mg/L | 0.00617 | 0.3524 | mg/L | 0.00617 | 1.75% |
| Mg 279.077† | 1097.6 | 0.3916 | mg/L | 0.00386 | 0.3916 | mg/L | 0.00386 | 0.99% |
| Mn 257.610† | 54943.3 | 0.3502 | mg/L | 0.00490 | 0.3502 | mg/L | 0.00490 | 1.40% |
| Mo 202.031† | 2501.0 | 0.3862 | mg/L | 0.00134 | 0.3862 | mg/L | 0.00134 | 0.35% |
| Na 589.592† | 85488.0 | 4.759 | mg/L | 0.0095 | 4.759 | mg/L | 0.0095 | 0.20% |
| Ni 231.604† | 4116.8 | 0.3722 | mg/L | 0.00881 | 0.3722 | mg/L | 0.00881 | 2.37% |
| P 214.914† | 167.7 | 0.3458 | mg/L | 0.00934 | 0.3458 | mg/L | 0.00934 | 2.70% |
| Pb 220.353† | 752.1 | 0.3868 | mg/L | 0.00028 | 0.3868 | mg/L | 0.00028 | 0.07% |
| Sb 206.836† | 272.4 | 0.3657 | mg/L | 0.00136 | 0.3657 | mg/L | 0.00136 | 0.37% |
| Se 196.026† | 274.2 | 0.3550 | mg/L | 0.00510 | 0.3550 | mg/L | 0.00510 | 1.44% |
| Si 251.611† | 8804.7 | 0.4886 | mg/L | 0.00697 | 0.4886 | mg/L | 0.00697 | 1.43% |
| Sn 189.927† | 954.8 | 0.3873 | mg/L | 0.00110 | 0.3873 | mg/L | 0.00110 | 0.28% |
| Sr 421.552† | 247826.4 | 0.3556 | mg/L | 0.00267 | 0.3556 | mg/L | 0.00267 | 0.75% |
| Ti 334.903† | 101148.4 | 0.4064 | mg/L | 0.00463 | 0.4064 | mg/L | 0.00463 | 1.14% |
| Tl 190.801† | 237.3 | 0.3909 | mg/L | 0.00345 | 0.3909 | mg/L | 0.00345 | 0.88% |
| V 292.402† | 15508.7 | 0.3992 | mg/L | 0.00542 | 0.3992 | mg/L | 0.00542 | 1.36% |
| Zn 213.857† | 12535.5 | 0.3551 | mg/L | 0.00376 | 0.3551 | mg/L | 0.00376 | 1.06% |
| Zr 343.823† | 432.1 | 0.0030 | mg/L | 0.00058 | 0.0030 | mg/L | 0.00058 | 19.23% |
| W 207.912† | 0.1 | -0.0023 | mg/L | 0.00131 | -0.0023 | mg/L | 0.00131 | 56.41% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 3 Autosampler Location: 193
Sample ID: 440-194910-e-1-e@5 Date Collected: 10/26/2017 3:47:12 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194910-e-1-e@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194910-e-1-e@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2700204.0 | 105.4 | % | 1.09 | | | | 1.03% |
| Ag 328.068† | -239.8 | 0.0004 | mg/L | 0.00051 | 0.0004 | mg/L | 0.00051 | 117.59% |
| Al 308.215† | 1029998.9 | 101.1 | mg/L | 0.13 | 101.1 | mg/L | 0.13 | 0.13% |
| As 188.979† | 21.1 | 0.0417 | mg/L | 0.00102 | 0.0417 | mg/L | 0.00102 | 2.46% |
| B 249.677† | 17776.2 | 0.0488 | mg/L | 0.00362 | 0.0488 | mg/L | 0.00362 | 7.42% |
| Ba 233.527† | 17683.3 | 0.5402 | mg/L | 0.00725 | 0.5402 | mg/L | 0.00725 | 1.34% |
| Be 313.107† | 2185.3 | 0.0026 | mg/L | 0.00002 | 0.0026 | mg/L | 0.00002 | 0.97% |
| Ca 315.887† | 82848.2 | 30.46 | mg/L | 0.362 | 30.46 | mg/L | 0.362 | 1.19% |
| Cd 214.440† | 104.8 | 0.0006 | mg/L | 0.00034 | 0.0006 | mg/L | 0.00034 | 54.84% |
| Co 228.616† | 494.6 | 0.0471 | mg/L | 0.00066 | 0.0471 | mg/L | 0.00066 | 1.41% |
| Cr 205.560† | 1676.3 | 0.1328 | mg/L | 0.00260 | 0.1328 | mg/L | 0.00260 | 1.96% |
| Cu 324.752† | 10448.9 | 0.1027 | mg/L | 0.00106 | 0.1027 | mg/L | 0.00106 | 1.03% |
| Fe 238.204† | 439599.9 | 142.3 | mg/L | 0.98 | 142.3 | mg/L | 0.98 | 0.69% |
| K 766.490† | 105772.6 | 41.31 | mg/L | 0.315 | 41.31 | mg/L | 0.315 | 0.76% |
| Li 610.362† | 10120.2 | 0.1124 | mg/L | 0.00190 | 0.1124 | mg/L | 0.00190 | 1.69% |
| Mg 279.077† | 114247.4 | 40.76 | mg/L | 0.532 | 40.76 | mg/L | 0.532 | 1.31% |
| Mn 257.610† | 309443.4 | 1.971 | mg/L | 0.0008 | 1.971 | mg/L | 0.0008 | 0.04% |
| Mo 202.031† | 23.5 | 0.0072 | mg/L | 0.00039 | 0.0072 | mg/L | 0.00039 | 5.37% |
| Na 589.592† | 72464.3 | 4.034 | mg/L | 0.0522 | 4.034 | mg/L | 0.0522 | 1.29% |
| Ni 231.604† | 1208.5 | 0.1068 | mg/L | 0.00041 | 0.1068 | mg/L | 0.00041 | 0.39% |
| P 214.914† | 1164.3 | 2.352 | mg/L | 0.0320 | 2.352 | mg/L | 0.0320 | 1.36% |
| Pb 220.353† | 154.5 | 0.0666 | mg/L | 0.00047 | 0.0666 | mg/L | 0.00047 | 0.70% |
| Sb 206.836† | -4.2 | 0.0001 | mg/L | 0.00144 | 0.0001 | mg/L | 0.00144 | >999.9% |
| Se 196.026† | -39.2 | 0.0081 | mg/L | 0.00211 | 0.0081 | mg/L | 0.00211 | 26.00% |
| Si 251.611† | 17381.5 | 0.9685 | mg/L | 0.03089 | 0.9685 | mg/L | 0.03089 | 3.19% |
| Sn 189.927† | -19.4 | 0.0370 | mg/L | 0.00020 | 0.0370 | mg/L | 0.00020 | 0.53% |
| Sr 421.552† | 182057.9 | 0.2604 | mg/L | 0.00195 | 0.2604 | mg/L | 0.00195 | 0.75% |
| Ti 334.903† | 1224344.8 | 4.920 | mg/L | 0.0026 | 4.920 | mg/L | 0.0026 | 0.05% |
| Tl 190.801† | -4.0 | 0.0371 | mg/L | 0.00415 | 0.0371 | mg/L | 0.00415 | 11.18% |
| V 292.402† | 9504.7 | 0.2572 | mg/L | 0.00354 | 0.2572 | mg/L | 0.00354 | 1.38% |
| Zn 213.857† | 10694.0 | 0.2881 | mg/L | 0.00412 | 0.2881 | mg/L | 0.00412 | 1.43% |
| Zr 343.823† | 3109.8 | 0.0218 | mg/L | 0.00178 | 0.0218 | mg/L | 0.00178 | 8.15% |
| W 207.912† | -2.2 | -0.0031 | mg/L | 0.00004 | -0.0031 | mg/L | 0.00004 | 1.21% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 4 Autosampler Location: 194
Sample ID: 440-194910-e-1-f ms@5 Date Collected: 10/26/2017 3:49:07 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194910-e-1-f ms@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194910-e-1-f ms@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2664923.2 | 104.0 | % | 0.79 | | | | 0.76% |
| Ag 328.068† | 16886.2 | 0.1769 | mg/L | 0.00078 | 0.1769 | mg/L | 0.00078 | 0.44% |
| Al 308.215† | 1243070.1 | 122.0 | mg/L | 0.29 | 122.0 | mg/L | 0.29 | 0.24% |
| As 188.979† | 273.2 | 0.4154 | mg/L | 0.00433 | 0.4154 | mg/L | 0.00433 | 1.04% |
| B 249.677† | 33354.5 | 0.4016 | mg/L | 0.00425 | 0.4016 | mg/L | 0.00425 | 1.06% |
| Ba 233.527† | 31395.5 | 0.9593 | mg/L | 0.00722 | 0.9593 | mg/L | 0.00722 | 0.75% |
| Be 313.107† | 296271.2 | 0.3467 | mg/L | 0.00220 | 0.3467 | mg/L | 0.00220 | 0.63% |
| Ca 315.887† | 102057.3 | 37.52 | mg/L | 0.307 | 37.52 | mg/L | 0.307 | 0.82% |
| Cd 214.440† | 12064.7 | 0.3781 | mg/L | 0.00587 | 0.3781 | mg/L | 0.00587 | 1.55% |
| Co 228.616† | 3833.7 | 0.4369 | mg/L | 0.00337 | 0.4369 | mg/L | 0.00337 | 0.77% |
| Cr 205.560† | 6623.0 | 0.5225 | mg/L | 0.00389 | 0.5225 | mg/L | 0.00389 | 0.74% |
| Cu 324.752† | 53694.7 | 0.4826 | mg/L | 0.00391 | 0.4826 | mg/L | 0.00391 | 0.81% |
| Fe 238.204† | 450976.8 | 146.0 | mg/L | 1.18 | 146.0 | mg/L | 1.18 | 0.81% |
| K 766.490† | 123200.6 | 48.12 | mg/L | 0.401 | 48.12 | mg/L | 0.401 | 0.83% |
| Li 610.362† | 53431.3 | 0.5003 | mg/L | 0.00509 | 0.5003 | mg/L | 0.00509 | 1.02% |
| Mg 279.077† | 118102.9 | 42.13 | mg/L | 0.132 | 42.13 | mg/L | 0.132 | 0.31% |
| Mn 257.610† | 385566.5 | 2.456 | mg/L | 0.0136 | 2.456 | mg/L | 0.0136 | 0.55% |
| Mo 202.031† | 2291.6 | 0.3576 | mg/L | 0.00318 | 0.3576 | mg/L | 0.00318 | 0.89% |
| Na 589.592† | 151866.7 | 8.454 | mg/L | 0.1182 | 8.454 | mg/L | 0.1182 | 1.40% |
| Ni 231.604† | 5266.0 | 0.4735 | mg/L | 0.00375 | 0.4735 | mg/L | 0.00375 | 0.79% |
| P 214.914† | 1371.7 | 2.784 | mg/L | 0.0195 | 2.784 | mg/L | 0.0195 | 0.70% |
| Pb 220.353† | 833.6 | 0.4141 | mg/L | 0.00325 | 0.4141 | mg/L | 0.00325 | 0.79% |
| Sb 206.836† | 145.8 | 0.2035 | mg/L | 0.00454 | 0.2035 | mg/L | 0.00454 | 2.23% |
| Se 196.026† | 225.5 | 0.3520 | mg/L | 0.00113 | 0.3520 | mg/L | 0.00113 | 0.32% |
| Si 251.611† | 32417.8 | 1.803 | mg/L | 0.0209 | 1.803 | mg/L | 0.0209 | 1.16% |
| Sn 189.927† | 825.2 | 0.3873 | mg/L | 0.00269 | 0.3873 | mg/L | 0.00269 | 0.70% |
| Sr 421.552† | 440315.5 | 0.6307 | mg/L | 0.00337 | 0.6307 | mg/L | 0.00337 | 0.54% |
| Ti 334.903† | 1691508.0 | 6.797 | mg/L | 0.0102 | 6.797 | mg/L | 0.0102 | 0.15% |
| Tl 190.801† | 210.4 | 0.4038 | mg/L | 0.00368 | 0.4038 | mg/L | 0.00368 | 0.91% |
| V 292.402† | 25596.1 | 0.6710 | mg/L | 0.00788 | 0.6710 | mg/L | 0.00788 | 1.17% |
| Zn 213.857† | 23163.5 | 0.6410 | mg/L | 0.00325 | 0.6410 | mg/L | 0.00325 | 0.51% |
| Zr 343.823† | 5387.8 | 0.0377 | mg/L | 0.00058 | 0.0377 | mg/L | 0.00058 | 1.53% |
| W 207.912† | 6.2 | -0.0014 | mg/L | 0.00088 | -0.0014 | mg/L | 0.00088 | 64.39% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 5 Autosampler Location: 195
Sample ID: 440-194910-e-1-g msd@5 Date Collected: 10/26/2017 3:51:01 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194910-e-1-g msd@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194910-e-1-g msd@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2682976.8 | 104.7 | % | 0.44 | | | | 0.42% |
| Ag 328.068† | 16451.9 | 0.1723 | mg/L | 0.00088 | 0.1723 | mg/L | 0.00088 | 0.51% |
| Al 308.215† | 1227588.3 | 120.5 | mg/L | 1.05 | 120.5 | mg/L | 1.05 | 0.87% |
| As 188.979† | 263.5 | 0.4007 | mg/L | 0.00013 | 0.4007 | mg/L | 0.00013 | 0.03% |
| B 249.677† | 32204.3 | 0.3908 | mg/L | 0.00250 | 0.3908 | mg/L | 0.00250 | 0.64% |
| Ba 233.527† | 30820.2 | 0.9417 | mg/L | 0.00911 | 0.9417 | mg/L | 0.00911 | 0.97% |
| Be 313.107† | 286457.0 | 0.3352 | mg/L | 0.00119 | 0.3352 | mg/L | 0.00119 | 0.35% |
| Ca 315.887† | 109822.2 | 40.37 | mg/L | 0.392 | 40.37 | mg/L | 0.392 | 0.97% |
| Cd 214.440† | 11536.0 | 0.3615 | mg/L | 0.00593 | 0.3615 | mg/L | 0.00593 | 1.64% |
| Co 228.616† | 3727.9 | 0.4248 | mg/L | 0.00121 | 0.4248 | mg/L | 0.00121 | 0.28% |
| Cr 205.560† | 6444.9 | 0.5084 | mg/L | 0.00237 | 0.5084 | mg/L | 0.00237 | 0.47% |
| Cu 324.752† | 51767.8 | 0.4652 | mg/L | 0.00388 | 0.4652 | mg/L | 0.00388 | 0.83% |
| Fe 238.204† | 431785.5 | 139.8 | mg/L | 1.42 | 139.8 | mg/L | 1.42 | 1.01% |
| K 766.490† | 120318.8 | 46.99 | mg/L | 0.545 | 46.99 | mg/L | 0.545 | 1.16% |
| Li 610.362† | 51151.4 | 0.4823 | mg/L | 0.00440 | 0.4823 | mg/L | 0.00440 | 0.91% |
| Mg 279.077† | 118615.3 | 42.32 | mg/L | 0.470 | 42.32 | mg/L | 0.470 | 1.11% |
| Mn 257.610† | 419943.0 | 2.675 | mg/L | 0.0129 | 2.675 | mg/L | 0.0129 | 0.48% |
| Mo 202.031† | 2213.1 | 0.3453 | mg/L | 0.00205 | 0.3453 | mg/L | 0.00205 | 0.59% |
| Na 589.592† | 150181.2 | 8.360 | mg/L | 0.1216 | 8.360 | mg/L | 0.1216 | 1.45% |
| Ni 231.604† | 5170.1 | 0.4650 | mg/L | 0.00355 | 0.4650 | mg/L | 0.00355 | 0.76% |
| P 214.914† | 1424.1 | 2.899 | mg/L | 0.0204 | 2.899 | mg/L | 0.0204 | 0.70% |
| Pb 220.353† | 812.9 | 0.4037 | mg/L | 0.00085 | 0.4037 | mg/L | 0.00085 | 0.21% |
| Sb 206.836† | 145.3 | 0.2025 | mg/L | 0.00336 | 0.2025 | mg/L | 0.00336 | 1.66% |
| Se 196.026† | 214.9 | 0.3356 | mg/L | 0.00211 | 0.3356 | mg/L | 0.00211 | 0.63% |
| Si 251.611† | 28348.9 | 1.575 | mg/L | 0.0385 | 1.575 | mg/L | 0.0385 | 2.44% |
| Sn 189.927† | 801.1 | 0.3756 | mg/L | 0.00075 | 0.3756 | mg/L | 0.00075 | 0.20% |
| Sr 421.552† | 434117.5 | 0.6217 | mg/L | 0.00434 | 0.6217 | mg/L | 0.00434 | 0.70% |
| Ti 334.903† | 1648582.9 | 6.625 | mg/L | 0.0403 | 6.625 | mg/L | 0.0403 | 0.61% |
| Tl 190.801† | 199.2 | 0.3839 | mg/L | 0.00466 | 0.3839 | mg/L | 0.00466 | 1.21% |
| V 292.402† | 24590.1 | 0.6446 | mg/L | 0.00454 | 0.6446 | mg/L | 0.00454 | 0.70% |
| Zn 213.857† | 22591.8 | 0.6254 | mg/L | 0.00766 | 0.6254 | mg/L | 0.00766 | 1.22% |
| Zr 343.823† | 5343.0 | 0.0374 | mg/L | 0.00023 | 0.0374 | mg/L | 0.00023 | 0.60% |
| W 207.912† | 4.6 | -0.0020 | mg/L | 0.00182 | -0.0020 | mg/L | 0.00182 | 89.79% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 6 Autosampler Location: 196
Sample ID: 440-194910-e-1-ePDS@5 Date Collected: 10/26/2017 3:52:54 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194910-e-1-ePDS@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 198.0 kPa | 0.65 L/min |

Mean Data: 440-194910-e-1-ePDS@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2657137.8 | 103.7 | % | 0.10 | | | | 0.09% |
| Ag 328.068† | 18447.3 | 0.1905 | mg/L | 0.00062 | 0.1905 | mg/L | 0.00062 | 0.33% |
| Al 308.215† | 1039795.8 | 102.0 | mg/L | 0.29 | 102.0 | mg/L | 0.29 | 0.28% |
| As 188.979† | 285.7 | 0.4346 | mg/L | 0.00002 | 0.4346 | mg/L | 0.00002 | 0.00% |
| B 249.677† | 34348.1 | 0.4213 | mg/L | 0.00819 | 0.4213 | mg/L | 0.00819 | 1.94% |
| Ba 233.527† | 30172.6 | 0.9220 | mg/L | 0.00034 | 0.9220 | mg/L | 0.00034 | 0.04% |
| Be 313.107† | 307576.5 | 0.3599 | mg/L | 0.00130 | 0.3599 | mg/L | 0.00130 | 0.36% |
| Ca 315.887† | 90246.9 | 33.18 | mg/L | 0.402 | 33.18 | mg/L | 0.402 | 1.21% |
| Cd 214.440† | 12928.5 | 0.4057 | mg/L | 0.00144 | 0.4057 | mg/L | 0.00144 | 0.35% |
| Co 228.616† | 4093.1 | 0.4703 | mg/L | 0.00143 | 0.4703 | mg/L | 0.00143 | 0.30% |
| Cr 205.560† | 6817.0 | 0.5376 | mg/L | 0.00115 | 0.5376 | mg/L | 0.00115 | 0.21% |
| Cu 324.752† | 55866.2 | 0.5017 | mg/L | 0.00090 | 0.5017 | mg/L | 0.00090 | 0.18% |
| Fe 238.204† | 453208.8 | 146.7 | mg/L | 0.66 | 146.7 | mg/L | 0.66 | 0.45% |
| K 766.490† | 121756.1 | 47.55 | mg/L | 0.768 | 47.55 | mg/L | 0.768 | 1.61% |
| Li 610.362† | 54614.2 | 0.5074 | mg/L | 0.00013 | 0.5074 | mg/L | 0.00013 | 0.03% |
| Mg 279.077† | 122114.9 | 43.56 | mg/L | 0.206 | 43.56 | mg/L | 0.206 | 0.47% |
| Mn 257.610† | 361884.3 | 2.305 | mg/L | 0.0131 | 2.305 | mg/L | 0.0131 | 0.57% |
| Mo 202.031† | 2702.1 | 0.4210 | mg/L | 0.00131 | 0.4210 | mg/L | 0.00131 | 0.31% |
| Na 589.592† | 157372.1 | 8.761 | mg/L | 0.1578 | 8.761 | mg/L | 0.1578 | 1.80% |
| Ni 231.604† | 5467.2 | 0.4917 | mg/L | 0.00004 | 0.4917 | mg/L | 0.00004 | 0.01% |
| P 214.914† | 1353.3 | 2.720 | mg/L | 0.0061 | 2.720 | mg/L | 0.0061 | 0.22% |
| Pb 220.353† | 906.7 | 0.4533 | mg/L | 0.00105 | 0.4533 | mg/L | 0.00105 | 0.23% |
| Sb 206.836† | 282.5 | 0.3857 | mg/L | 0.00350 | 0.3857 | mg/L | 0.00350 | 0.91% |
| Se 196.026† | 248.7 | 0.3790 | mg/L | 0.00324 | 0.3790 | mg/L | 0.00324 | 0.86% |
| Si 251.611† | 50909.2 | 2.822 | mg/L | 0.0037 | 2.822 | mg/L | 0.0037 | 0.13% |
| Sn 189.927† | 935.6 | 0.4252 | mg/L | 0.00071 | 0.4252 | mg/L | 0.00071 | 0.17% |
| Sr 421.552† | 439536.5 | 0.6297 | mg/L | 0.00209 | 0.6297 | mg/L | 0.00209 | 0.33% |
| Ti 334.903† | 1341623.7 | 5.391 | mg/L | 0.0263 | 5.391 | mg/L | 0.0263 | 0.49% |
| Tl 190.801† | 226.7 | 0.4179 | mg/L | 0.00082 | 0.4179 | mg/L | 0.00082 | 0.20% |
| V 292.402† | 26136.4 | 0.6857 | mg/L | 0.00277 | 0.6857 | mg/L | 0.00277 | 0.40% |
| Zn 213.857† | 23805.1 | 0.6590 | mg/L | 0.00082 | 0.6590 | mg/L | 0.00082 | 0.12% |
| Zr 343.823† | 61206.8 | 0.4288 | mg/L | 0.00153 | 0.4288 | mg/L | 0.00153 | 0.36% |
| W 207.912† | 776.6 | 0.3678 | mg/L | 0.00030 | 0.3678 | mg/L | 0.00030 | 0.08% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 7 Autosampler Location: 197
Sample ID: 440-194910-e-1-eSD@25 Date Collected: 10/26/2017 3:54:48 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194910-e-1-eSD@25

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194910-e-1-eSD@25

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2702570.3 | 105.5 | % | 0.88 | | | | 0.84% |
| Ag 328.068† | -22.2 | 0.0004 | mg/L | 0.00007 | 0.0004 | mg/L | 0.00007 | 18.01% |
| Al 308.215† | 203838.3 | 20.01 | mg/L | 0.061 | 20.01 | mg/L | 0.061 | 0.31% |
| As 188.979† | 4.7 | 0.0091 | mg/L | 0.00345 | 0.0091 | mg/L | 0.00345 | 37.85% |
| B 249.677† | 3661.1 | 0.0102 | mg/L | 0.00061 | 0.0102 | mg/L | 0.00061 | 6.01% |
| Ba 233.527† | 3803.4 | 0.1162 | mg/L | 0.00082 | 0.1162 | mg/L | 0.00082 | 0.70% |
| Be 313.107† | 437.6 | 0.0005 | mg/L | 0.00007 | 0.0005 | mg/L | 0.00007 | 13.74% |
| Ca 315.887† | 16730.8 | 6.151 | mg/L | 0.0670 | 6.151 | mg/L | 0.0670 | 1.09% |
| Cd 214.440† | 33.3 | 0.0005 | mg/L | 0.00018 | 0.0005 | mg/L | 0.00018 | 35.76% |
| Co 228.616† | 111.7 | 0.0109 | mg/L | 0.00020 | 0.0109 | mg/L | 0.00020 | 1.80% |
| Cr 205.560† | 337.4 | 0.0267 | mg/L | 0.00031 | 0.0267 | mg/L | 0.00031 | 1.15% |
| Cu 324.752† | 2182.5 | 0.0214 | mg/L | 0.00044 | 0.0214 | mg/L | 0.00044 | 2.05% |
| Fe 238.204† | 90361.7 | 29.26 | mg/L | 0.272 | 29.26 | mg/L | 0.272 | 0.93% |
| K 766.490† | 20134.2 | 7.864 | mg/L | 0.1291 | 7.864 | mg/L | 0.1291 | 1.64% |
| Li 610.362† | 1998.6 | 0.0223 | mg/L | 0.00025 | 0.0223 | mg/L | 0.00025 | 1.12% |
| Mg 279.077† | 22408.7 | 7.994 | mg/L | 0.0208 | 7.994 | mg/L | 0.0208 | 0.26% |
| Mn 257.610† | 63709.9 | 0.4058 | mg/L | 0.00228 | 0.4058 | mg/L | 0.00228 | 0.56% |
| Mo 202.031† | 17.1 | 0.0034 | mg/L | 0.00089 | 0.0034 | mg/L | 0.00089 | 26.35% |
| Na 589.592† | 15765.5 | 0.8777 | mg/L | 0.01838 | 0.8777 | mg/L | 0.01838 | 2.09% |
| Ni 231.604† | 264.4 | 0.0234 | mg/L | 0.00041 | 0.0234 | mg/L | 0.00041 | 1.75% |
| P 214.914† | 231.3 | 0.4663 | mg/L | 0.01160 | 0.4663 | mg/L | 0.01160 | 2.49% |
| Pb 220.353† | 36.5 | 0.0162 | mg/L | 0.00028 | 0.0162 | mg/L | 0.00028 | 1.73% |
| Sb 206.836† | -5.1 | -0.0056 | mg/L | 0.00265 | -0.0056 | mg/L | 0.00265 | 47.20% |
| Se 196.026† | -6.3 | 0.0040 | mg/L | 0.00021 | 0.0040 | mg/L | 0.00021 | 5.37% |
| Si 251.611† | 3824.9 | 0.2134 | mg/L | 0.00369 | 0.2134 | mg/L | 0.00369 | 1.73% |
| Sn 189.927† | -2.8 | 0.0080 | mg/L | 0.00030 | 0.0080 | mg/L | 0.00030 | 3.69% |
| Sr 421.552† | 37960.3 | 0.0543 | mg/L | 0.00043 | 0.0543 | mg/L | 0.00043 | 0.80% |
| Ti 334.903† | 246898.4 | 0.9922 | mg/L | 0.00097 | 0.9922 | mg/L | 0.00097 | 0.10% |
| Tl 190.801† | -2.7 | 0.0044 | mg/L | 0.00024 | 0.0044 | mg/L | 0.00024 | 5.38% |
| V 292.402† | 2064.8 | 0.0557 | mg/L | 0.00045 | 0.0557 | mg/L | 0.00045 | 0.81% |
| Zn 213.857† | 2287.7 | 0.0618 | mg/L | 0.00059 | 0.0618 | mg/L | 0.00059 | 0.96% |
| Zr 343.823† | 588.9 | 0.0041 | mg/L | 0.00037 | 0.0041 | mg/L | 0.00037 | 8.95% |
| W 207.912† | -2.5 | -0.0016 | mg/L | 0.00127 | -0.0016 | mg/L | 0.00127 | 77.16% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 8 Autosampler Location: 198
Sample ID: 440-194910-e-2-c@5 Date Collected: 10/26/2017 3:56:41 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194910-e-2-c@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194910-e-2-c@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2702239.3 | 105.4 | % | 1.56 | | | | 1.48% |
| Ag 328.068† | -271.5 | -0.0004 | mg/L | 0.00008 | -0.0004 | mg/L | 0.00008 | 17.33% |
| Al 308.215† | 707289.3 | 69.41 | mg/L | 1.501 | 69.41 | mg/L | 1.501 | 2.16% |
| As 188.979† | 21.6 | 0.0402 | mg/L | 0.00092 | 0.0402 | mg/L | 0.00092 | 2.28% |
| B 249.677† | 12701.8 | 0.0026 | mg/L | 0.00116 | 0.0026 | mg/L | 0.00116 | 43.92% |
| Ba 233.527† | 16485.7 | 0.5036 | mg/L | 0.00894 | 0.5036 | mg/L | 0.00894 | 1.78% |
| Be 313.107† | 1395.1 | 0.0016 | mg/L | 0.00002 | 0.0016 | mg/L | 0.00002 | 1.15% |
| Ca 315.887† | 91721.6 | 33.72 | mg/L | 0.631 | 33.72 | mg/L | 0.631 | 1.87% |
| Cd 214.440† | 112.7 | 0.0015 | mg/L | 0.00016 | 0.0015 | mg/L | 0.00016 | 10.34% |
| Co 228.616† | 387.3 | 0.0359 | mg/L | 0.00033 | 0.0359 | mg/L | 0.00033 | 0.93% |
| Cr 205.560† | 1183.4 | 0.0938 | mg/L | 0.00235 | 0.0938 | mg/L | 0.00235 | 2.50% |
| Cu 324.752† | 11484.5 | 0.1096 | mg/L | 0.00202 | 0.1096 | mg/L | 0.00202 | 1.84% |
| Fe 238.204† | 352949.7 | 114.3 | mg/L | 1.83 | 114.3 | mg/L | 1.83 | 1.60% |
| K 766.490† | 73578.8 | 28.74 | mg/L | 0.037 | 28.74 | mg/L | 0.037 | 0.13% |
| Li 610.362† | 7289.7 | 0.0898 | mg/L | 0.00235 | 0.0898 | mg/L | 0.00235 | 2.61% |
| Mg 279.077† | 83279.4 | 29.71 | mg/L | 0.818 | 29.71 | mg/L | 0.818 | 2.75% |
| Mn 257.610† | 249192.2 | 1.587 | mg/L | 0.0333 | 1.587 | mg/L | 0.0333 | 2.10% |
| Mo 202.031† | 12.2 | 0.0048 | mg/L | 0.00035 | 0.0048 | mg/L | 0.00035 | 7.27% |
| Na 589.592† | 35819.5 | 1.994 | mg/L | 0.0418 | 1.994 | mg/L | 0.0418 | 2.09% |
| Ni 231.604† | 832.8 | 0.0733 | mg/L | 0.00131 | 0.0733 | mg/L | 0.00131 | 1.79% |
| P 214.914† | 1765.0 | 3.626 | mg/L | 0.0999 | 3.626 | mg/L | 0.0999 | 2.76% |
| Pb 220.353† | 222.7 | 0.1053 | mg/L | 0.00510 | 0.1053 | mg/L | 0.00510 | 4.84% |
| Sb 206.836† | -7.1 | -0.0052 | mg/L | 0.00275 | -0.0052 | mg/L | 0.00275 | 52.63% |
| Se 196.026† | -30.4 | 0.0079 | mg/L | 0.00000 | 0.0079 | mg/L | 0.00000 | 0.03% |
| Si 251.611† | 14507.2 | 0.8075 | mg/L | 0.01701 | 0.8075 | mg/L | 0.01701 | 2.11% |
| Sn 189.927† | -8.4 | 0.0341 | mg/L | 0.00019 | 0.0341 | mg/L | 0.00019 | 0.56% |
| Sr 421.552† | 168988.6 | 0.2415 | mg/L | 0.00377 | 0.2415 | mg/L | 0.00377 | 1.56% |
| Ti 334.903† | 1085449.3 | 4.362 | mg/L | 0.0680 | 4.362 | mg/L | 0.0680 | 1.56% |
| Tl 190.801† | -4.4 | 0.0314 | mg/L | 0.00021 | 0.0314 | mg/L | 0.00021 | 0.65% |
| V 292.402† | 8324.3 | 0.2240 | mg/L | 0.00464 | 0.2240 | mg/L | 0.00464 | 2.07% |
| Zn 213.857† | 12405.8 | 0.3404 | mg/L | 0.01031 | 0.3404 | mg/L | 0.01031 | 3.03% |
| Zr 343.823† | 2151.0 | 0.0151 | mg/L | 0.00021 | 0.0151 | mg/L | 0.00021 | 1.41% |
| W 207.912† | 4.1 | -0.0004 | mg/L | 0.00205 | -0.0004 | mg/L | 0.00205 | 567.57% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 9 Autosampler Location: 199
Sample ID: 440-194693-a-2-b@5 Date Collected: 10/26/2017 3:58:34 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194693-a-2-b@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194693-a-2-b@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2696077.9 | 105.2 | % | 0.65 | | | | 0.62% |
| Ag 328.068† | 15.8 | 0.0003 | mg/L | 0.00059 | 0.0003 | mg/L | 0.00059 | 186.08% |
| Al 308.215† | 158531.8 | 15.56 | mg/L | 0.041 | 15.56 | mg/L | 0.041 | 0.26% |
| As 188.979† | 11.7 | 0.0181 | mg/L | 0.00738 | 0.0181 | mg/L | 0.00738 | 40.81% |
| B 249.677† | 7012.4 | 0.1329 | mg/L | 0.00118 | 0.1329 | mg/L | 0.00118 | 0.89% |
| Ba 233.527† | 14158.9 | 0.4324 | mg/L | 0.00401 | 0.4324 | mg/L | 0.00401 | 0.93% |
| Be 313.107† | 2695.8 | 0.0032 | mg/L | 0.00002 | 0.0032 | mg/L | 0.00002 | 0.68% |
| Ca 315.887† | 56612.1 | 20.81 | mg/L | 0.146 | 20.81 | mg/L | 0.146 | 0.70% |
| Cd 214.440† | 31.3 | 0.0007 | mg/L | 0.00018 | 0.0007 | mg/L | 0.00018 | 24.83% |
| Co 228.616† | 235.8 | 0.0263 | mg/L | 0.00061 | 0.0263 | mg/L | 0.00061 | 2.32% |
| Cr 205.560† | 409.8 | 0.0324 | mg/L | 0.00060 | 0.0324 | mg/L | 0.00060 | 1.85% |
| Cu 324.752† | 7885.6 | 0.0701 | mg/L | 0.00033 | 0.0701 | mg/L | 0.00033 | 0.48% |
| Fe 238.204† | 36330.1 | 11.76 | mg/L | 0.006 | 11.76 | mg/L | 0.006 | 0.05% |
| K 766.490† | 26979.6 | 10.54 | mg/L | 0.036 | 10.54 | mg/L | 0.036 | 0.34% |
| Li 610.362† | -166.7 | 0.0142 | mg/L | 0.00047 | 0.0142 | mg/L | 0.00047 | 3.31% |
| Mg 279.077† | 14225.8 | 5.075 | mg/L | 0.0320 | 5.075 | mg/L | 0.0320 | 0.63% |
| Mn 257.610† | 93193.0 | 0.5938 | mg/L | 0.00463 | 0.5938 | mg/L | 0.00463 | 0.78% |
| Mo 202.031† | 64.0 | 0.0102 | mg/L | 0.00114 | 0.0102 | mg/L | 0.00114 | 11.24% |
| Na 589.592† | 105095.8 | 5.851 | mg/L | 0.0321 | 5.851 | mg/L | 0.0321 | 0.55% |
| Ni 231.604† | 834.0 | 0.0751 | mg/L | 0.00028 | 0.0751 | mg/L | 0.00028 | 0.37% |
| P 214.914† | 576.0 | 1.202 | mg/L | 0.0121 | 1.202 | mg/L | 0.0121 | 1.01% |
| Pb 220.353† | 30.2 | 0.0140 | mg/L | 0.00016 | 0.0140 | mg/L | 0.00016 | 1.14% |
| Sb 206.836† | -3.5 | -0.0039 | mg/L | 0.00103 | -0.0039 | mg/L | 0.00103 | 26.05% |
| Se 196.026† | -0.4 | 0.0040 | mg/L | 0.00566 | 0.0040 | mg/L | 0.00566 | 141.91% |
| Si 251.611† | 16738.7 | 0.9382 | mg/L | 0.01723 | 0.9382 | mg/L | 0.01723 | 1.84% |
| Sn 189.927† | 7.8 | 0.0072 | mg/L | 0.00027 | 0.0072 | mg/L | 0.00027 | 3.72% |
| Sr 421.552† | 266339.8 | 0.3816 | mg/L | 0.00171 | 0.3816 | mg/L | 0.00171 | 0.45% |
| Ti 334.903† | 167491.1 | 0.6733 | mg/L | 0.00170 | 0.6733 | mg/L | 0.00170 | 0.25% |
| Tl 190.801† | 0.5 | 0.0068 | mg/L | 0.00083 | 0.0068 | mg/L | 0.00083 | 12.24% |
| V 292.402† | 1796.0 | 0.0471 | mg/L | 0.00067 | 0.0471 | mg/L | 0.00067 | 1.43% |
| Zn 213.857† | 5649.1 | 0.1593 | mg/L | 0.00042 | 0.1593 | mg/L | 0.00042 | 0.26% |
| Zr 343.823† | 2298.5 | 0.0161 | mg/L | 0.00029 | 0.0161 | mg/L | 0.00029 | 1.81% |
| W 207.912† | 2.5 | 0.0001 | mg/L | 0.00055 | 0.0001 | mg/L | 0.00055 | 370.85% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 10 Autosampler Location: 200
Sample ID: 440-194571-a-2-c@5 Date Collected: 10/26/2017 4:00:26 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194571-a-2-c@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194571-a-2-c@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2593398.9 | 101.2 | % | 0.95 | | | | 0.94% |
| Ag 328.068† | -340.7 | -0.0014 | mg/L | 0.00013 | -0.0014 | mg/L | 0.00013 | 8.96% |
| Al 308.215† | 919534.9 | 90.18 | mg/L | 0.767 | 90.18 | mg/L | 0.767 | 0.85% |
| As 188.979† | 18.9 | 0.0381 | mg/L | 0.00136 | 0.0381 | mg/L | 0.00136 | 3.57% |
| B 249.677† | 16418.2 | 0.0075 | mg/L | 0.00072 | 0.0075 | mg/L | 0.00072 | 9.70% |
| Ba 233.527† | 32216.5 | 0.9842 | mg/L | 0.01066 | 0.9842 | mg/L | 0.01066 | 1.08% |
| Be 313.107† | 3636.8 | 0.0042 | mg/L | 0.00009 | 0.0042 | mg/L | 0.00009 | 2.02% |
| Ca 315.887† | 1234776.7 | 454.0 | mg/L | 8.19 | 454.0 | mg/L | 8.19 | 1.80% |
| Cd 214.440† | 76.4 | -0.0001 | mg/L | 0.00011 | -0.0001 | mg/L | 0.00011 | 182.26% |
| Co 228.616† | 668.3 | 0.0633 | mg/L | 0.00042 | 0.0633 | mg/L | 0.00042 | 0.67% |
| Cr 205.560† | 1625.2 | 0.1288 | mg/L | 0.00134 | 0.1288 | mg/L | 0.00134 | 1.04% |
| Cu 324.752† | 13285.7 | 0.1279 | mg/L | 0.00153 | 0.1279 | mg/L | 0.00153 | 1.20% |
| Fe 238.204† | 451345.4 | 146.1 | mg/L | 2.10 | 146.1 | mg/L | 2.10 | 1.44% |
| K 766.490† | 66725.1 | 26.06 | mg/L | 0.545 | 26.06 | mg/L | 0.545 | 2.09% |
| Li 610.362† | -21109.8 | 0.1563 | mg/L | 0.00531 | 0.1563 | mg/L | 0.00531 | 3.40% |
| Mg 279.077† | 225524.9 | 80.44 | mg/L | 1.296 | 80.44 | mg/L | 1.296 | 1.61% |
| Mn 257.610† | 390839.4 | 2.488 | mg/L | 0.0093 | 2.488 | mg/L | 0.0093 | 0.37% |
| Mo 202.031† | 9.8 | 0.0052 | mg/L | 0.00051 | 0.0052 | mg/L | 0.00051 | 9.75% |
| Na 589.592† | 79393.2 | 4.420 | mg/L | 0.1171 | 4.420 | mg/L | 0.1171 | 2.65% |
| Ni 231.604† | 1318.5 | 0.1167 | mg/L | 0.00029 | 0.1167 | mg/L | 0.00029 | 0.25% |
| P 214.914† | 2577.4 | 5.309 | mg/L | 0.0147 | 5.309 | mg/L | 0.0147 | 0.28% |
| Pb 220.353† | 135.9 | 0.0642 | mg/L | 0.00120 | 0.0642 | mg/L | 0.00120 | 1.87% |
| Sb 206.836† | -7.0 | -0.0038 | mg/L | 0.00618 | -0.0038 | mg/L | 0.00618 | 161.16% |
| Se 196.026† | -42.5 | 0.0050 | mg/L | 0.00232 | 0.0050 | mg/L | 0.00232 | 46.47% |
| Si 251.611† | 11995.7 | 0.6561 | mg/L | 0.00235 | 0.6561 | mg/L | 0.00235 | 0.36% |
| Sn 189.927† | 13.8 | 0.0378 | mg/L | 0.00022 | 0.0378 | mg/L | 0.00022 | 0.59% |
| Sr 421.552† | 933998.6 | 1.327 | mg/L | 0.0220 | 1.327 | mg/L | 0.0220 | 1.66% |
| Ti 334.903† | 1765832.4 | 7.102 | mg/L | 0.0412 | 7.102 | mg/L | 0.0412 | 0.58% |
| Tl 190.801† | -10.0 | 0.0492 | mg/L | 0.00269 | 0.0492 | mg/L | 0.00269 | 5.47% |
| V 292.402† | 15752.7 | 0.4169 | mg/L | 0.00685 | 0.4169 | mg/L | 0.00685 | 1.64% |
| Zn 213.857† | 9238.1 | 0.2444 | mg/L | 0.00241 | 0.2444 | mg/L | 0.00241 | 0.99% |
| Zr 343.823† | 23771.6 | 0.1665 | mg/L | 0.00603 | 0.1665 | mg/L | 0.00603 | 3.62% |
| W 207.912† | 1.8 | -0.0009 | mg/L | 0.00093 | -0.0009 | mg/L | 0.00093 | 104.48% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 11 Autosampler Location: 4
Sample ID: CCV 4447505 Date Collected: 10/26/2017 4:02:19 PM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: CCV 4447505

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 198.0 kPa | 0.65 L/min |

Mean Data: CCV 4447505

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2707396.0 | 105.6 | % | 0.56 | | | | 0.53% |
| Ag 328.068† | 47535.1 | 0.4834 | mg/L | 0.00299 | 0.4834 | mg/L | 0.00299 | 0.62% |
| Al 308.215† | 10434.4 | 0.9879 | mg/L | 0.01165 | 0.9879 | mg/L | 0.01165 | 1.18% |
| As 188.979† | 681.4 | 1.011 | mg/L | 0.0102 | 1.011 | mg/L | 0.0102 | 1.01% |
| B 249.677† | 46197.3 | 1.067 | mg/L | 0.0045 | 1.067 | mg/L | 0.0045 | 0.42% |
| Ba 233.527† | 30849.0 | 0.9429 | mg/L | 0.01004 | 0.9429 | mg/L | 0.01004 | 1.06% |
| Be 313.107† | 804241.3 | 0.9409 | mg/L | 0.00562 | 0.9409 | mg/L | 0.00562 | 0.60% |
| Ca 315.887† | 14386.6 | 5.292 | mg/L | 0.0213 | 5.292 | mg/L | 0.0213 | 0.40% |
| Cd 214.440† | 33859.7 | 1.070 | mg/L | 0.0046 | 1.070 | mg/L | 0.0046 | 0.43% |
| Co 228.616† | 9121.9 | 1.073 | mg/L | 0.0016 | 1.073 | mg/L | 0.0016 | 0.15% |
| Cr 205.560† | 12682.5 | 0.9986 | mg/L | 0.00511 | 0.9986 | mg/L | 0.00511 | 0.51% |
| Cu 324.752† | 110653.3 | 0.9716 | mg/L | 0.00897 | 0.9716 | mg/L | 0.00897 | 0.92% |
| Fe 238.204† | 3576.3 | 1.160 | mg/L | 0.0126 | 1.160 | mg/L | 0.0126 | 1.08% |
| K 766.490† | 27372.4 | 10.69 | mg/L | 0.130 | 10.69 | mg/L | 0.130 | 1.22% |
| Li 610.362† | 109791.4 | 0.9737 | mg/L | 0.00957 | 0.9737 | mg/L | 0.00957 | 0.98% |
| Mg 279.077† | 13560.2 | 4.837 | mg/L | 0.0446 | 4.837 | mg/L | 0.0446 | 0.92% |
| Mn 257.610† | 144029.2 | 0.9178 | mg/L | 0.00858 | 0.9178 | mg/L | 0.00858 | 0.93% |
| Mo 202.031† | 6349.7 | 0.9806 | mg/L | 0.01648 | 0.9806 | mg/L | 0.01648 | 1.68% |
| Na 589.592† | 209785.8 | 11.68 | mg/L | 0.220 | 11.68 | mg/L | 0.220 | 1.89% |
| Ni 231.604† | 10759.9 | 0.9728 | mg/L | 0.00547 | 0.9728 | mg/L | 0.00547 | 0.56% |
| P 214.914† | 458.8 | 0.8992 | mg/L | 0.01409 | 0.8992 | mg/L | 0.01409 | 1.57% |
| Pb 220.353† | 1982.4 | 1.019 | mg/L | 0.0086 | 1.019 | mg/L | 0.0086 | 0.84% |
| Sb 206.836† | 713.7 | 0.9588 | mg/L | 0.00296 | 0.9588 | mg/L | 0.00296 | 0.31% |
| Se 196.026† | 773.3 | 0.9924 | mg/L | 0.00903 | 0.9924 | mg/L | 0.00903 | 0.91% |
| Si 251.611† | 104031.1 | 5.769 | mg/L | 0.0344 | 5.769 | mg/L | 0.0344 | 0.60% |
| Sn 189.927† | 2434.4 | 0.9873 | mg/L | 0.01043 | 0.9873 | mg/L | 0.01043 | 1.06% |
| Sr 421.552† | 663499.3 | 0.9519 | mg/L | 0.00003 | 0.9519 | mg/L | 0.00003 | 0.00% |
| Ti 334.903† | 261900.1 | 1.052 | mg/L | 0.0024 | 1.052 | mg/L | 0.0024 | 0.23% |
| Tl 190.801† | 626.0 | 1.031 | mg/L | 0.0103 | 1.031 | mg/L | 0.0103 | 1.00% |
| V 292.402† | 41370.9 | 1.065 | mg/L | 0.0118 | 1.065 | mg/L | 0.0118 | 1.11% |
| Zn 213.857† | 34269.5 | 0.9710 | mg/L | 0.00696 | 0.9710 | mg/L | 0.00696 | 0.72% |
| Zr 343.823† | 142091.5 | 0.9954 | mg/L | 0.00701 | 0.9954 | mg/L | 0.00701 | 0.70% |
| W 207.912† | 1958.7 | 0.9326 | mg/L | 0.01153 | 0.9326 | mg/L | 0.01153 | 1.24% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 12 Autosampler Location: 1
Sample ID: CCB 4447504 Date Collected: 10/26/2017 4:04:20 PM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

**Nebulizer Parameters: CCB 4447504**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

**Mean Data: CCB 4447504**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2705647.1 | 105.6 | % | 0.12 | | | | 0.11% |
| Ag 328.068† | 26.6 | 0.0003 | mg/L | 0.00027 | 0.0003 | mg/L | 0.00027 | 97.28% |
| Al 308.215† | 4.8 | 0.0004 | mg/L | 0.00329 | 0.0004 | mg/L | 0.00329 | 915.59% |
| As 188.979† | -1.7 | -0.0025 | mg/L | 0.00198 | -0.0025 | mg/L | 0.00198 | 78.66% |
| B 249.677† | 69.9 | 0.0015 | mg/L | 0.00049 | 0.0015 | mg/L | 0.00049 | 32.87% |
| Ba 233.527† | 22.8 | 0.0007 | mg/L | 0.00004 | 0.0007 | mg/L | 0.00004 | 6.14% |
| Be 313.107† | -177.9 | -0.0002 | mg/L | 0.00003 | -0.0002 | mg/L | 0.00003 | 12.57% |
| Ca 315.887† | 203.8 | 0.0749 | mg/L | 0.00288 | 0.0749 | mg/L | 0.00288 | 3.85% |
| Cd 214.440† | 13.0 | 0.0004 | mg/L | 0.00001 | 0.0004 | mg/L | 0.00001 | 1.87% |
| Co 228.616† | 12.9 | 0.0015 | mg/L | 0.00005 | 0.0015 | mg/L | 0.00005 | 3.30% |
| Cr 205.560† | 3.5 | 0.0003 | mg/L | 0.00008 | 0.0003 | mg/L | 0.00008 | 30.55% |
| Cu 324.752† | 139.0 | 0.0012 | mg/L | 0.00021 | 0.0012 | mg/L | 0.00021 | 17.18% |
| Fe 238.204† | 164.5 | 0.0533 | mg/L | 0.00171 | 0.0533 | mg/L | 0.00171 | 3.21% |
| K 766.490† | 98.2 | 0.0384 | mg/L | 0.00237 | 0.0384 | mg/L | 0.00237 | 6.19% |
| Li 610.362† | 136.2 | 0.0013 | mg/L | 0.00044 | 0.0013 | mg/L | 0.00044 | 34.81% |
| Mg 279.077† | 38.0 | 0.0136 | mg/L | 0.00070 | 0.0136 | mg/L | 0.00070 | 5.14% |
| Mn 257.610† | 118.6 | 0.0008 | mg/L | 0.00001 | 0.0008 | mg/L | 0.00001 | 1.97% |
| Mo 202.031† | 78.0 | 0.0120 | mg/L | 0.00157 | 0.0120 | mg/L | 0.00157 | 13.05% |
| Na 589.592† | 697.6 | 0.0388 | mg/L | 0.00181 | 0.0388 | mg/L | 0.00181 | 4.67% |
| Ni 231.604† | 18.4 | 0.0017 | mg/L | 0.00018 | 0.0017 | mg/L | 0.00018 | 10.80% |
| P 214.914† | -3.8 | -0.0083 | mg/L | 0.00999 | -0.0083 | mg/L | 0.00999 | 119.88% |
| Pb 220.353† | 6.7 | 0.0035 | mg/L | 0.00103 | 0.0035 | mg/L | 0.00103 | 29.57% |
| Sb 206.836† | 2.7 | 0.0038 | mg/L | 0.00003 | 0.0038 | mg/L | 0.00003 | 0.78% |
| Se 196.026† | 7.0 | 0.0091 | mg/L | 0.00215 | 0.0091 | mg/L | 0.00215 | 23.63% |
| Si 251.611† | 132.3 | 0.0072 | mg/L | 0.00040 | 0.0072 | mg/L | 0.00040 | 5.60% |
| Sn 189.927† | 0.6 | 0.0003 | mg/L | 0.00013 | 0.0003 | mg/L | 0.00013 | 45.32% |
| Sr 421.552† | 346.2 | 0.0005 | mg/L | 0.00010 | 0.0005 | mg/L | 0.00010 | 19.40% |
| Ti 334.903† | 622.0 | 0.0025 | mg/L | 0.00009 | 0.0025 | mg/L | 0.00009 | 3.66% |
| Tl 190.801† | 2.8 | 0.0045 | mg/L | 0.00111 | 0.0045 | mg/L | 0.00111 | 24.44% |
| V 292.402† | 9.8 | 0.0003 | mg/L | 0.00005 | 0.0003 | mg/L | 0.00005 | 20.88% |
| Zn 213.857† | -25.9 | -0.0008 | mg/L | 0.00013 | -0.0008 | mg/L | 0.00013 | 17.00% |
| Zr 343.823† | -28.6 | -0.0002 | mg/L | 0.00002 | -0.0002 | mg/L | 0.00002 | 9.53% |
| W 207.912† | 3.8 | 0.0018 | mg/L | 0.00051 | 0.0018 | mg/L | 0.00051 | 27.97% |


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**Analytical Sequence**
**Method: 170824_ICP7**

| Seq. | Loc. | ID | Status |
|---|---|---|---|
| 1 | 191 | mb 440-437566_1-a@5 | Analyzed |
| 2 | 192 | lcs 440-437566_2-a@5 | Analyzed |
| 3 | 193 | 440-194910-e-1-e@5 | Analyzed |
| 4 | 194 | 440-194910-e-1-f ms@5 | Analyzed |
| 5 | 195 | 440-194910-e-1-g msd@5 | Analyzed |
| 6 | 196 | 440-194910-e-1-ePDS@5 | Analyzed |
| 7 | 197 | 440-194910-e-1-eSD@25 | Analyzed |
| 8 | 198 | 440-194910-e-2-c@5 | Analyzed |
| 9 | 199 | 440-194693-a-2-b@5 | Analyzed |
| 10 | 200 | 440-194571-a-2-c@5 | Analyzed |
| 11 | 4 | CCV 4447505 | Analyzed |
| 12 | 1 | CCB 4447504 | Analyzed |


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**Analysis Begun**

**Start Time: 10/26/2017 4:14:17 PM** **Plasma On Time: 10/26/2017 9:24:37 AM**
**Logged In Analyst: IRVINSTICP7** **Technique: ICP Continuous**
**Spectrometer: Optima 8300** **Autosampler: ESI**

**Sample Information File: C:\Users\Public\PerkinElmer\ICP\Data\Sample Information\CP 171026-1.sif**
**Batch ID:**
**Results Data Set: 171026-1 ICP7**
**Results Library: C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb**

==========

**Sequence No.: 1** **Autosampler Location: 4**
**Sample ID: CCV 4447505** **Date Collected: 10/26/2017 4:14:27 PM**
**Analyst:** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time:**

---

**Nebulizer Parameters: CCV 4447505**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: CCV 4447505**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2684918.2 | 104.8 | % | 1.75 | | | | 1.67% |
| Ag 328.068† | 48386.5 | 0.4921 | mg/L | 0.00969 | 0.4921 | mg/L | 0.00969 | 1.97% |
| Al 308.215† | 10468.5 | 0.9908 | mg/L | 0.02122 | 0.9908 | mg/L | 0.02122 | 2.14% |
| As 188.979† | 682.0 | 1.012 | mg/L | 0.0122 | 1.012 | mg/L | 0.0122 | 1.21% |
| B 249.677† | 46918.1 | 1.084 | mg/L | 0.0285 | 1.084 | mg/L | 0.0285 | 2.63% |
| Ba 233.527† | 31150.9 | 0.9522 | mg/L | 0.02011 | 0.9522 | mg/L | 0.02011 | 2.11% |
| Be 313.107† | 800507.6 | 0.9366 | mg/L | 0.00703 | 0.9366 | mg/L | 0.00703 | 0.75% |
| Ca 315.887† | 14104.0 | 5.188 | mg/L | 0.0249 | 5.188 | mg/L | 0.0249 | 0.48% |
| Cd 214.440† | 34099.5 | 1.077 | mg/L | 0.0218 | 1.077 | mg/L | 0.0218 | 2.02% |
| Co 228.616† | 9267.5 | 1.090 | mg/L | 0.0196 | 1.090 | mg/L | 0.0196 | 1.80% |
| Cr 205.560† | 12804.6 | 1.008 | mg/L | 0.0262 | 1.008 | mg/L | 0.0262 | 2.60% |
| Cu 324.752† | 112469.6 | 0.9875 | mg/L | 0.02013 | 0.9875 | mg/L | 0.02013 | 2.04% |
| Fe 238.204† | 3409.5 | 1.106 | mg/L | 0.0079 | 1.106 | mg/L | 0.0079 | 0.72% |
| K 766.490† | 27679.3 | 10.81 | mg/L | 0.214 | 10.81 | mg/L | 0.214 | 1.98% |
| Li 610.362† | 111514.8 | 0.9889 | mg/L | 0.01564 | 0.9889 | mg/L | 0.01564 | 1.58% |
| Mg 279.077† | 13693.7 | 4.884 | mg/L | 0.1410 | 4.884 | mg/L | 0.1410 | 2.89% |
| Mn 257.610† | 145783.6 | 0.9290 | mg/L | 0.02037 | 0.9290 | mg/L | 0.02037 | 2.19% |
| Mo 202.031† | 6416.8 | 0.9910 | mg/L | 0.01930 | 0.9910 | mg/L | 0.01930 | 1.95% |
| Na 589.592† | 214510.6 | 11.94 | mg/L | 0.217 | 11.94 | mg/L | 0.217 | 1.82% |
| Ni 231.604† | 10899.1 | 0.9853 | mg/L | 0.02709 | 0.9853 | mg/L | 0.02709 | 2.75% |
| P 214.914† | 458.9 | 0.8993 | mg/L | 0.01011 | 0.8993 | mg/L | 0.01011 | 1.12% |
| Pb 220.353† | 1989.5 | 1.023 | mg/L | 0.0228 | 1.023 | mg/L | 0.0228 | 2.23% |
| Sb 206.836† | 717.1 | 0.9634 | mg/L | 0.01311 | 0.9634 | mg/L | 0.01311 | 1.36% |
| Se 196.026† | 773.0 | 0.9921 | mg/L | 0.02507 | 0.9921 | mg/L | 0.02507 | 2.53% |
| Si 251.611† | 105355.5 | 5.843 | mg/L | 0.1091 | 5.843 | mg/L | 0.1091 | 1.87% |
| Sn 189.927† | 2444.3 | 0.9913 | mg/L | 0.01591 | 0.9913 | mg/L | 0.01591 | 1.61% |
| Sr 421.552† | 670143.8 | 0.9614 | mg/L | 0.01279 | 0.9614 | mg/L | 0.01279 | 1.33% |
| Ti 334.903† | 262874.8 | 1.056 | mg/L | 0.0016 | 1.056 | mg/L | 0.0016 | 0.15% |
| Tl 190.801† | 630.7 | 1.039 | mg/L | 0.0163 | 1.039 | mg/L | 0.0163 | 1.57% |
| V 292.402† | 42163.4 | 1.085 | mg/L | 0.0272 | 1.085 | mg/L | 0.0272 | 2.50% |
| Zn 213.857† | 34628.9 | 0.9811 | mg/L | 0.02255 | 0.9811 | mg/L | 0.02255 | 2.30% |
| Zr 343.823† | 143924.2 | 1.008 | mg/L | 0.0212 | 1.008 | mg/L | 0.0212 | 2.10% |
| W 207.912† | 1960.6 | 0.9334 | mg/L | 0.01079 | 0.9334 | mg/L | 0.01079 | 1.16% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 2 Autosampler Location: 1
Sample ID: CCB 4447504 Date Collected: 10/26/2017 4:16:31 PM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: CCB 4447504

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: CCB 4447504

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2688424.9 | 104.9 | % | 0.80 | | | | 0.76% |
| Ag 328.068† | -47.7 | -0.0005 | mg/L | 0.00012 | -0.0005 | mg/L | 0.00012 | 23.70% |
| Al 308.215† | -195.0 | -0.0193 | mg/L | 0.00186 | -0.0193 | mg/L | 0.00186 | 9.67% |
| As 188.979† | 2.4 | 0.0035 | mg/L | 0.00176 | 0.0035 | mg/L | 0.00176 | 50.14% |
| B 249.677† | 49.3 | 0.0011 | mg/L | 0.00011 | 0.0011 | mg/L | 0.00011 | 10.35% |
| Ba 233.527† | 13.1 | 0.0004 | mg/L | 0.00007 | 0.0004 | mg/L | 0.00007 | 17.27% |
| Be 313.107† | -215.0 | -0.0003 | mg/L | 0.00003 | -0.0003 | mg/L | 0.00003 | 10.62% |
| Ca 315.887† | 66.2 | 0.0244 | mg/L | 0.00075 | 0.0244 | mg/L | 0.00075 | 3.07% |
| Cd 214.440† | 12.6 | 0.0004 | mg/L | 0.00017 | 0.0004 | mg/L | 0.00017 | 41.47% |
| Co 228.616† | 10.7 | 0.0013 | mg/L | 0.00013 | 0.0013 | mg/L | 0.00013 | 10.26% |
| Cr 205.560† | 2.3 | 0.0002 | mg/L | 0.00029 | 0.0002 | mg/L | 0.00029 | 160.93% |
| Cu 324.752† | 208.7 | 0.0018 | mg/L | 0.00011 | 0.0018 | mg/L | 0.00011 | 5.99% |
| Fe 238.204† | 45.3 | 0.0147 | mg/L | 0.00164 | 0.0147 | mg/L | 0.00164 | 11.15% |
| K 766.490† | 5.2 | 0.0020 | mg/L | 0.01653 | 0.0020 | mg/L | 0.01653 | 811.65% |
| Li 610.362† | 54.7 | 0.0005 | mg/L | 0.00110 | 0.0005 | mg/L | 0.00110 | 219.07% |
| Mg 279.077† | 6.2 | 0.0023 | mg/L | 0.00130 | 0.0023 | mg/L | 0.00130 | 57.61% |
| Mn 257.610† | 35.0 | 0.0002 | mg/L | 0.00003 | 0.0002 | mg/L | 0.00003 | 15.63% |
| Mo 202.031† | 88.2 | 0.0136 | mg/L | 0.00134 | 0.0136 | mg/L | 0.00134 | 9.83% |
| Na 589.592† | 685.6 | 0.0382 | mg/L | 0.00153 | 0.0382 | mg/L | 0.00153 | 4.00% |
| Ni 231.604† | 24.1 | 0.0022 | mg/L | 0.00038 | 0.0022 | mg/L | 0.00038 | 17.35% |
| P 214.914† | -2.3 | -0.0051 | mg/L | 0.00317 | -0.0051 | mg/L | 0.00317 | 62.23% |
| Pb 220.353† | 5.7 | 0.0029 | mg/L | 0.00019 | 0.0029 | mg/L | 0.00019 | 6.34% |
| Sb 206.836† | 0.8 | 0.0012 | mg/L | 0.00061 | 0.0012 | mg/L | 0.00061 | 50.53% |
| Se 196.026† | 0.3 | 0.0004 | mg/L | 0.00339 | 0.0004 | mg/L | 0.00339 | 836.44% |
| Si 251.611† | 75.6 | 0.0039 | mg/L | 0.00050 | 0.0039 | mg/L | 0.00050 | 12.97% |
| Sn 189.927† | -6.6 | -0.0026 | mg/L | 0.00125 | -0.0026 | mg/L | 0.00125 | 47.19% |
| Sr 421.552† | 184.0 | 0.0003 | mg/L | 0.00004 | 0.0003 | mg/L | 0.00004 | 13.84% |
| Ti 334.903† | 333.6 | 0.0013 | mg/L | 0.00016 | 0.0013 | mg/L | 0.00016 | 11.98% |
| Tl 190.801† | 0.5 | 0.0008 | mg/L | 0.00077 | 0.0008 | mg/L | 0.00077 | 102.22% |
| V 292.402† | 14.9 | 0.0004 | mg/L | 0.00039 | 0.0004 | mg/L | 0.00039 | 101.24% |
| Zn 213.857† | -62.8 | -0.0018 | mg/L | 0.00002 | -0.0018 | mg/L | 0.00002 | 0.84% |
| Zr 343.823† | 2.8 | 0.0000 | mg/L | 0.00015 | 0.0000 | mg/L | 0.00015 | 783.04% |
| W 207.912† | 7.4 | 0.0036 | mg/L | 0.00140 | 0.0036 | mg/L | 0.00140 | 39.18% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 3 Autosampler Location: 193
Sample ID: 440-194910-e-1-e@5 Date Collected: 10/26/2017 4:19:05 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194910-e-1-e@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194910-e-1-e@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2720754.9 | 106.2 | % | 0.18 | | | | 0.17% |
| Ag 328.068† | -256.6 | 0.0003 | mg/L | 0.00011 | 0.0003 | mg/L | 0.00011 | 42.21% |
| Al 308.215† | 1018735.9 | 99.99 | mg/L | 0.481 | 99.99 | mg/L | 0.481 | 0.48% |
| As 188.979† | 23.0 | 0.0445 | mg/L | 0.00099 | 0.0445 | mg/L | 0.00099 | 2.22% |
| B 249.677† | 18041.3 | 0.0537 | mg/L | 0.00649 | 0.0537 | mg/L | 0.00649 | 12.10% |
| Ba 233.527† | 17596.6 | 0.5376 | mg/L | 0.00324 | 0.5376 | mg/L | 0.00324 | 0.60% |
| Be 313.107† | 2074.3 | 0.0024 | mg/L | 0.00009 | 0.0024 | mg/L | 0.00009 | 3.55% |
| Ca 315.887† | 82705.7 | 30.41 | mg/L | 0.137 | 30.41 | mg/L | 0.137 | 0.45% |
| Cd 214.440† | 108.8 | 0.0008 | mg/L | 0.00006 | 0.0008 | mg/L | 0.00006 | 8.13% |
| Co 228.616† | 493.2 | 0.0470 | mg/L | 0.00007 | 0.0470 | mg/L | 0.00007 | 0.16% |
| Cr 205.560† | 1670.2 | 0.1323 | mg/L | 0.00032 | 0.1323 | mg/L | 0.00032 | 0.25% |
| Cu 324.752† | 10359.0 | 0.1019 | mg/L | 0.00116 | 0.1019 | mg/L | 0.00116 | 1.14% |
| Fe 238.204† | 441125.9 | 142.8 | mg/L | 0.14 | 142.8 | mg/L | 0.14 | 0.10% |
| K 766.490† | 104288.2 | 40.73 | mg/L | 0.027 | 40.73 | mg/L | 0.027 | 0.07% |
| Li 610.362† | 10069.7 | 0.1119 | mg/L | 0.00080 | 0.1119 | mg/L | 0.00080 | 0.71% |
| Mg 279.077† | 113374.0 | 40.44 | mg/L | 0.438 | 40.44 | mg/L | 0.438 | 1.08% |
| Mn 257.610† | 304397.3 | 1.939 | mg/L | 0.0009 | 1.939 | mg/L | 0.0009 | 0.05% |
| Mo 202.031† | 19.5 | 0.0066 | mg/L | 0.00092 | 0.0066 | mg/L | 0.00092 | 13.81% |
| Na 589.592† | 71856.9 | 4.000 | mg/L | 0.0148 | 4.000 | mg/L | 0.0148 | 0.37% |
| Ni 231.604† | 1196.3 | 0.1057 | mg/L | 0.00036 | 0.1057 | mg/L | 0.00036 | 0.34% |
| P 214.914† | 1155.6 | 2.333 | mg/L | 0.0024 | 2.333 | mg/L | 0.0024 | 0.10% |
| Pb 220.353† | 155.9 | 0.0674 | mg/L | 0.00337 | 0.0674 | mg/L | 0.00337 | 4.99% |
| Sb 206.836† | -5.1 | -0.0011 | mg/L | 0.00401 | -0.0011 | mg/L | 0.00401 | 375.27% |
| Se 196.026† | -38.8 | 0.0088 | mg/L | 0.00189 | 0.0088 | mg/L | 0.00189 | 21.55% |
| Si 251.611† | 17416.7 | 0.9705 | mg/L | 0.05300 | 0.9705 | mg/L | 0.05300 | 5.46% |
| Sn 189.927† | -24.4 | 0.0350 | mg/L | 0.00327 | 0.0350 | mg/L | 0.00327 | 9.33% |
| Sr 421.552† | 180871.4 | 0.2587 | mg/L | 0.00045 | 0.2587 | mg/L | 0.00045 | 0.17% |
| Ti 334.903† | 1219359.4 | 4.900 | mg/L | 0.0018 | 4.900 | mg/L | 0.0018 | 0.04% |
| Tl 190.801† | -3.1 | 0.0385 | mg/L | 0.00244 | 0.0385 | mg/L | 0.00244 | 6.34% |
| V 292.402† | 9542.7 | 0.2582 | mg/L | 0.00438 | 0.2582 | mg/L | 0.00438 | 1.70% |
| Zn 213.857† | 10660.7 | 0.2871 | mg/L | 0.00299 | 0.2871 | mg/L | 0.00299 | 1.04% |
| Zr 343.823† | 3270.6 | 0.0229 | mg/L | 0.00229 | 0.0229 | mg/L | 0.00229 | 10.01% |
| W 207.912† | 1.1 | -0.0015 | mg/L | 0.00193 | -0.0015 | mg/L | 0.00193 | 132.85% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 4 Autosampler Location: 201
Sample ID: 440-194571-a-3-c@5 Date Collected: 10/26/2017 4:20:59 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194571-a-3-c@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: 440-194571-a-3-c@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2605049.7 | 101.6 | % | 0.64 | | | | 0.63% |
| Ag 328.068† | -477.5 | -0.0026 | mg/L | 0.00024 | -0.0026 | mg/L | 0.00024 | 9.22% |
| Al 308.215† | 907588.0 | 89.03 | mg/L | 0.804 | 89.03 | mg/L | 0.804 | 0.90% |
| As 188.979† | 19.0 | 0.0393 | mg/L | 0.00189 | 0.0393 | mg/L | 0.00189 | 4.80% |
| B 249.677† | 17739.2 | 0.0011 | mg/L | 0.00132 | 0.0011 | mg/L | 0.00132 | 117.15% |
| Ba 233.527† | 41407.2 | 1.265 | mg/L | 0.0023 | 1.265 | mg/L | 0.0023 | 0.18% |
| Be 313.107† | 3846.4 | 0.0045 | mg/L | 0.00007 | 0.0045 | mg/L | 0.00007 | 1.50% |
| Ca 315.887† | 702934.1 | 258.4 | mg/L | 2.38 | 258.4 | mg/L | 2.38 | 0.92% |
| Cd 214.440† | 95.0 | 0.0003 | mg/L | 0.00008 | 0.0003 | mg/L | 0.00008 | 21.96% |
| Co 228.616† | 663.7 | 0.0614 | mg/L | 0.00035 | 0.0614 | mg/L | 0.00035 | 0.56% |
| Cr 205.560† | 1904.6 | 0.1508 | mg/L | 0.00130 | 0.1508 | mg/L | 0.00130 | 0.86% |
| Cu 324.752† | 14445.8 | 0.1392 | mg/L | 0.00065 | 0.1392 | mg/L | 0.00065 | 0.47% |
| Fe 238.204† | 496023.5 | 160.6 | mg/L | 1.58 | 160.6 | mg/L | 1.58 | 0.98% |
| K 766.490† | 70924.0 | 27.70 | mg/L | 0.371 | 27.70 | mg/L | 0.371 | 1.34% |
| Li 610.362† | -5343.5 | 0.1479 | mg/L | 0.00056 | 0.1479 | mg/L | 0.00056 | 0.38% |
| Mg 279.077† | 224820.4 | 80.19 | mg/L | 0.398 | 80.19 | mg/L | 0.398 | 0.50% |
| Mn 257.610† | 429013.2 | 2.731 | mg/L | 0.0257 | 2.731 | mg/L | 0.0257 | 0.94% |
| Mo 202.031† | 15.1 | 0.0064 | mg/L | 0.00065 | 0.0064 | mg/L | 0.00065 | 10.15% |
| Na 589.592† | 88722.9 | 4.939 | mg/L | 0.0825 | 4.939 | mg/L | 0.0825 | 1.67% |
| Ni 231.604† | 1428.0 | 0.1263 | mg/L | 0.00114 | 0.1263 | mg/L | 0.00114 | 0.90% |
| P 214.914† | 3037.9 | 6.262 | mg/L | 0.0291 | 6.262 | mg/L | 0.0291 | 0.46% |
| Pb 220.353† | 162.9 | 0.0746 | mg/L | 0.00154 | 0.0746 | mg/L | 0.00154 | 2.06% |
| Sb 206.836† | -7.9 | -0.0049 | mg/L | 0.00239 | -0.0049 | mg/L | 0.00239 | 49.21% |
| Se 196.026† | -50.3 | 0.0008 | mg/L | 0.02080 | 0.0008 | mg/L | 0.02080 | >999.9% |
| Si 251.611† | 11457.3 | 0.6250 | mg/L | 0.00257 | 0.6250 | mg/L | 0.00257 | 0.41% |
| Sn 189.927† | -10.1 | 0.0444 | mg/L | 0.00243 | 0.0444 | mg/L | 0.00243 | 5.47% |
| Sr 421.552† | 1066599.3 | 1.523 | mg/L | 0.0133 | 1.523 | mg/L | 0.0133 | 0.87% |
| Ti 334.903† | 1907566.9 | 7.669 | mg/L | 0.0409 | 7.669 | mg/L | 0.0409 | 0.53% |
| Tl 190.801† | -7.6 | 0.0564 | mg/L | 0.00219 | 0.0564 | mg/L | 0.00219 | 3.88% |
| V 292.402† | 17201.0 | 0.4554 | mg/L | 0.00438 | 0.4554 | mg/L | 0.00438 | 0.96% |
| Zn 213.857† | 10224.3 | 0.2710 | mg/L | 0.00387 | 0.2710 | mg/L | 0.00387 | 1.43% |
| Zr 343.823† | 24632.9 | 0.1726 | mg/L | 0.00495 | 0.1726 | mg/L | 0.00495 | 2.87% |
| W 207.912† | 7.1 | 0.0015 | mg/L | 0.00108 | 0.0015 | mg/L | 0.00108 | 72.59% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 5 Autosampler Location: 202
Sample ID: 440-194571-a-4-c@5 Date Collected: 10/26/2017 4:22:55 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194571-a-4-c@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194571-a-4-c@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2591150.5 | 101.1 | % | 1.18 | | | | 1.16% |
| Ag 328.068† | -510.5 | -0.0030 | mg/L | 0.00080 | -0.0030 | mg/L | 0.00080 | 26.80% |
| Al 308.215† | 851821.9 | 83.55 | mg/L | 0.494 | 83.55 | mg/L | 0.494 | 0.59% |
| As 188.979† | 22.4 | 0.0448 | mg/L | 0.00590 | 0.0448 | mg/L | 0.00590 | 13.18% |
| B 249.677† | 17852.3 | -0.0073 | mg/L | 0.00067 | -0.0073 | mg/L | 0.00067 | 9.19% |
| Ba 233.527† | 41070.7 | 1.255 | mg/L | 0.0041 | 1.255 | mg/L | 0.0041 | 0.33% |
| Be 313.107† | 3583.9 | 0.0042 | mg/L | 0.00004 | 0.0042 | mg/L | 0.00004 | 0.98% |
| Ca 315.887† | 825517.7 | 303.5 | mg/L | 3.24 | 303.5 | mg/L | 3.24 | 1.07% |
| Cd 214.440† | 84.3 | 0.0000 | mg/L | 0.00009 | 0.0000 | mg/L | 0.00009 | 377.31% |
| Co 228.616† | 668.6 | 0.0617 | mg/L | 0.00108 | 0.0617 | mg/L | 0.00108 | 1.76% |
| Cr 205.560† | 2556.4 | 0.2022 | mg/L | 0.00288 | 0.2022 | mg/L | 0.00288 | 1.42% |
| Cu 324.752† | 14037.2 | 0.1359 | mg/L | 0.00039 | 0.1359 | mg/L | 0.00039 | 0.29% |
| Fe 238.204† | 509358.5 | 164.9 | mg/L | 1.50 | 164.9 | mg/L | 1.50 | 0.91% |
| K 766.490† | 45401.2 | 17.73 | mg/L | 0.170 | 17.73 | mg/L | 0.170 | 0.96% |
| Li 610.362† | -3506.5 | 0.1982 | mg/L | 0.00149 | 0.1982 | mg/L | 0.00149 | 0.75% |
| Mg 279.077† | 245498.7 | 87.56 | mg/L | 0.317 | 87.56 | mg/L | 0.317 | 0.36% |
| Mn 257.610† | 351502.0 | 2.237 | mg/L | 0.0074 | 2.237 | mg/L | 0.0074 | 0.33% |
| Mo 202.031† | 14.8 | 0.0065 | mg/L | 0.00032 | 0.0065 | mg/L | 0.00032 | 4.89% |
| Na 589.592† | 126962.5 | 7.068 | mg/L | 0.1070 | 7.068 | mg/L | 0.1070 | 1.51% |
| Ni 231.604† | 1484.5 | 0.1313 | mg/L | 0.00072 | 0.1313 | mg/L | 0.00072 | 0.55% |
| P 214.914† | 3373.1 | 6.960 | mg/L | 0.0613 | 6.960 | mg/L | 0.0613 | 0.88% |
| Pb 220.353† | 143.1 | 0.0656 | mg/L | 0.00211 | 0.0656 | mg/L | 0.00211 | 3.22% |
| Sb 206.836† | -8.7 | -0.0063 | mg/L | 0.00390 | -0.0063 | mg/L | 0.00390 | 61.89% |
| Se 196.026† | -48.5 | 0.0054 | mg/L | 0.00397 | 0.0054 | mg/L | 0.00397 | 73.31% |
| Si 251.611† | 13186.3 | 0.7213 | mg/L | 0.01503 | 0.7213 | mg/L | 0.01503 | 2.08% |
| Sn 189.927† | -12.3 | 0.0422 | mg/L | 0.00150 | 0.0422 | mg/L | 0.00150 | 3.55% |
| Sr 421.552† | 1601164.9 | 2.289 | mg/L | 0.0343 | 2.289 | mg/L | 0.0343 | 1.50% |
| Ti 334.903† | 1938831.3 | 7.795 | mg/L | 0.0539 | 7.795 | mg/L | 0.0539 | 0.69% |
| Tl 190.801† | -10.3 | 0.0535 | mg/L | 0.00111 | 0.0535 | mg/L | 0.00111 | 2.07% |
| V 292.402† | 19663.8 | 0.5191 | mg/L | 0.00202 | 0.5191 | mg/L | 0.00202 | 0.39% |
| Zn 213.857† | 9639.7 | 0.2535 | mg/L | 0.00287 | 0.2535 | mg/L | 0.00287 | 1.13% |
| Zr 343.823† | 28548.7 | 0.2000 | mg/L | 0.00018 | 0.2000 | mg/L | 0.00018 | 0.09% |
| W 207.912† | 5.9 | 0.0010 | mg/L | 0.00152 | 0.0010 | mg/L | 0.00152 | 145.29% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 6 Autosampler Location: 203
Sample ID: 440-194571-a-5-c@5 Date Collected: 10/26/2017 4:24:52 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194571-a-5-c@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194571-a-5-c@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2572327.5 | 100.4 | % | 0.35 | | | | 0.35% |
| Ag 328.068† | -358.8 | -0.0017 | mg/L | 0.00079 | -0.0017 | mg/L | 0.00079 | 46.31% |
| Al 308.215† | 696742.7 | 68.33 | mg/L | 0.448 | 68.33 | mg/L | 0.448 | 0.65% |
| As 188.979† | 29.9 | 0.0539 | mg/L | 0.00701 | 0.0539 | mg/L | 0.00701 | 13.01% |
| B 249.677† | 14845.0 | -0.0013 | mg/L | 0.00175 | -0.0013 | mg/L | 0.00175 | 135.86% |
| Ba 233.527† | 40868.6 | 1.248 | mg/L | 0.0050 | 1.248 | mg/L | 0.0050 | 0.40% |
| Be 313.107† | 3008.0 | 0.0035 | mg/L | 0.00005 | 0.0035 | mg/L | 0.00005 | 1.47% |
| Ca 315.887† | 920350.8 | 338.4 | mg/L | 3.80 | 338.4 | mg/L | 3.80 | 1.12% |
| Cd 214.440† | 75.9 | 0.0003 | mg/L | 0.00020 | 0.0003 | mg/L | 0.00020 | 73.74% |
| Co 228.616† | 550.3 | 0.0528 | mg/L | 0.00011 | 0.0528 | mg/L | 0.00011 | 0.20% |
| Cr 205.560† | 1501.2 | 0.1189 | mg/L | 0.00084 | 0.1189 | mg/L | 0.00084 | 0.71% |
| Cu 324.752† | 14439.6 | 0.1372 | mg/L | 0.00014 | 0.1372 | mg/L | 0.00014 | 0.11% |
| Fe 238.204† | 417797.1 | 135.3 | mg/L | 1.56 | 135.3 | mg/L | 1.56 | 1.15% |
| K 766.490† | 42455.1 | 16.58 | mg/L | 0.447 | 16.58 | mg/L | 0.447 | 2.69% |
| Li 610.362† | -1166.8 | 0.2452 | mg/L | 0.00258 | 0.2452 | mg/L | 0.00258 | 1.05% |
| Mg 279.077† | 227595.8 | 81.17 | mg/L | 0.335 | 81.17 | mg/L | 0.335 | 0.41% |
| Mn 257.610† | 321423.1 | 2.046 | mg/L | 0.0106 | 2.046 | mg/L | 0.0106 | 0.52% |
| Mo 202.031† | 0.6 | 0.0035 | mg/L | 0.00030 | 0.0035 | mg/L | 0.00030 | 8.53% |
| Na 589.592† | 136967.9 | 7.625 | mg/L | 0.2492 | 7.625 | mg/L | 0.2492 | 3.27% |
| Ni 231.604† | 1417.0 | 0.1257 | mg/L | 0.00021 | 0.1257 | mg/L | 0.00021 | 0.17% |
| P 214.914† | 3322.9 | 6.875 | mg/L | 0.0530 | 6.875 | mg/L | 0.0530 | 0.77% |
| Pb 220.353† | 122.2 | 0.0575 | mg/L | 0.00657 | 0.0575 | mg/L | 0.00657 | 11.42% |
| Sb 206.836† | -7.5 | -0.0055 | mg/L | 0.00203 | -0.0055 | mg/L | 0.00203 | 36.94% |
| Se 196.026† | -39.2 | 0.0050 | mg/L | 0.00555 | 0.0050 | mg/L | 0.00555 | 110.46% |
| Si 251.611† | 12460.3 | 0.6866 | mg/L | 0.01988 | 0.6866 | mg/L | 0.01988 | 2.90% |
| Sn 189.927† | 18.6 | 0.0362 | mg/L | 0.00049 | 0.0362 | mg/L | 0.00049 | 1.34% |
| Sr 421.552† | 1849363.4 | 2.644 | mg/L | 0.0076 | 2.644 | mg/L | 0.0076 | 0.29% |
| Ti 334.903† | 1342963.7 | 5.401 | mg/L | 0.0421 | 5.401 | mg/L | 0.0421 | 0.78% |
| Tl 190.801† | -9.7 | 0.0337 | mg/L | 0.00173 | 0.0337 | mg/L | 0.00173 | 5.12% |
| V 292.402† | 14865.4 | 0.3937 | mg/L | 0.00054 | 0.3937 | mg/L | 0.00054 | 0.14% |
| Zn 213.857† | 8475.8 | 0.2237 | mg/L | 0.00024 | 0.2237 | mg/L | 0.00024 | 0.11% |
| Zr 343.823† | 20694.1 | 0.1450 | mg/L | 0.00013 | 0.1450 | mg/L | 0.00013 | 0.09% |
| W 207.912† | 1.7 | -0.0008 | mg/L | 0.00239 | -0.0008 | mg/L | 0.00239 | 312.37% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 7 Autosampler Location: 204
Sample ID: 440-194571-a-7-c@5 Date Collected: 10/26/2017 4:26:50 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194571-a-7-c@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194571-a-7-c@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2537758.2 | 99.02 | % | 0.100 | | | | 0.10% |
| Ag 328.068† | -126.1 | -0.0006 | mg/L | 0.00013 | -0.0006 | mg/L | 0.00013 | 23.24% |
| Al 308.215† | 520061.3 | 50.95 | mg/L | 0.267 | 50.95 | mg/L | 0.267 | 0.52% |
| As 188.979† | 174.1 | 0.2627 | mg/L | 0.00444 | 0.2627 | mg/L | 0.00444 | 1.69% |
| B 249.677† | 12084.5 | 0.0951 | mg/L | 0.00414 | 0.0951 | mg/L | 0.00414 | 4.35% |
| Ba 233.527† | 24588.6 | 0.7511 | mg/L | 0.00675 | 0.7511 | mg/L | 0.00675 | 0.90% |
| Be 313.107† | 1636.9 | 0.0019 | mg/L | 0.00004 | 0.0019 | mg/L | 0.00004 | 2.21% |
| Ca 315.887† | 1535337.0 | 564.4 | mg/L | 7.42 | 564.4 | mg/L | 7.42 | 1.31% |
| Cd 214.440† | 14.6 | -0.0004 | mg/L | 0.00005 | -0.0004 | mg/L | 0.00005 | 12.28% |
| Co 228.616† | 264.5 | 0.0228 | mg/L | 0.00022 | 0.0228 | mg/L | 0.00022 | 0.96% |
| Cr 205.560† | 1422.7 | 0.1124 | mg/L | 0.00080 | 0.1124 | mg/L | 0.00080 | 0.71% |
| Cu 324.752† | 7529.5 | 0.0717 | mg/L | 0.00013 | 0.0717 | mg/L | 0.00013 | 0.18% |
| Fe 238.204† | 224119.7 | 72.57 | mg/L | 0.373 | 72.57 | mg/L | 0.373 | 0.51% |
| K 766.490† | 42090.3 | 16.44 | mg/L | 0.232 | 16.44 | mg/L | 0.232 | 1.41% |
| Li 610.362† | 16748.0 | 0.5741 | mg/L | 0.00398 | 0.5741 | mg/L | 0.00398 | 0.69% |
| Mg 279.077† | 390294.1 | 139.2 | mg/L | 0.46 | 139.2 | mg/L | 0.46 | 0.33% |
| Mn 257.610† | 143160.2 | 0.9076 | mg/L | 0.00516 | 0.9076 | mg/L | 0.00516 | 0.57% |
| Mo 202.031† | -13.4 | -0.0002 | mg/L | 0.00017 | -0.0002 | mg/L | 0.00017 | 71.16% |
| Na 589.592† | 166888.3 | 9.291 | mg/L | 0.2354 | 9.291 | mg/L | 0.2354 | 2.53% |
| Ni 231.604† | 795.1 | 0.0706 | mg/L | 0.00034 | 0.0706 | mg/L | 0.00034 | 0.48% |
| P 214.914† | 2018.4 | 4.187 | mg/L | 0.0026 | 4.187 | mg/L | 0.0026 | 0.06% |
| Pb 220.353† | 59.8 | 0.0316 | mg/L | 0.00194 | 0.0316 | mg/L | 0.00194 | 6.12% |
| Sb 206.836† | -6.9 | -0.0065 | mg/L | 0.00057 | -0.0065 | mg/L | 0.00057 | 8.82% |
| Se 196.026† | -33.7 | -0.0136 | mg/L | 0.00122 | -0.0136 | mg/L | 0.00122 | 9.00% |
| Si 251.611† | 17484.3 | 0.9651 | mg/L | 0.00382 | 0.9651 | mg/L | 0.00382 | 0.40% |
| Sn 189.927† | 52.1 | 0.0195 | mg/L | 0.00276 | 0.0195 | mg/L | 0.00276 | 14.11% |
| Sr 421.552† | 4776048.6 | 6.837 | mg/L | 0.0456 | 6.837 | mg/L | 0.0456 | 0.67% |
| Ti 334.903† | 961839.7 | 3.873 | mg/L | 0.0247 | 3.873 | mg/L | 0.0247 | 0.64% |
| Tl 190.801† | -5.8 | 0.0289 | mg/L | 0.00130 | 0.0289 | mg/L | 0.00130 | 4.48% |
| V 292.402† | 11124.8 | 0.2917 | mg/L | 0.00402 | 0.2917 | mg/L | 0.00402 | 1.38% |
| Zn 213.857† | 5098.2 | 0.1316 | mg/L | 0.00018 | 0.1316 | mg/L | 0.00018 | 0.13% |
| Zr 343.823† | 18360.1 | 0.1286 | mg/L | 0.00071 | 0.1286 | mg/L | 0.00071 | 0.55% |
| W 207.912† | 0.7 | -0.0006 | mg/L | 0.00101 | -0.0006 | mg/L | 0.00101 | 159.12% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 8 Autosampler Location: 205
Sample ID: 440-194571-a-8-c@5 Date Collected: 10/26/2017 4:28:46 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194571-a-8-c@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: 440-194571-a-8-c@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2550936.2 | 99.54 | % | 1.113 | | | | 1.12% |
| Ag 328.068† | -57.2 | 0.0002 | mg/L | 0.00067 | 0.0002 | mg/L | 0.00067 | 316.01% |
| Al 308.215† | 755904.9 | 74.12 | mg/L | 0.489 | 74.12 | mg/L | 0.489 | 0.66% |
| As 188.979† | 62.6 | 0.0982 | mg/L | 0.00418 | 0.0982 | mg/L | 0.00418 | 4.26% |
| B 249.677† | 11939.0 | 0.0849 | mg/L | 0.00089 | 0.0849 | mg/L | 0.00089 | 1.05% |
| Ba 233.527† | 17896.8 | 0.5467 | mg/L | 0.00279 | 0.5467 | mg/L | 0.00279 | 0.51% |
| Be 313.107† | 2604.7 | 0.0030 | mg/L | 0.00000 | 0.0030 | mg/L | 0.00000 | 0.14% |
| Ca 315.887† | 1261325.7 | 463.7 | mg/L | 4.65 | 463.7 | mg/L | 4.65 | 1.00% |
| Cd 214.440† | 20.5 | -0.0003 | mg/L | 0.00000 | -0.0003 | mg/L | 0.00000 | 0.17% |
| Co 228.616† | 267.5 | 0.0242 | mg/L | 0.00053 | 0.0242 | mg/L | 0.00053 | 2.20% |
| Cr 205.560† | 1870.3 | 0.1477 | mg/L | 0.00244 | 0.1477 | mg/L | 0.00244 | 1.65% |
| Cu 324.752† | 7633.6 | 0.0728 | mg/L | 0.00038 | 0.0728 | mg/L | 0.00038 | 0.52% |
| Fe 238.204† | 232405.1 | 75.25 | mg/L | 0.681 | 75.25 | mg/L | 0.681 | 0.90% |
| K 766.490† | 58433.2 | 22.82 | mg/L | 0.306 | 22.82 | mg/L | 0.306 | 1.34% |
| Li 610.362† | -3101.0 | 0.3227 | mg/L | 0.00444 | 0.3227 | mg/L | 0.00444 | 1.38% |
| Mg 279.077† | 490989.2 | 175.1 | mg/L | 0.93 | 175.1 | mg/L | 0.93 | 0.53% |
| Mn 257.610† | 209129.6 | 1.327 | mg/L | 0.0071 | 1.327 | mg/L | 0.0071 | 0.53% |
| Mo 202.031† | 12.5 | 0.0038 | mg/L | 0.00039 | 0.0038 | mg/L | 0.00039 | 10.17% |
| Na 589.592† | 200947.2 | 11.19 | mg/L | 0.207 | 11.19 | mg/L | 0.207 | 1.85% |
| Ni 231.604† | 697.8 | 0.0618 | mg/L | 0.00103 | 0.0618 | mg/L | 0.00103 | 1.67% |
| P 214.914† | 1449.3 | 2.998 | mg/L | 0.0344 | 2.998 | mg/L | 0.0344 | 1.15% |
| Pb 220.353† | 89.3 | 0.0426 | mg/L | 0.00024 | 0.0426 | mg/L | 0.00024 | 0.56% |
| Sb 206.836† | -3.7 | -0.0014 | mg/L | 0.00095 | -0.0014 | mg/L | 0.00095 | 67.98% |
| Se 196.026† | -26.1 | -0.0030 | mg/L | 0.00143 | -0.0030 | mg/L | 0.00143 | 48.17% |
| Si 251.611† | 15307.3 | 0.8421 | mg/L | 0.02634 | 0.8421 | mg/L | 0.02634 | 3.13% |
| Sn 189.927† | 46.8 | 0.0209 | mg/L | 0.00009 | 0.0209 | mg/L | 0.00009 | 0.43% |
| Sr 421.552† | 711088.6 | 1.007 | mg/L | 0.0097 | 1.007 | mg/L | 0.0097 | 0.96% |
| Ti 334.903† | 829572.4 | 3.340 | mg/L | 0.0355 | 3.340 | mg/L | 0.0355 | 1.06% |
| Tl 190.801† | -3.6 | 0.0274 | mg/L | 0.00083 | 0.0274 | mg/L | 0.00083 | 3.03% |
| V 292.402† | 6808.1 | 0.1816 | mg/L | 0.00302 | 0.1816 | mg/L | 0.00302 | 1.66% |
| Zn 213.857† | 6769.8 | 0.1775 | mg/L | 0.00356 | 0.1775 | mg/L | 0.00356 | 2.00% |
| Zr 343.823† | 17911.3 | 0.1255 | mg/L | 0.00044 | 0.1255 | mg/L | 0.00044 | 0.35% |
| W 207.912† | 2.0 | -0.0003 | mg/L | 0.00203 | -0.0003 | mg/L | 0.00203 | 706.72% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 9 Autosampler Location: 206
Sample ID: 440-194571-a-10-c@5 Date Collected: 10/26/2017 4:30:40 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194571-a-10-c@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: 440-194571-a-10-c@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2562627.3 | 99.99 | % | 1.008 | | | | 1.01% |
| Ag 328.068† | -193.0 | -0.0012 | mg/L | 0.00044 | -0.0012 | mg/L | 0.00044 | 37.03% |
| Al 308.215† | 1229235.9 | 120.6 | mg/L | 0.37 | 120.6 | mg/L | 0.37 | 0.30% |
| As 188.979† | 62.3 | 0.0999 | mg/L | 0.00356 | 0.0999 | mg/L | 0.00356 | 3.56% |
| B 249.677† | 16227.1 | 0.1146 | mg/L | 0.00058 | 0.1146 | mg/L | 0.00058 | 0.50% |
| Ba 233.527† | 17597.1 | 0.5375 | mg/L | 0.00494 | 0.5375 | mg/L | 0.00494 | 0.92% |
| Be 313.107† | 4992.6 | 0.0058 | mg/L | 0.00002 | 0.0058 | mg/L | 0.00002 | 0.32% |
| Ca 315.887† | 528413.2 | 194.3 | mg/L | 0.83 | 194.3 | mg/L | 0.83 | 0.43% |
| Cd 214.440† | 44.4 | -0.0002 | mg/L | 0.00027 | -0.0002 | mg/L | 0.00027 | 108.80% |
| Co 228.616† | 355.2 | 0.0323 | mg/L | 0.00042 | 0.0323 | mg/L | 0.00042 | 1.31% |
| Cr 205.560† | 2255.4 | 0.1782 | mg/L | 0.00099 | 0.1782 | mg/L | 0.00099 | 0.56% |
| Cu 324.752† | 10957.0 | 0.1041 | mg/L | 0.00107 | 0.1041 | mg/L | 0.00107 | 1.02% |
| Fe 238.204† | 316802.3 | 102.6 | mg/L | 0.39 | 102.6 | mg/L | 0.39 | 0.38% |
| K 766.490† | 94844.5 | 37.04 | mg/L | 0.087 | 37.04 | mg/L | 0.087 | 0.23% |
| Li 610.362† | 23699.2 | 0.3560 | mg/L | 0.00063 | 0.3560 | mg/L | 0.00063 | 0.18% |
| Mg 279.077† | 580987.8 | 207.2 | mg/L | 0.67 | 207.2 | mg/L | 0.67 | 0.32% |
| Mn 257.610† | 202761.8 | 1.285 | mg/L | 0.0131 | 1.285 | mg/L | 0.0131 | 1.02% |
| Mo 202.031† | 13.1 | 0.0046 | mg/L | 0.00007 | 0.0046 | mg/L | 0.00007 | 1.47% |
| Na 589.592† | 269279.8 | 14.99 | mg/L | 0.158 | 14.99 | mg/L | 0.158 | 1.05% |
| Ni 231.604† | 958.8 | 0.0849 | mg/L | 0.00053 | 0.0849 | mg/L | 0.00053 | 0.62% |
| P 214.914† | 1525.8 | 3.148 | mg/L | 0.0183 | 3.148 | mg/L | 0.0183 | 0.58% |
| Pb 220.353† | 142.3 | 0.0603 | mg/L | 0.00074 | 0.0603 | mg/L | 0.00074 | 1.22% |
| Sb 206.836† | -2.9 | 0.0017 | mg/L | 0.00023 | 0.0017 | mg/L | 0.00023 | 13.71% |
| Se 196.026† | -35.5 | -0.0035 | mg/L | 0.00582 | -0.0035 | mg/L | 0.00582 | 167.34% |
| Si 251.611† | 18562.5 | 1.021 | mg/L | 0.0009 | 1.021 | mg/L | 0.0009 | 0.08% |
| Sn 189.927† | 24.7 | 0.0364 | mg/L | 0.00444 | 0.0364 | mg/L | 0.00444 | 12.21% |
| Sr 421.552† | 690107.8 | 0.9846 | mg/L | 0.00835 | 0.9846 | mg/L | 0.00835 | 0.85% |
| Ti 334.903† | 1076615.0 | 4.329 | mg/L | 0.0034 | 4.329 | mg/L | 0.0034 | 0.08% |
| Tl 190.801† | -4.8 | 0.0327 | mg/L | 0.00018 | 0.0327 | mg/L | 0.00018 | 0.56% |
| V 292.402† | 7384.7 | 0.1990 | mg/L | 0.00077 | 0.1990 | mg/L | 0.00077 | 0.38% |
| Zn 213.857† | 9880.1 | 0.2619 | mg/L | 0.00299 | 0.2619 | mg/L | 0.00299 | 1.14% |
| Zr 343.823† | 30619.0 | 0.2145 | mg/L | 0.00292 | 0.2145 | mg/L | 0.00292 | 1.36% |
| W 207.912† | 4.0 | 0.0001 | mg/L | 0.00133 | 0.0001 | mg/L | 0.00133 | >999.9% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 10 Autosampler Location: 207
Sample ID: 440-194571-a-11-c@6 Date Collected: 10/26/2017 4:32:32 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194571-a-11-c@6

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: 440-194571-a-11-c@6

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2486615.2 | 97.03 | % | 0.066 | | | | 0.07% |
| Ag 328.068† | 24.0 | 0.0006 | mg/L | 0.00071 | 0.0006 | mg/L | 0.00071 | 119.54% |
| Al 308.215† | 514669.8 | 50.43 | mg/L | 0.481 | 50.43 | mg/L | 0.481 | 0.95% |
| As 188.979† | 80.8 | 0.1226 | mg/L | 0.00545 | 0.1226 | mg/L | 0.00545 | 4.44% |
| B 249.677† | 6800.8 | 0.0561 | mg/L | 0.00348 | 0.0561 | mg/L | 0.00348 | 6.19% |
| Ba 233.527† | 5772.6 | 0.1764 | mg/L | 0.00273 | 0.1764 | mg/L | 0.00273 | 1.55% |
| Be 313.107† | 2614.2 | 0.0031 | mg/L | 0.00006 | 0.0031 | mg/L | 0.00006 | 2.08% |
| Ca 315.887† | 1469474.6 | 540.2 | mg/L | 5.19 | 540.2 | mg/L | 5.19 | 0.96% |
| Cd 214.440† | -6.8 | -0.0004 | mg/L | 0.00014 | -0.0004 | mg/L | 0.00014 | 35.86% |
| Co 228.616† | 177.6 | 0.0166 | mg/L | 0.00027 | 0.0166 | mg/L | 0.00027 | 1.60% |
| Cr 205.560† | 1514.6 | 0.1195 | mg/L | 0.00277 | 0.1195 | mg/L | 0.00277 | 2.32% |
| Cu 324.752† | 5368.6 | 0.0502 | mg/L | 0.00060 | 0.0502 | mg/L | 0.00060 | 1.20% |
| Fe 238.204† | 122991.1 | 39.82 | mg/L | 0.223 | 39.82 | mg/L | 0.223 | 0.56% |
| K 766.490† | 33977.3 | 13.27 | mg/L | 0.102 | 13.27 | mg/L | 0.102 | 0.77% |
| Li 610.362† | -13572.0 | 0.2880 | mg/L | 0.00391 | 0.2880 | mg/L | 0.00391 | 1.36% |
| Mg 279.077† | 577050.0 | 205.8 | mg/L | 0.86 | 205.8 | mg/L | 0.86 | 0.42% |
| Mn 257.610† | 93980.9 | 0.5918 | mg/L | 0.00553 | 0.5918 | mg/L | 0.00553 | 0.94% |
| Mo 202.031† | -0.3 | 0.0010 | mg/L | 0.00055 | 0.0010 | mg/L | 0.00055 | 57.38% |
| Na 589.592† | 98935.9 | 5.508 | mg/L | 0.0458 | 5.508 | mg/L | 0.0458 | 0.83% |
| Ni 231.604† | 473.7 | 0.0421 | mg/L | 0.00042 | 0.0421 | mg/L | 0.00042 | 1.00% |
| P 214.914† | 804.7 | 1.669 | mg/L | 0.0137 | 1.669 | mg/L | 0.0137 | 0.82% |
| Pb 220.353† | 50.4 | 0.0265 | mg/L | 0.00672 | 0.0265 | mg/L | 0.00672 | 25.35% |
| Sb 206.836† | -1.7 | -0.0002 | mg/L | 0.00328 | -0.0002 | mg/L | 0.00328 | >999.9% |
| Se 196.026† | -16.5 | -0.0049 | mg/L | 0.01185 | -0.0049 | mg/L | 0.01185 | 239.60% |
| Si 251.611† | 18958.2 | 1.047 | mg/L | 0.0002 | 1.047 | mg/L | 0.0002 | 0.02% |
| Sn 189.927† | 66.4 | 0.0122 | mg/L | 0.00183 | 0.0122 | mg/L | 0.00183 | 14.99% |
| Sr 421.552† | 482006.3 | 0.6759 | mg/L | 0.00085 | 0.6759 | mg/L | 0.00085 | 0.13% |
| Ti 334.903† | 491906.6 | 1.985 | mg/L | 0.0206 | 1.985 | mg/L | 0.0206 | 1.04% |
| Tl 190.801† | -0.5 | 0.0212 | mg/L | 0.00142 | 0.0212 | mg/L | 0.00142 | 6.69% |
| V 292.402† | 4018.0 | 0.1068 | mg/L | 0.00122 | 0.1068 | mg/L | 0.00122 | 1.14% |
| Zn 213.857† | 4280.8 | 0.1090 | mg/L | 0.00192 | 0.1090 | mg/L | 0.00192 | 1.76% |
| Zr 343.823† | 11242.9 | 0.0788 | mg/L | 0.00202 | 0.0788 | mg/L | 0.00202 | 2.56% |
| W 207.912† | -1.2 | -0.0014 | mg/L | 0.00035 | -0.0014 | mg/L | 0.00035 | 25.59% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 11 Autosampler Location: 208
Sample ID: 440-194571-a-12-c@5 Date Collected: 10/26/2017 4:34:30 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194571-a-12-c@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

Mean Data: 440-194571-a-12-c@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2626836.3 | 102.5 | % | 0.15 | | | | 0.15% |
| Ag 328.068† | -164.8 | -0.0011 | mg/L | 0.00060 | -0.0011 | mg/L | 0.00060 | 53.19% |
| Al 308.215† | 704432.8 | 69.11 | mg/L | 0.187 | 69.11 | mg/L | 0.187 | 0.27% |
| As 188.979† | 63.0 | 0.0977 | mg/L | 0.00305 | 0.0977 | mg/L | 0.00305 | 3.12% |
| B 249.677† | 9804.4 | 0.0813 | mg/L | 0.00040 | 0.0813 | mg/L | 0.00040 | 0.49% |
| Ba 233.527† | 4051.0 | 0.1238 | mg/L | 0.00054 | 0.1238 | mg/L | 0.00054 | 0.43% |
| Be 313.107† | 2488.1 | 0.0029 | mg/L | 0.00003 | 0.0029 | mg/L | 0.00003 | 1.14% |
| Ca 315.887† | 52384.5 | 19.26 | mg/L | 0.092 | 19.26 | mg/L | 0.092 | 0.48% |
| Cd 214.440† | -8.3 | -0.0006 | mg/L | 0.00021 | -0.0006 | mg/L | 0.00021 | 33.64% |
| Co 228.616† | 246.9 | 0.0241 | mg/L | 0.00025 | 0.0241 | mg/L | 0.00025 | 1.05% |
| Cr 205.560† | 1799.8 | 0.1421 | mg/L | 0.00030 | 0.1421 | mg/L | 0.00030 | 0.21% |
| Cu 324.752† | 7354.6 | 0.0690 | mg/L | 0.00055 | 0.0690 | mg/L | 0.00055 | 0.80% |
| Fe 238.204† | 176918.6 | 57.28 | mg/L | 0.221 | 57.28 | mg/L | 0.221 | 0.39% |
| K 766.490† | 41715.7 | 16.29 | mg/L | 0.166 | 16.29 | mg/L | 0.166 | 1.02% |
| Li 610.362† | 45441.4 | 0.4159 | mg/L | 0.00269 | 0.4159 | mg/L | 0.00269 | 0.65% |
| Mg 279.077† | 726165.9 | 258.9 | mg/L | 0.96 | 258.9 | mg/L | 0.96 | 0.37% |
| Mn 257.610† | 127146.1 | 0.8014 | mg/L | 0.00249 | 0.8014 | mg/L | 0.00249 | 0.31% |
| Mo 202.031† | 44.0 | 0.0083 | mg/L | 0.00013 | 0.0083 | mg/L | 0.00013 | 1.58% |
| Na 589.592† | 71330.7 | 3.971 | mg/L | 0.0650 | 3.971 | mg/L | 0.0650 | 1.64% |
| Ni 231.604† | 800.6 | 0.0713 | mg/L | 0.00024 | 0.0713 | mg/L | 0.00024 | 0.33% |
| P 214.914† | 629.8 | 1.293 | mg/L | 0.0131 | 1.293 | mg/L | 0.0131 | 1.02% |
| Pb 220.353† | 86.4 | 0.0339 | mg/L | 0.00083 | 0.0339 | mg/L | 0.00083 | 2.44% |
| Sb 206.836† | -4.9 | -0.0035 | mg/L | 0.00283 | -0.0035 | mg/L | 0.00283 | 80.46% |
| Se 196.026† | -15.0 | 0.0042 | mg/L | 0.00362 | 0.0042 | mg/L | 0.00362 | 85.92% |
| Si 251.611† | 10035.0 | 0.5426 | mg/L | 0.00639 | 0.5426 | mg/L | 0.00639 | 1.18% |
| Sn 189.927† | 0.4 | 0.0191 | mg/L | 0.00026 | 0.0191 | mg/L | 0.00026 | 1.33% |
| Sr 421.552† | 346598.3 | 0.4968 | mg/L | 0.00177 | 0.4968 | mg/L | 0.00177 | 0.36% |
| Ti 334.903† | 558894.1 | 2.246 | mg/L | 0.0144 | 2.246 | mg/L | 0.0144 | 0.64% |
| Tl 190.801† | -1.5 | 0.0178 | mg/L | 0.00230 | 0.0178 | mg/L | 0.00230 | 12.89% |
| V 292.402† | 5508.8 | 0.1469 | mg/L | 0.00109 | 0.1469 | mg/L | 0.00109 | 0.74% |
| Zn 213.857† | 5081.9 | 0.1276 | mg/L | 0.00082 | 0.1276 | mg/L | 0.00082 | 0.64% |
| Zr 343.823† | 14527.2 | 0.1018 | mg/L | 0.00088 | 0.1018 | mg/L | 0.00088 | 0.87% |
| W 207.912† | -5.5 | -0.0036 | mg/L | 0.00204 | -0.0036 | mg/L | 0.00204 | 56.64% |


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**Analytical Sequence**
**Method: 170824_ICP7**

| Seq. | Loc. | ID | Status |
|---|---|---|---|
| 1 | 4 | CCV 4447505 | Analyzed |
| 2 | 1 | CCB 4447504 | Analyzed |
| 3 | 193 | 440-194910-e-1-e@5 | Analyzed |
| 4 | 201 | 440-194571-a-3-c@5 | Analyzed |
| 5 | 202 | 440-194571-a-4-c@5 | Analyzed |
| 6 | 203 | 440-194571-a-5-c@5 | Analyzed |
| 7 | 204 | 440-194571-a-7-c@5 | Analyzed |
| 8 | 205 | 440-194571-a-8-c@5 | Analyzed |
| 9 | 206 | 440-194571-a-10-c@5 | Analyzed |
| 10 | 207 | 440-194571-a-11-c@6 | Analyzed |
| 11 | 208 | 440-194571-a-12-c@5 | Analyzed |


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**Analysis Begun**

**Start Time: 10/26/2017 4:43:22 PM** **Plasma On Time: 10/26/2017 9:24:37 AM**
**Logged In Analyst: IRVINSTICP7** **Technique: ICP Continuous**
**Spectrometer: Optima 8300** **Autosampler: ESI**

**Sample Information File: C:\Users\Public\PerkinElmer\ICP\Data\Sample Information\CP 171026-1.sif**
**Batch ID:**
**Results Data Set: 171026-1 ICP7**
**Results Library: C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb**

==========

**Sequence No.: 1** **Autosampler Location: 4**
**Sample ID: CCV 4447505** **Date Collected: 10/26/2017 4:43:32 PM**
**Analyst:** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time:**

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**Nebulizer Parameters: CCV 4447505**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: CCV 4447505**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 5402529.2 | 210.8 | % | 20.38 | | | | 9.67% |
| Internal Standard Check greater than the upper limit for Y 371.029. Recovery = 210.8% | | | | | | | | |
| Ag 328.068† | 4726.5 | 0.0480 | mg/L | 0.04087 | 0.0480 | mg/L | 0.04087 | 85.13% |
| Al 308.215† | -1711.3 | -0.1715 | mg/L | 0.12079 | -0.1715 | mg/L | 0.12079 | 70.44% |
| As 188.979† | 70.9 | 0.1052 | mg/L | 0.00485 | 0.1052 | mg/L | 0.00485 | 4.61% |
| B 249.677† | 3981.5 | 0.0921 | mg/L | 0.08354 | 0.0921 | mg/L | 0.08354 | 90.75% |
| Ba 233.527† | 2935.0 | 0.0897 | mg/L | 0.07594 | 0.0897 | mg/L | 0.07594 | 84.65% |
| Be 313.107† | 95032.1 | 0.1112 | mg/L | 0.00824 | 0.1112 | mg/L | 0.00824 | 7.41% |
| Ca 315.887† | 974.4 | 0.3585 | mg/L | 0.34360 | 0.3585 | mg/L | 0.34360 | 95.84% |
| Cd 214.440† | 2856.1 | 0.0902 | mg/L | 0.07937 | 0.0902 | mg/L | 0.07937 | 87.96% |
| Co 228.616† | 1014.2 | 0.1193 | mg/L | 0.00692 | 0.1193 | mg/L | 0.00692 | 5.80% |
| Cr 205.560† | 1357.4 | 0.1069 | mg/L | 0.00720 | 0.1069 | mg/L | 0.00720 | 6.73% |
| Cu 324.752† | 10267.7 | 0.0902 | mg/L | 0.08272 | 0.0902 | mg/L | 0.08272 | 91.75% |
| Fe 238.204† | 269.2 | 0.0873 | mg/L | 0.06533 | 0.0873 | mg/L | 0.06533 | 74.81% |
| K 766.490† | 1655.9 | 0.6468 | mg/L | 0.85331 | 0.6468 | mg/L | 0.85331 | 131.93% |
| Li 610.362† | 9549.6 | 0.0846 | mg/L | 0.07832 | 0.0846 | mg/L | 0.07832 | 92.56% |
| Mg 279.077† | 1266.7 | 0.4517 | mg/L | 0.38365 | 0.4517 | mg/L | 0.38365 | 84.93% |
| Mn 257.610† | 13328.7 | 0.0849 | mg/L | 0.07307 | 0.0849 | mg/L | 0.07307 | 86.03% |
| Mo 202.031† | 573.2 | 0.0885 | mg/L | 0.00358 | 0.0885 | mg/L | 0.00358 | 4.05% |
| Na 589.592† | 9256.6 | 0.5153 | mg/L | 0.69561 | 0.5153 | mg/L | 0.69561 | 134.99% |
| Saturated within auto integration window (code 4) | | | | | | | | |
| Ni 231.604† | 1147.8 | 0.1038 | mg/L | 0.00673 | 0.1038 | mg/L | 0.00673 | 6.48% |
| P 214.914† | 37.3 | 0.0733 | mg/L | 0.00748 | 0.0733 | mg/L | 0.00748 | 10.21% |
| Pb 220.353† | 166.7 | 0.0857 | mg/L | 0.00758 | 0.0857 | mg/L | 0.00758 | 8.85% |
| Sb 206.836† | 56.3 | 0.0756 | mg/L | 0.00648 | 0.0756 | mg/L | 0.00648 | 8.56% |
| Se 196.026† | 45.6 | 0.0584 | mg/L | 0.00910 | 0.0584 | mg/L | 0.00910 | 15.58% |
| Si 251.611† | 10037.7 | 0.5578 | mg/L | 0.47972 | 0.5578 | mg/L | 0.47972 | 86.01% |
| Sn 189.927† | 212.7 | 0.0864 | mg/L | 0.00666 | 0.0864 | mg/L | 0.00666 | 7.71% |
| Sr 421.552† | 21455.4 | 0.0308 | mg/L | 0.04219 | 0.0308 | mg/L | 0.04219 | 137.09% |
| Saturated within auto integration window (code 4) | | | | | | | | |
| Ti 334.903† | 27511.3 | 0.1105 | mg/L | 0.09286 | 0.1105 | mg/L | 0.09286 | 84.02% |
| Tl 190.801† | 65.8 | 0.1084 | mg/L | 0.00698 | 0.1084 | mg/L | 0.00698 | 6.44% |
| V 292.402† | 4033.5 | 0.1038 | mg/L | 0.08754 | 0.1038 | mg/L | 0.08754 | 84.30% |
| Zn 213.857† | 2873.6 | 0.0813 | mg/L | 0.07355 | 0.0813 | mg/L | 0.07355 | 90.48% |
| Zr 343.823† | 15398.5 | 0.1079 | mg/L | 0.09349 | 0.1079 | mg/L | 0.09349 | 86.66% |
| W 207.912† | 144.8 | 0.0689 | mg/L | 0.00535 | 0.0689 | mg/L | 0.00535 | 7.77% |

Internal Standard Check failed. Continue with analysis.


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 2 Autosampler Location: 1
Sample ID: CCB 4447504 Date Collected: 10/26/2017 4:46:12 PM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: CCB 4447504

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: CCB 4447504

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2662042.1 | 103.9 | % | 0.55 | | | | 0.53% |
| Ag 328.068† | -2.9 | -0.0000 | mg/L | 0.00022 | -0.0000 | mg/L | 0.00022 | 793.29% |
| Al 308.215† | -246.1 | -0.0243 | mg/L | 0.00870 | -0.0243 | mg/L | 0.00870 | 35.86% |
| As 188.979† | -0.3 | -0.0004 | mg/L | 0.00259 | -0.0004 | mg/L | 0.00259 | 600.17% |
| B 249.677† | -2.0 | -0.0001 | mg/L | 0.00006 | -0.0001 | mg/L | 0.00006 | 73.61% |
| Ba 233.527† | 10.1 | 0.0003 | mg/L | 0.00005 | 0.0003 | mg/L | 0.00005 | 15.12% |
| Be 313.107† | -249.0 | -0.0003 | mg/L | 0.00001 | -0.0003 | mg/L | 0.00001 | 3.74% |
| Ca 315.887† | 109.0 | 0.0401 | mg/L | 0.00173 | 0.0401 | mg/L | 0.00173 | 4.33% |
| Cd 214.440† | 11.1 | 0.0004 | mg/L | 0.00018 | 0.0004 | mg/L | 0.00018 | 50.12% |
| Co 228.616† | 9.4 | 0.0011 | mg/L | 0.00016 | 0.0011 | mg/L | 0.00016 | 14.18% |
| Cr 205.560† | 1.5 | 0.0001 | mg/L | 0.00012 | 0.0001 | mg/L | 0.00012 | 96.92% |
| Cu 324.752† | 137.6 | 0.0012 | mg/L | 0.00046 | 0.0012 | mg/L | 0.00046 | 37.91% |
| Fe 238.204† | 34.0 | 0.0110 | mg/L | 0.00069 | 0.0110 | mg/L | 0.00069 | 6.30% |
| K 766.490† | 88.3 | 0.0345 | mg/L | 0.00834 | 0.0345 | mg/L | 0.00834 | 24.18% |
| Li 610.362† | 121.9 | 0.0011 | mg/L | 0.00111 | 0.0011 | mg/L | 0.00111 | 100.27% |
| Mg 279.077† | 56.0 | 0.0200 | mg/L | 0.00052 | 0.0200 | mg/L | 0.00052 | 2.61% |
| Mn 257.610† | 19.4 | 0.0001 | mg/L | 0.00002 | 0.0001 | mg/L | 0.00002 | 18.94% |
| Mo 202.031† | 58.3 | 0.0090 | mg/L | 0.00136 | 0.0090 | mg/L | 0.00136 | 15.08% |
| Na 589.592† | 397.4 | 0.0221 | mg/L | 0.00092 | 0.0221 | mg/L | 0.00092 | 4.15% |
| Ni 231.604† | 19.5 | 0.0018 | mg/L | 0.00084 | 0.0018 | mg/L | 0.00084 | 47.86% |
| P 214.914† | -2.5 | -0.0053 | mg/L | 0.00576 | -0.0053 | mg/L | 0.00576 | 107.85% |
| Pb 220.353† | 3.5 | 0.0018 | mg/L | 0.00261 | 0.0018 | mg/L | 0.00261 | 144.76% |
| Sb 206.836† | 0.4 | 0.0006 | mg/L | 0.00055 | 0.0006 | mg/L | 0.00055 | 89.00% |
| Se 196.026† | -3.1 | -0.0041 | mg/L | 0.00054 | -0.0041 | mg/L | 0.00054 | 13.31% |
| Si 251.611† | 35.3 | 0.0018 | mg/L | 0.00059 | 0.0018 | mg/L | 0.00059 | 32.12% |
| Sn 189.927† | -8.0 | -0.0032 | mg/L | 0.00119 | -0.0032 | mg/L | 0.00119 | 36.76% |
| Sr 421.552† | 120.1 | 0.0002 | mg/L | 0.00003 | 0.0002 | mg/L | 0.00003 | 19.43% |
| Ti 334.903† | 308.6 | 0.0012 | mg/L | 0.00009 | 0.0012 | mg/L | 0.00009 | 7.34% |
| Tl 190.801† | 1.1 | 0.0017 | mg/L | 0.00448 | 0.0017 | mg/L | 0.00448 | 256.38% |
| V 292.402† | 38.3 | 0.0010 | mg/L | 0.00049 | 0.0010 | mg/L | 0.00049 | 49.51% |
| Zn 213.857† | -68.1 | -0.0020 | mg/L | 0.00001 | -0.0020 | mg/L | 0.00001 | 0.58% |
| Zr 343.823† | -34.0 | -0.0002 | mg/L | 0.00003 | -0.0002 | mg/L | 0.00003 | 11.93% |
| W 207.912† | 1.9 | 0.0009 | mg/L | 0.00135 | 0.0009 | mg/L | 0.00135 | 149.36% |


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**Analytical Sequence**
**Method: 170824_ICP7**

| Seq. | Loc. | ID | Status |
|---|---|---|---|
| 1 | 4 | CCV 4447505 | IS Check Failed |
| 2 | 1 | CCB 4447504 | Analyzed |


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**Analysis Begun**

**Start Time: 10/26/2017 4:48:51 PM** **Plasma On Time: 10/26/2017 9:24:37 AM**
**Logged In Analyst: IRVINSTICP7** **Technique: ICP Continuous**
**Spectrometer: Optima 8300** **Autosampler: ESI**

**Sample Information File: C:\Users\Public\PerkinElmer\ICP\Data\Sample Information\CP 171026-1.sif**
**Batch ID:**
**Results Data Set: 171026-1 ICP7**
**Results Library: C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb**

==========

**Sequence No.: 1** **Autosampler Location: 4**
**Sample ID: CCV 4447505** **Date Collected: 10/26/2017 4:49:02 PM**
**Analyst:** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time:**

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**Nebulizer Parameters: CCV 4447505**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 197.0 kPa | 0.65 L/min |

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**Mean Data: CCV 4447505**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2658961.5 | 103.8 | % | 0.32 | | | | 0.31% |
| Ag 328.068† | 48739.2 | 0.4957 | mg/L | 0.00753 | 0.4957 | mg/L | 0.00753 | 1.52% |
| Al 308.215† | 10069.0 | 0.9513 | mg/L | 0.01602 | 0.9513 | mg/L | 0.01602 | 1.68% |
| As 188.979† | 698.3 | 1.036 | mg/L | 0.0008 | 1.036 | mg/L | 0.0008 | 0.07% |
| B 249.677† | 41135.7 | 0.9495 | mg/L | 0.01534 | 0.9495 | mg/L | 0.01534 | 1.62% |
| Ba 233.527† | 31214.4 | 0.9541 | mg/L | 0.00864 | 0.9541 | mg/L | 0.00864 | 0.91% |
| Be 313.107† | 818256.9 | 0.9573 | mg/L | 0.00809 | 0.9573 | mg/L | 0.00809 | 0.85% |
| Ca 315.887† | 14536.2 | 5.347 | mg/L | 0.0417 | 5.347 | mg/L | 0.0417 | 0.78% |
| Cd 214.440† | 34613.7 | 1.094 | mg/L | 0.0150 | 1.094 | mg/L | 0.0150 | 1.37% |
| Co 228.616† | 9433.2 | 1.110 | mg/L | 0.0168 | 1.110 | mg/L | 0.0168 | 1.51% |
| Cr 205.560† | 12866.6 | 1.013 | mg/L | 0.0166 | 1.013 | mg/L | 0.0166 | 1.64% |
| Cu 324.752† | 112950.0 | 0.9918 | mg/L | 0.01331 | 0.9918 | mg/L | 0.01331 | 1.34% |
| Fe 238.204† | 3487.6 | 1.131 | mg/L | 0.0107 | 1.131 | mg/L | 0.0107 | 0.95% |
| K 766.490† | 27710.4 | 10.82 | mg/L | 0.225 | 10.82 | mg/L | 0.225 | 2.08% |
| Li 610.362† | 113183.5 | 1.004 | mg/L | 0.0155 | 1.004 | mg/L | 0.0155 | 1.54% |
| Mg 279.077† | 13738.4 | 4.900 | mg/L | 0.0586 | 4.900 | mg/L | 0.0586 | 1.20% |
| Mn 257.610† | 145485.5 | 0.9271 | mg/L | 0.00939 | 0.9271 | mg/L | 0.00939 | 1.01% |
| Mo 202.031† | 6402.4 | 0.9887 | mg/L | 0.01476 | 0.9887 | mg/L | 0.01476 | 1.49% |
| Na 589.592† | 210411.4 | 11.71 | mg/L | 0.358 | 11.71 | mg/L | 0.358 | 3.05% |
| Ni 231.604† | 10932.6 | 0.9884 | mg/L | 0.00815 | 0.9884 | mg/L | 0.00815 | 0.82% |
| P 214.914† | 469.9 | 0.9216 | mg/L | 0.01259 | 0.9216 | mg/L | 0.01259 | 1.37% |
| Pb 220.353† | 2041.2 | 1.049 | mg/L | 0.0012 | 1.049 | mg/L | 0.0012 | 0.12% |
| Sb 206.836† | 727.2 | 0.9769 | mg/L | 0.00068 | 0.9769 | mg/L | 0.00068 | 0.07% |
| Se 196.026† | 790.6 | 1.015 | mg/L | 0.0121 | 1.015 | mg/L | 0.0121 | 1.19% |
| Si 251.611† | 81991.7 | 4.530 | mg/L | 0.0678 | 4.530 | mg/L | 0.0678 | 1.50% |
| Sn 189.927† | 2483.7 | 1.007 | mg/L | 0.0028 | 1.007 | mg/L | 0.0028 | 0.28% |
| Sr 421.552† | 687001.1 | 0.9856 | mg/L | 0.00299 | 0.9856 | mg/L | 0.00299 | 0.30% |
| Ti 334.903† | 269842.9 | 1.084 | mg/L | 0.0038 | 1.084 | mg/L | 0.0038 | 0.35% |
| Tl 190.801† | 652.9 | 1.076 | mg/L | 0.0114 | 1.076 | mg/L | 0.0114 | 1.06% |
| V 292.402† | 42568.1 | 1.096 | mg/L | 0.0153 | 1.096 | mg/L | 0.0153 | 1.40% |
| Zn 213.857† | 34683.7 | 0.9827 | mg/L | 0.01045 | 0.9827 | mg/L | 0.01045 | 1.06% |
| Zr 343.823† | 144513.5 | 1.012 | mg/L | 0.0154 | 1.012 | mg/L | 0.0154 | 1.52% |
| W 207.912† | 1992.0 | 0.9485 | mg/L | 0.01377 | 0.9485 | mg/L | 0.01377 | 1.45% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 2 Autosampler Location: 1
Sample ID: CCB 4447504 Date Collected: 10/26/2017 4:51:05 PM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: CCB 4447504

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: CCB 4447504

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2651830.9 | 103.5 | % | 1.11 | | | | 1.07% |
| Ag 328.068† | -36.4 | -0.0004 | mg/L | 0.00029 | -0.0004 | mg/L | 0.00029 | 77.30% |
| Al 308.215† | -163.9 | -0.0162 | mg/L | 0.00244 | -0.0162 | mg/L | 0.00244 | 15.05% |
| As 188.979† | -1.4 | -0.0021 | mg/L | 0.00212 | -0.0021 | mg/L | 0.00212 | 102.97% |
| B 249.677† | 33.5 | 0.0007 | mg/L | 0.00007 | 0.0007 | mg/L | 0.00007 | 10.13% |
| Ba 233.527† | 10.0 | 0.0003 | mg/L | 0.00012 | 0.0003 | mg/L | 0.00012 | 38.92% |
| Be 313.107† | -285.5 | -0.0003 | mg/L | 0.00004 | -0.0003 | mg/L | 0.00004 | 11.67% |
| Ca 315.887† | 131.9 | 0.0485 | mg/L | 0.00059 | 0.0485 | mg/L | 0.00059 | 1.22% |
| Cd 214.440† | 8.5 | 0.0003 | mg/L | 0.00008 | 0.0003 | mg/L | 0.00008 | 28.68% |
| Co 228.616† | 12.4 | 0.0015 | mg/L | 0.00048 | 0.0015 | mg/L | 0.00048 | 33.23% |
| Cr 205.560† | 2.5 | 0.0002 | mg/L | 0.00018 | 0.0002 | mg/L | 0.00018 | 90.21% |
| Cu 324.752† | 230.1 | 0.0020 | mg/L | 0.00049 | 0.0020 | mg/L | 0.00049 | 24.32% |
| Fe 238.204† | 38.5 | 0.0125 | mg/L | 0.00140 | 0.0125 | mg/L | 0.00140 | 11.22% |
| K 766.490† | 108.0 | 0.0422 | mg/L | 0.00252 | 0.0422 | mg/L | 0.00252 | 5.97% |
| Li 610.362† | 99.7 | 0.0009 | mg/L | 0.00070 | 0.0009 | mg/L | 0.00070 | 76.47% |
| Mg 279.077† | 51.3 | 0.0183 | mg/L | 0.00163 | 0.0183 | mg/L | 0.00163 | 8.89% |
| Mn 257.610† | 24.3 | 0.0002 | mg/L | 0.00004 | 0.0002 | mg/L | 0.00004 | 26.29% |
| Mo 202.031† | 89.0 | 0.0137 | mg/L | 0.00169 | 0.0137 | mg/L | 0.00169 | 12.30% |
| Na 589.592† | 570.9 | 0.0318 | mg/L | 0.00072 | 0.0318 | mg/L | 0.00072 | 2.26% |
| Ni 231.604† | 21.8 | 0.0020 | mg/L | 0.00053 | 0.0020 | mg/L | 0.00053 | 27.04% |
| P 214.914† | -1.6 | -0.0036 | mg/L | 0.00000 | -0.0036 | mg/L | 0.00000 | 0.02% |
| Pb 220.353† | 6.8 | 0.0035 | mg/L | 0.00244 | 0.0035 | mg/L | 0.00244 | 69.04% |
| Sb 206.836† | 1.4 | 0.0021 | mg/L | 0.00055 | 0.0021 | mg/L | 0.00055 | 26.65% |
| Se 196.026† | -1.5 | -0.0019 | mg/L | 0.01052 | -0.0019 | mg/L | 0.01052 | 541.84% |
| Si 251.611† | 64.6 | 0.0033 | mg/L | 0.00062 | 0.0033 | mg/L | 0.00062 | 19.13% |
| Sn 189.927† | -6.2 | -0.0025 | mg/L | 0.00117 | -0.0025 | mg/L | 0.00117 | 47.04% |
| Sr 421.552† | 213.5 | 0.0003 | mg/L | 0.00007 | 0.0003 | mg/L | 0.00007 | 22.46% |
| Ti 334.903† | 283.3 | 0.0011 | mg/L | 0.00010 | 0.0011 | mg/L | 0.00010 | 8.88% |
| Tl 190.801† | 1.3 | 0.0022 | mg/L | 0.00396 | 0.0022 | mg/L | 0.00396 | 180.71% |
| V 292.402† | 28.0 | 0.0007 | mg/L | 0.00039 | 0.0007 | mg/L | 0.00039 | 54.30% |
| Zn 213.857† | -69.8 | -0.0020 | mg/L | 0.00002 | -0.0020 | mg/L | 0.00002 | 1.12% |
| Zr 343.823† | -26.5 | -0.0002 | mg/L | 0.00033 | -0.0002 | mg/L | 0.00033 | 176.31% |
| W 207.912† | 8.1 | 0.0039 | mg/L | 0.00025 | 0.0039 | mg/L | 0.00025 | 6.34% |


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**Analytical Sequence**
**Method: 170824_ICP7**

| Seq. | Loc. | ID | Status |
|---|---|---|---|
| 1 | 4 | CCV 4447505 | Analyzed |
| 2 | 1 | CCB 4447504 | Analyzed |


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**Analysis Begun**

**Start Time: 10/26/2017 4:54:53 PM** **Plasma On Time: 10/26/2017 9:24:37 AM**
**Logged In Analyst: IRVINSTICP7** **Technique: ICP Continuous**
**Spectrometer: Optima 8300** **Autosampler: ESI**

**Sample Information File: C:\Users\Public\PerkinElmer\ICP\Data\Sample Information\CP 171026-1.sif**
**Batch ID:**
**Results Data Set: 171026-1 ICP7**
**Results Library: C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb**

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**Sequence No.: 1** **Autosampler Location: 209**
**Sample ID: 440-194571-a-13-c@5** **Date Collected: 10/26/2017 4:55:05 PM**
**Analyst: KE** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time:**

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**Nebulizer Parameters: 440-194571-a-13-c@5**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

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**Mean Data: 440-194571-a-13-c@5**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2559640.7 | 99.88 | % | 1.185 | | | | 1.19% |
| Ag 328.068† | -65.6 | -0.0001 | mg/L | 0.00042 | -0.0001 | mg/L | 0.00042 | 560.65% |
| Al 308.215† | 627238.9 | 61.49 | mg/L | 0.993 | 61.49 | mg/L | 0.993 | 1.62% |
| As 188.979† | 81.8 | 0.1257 | mg/L | 0.00021 | 0.1257 | mg/L | 0.00021 | 0.17% |
| B 249.677† | 10720.8 | 0.0956 | mg/L | 0.00666 | 0.0956 | mg/L | 0.00666 | 6.96% |
| Ba 233.527† | 5676.5 | 0.1735 | mg/L | 0.00291 | 0.1735 | mg/L | 0.00291 | 1.67% |
| Be 313.107† | 2133.5 | 0.0025 | mg/L | 0.00005 | 0.0025 | mg/L | 0.00005 | 2.13% |
| Ca 315.887† | 635230.8 | 233.5 | mg/L | 0.75 | 233.5 | mg/L | 0.75 | 0.32% |
| Cd 214.440† | 22.3 | 0.0007 | mg/L | 0.00031 | 0.0007 | mg/L | 0.00031 | 44.86% |
| Co 228.616† | 324.6 | 0.0323 | mg/L | 0.00071 | 0.0323 | mg/L | 0.00071 | 2.20% |
| Cr 205.560† | 2238.4 | 0.1766 | mg/L | 0.00246 | 0.1766 | mg/L | 0.00246 | 1.39% |
| Cu 324.752† | 8128.8 | 0.0760 | mg/L | 0.00153 | 0.0760 | mg/L | 0.00153 | 2.02% |
| Fe 238.204† | 185326.6 | 60.01 | mg/L | 0.183 | 60.01 | mg/L | 0.183 | 0.31% |
| K 766.490† | 53108.8 | 20.74 | mg/L | 0.147 | 20.74 | mg/L | 0.147 | 0.71% |
| Li 610.362† | 31196.9 | 0.4519 | mg/L | 0.00594 | 0.4519 | mg/L | 0.00594 | 1.31% |
| Mg 279.077† | 949104.7 | 338.4 | mg/L | 2.41 | 338.4 | mg/L | 2.41 | 0.71% |
| Mn 257.610† | 276829.4 | 1.753 | mg/L | 0.0140 | 1.753 | mg/L | 0.0140 | 0.80% |
| Mo 202.031† | 6.7 | 0.0026 | mg/L | 0.00015 | 0.0026 | mg/L | 0.00015 | 5.76% |
| Na 589.592† | 84098.6 | 4.682 | mg/L | 0.0257 | 4.682 | mg/L | 0.0257 | 0.55% |
| Ni 231.604† | 709.2 | 0.0631 | mg/L | 0.00118 | 0.0631 | mg/L | 0.00118 | 1.88% |
| P 214.914† | 1199.2 | 2.482 | mg/L | 0.0518 | 2.482 | mg/L | 0.0518 | 2.09% |
| Pb 220.353† | 80.3 | 0.0337 | mg/L | 0.00042 | 0.0337 | mg/L | 0.00042 | 1.25% |
| Sb 206.836† | -2.2 | -0.0004 | mg/L | 0.00232 | -0.0004 | mg/L | 0.00232 | 576.74% |
| Se 196.026† | -25.5 | -0.0089 | mg/L | 0.00450 | -0.0089 | mg/L | 0.00450 | 50.62% |
| Si 251.611† | 16828.0 | 0.9175 | mg/L | 0.02118 | 0.9175 | mg/L | 0.02118 | 2.31% |
| Sn 189.927† | 42.1 | 0.0264 | mg/L | 0.00038 | 0.0264 | mg/L | 0.00038 | 1.45% |
| Sr 421.552† | 443120.8 | 0.6290 | mg/L | 0.00371 | 0.6290 | mg/L | 0.00371 | 0.59% |
| Ti 334.903† | 668924.9 | 2.691 | mg/L | 0.0470 | 2.691 | mg/L | 0.0470 | 1.74% |
| Tl 190.801† | -4.3 | 0.0183 | mg/L | 0.00368 | 0.0183 | mg/L | 0.00368 | 20.07% |
| V 292.402† | 6341.2 | 0.1684 | mg/L | 0.00442 | 0.1684 | mg/L | 0.00442 | 2.62% |
| Zn 213.857† | 5978.1 | 0.1495 | mg/L | 0.00176 | 0.1495 | mg/L | 0.00176 | 1.17% |
| Zr 343.823† | 15238.9 | 0.1068 | mg/L | 0.00027 | 0.1068 | mg/L | 0.00027 | 0.25% |
| W 207.912† | -1.2 | -0.0017 | mg/L | 0.00020 | -0.0017 | mg/L | 0.00020 | 11.55% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 2 Autosampler Location: 210
Sample ID: 440-194571-a-14-c@5 Date Collected: 10/26/2017 4:57:03 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194571-a-14-c@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: 440-194571-a-14-c@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2558129.3 | 99.82 | % | 0.605 | | | | 0.61% |
| Ag 328.068† | -232.2 | -0.0016 | mg/L | 0.00044 | -0.0016 | mg/L | 0.00044 | 28.01% |
| Al 308.215† | 1332721.7 | 130.7 | mg/L | 1.35 | 130.7 | mg/L | 1.35 | 1.03% |
| As 188.979† | 55.8 | 0.0909 | mg/L | 0.00507 | 0.0909 | mg/L | 0.00507 | 5.57% |
| B 249.677† | 17400.3 | 0.1063 | mg/L | 0.00103 | 0.1063 | mg/L | 0.00103 | 0.97% |
| Ba 233.527† | 15120.0 | 0.4619 | mg/L | 0.00680 | 0.4619 | mg/L | 0.00680 | 1.47% |
| Be 313.107† | 5724.4 | 0.0067 | mg/L | 0.00005 | 0.0067 | mg/L | 0.00005 | 0.68% |
| Ca 315.887† | 673393.4 | 247.6 | mg/L | 2.85 | 247.6 | mg/L | 2.85 | 1.15% |
| Cd 214.440† | 63.4 | 0.0005 | mg/L | 0.00011 | 0.0005 | mg/L | 0.00011 | 22.28% |
| Co 228.616† | 453.4 | 0.0427 | mg/L | 0.00037 | 0.0427 | mg/L | 0.00037 | 0.86% |
| Cr 205.560† | 1525.9 | 0.1208 | mg/L | 0.00161 | 0.1208 | mg/L | 0.00161 | 1.33% |
| Cu 324.752† | 12589.7 | 0.1195 | mg/L | 0.00164 | 0.1195 | mg/L | 0.00164 | 1.37% |
| Fe 238.204† | 359675.8 | 116.5 | mg/L | 1.48 | 116.5 | mg/L | 1.48 | 1.27% |
| K 766.490† | 109699.5 | 42.85 | mg/L | 0.641 | 42.85 | mg/L | 0.641 | 1.50% |
| Li 610.362† | 25601.5 | 0.4130 | mg/L | 0.00543 | 0.4130 | mg/L | 0.00543 | 1.31% |
| Mg 279.077† | 865599.0 | 308.7 | mg/L | 4.27 | 308.7 | mg/L | 4.27 | 1.38% |
| Mn 257.610† | 486974.9 | 3.093 | mg/L | 0.0486 | 3.093 | mg/L | 0.0486 | 1.57% |
| Mo 202.031† | 0.0 | 0.0030 | mg/L | 0.00094 | 0.0030 | mg/L | 0.00094 | 31.97% |
| Na 589.592† | 98703.2 | 5.495 | mg/L | 0.0999 | 5.495 | mg/L | 0.0999 | 1.82% |
| Ni 231.604† | 1240.6 | 0.1101 | mg/L | 0.00047 | 0.1101 | mg/L | 0.00047 | 0.43% |
| P 214.914† | 2232.0 | 4.621 | mg/L | 0.0611 | 4.621 | mg/L | 0.0611 | 1.32% |
| Pb 220.353† | 153.1 | 0.0639 | mg/L | 0.00168 | 0.0639 | mg/L | 0.00168 | 2.62% |
| Sb 206.836† | -6.3 | -0.0020 | mg/L | 0.00567 | -0.0020 | mg/L | 0.00567 | 288.89% |
| Se 196.026† | -41.0 | -0.0062 | mg/L | 0.00493 | -0.0062 | mg/L | 0.00493 | 80.16% |
| Si 251.611† | 16229.4 | 0.8824 | mg/L | 0.00321 | 0.8824 | mg/L | 0.00321 | 0.36% |
| Sn 189.927† | 26.6 | 0.0388 | mg/L | 0.00046 | 0.0388 | mg/L | 0.00046 | 1.19% |
| Sr 421.552† | 834347.4 | 1.190 | mg/L | 0.0145 | 1.190 | mg/L | 0.0145 | 1.21% |
| Ti 334.903† | 1203001.9 | 4.838 | mg/L | 0.0499 | 4.838 | mg/L | 0.0499 | 1.03% |
| Tl 190.801† | -8.9 | 0.0301 | mg/L | 0.00438 | 0.0301 | mg/L | 0.00438 | 14.53% |
| V 292.402† | 7812.0 | 0.2110 | mg/L | 0.00108 | 0.2110 | mg/L | 0.00108 | 0.51% |
| Zn 213.857† | 11251.6 | 0.2951 | mg/L | 0.00160 | 0.2951 | mg/L | 0.00160 | 0.54% |
| Zr 343.823† | 36675.9 | 0.2569 | mg/L | 0.00092 | 0.2569 | mg/L | 0.00092 | 0.36% |
| W 207.912† | -2.2 | -0.0032 | mg/L | 0.00092 | -0.0032 | mg/L | 0.00092 | 28.84% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 3 Autosampler Location: 211
Sample ID: 440-194571-a-15-c@5 Date Collected: 10/26/2017 4:58:56 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194571-a-15-c@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: 440-194571-a-15-c@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2601142.1 | 101.5 | % | 0.31 | | | | 0.31% |
| Ag 328.068† | -314.1 | -0.0021 | mg/L | 0.00043 | -0.0021 | mg/L | 0.00043 | 20.81% |
| Al 308.215† | 870109.1 | 85.36 | mg/L | 0.241 | 85.36 | mg/L | 0.241 | 0.28% |
| As 188.979† | 70.7 | 0.1121 | mg/L | 0.00645 | 0.1121 | mg/L | 0.00645 | 5.75% |
| B 249.677† | 15933.4 | 0.1117 | mg/L | 0.00849 | 0.1117 | mg/L | 0.00849 | 7.60% |
| Ba 233.527† | 9172.8 | 0.2803 | mg/L | 0.00340 | 0.2803 | mg/L | 0.00340 | 1.21% |
| Be 313.107† | 3176.0 | 0.0037 | mg/L | 0.00014 | 0.0037 | mg/L | 0.00014 | 3.68% |
| Ca 315.887† | 321180.3 | 118.1 | mg/L | 0.17 | 118.1 | mg/L | 0.17 | 0.14% |
| Cd 214.440† | 28.6 | -0.0002 | mg/L | 0.00004 | -0.0002 | mg/L | 0.00004 | 22.13% |
| Co 228.616† | 335.8 | 0.0301 | mg/L | 0.00022 | 0.0301 | mg/L | 0.00022 | 0.73% |
| Cr 205.560† | 2552.6 | 0.2016 | mg/L | 0.00046 | 0.2016 | mg/L | 0.00046 | 0.23% |
| Cu 324.752† | 8894.8 | 0.0858 | mg/L | 0.00084 | 0.0858 | mg/L | 0.00084 | 0.98% |
| Fe 238.204† | 312050.0 | 101.0 | mg/L | 0.46 | 101.0 | mg/L | 0.46 | 0.46% |
| K 766.490† | 64405.7 | 25.16 | mg/L | 0.214 | 25.16 | mg/L | 0.214 | 0.85% |
| Li 610.362† | 29869.5 | 0.3530 | mg/L | 0.00112 | 0.3530 | mg/L | 0.00112 | 0.32% |
| Mg 279.077† | 745987.7 | 266.0 | mg/L | 1.07 | 266.0 | mg/L | 1.07 | 0.40% |
| Mn 257.610† | 190414.1 | 1.204 | mg/L | 0.0154 | 1.204 | mg/L | 0.0154 | 1.28% |
| Mo 202.031† | 6.1 | 0.0035 | mg/L | 0.00039 | 0.0035 | mg/L | 0.00039 | 11.07% |
| Na 589.592† | 67502.4 | 3.758 | mg/L | 0.0634 | 3.758 | mg/L | 0.0634 | 1.69% |
| Ni 231.604† | 930.7 | 0.0824 | mg/L | 0.00017 | 0.0824 | mg/L | 0.00017 | 0.21% |
| P 214.914† | 1873.5 | 3.869 | mg/L | 0.0178 | 3.869 | mg/L | 0.0178 | 0.46% |
| Pb 220.353† | 119.3 | 0.0498 | mg/L | 0.00033 | 0.0498 | mg/L | 0.00033 | 0.66% |
| Sb 206.836† | -4.3 | -0.0016 | mg/L | 0.00115 | -0.0016 | mg/L | 0.00115 | 71.06% |
| Se 196.026† | -34.9 | -0.0033 | mg/L | 0.00164 | -0.0033 | mg/L | 0.00164 | 49.88% |
| Si 251.611† | 14474.4 | 0.7880 | mg/L | 0.02563 | 0.7880 | mg/L | 0.02563 | 3.25% |
| Sn 189.927† | 14.0 | 0.0359 | mg/L | 0.00072 | 0.0359 | mg/L | 0.00072 | 2.02% |
| Sr 421.552† | 487474.1 | 0.6960 | mg/L | 0.00311 | 0.6960 | mg/L | 0.00311 | 0.45% |
| Ti 334.903† | 1065041.1 | 4.281 | mg/L | 0.0007 | 4.281 | mg/L | 0.0007 | 0.02% |
| Tl 190.801† | -1.0 | 0.0372 | mg/L | 0.00072 | 0.0372 | mg/L | 0.00072 | 1.93% |
| V 292.402† | 10969.1 | 0.2909 | mg/L | 0.00577 | 0.2909 | mg/L | 0.00577 | 1.98% |
| Zn 213.857† | 8195.6 | 0.2115 | mg/L | 0.00419 | 0.2115 | mg/L | 0.00419 | 1.98% |
| Zr 343.823† | 22146.4 | 0.1551 | mg/L | 0.00199 | 0.1551 | mg/L | 0.00199 | 1.28% |
| W 207.912† | -0.7 | -0.0019 | mg/L | 0.00045 | -0.0019 | mg/L | 0.00045 | 24.16% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 4 Autosampler Location: 212
Sample ID: 440-194571-a-16-c@5 Date Collected: 10/26/2017 5:00:51 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194571-a-16-c@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: 440-194571-a-16-c@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2636542.4 | 102.9 | % | 1.29 | | | | 1.26% |
| Ag 328.068† | -236.1 | -0.0013 | mg/L | 0.00009 | -0.0013 | mg/L | 0.00009 | 6.80% |
| Al 308.215† | 854923.5 | 83.87 | mg/L | 1.781 | 83.87 | mg/L | 1.781 | 2.12% |
| As 188.979† | 49.7 | 0.0810 | mg/L | 0.00316 | 0.0810 | mg/L | 0.00316 | 3.90% |
| B 249.677† | 13927.4 | 0.0559 | mg/L | 0.00766 | 0.0559 | mg/L | 0.00766 | 13.69% |
| Ba 233.527† | 15284.9 | 0.4670 | mg/L | 0.01170 | 0.4670 | mg/L | 0.01170 | 2.50% |
| Be 313.107† | 2921.9 | 0.0034 | mg/L | 0.00002 | 0.0034 | mg/L | 0.00002 | 0.52% |
| Ca 315.887† | 582747.3 | 214.2 | mg/L | 1.50 | 214.2 | mg/L | 1.50 | 0.70% |
| Cd 214.440† | 44.1 | -0.0001 | mg/L | 0.00018 | -0.0001 | mg/L | 0.00018 | 229.03% |
| Co 228.616† | 380.2 | 0.0344 | mg/L | 0.00161 | 0.0344 | mg/L | 0.00161 | 4.70% |
| Cr 205.560† | 1658.5 | 0.1312 | mg/L | 0.00275 | 0.1312 | mg/L | 0.00275 | 2.10% |
| Cu 324.752† | 8592.4 | 0.0835 | mg/L | 0.00177 | 0.0835 | mg/L | 0.00177 | 2.12% |
| Fe 238.204† | 323042.8 | 104.6 | mg/L | 0.38 | 104.6 | mg/L | 0.38 | 0.36% |
| K 766.490† | 68344.9 | 26.69 | mg/L | 0.171 | 26.69 | mg/L | 0.171 | 0.64% |
| Li 610.362† | 10644.5 | 0.2558 | mg/L | 0.00082 | 0.2558 | mg/L | 0.00082 | 0.32% |
| Mg 279.077† | 492374.0 | 175.6 | mg/L | 2.52 | 175.6 | mg/L | 2.52 | 1.43% |
| Mn 257.610† | 233766.1 | 1.484 | mg/L | 0.0308 | 1.484 | mg/L | 0.0308 | 2.08% |
| Mo 202.031† | -1.8 | 0.0024 | mg/L | 0.00090 | 0.0024 | mg/L | 0.00090 | 38.09% |
| Na 589.592† | 70330.7 | 3.915 | mg/L | 0.0863 | 3.915 | mg/L | 0.0863 | 2.20% |
| Ni 231.604† | 991.1 | 0.0878 | mg/L | 0.00147 | 0.0878 | mg/L | 0.00147 | 1.68% |
| P 214.914† | 2138.9 | 4.422 | mg/L | 0.1098 | 4.422 | mg/L | 0.1098 | 2.48% |
| Pb 220.353† | 110.2 | 0.0477 | mg/L | 0.00208 | 0.0477 | mg/L | 0.00208 | 4.36% |
| Sb 206.836† | -6.1 | -0.0037 | mg/L | 0.00076 | -0.0037 | mg/L | 0.00076 | 20.36% |
| Se 196.026† | -39.7 | -0.0082 | mg/L | 0.00838 | -0.0082 | mg/L | 0.00838 | 102.38% |
| Si 251.611† | 12263.9 | 0.6687 | mg/L | 0.02421 | 0.6687 | mg/L | 0.02421 | 3.62% |
| Sn 189.927† | 11.2 | 0.0323 | mg/L | 0.00592 | 0.0323 | mg/L | 0.00592 | 18.34% |
| Sr 421.552† | 711299.7 | 1.014 | mg/L | 0.0095 | 1.014 | mg/L | 0.0095 | 0.94% |
| Ti 334.903† | 1182266.9 | 4.754 | mg/L | 0.1165 | 4.754 | mg/L | 0.1165 | 2.45% |
| Tl 190.801† | -5.9 | 0.0339 | mg/L | 0.00328 | 0.0339 | mg/L | 0.00328 | 9.67% |
| V 292.402† | 9483.8 | 0.2527 | mg/L | 0.00525 | 0.2527 | mg/L | 0.00525 | 2.08% |
| Zn 213.857† | 8605.4 | 0.2267 | mg/L | 0.00520 | 0.2267 | mg/L | 0.00520 | 2.30% |
| Zr 343.823† | 25392.8 | 0.1779 | mg/L | 0.00303 | 0.1779 | mg/L | 0.00303 | 1.70% |
| W 207.912† | 2.2 | -0.0006 | mg/L | 0.00010 | -0.0006 | mg/L | 0.00010 | 18.47% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 5 Autosampler Location: 213
Sample ID: 440-194571-a-17-c@5 Date Collected: 10/26/2017 5:02:44 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194571-a-17-c@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: 440-194571-a-17-c@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2549429.7 | 99.48 | % | 0.597 | | | | 0.60% |
| Ag 328.068† | -109.6 | -0.0002 | mg/L | 0.00012 | -0.0002 | mg/L | 0.00012 | 67.30% |
| Al 308.215† | 831707.3 | 81.58 | mg/L | 0.149 | 81.58 | mg/L | 0.149 | 0.18% |
| As 188.979† | 64.9 | 0.1021 | mg/L | 0.00103 | 0.1021 | mg/L | 0.00103 | 1.01% |
| B 249.677† | 12317.7 | 0.0902 | mg/L | 0.00302 | 0.0902 | mg/L | 0.00302 | 3.34% |
| Ba 233.527† | 5475.8 | 0.1674 | mg/L | 0.00013 | 0.1674 | mg/L | 0.00013 | 0.08% |
| Be 313.107† | 2188.2 | 0.0026 | mg/L | 0.00011 | 0.0026 | mg/L | 0.00011 | 4.35% |
| Ca 315.887† | 516622.3 | 189.9 | mg/L | 2.52 | 189.9 | mg/L | 2.52 | 1.33% |
| Cd 214.440† | 34.4 | 0.0005 | mg/L | 0.00004 | 0.0005 | mg/L | 0.00004 | 9.18% |
| Co 228.616† | 272.6 | 0.0249 | mg/L | 0.00072 | 0.0249 | mg/L | 0.00072 | 2.89% |
| Cr 205.560† | 3301.7 | 0.2604 | mg/L | 0.00272 | 0.2604 | mg/L | 0.00272 | 1.04% |
| Cu 324.752† | 7692.0 | 0.0734 | mg/L | 0.00003 | 0.0734 | mg/L | 0.00003 | 0.04% |
| Fe 238.204† | 236640.2 | 76.62 | mg/L | 1.241 | 76.62 | mg/L | 1.241 | 1.62% |
| K 766.490† | 43174.6 | 16.86 | mg/L | 0.121 | 16.86 | mg/L | 0.121 | 0.72% |
| Li 610.362† | 32490.9 | 0.4304 | mg/L | 0.00254 | 0.4304 | mg/L | 0.00254 | 0.59% |
| Mg 279.077† | 798611.8 | 284.8 | mg/L | 0.88 | 284.8 | mg/L | 0.88 | 0.31% |
| Mn 257.610† | 178542.9 | 1.128 | mg/L | 0.0005 | 1.128 | mg/L | 0.0005 | 0.04% |
| Mo 202.031† | 21.5 | 0.0053 | mg/L | 0.00041 | 0.0053 | mg/L | 0.00041 | 7.74% |
| Na 589.592† | 66553.0 | 3.705 | mg/L | 0.0147 | 3.705 | mg/L | 0.0147 | 0.40% |
| Ni 231.604† | 723.0 | 0.0640 | mg/L | 0.00043 | 0.0640 | mg/L | 0.00043 | 0.68% |
| P 214.914† | 1029.1 | 2.117 | mg/L | 0.0235 | 2.117 | mg/L | 0.0235 | 1.11% |
| Pb 220.353† | 92.9 | 0.0380 | mg/L | 0.00078 | 0.0380 | mg/L | 0.00078 | 2.04% |
| Sb 206.836† | -4.3 | -0.0025 | mg/L | 0.00451 | -0.0025 | mg/L | 0.00451 | 183.53% |
| Se 196.026† | -30.6 | -0.0080 | mg/L | 0.00207 | -0.0080 | mg/L | 0.00207 | 25.79% |
| Si 251.611† | 10477.1 | 0.5639 | mg/L | 0.00628 | 0.5639 | mg/L | 0.00628 | 1.11% |
| Sn 189.927† | 28.7 | 0.0289 | mg/L | 0.00140 | 0.0289 | mg/L | 0.00140 | 4.85% |
| Sr 421.552† | 523121.4 | 0.7451 | mg/L | 0.00903 | 0.7451 | mg/L | 0.00903 | 1.21% |
| Ti 334.903† | 811525.7 | 3.264 | mg/L | 0.0201 | 3.264 | mg/L | 0.0201 | 0.62% |
| Tl 190.801† | -4.8 | 0.0227 | mg/L | 0.00477 | 0.0227 | mg/L | 0.00477 | 20.98% |
| V 292.402† | 7310.4 | 0.1951 | mg/L | 0.00138 | 0.1951 | mg/L | 0.00138 | 0.71% |
| Zn 213.857† | 6182.5 | 0.1559 | mg/L | 0.00084 | 0.1559 | mg/L | 0.00084 | 0.54% |
| Zr 343.823† | 15488.8 | 0.1085 | mg/L | 0.00063 | 0.1085 | mg/L | 0.00063 | 0.58% |
| W 207.912† | -2.1 | -0.0022 | mg/L | 0.00035 | -0.0022 | mg/L | 0.00035 | 16.07% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 6 Autosampler Location: 214
Sample ID: 440-194571-a-6-g@5 Date Collected: 10/26/2017 5:04:39 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194571-a-6-g@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: 440-194571-a-6-g@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2619379.6 | 102.2 | % | 0.10 | | | | 0.10% |
| Ag 328.068† | -412.5 | -0.0031 | mg/L | 0.00054 | -0.0031 | mg/L | 0.00054 | 17.59% |
| Al 308.215† | 547585.7 | 53.72 | mg/L | 0.141 | 53.72 | mg/L | 0.141 | 0.26% |
| As 188.979† | 43.8 | 0.0716 | mg/L | 0.00745 | 0.0716 | mg/L | 0.00745 | 10.41% |
| B 249.677† | 11644.5 | 0.0184 | mg/L | 0.00382 | 0.0184 | mg/L | 0.00382 | 20.74% |
| Ba 233.527† | 22480.3 | 0.6867 | mg/L | 0.00103 | 0.6867 | mg/L | 0.00103 | 0.15% |
| Be 313.107† | 2334.1 | 0.0027 | mg/L | 0.00007 | 0.0027 | mg/L | 0.00007 | 2.62% |
| Ca 315.887† | 251717.5 | 92.54 | mg/L | 0.017 | 92.54 | mg/L | 0.017 | 0.02% |
| Cd 214.440† | 53.6 | 0.0001 | mg/L | 0.00009 | 0.0001 | mg/L | 0.00009 | 98.29% |
| Co 228.616† | 358.3 | 0.0301 | mg/L | 0.00053 | 0.0301 | mg/L | 0.00053 | 1.75% |
| Cr 205.560† | 1674.2 | 0.1324 | mg/L | 0.00046 | 0.1324 | mg/L | 0.00046 | 0.34% |
| Cu 324.752† | 9534.5 | 0.0913 | mg/L | 0.00036 | 0.0913 | mg/L | 0.00036 | 0.39% |
| Fe 238.204† | 304262.6 | 98.52 | mg/L | 0.361 | 98.52 | mg/L | 0.361 | 0.37% |
| K 766.490† | 40809.6 | 15.94 | mg/L | 0.110 | 15.94 | mg/L | 0.110 | 0.69% |
| Li 610.362† | 13384.5 | 0.1881 | mg/L | 0.00111 | 0.1881 | mg/L | 0.00111 | 0.59% |
| Mg 279.077† | 149682.5 | 53.39 | mg/L | 0.088 | 53.39 | mg/L | 0.088 | 0.16% |
| Mn 257.610† | 159982.1 | 1.018 | mg/L | 0.0002 | 1.018 | mg/L | 0.0002 | 0.02% |
| Mo 202.031† | 19.7 | 0.0055 | mg/L | 0.00091 | 0.0055 | mg/L | 0.00091 | 16.38% |
| Na 589.592† | 145037.1 | 8.074 | mg/L | 0.0264 | 8.074 | mg/L | 0.0264 | 0.33% |
| Ni 231.604† | 1134.2 | 0.1008 | mg/L | 0.00025 | 0.1008 | mg/L | 0.00025 | 0.24% |
| P 214.914† | 2695.5 | 5.586 | mg/L | 0.0087 | 5.586 | mg/L | 0.0087 | 0.16% |
| Pb 220.353† | 95.4 | 0.0426 | mg/L | 0.00189 | 0.0426 | mg/L | 0.00189 | 4.45% |
| Sb 206.836† | -8.1 | -0.0075 | mg/L | 0.00274 | -0.0075 | mg/L | 0.00274 | 36.56% |
| Se 196.026† | -27.8 | 0.0050 | mg/L | 0.00754 | 0.0050 | mg/L | 0.00754 | 151.38% |
| Si 251.611† | 13371.8 | 0.7363 | mg/L | 0.00820 | 0.7363 | mg/L | 0.00820 | 1.11% |
| Sn 189.927† | -1.2 | 0.0377 | mg/L | 0.00529 | 0.0377 | mg/L | 0.00529 | 14.04% |
| Sr 421.552† | 759167.2 | 1.087 | mg/L | 0.0022 | 1.087 | mg/L | 0.0022 | 0.20% |
| Ti 334.903† | 1405660.1 | 5.650 | mg/L | 0.0177 | 5.650 | mg/L | 0.0177 | 0.31% |
| Tl 190.801† | -5.8 | 0.0407 | mg/L | 0.00532 | 0.0407 | mg/L | 0.00532 | 13.06% |
| V 292.402† | 10767.1 | 0.2845 | mg/L | 0.00003 | 0.2845 | mg/L | 0.00003 | 0.01% |
| Zn 213.857† | 6337.1 | 0.1678 | mg/L | 0.00074 | 0.1678 | mg/L | 0.00074 | 0.44% |
| Zr 343.823† | 20754.5 | 0.1454 | mg/L | 0.00015 | 0.1454 | mg/L | 0.00015 | 0.10% |
| W 207.912† | 2.3 | -0.0001 | mg/L | 0.00241 | -0.0001 | mg/L | 0.00241 | >999.9% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 7 Autosampler Location: 215
Sample ID: 440-194571-a-6-h ms@5 Date Collected: 10/26/2017 5:06:32 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194571-a-6-h ms@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: 440-194571-a-6-h ms@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2666196.9 | 104.0 | % | 0.84 | | | | 0.80% |
| Ag 328.068† | 16878.2 | 0.1750 | mg/L | 0.00495 | 0.1750 | mg/L | 0.00495 | 2.83% |
| Al 308.215† | 422104.2 | 41.39 | mg/L | 0.167 | 41.39 | mg/L | 0.167 | 0.40% |
| As 188.979† | 280.8 | 0.4229 | mg/L | 0.00539 | 0.4229 | mg/L | 0.00539 | 1.27% |
| B 249.677† | 25186.8 | 0.3433 | mg/L | 0.01385 | 0.3433 | mg/L | 0.01385 | 4.04% |
| Ba 233.527† | 34930.3 | 1.067 | mg/L | 0.0296 | 1.067 | mg/L | 0.0296 | 2.77% |
| Be 313.107† | 294492.3 | 0.3446 | mg/L | 0.00031 | 0.3446 | mg/L | 0.00031 | 0.09% |
| Ca 315.887† | 291958.6 | 107.3 | mg/L | 1.14 | 107.3 | mg/L | 1.14 | 1.07% |
| Cd 214.440† | 11879.2 | 0.3737 | mg/L | 0.01206 | 0.3737 | mg/L | 0.01206 | 3.23% |
| Co 228.616† | 3605.7 | 0.4127 | mg/L | 0.00382 | 0.4127 | mg/L | 0.00382 | 0.93% |
| Cr 205.560† | 6954.1 | 0.5483 | mg/L | 0.00840 | 0.5483 | mg/L | 0.00840 | 1.53% |
| Cu 324.752† | 50545.4 | 0.4510 | mg/L | 0.01033 | 0.4510 | mg/L | 0.01033 | 2.29% |
| Fe 238.204† | 292229.3 | 94.62 | mg/L | 1.031 | 94.62 | mg/L | 1.031 | 1.09% |
| K 766.490† | 46480.8 | 18.15 | mg/L | 0.403 | 18.15 | mg/L | 0.403 | 2.22% |
| Li 610.362† | 49392.6 | 0.5173 | mg/L | 0.00274 | 0.5173 | mg/L | 0.00274 | 0.53% |
| Mg 279.077† | 118436.5 | 42.25 | mg/L | 0.910 | 42.25 | mg/L | 0.910 | 2.15% |
| Mn 257.610† | 234681.7 | 1.494 | mg/L | 0.0021 | 1.494 | mg/L | 0.0021 | 0.14% |
| Mo 202.031† | 2416.0 | 0.3755 | mg/L | 0.00338 | 0.3755 | mg/L | 0.00338 | 0.90% |
| Na 589.592† | 180460.6 | 10.05 | mg/L | 0.310 | 10.05 | mg/L | 0.310 | 3.08% |
| Ni 231.604† | 4799.3 | 0.4322 | mg/L | 0.00574 | 0.4322 | mg/L | 0.00574 | 1.33% |
| P 214.914† | 2353.9 | 4.864 | mg/L | 0.0434 | 4.864 | mg/L | 0.0434 | 0.89% |
| Pb 220.353† | 784.6 | 0.3986 | mg/L | 0.00294 | 0.3986 | mg/L | 0.00294 | 0.74% |
| Sb 206.836† | 175.7 | 0.2395 | mg/L | 0.00177 | 0.2395 | mg/L | 0.00177 | 0.74% |
| Se 196.026† | 228.1 | 0.3343 | mg/L | 0.00162 | 0.3343 | mg/L | 0.00162 | 0.48% |
| Si 251.611† | 27783.4 | 1.541 | mg/L | 0.0436 | 1.541 | mg/L | 0.0436 | 2.83% |
| Sn 189.927† | 879.1 | 0.3917 | mg/L | 0.00551 | 0.3917 | mg/L | 0.00551 | 1.41% |
| Sr 421.552† | 809095.4 | 1.158 | mg/L | 0.0130 | 1.158 | mg/L | 0.0130 | 1.12% |
| Ti 334.903† | 1420580.0 | 5.710 | mg/L | 0.0359 | 5.710 | mg/L | 0.0359 | 0.63% |
| Tl 190.801† | 214.2 | 0.4003 | mg/L | 0.00582 | 0.4003 | mg/L | 0.00582 | 1.45% |
| V 292.402† | 23853.9 | 0.6214 | mg/L | 0.01559 | 0.6214 | mg/L | 0.01559 | 2.51% |
| Zn 213.857† | 17517.4 | 0.4854 | mg/L | 0.01170 | 0.4854 | mg/L | 0.01170 | 2.41% |
| Zr 343.823† | 20877.7 | 0.1463 | mg/L | 0.00578 | 0.1463 | mg/L | 0.00578 | 3.95% |
| W 207.912† | 5.7 | -0.0006 | mg/L | 0.00143 | -0.0006 | mg/L | 0.00143 | 249.36% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 8 Autosampler Location: 216
Sample ID: 440-194571-a-6-i msd@5 Date Collected: 10/26/2017 5:08:28 PM
Analyst: KE Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: 440-194571-a-6-i msd@5

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: 440-194571-a-6-i msd@5

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2606424.6 | 101.7 | % | 0.90 | | | | 0.89% |
| Ag 328.068† | 16568.9 | 0.1716 | mg/L | 0.00176 | 0.1716 | mg/L | 0.00176 | 1.02% |
| Al 308.215† | 443523.9 | 43.50 | mg/L | 0.220 | 43.50 | mg/L | 0.220 | 0.51% |
| As 188.979† | 279.8 | 0.4202 | mg/L | 0.00314 | 0.4202 | mg/L | 0.00314 | 0.75% |
| B 249.677† | 23693.1 | 0.3433 | mg/L | 0.00424 | 0.3433 | mg/L | 0.00424 | 1.23% |
| Ba 233.527† | 33539.1 | 1.025 | mg/L | 0.0073 | 1.025 | mg/L | 0.0073 | 0.71% |
| Be 313.107† | 286633.2 | 0.3354 | mg/L | 0.00218 | 0.3354 | mg/L | 0.00218 | 0.65% |
| Ca 315.887† | 281843.0 | 103.6 | mg/L | 0.68 | 103.6 | mg/L | 0.68 | 0.66% |
| Cd 214.440† | 11690.8 | 0.3679 | mg/L | 0.00192 | 0.3679 | mg/L | 0.00192 | 0.52% |
| Co 228.616† | 3570.8 | 0.4089 | mg/L | 0.00270 | 0.4089 | mg/L | 0.00270 | 0.66% |
| Cr 205.560† | 6209.0 | 0.4895 | mg/L | 0.00373 | 0.4895 | mg/L | 0.00373 | 0.76% |
| Cu 324.752† | 49041.9 | 0.4368 | mg/L | 0.00388 | 0.4368 | mg/L | 0.00388 | 0.89% |
| Fe 238.204† | 250299.4 | 81.04 | mg/L | 0.476 | 81.04 | mg/L | 0.476 | 0.59% |
| K 766.490† | 46935.1 | 18.33 | mg/L | 0.213 | 18.33 | mg/L | 0.213 | 1.16% |
| Li 610.362† | 50006.1 | 0.5199 | mg/L | 0.00050 | 0.5199 | mg/L | 0.00050 | 0.10% |
| Mg 279.077† | 123301.9 | 43.98 | mg/L | 0.147 | 43.98 | mg/L | 0.147 | 0.33% |
| Mn 257.610† | 224054.2 | 1.426 | mg/L | 0.0050 | 1.426 | mg/L | 0.0050 | 0.35% |
| Mo 202.031† | 2329.7 | 0.3618 | mg/L | 0.00228 | 0.3618 | mg/L | 0.00228 | 0.63% |
| Na 589.592† | 196068.8 | 10.92 | mg/L | 0.214 | 10.92 | mg/L | 0.214 | 1.96% |
| Ni 231.604† | 4562.2 | 0.4110 | mg/L | 0.00425 | 0.4110 | mg/L | 0.00425 | 1.03% |
| P 214.914† | 2182.9 | 4.517 | mg/L | 0.0455 | 4.517 | mg/L | 0.0455 | 1.01% |
| Pb 220.353† | 766.2 | 0.3892 | mg/L | 0.00004 | 0.3892 | mg/L | 0.00004 | 0.01% |
| Sb 206.836† | 173.2 | 0.2362 | mg/L | 0.00143 | 0.2362 | mg/L | 0.00143 | 0.61% |
| Se 196.026† | 239.6 | 0.3436 | mg/L | 0.00757 | 0.3436 | mg/L | 0.00757 | 2.20% |
| Si 251.611† | 23794.6 | 1.317 | mg/L | 0.0315 | 1.317 | mg/L | 0.0315 | 2.39% |
| Sn 189.927† | 865.1 | 0.3837 | mg/L | 0.00396 | 0.3837 | mg/L | 0.00396 | 1.03% |
| Sr 421.552† | 846278.6 | 1.211 | mg/L | 0.0049 | 1.211 | mg/L | 0.0049 | 0.40% |
| Ti 334.903† | 1399031.4 | 5.623 | mg/L | 0.0268 | 5.623 | mg/L | 0.0268 | 0.48% |
| Tl 190.801† | 211.1 | 0.3946 | mg/L | 0.00448 | 0.3946 | mg/L | 0.00448 | 1.13% |
| V 292.402† | 23138.3 | 0.6014 | mg/L | 0.00108 | 0.6014 | mg/L | 0.00108 | 0.18% |
| Zn 213.857† | 17219.1 | 0.4783 | mg/L | 0.00051 | 0.4783 | mg/L | 0.00051 | 0.11% |
| Zr 343.823† | 20099.5 | 0.1408 | mg/L | 0.00122 | 0.1408 | mg/L | 0.00122 | 0.87% |
| W 207.912† | 5.5 | -0.0006 | mg/L | 0.00220 | -0.0006 | mg/L | 0.00220 | 366.56% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 9 Autosampler Location: 4
Sample ID: CCV 4447505 Date Collected: 10/26/2017 5:10:21 PM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: CCV 4447505

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 195.0 kPa | 0.65 L/min |

Mean Data: CCV 4447505

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2638140.9 | 102.9 | % | 0.49 | | | | 0.48% |
| Ag 328.068† | 48173.4 | 0.4899 | mg/L | 0.00237 | 0.4899 | mg/L | 0.00237 | 0.48% |
| Al 308.215† | 9977.8 | 0.9427 | mg/L | 0.00651 | 0.9427 | mg/L | 0.00651 | 0.69% |
| As 188.979† | 681.9 | 1.012 | mg/L | 0.0026 | 1.012 | mg/L | 0.0026 | 0.26% |
| B 249.677† | 40534.2 | 0.9356 | mg/L | 0.00620 | 0.9356 | mg/L | 0.00620 | 0.66% |
| Ba 233.527† | 30464.3 | 0.9312 | mg/L | 0.00474 | 0.9312 | mg/L | 0.00474 | 0.51% |
| Be 313.107† | 793498.9 | 0.9284 | mg/L | 0.00021 | 0.9284 | mg/L | 0.00021 | 0.02% |
| Ca 315.887† | 14402.7 | 5.298 | mg/L | 0.0208 | 5.298 | mg/L | 0.0208 | 0.39% |
| Cd 214.440† | 33967.2 | 1.073 | mg/L | 0.0119 | 1.073 | mg/L | 0.0119 | 1.11% |
| Co 228.616† | 9355.5 | 1.100 | mg/L | 0.0057 | 1.100 | mg/L | 0.0057 | 0.52% |
| Cr 205.560† | 12700.3 | 1.000 | mg/L | 0.0065 | 1.000 | mg/L | 0.0065 | 0.65% |
| Cu 324.752† | 111699.2 | 0.9808 | mg/L | 0.00654 | 0.9808 | mg/L | 0.00654 | 0.67% |
| Fe 238.204† | 3577.7 | 1.160 | mg/L | 0.0120 | 1.160 | mg/L | 0.0120 | 1.03% |
| K 766.490† | 26411.6 | 10.32 | mg/L | 0.095 | 10.32 | mg/L | 0.095 | 0.92% |
| Li 610.362† | 112416.2 | 0.9969 | mg/L | 0.00288 | 0.9969 | mg/L | 0.00288 | 0.29% |
| Mg 279.077† | 13625.5 | 4.860 | mg/L | 0.0072 | 4.860 | mg/L | 0.0072 | 0.15% |
| Mn 257.610† | 141780.1 | 0.9034 | mg/L | 0.00384 | 0.9034 | mg/L | 0.00384 | 0.42% |
| Mo 202.031† | 6350.8 | 0.9808 | mg/L | 0.00212 | 0.9808 | mg/L | 0.00212 | 0.22% |
| Na 589.592† | 197839.5 | 11.01 | mg/L | 0.101 | 11.01 | mg/L | 0.101 | 0.92% |
| Ni 231.604† | 10698.1 | 0.9672 | mg/L | 0.00475 | 0.9672 | mg/L | 0.00475 | 0.49% |
| P 214.914† | 458.4 | 0.8989 | mg/L | 0.00558 | 0.8989 | mg/L | 0.00558 | 0.62% |
| Pb 220.353† | 2000.7 | 1.029 | mg/L | 0.0006 | 1.029 | mg/L | 0.0006 | 0.06% |
| Sb 206.836† | 707.6 | 0.9507 | mg/L | 0.00339 | 0.9507 | mg/L | 0.00339 | 0.36% |
| Se 196.026† | 773.5 | 0.9929 | mg/L | 0.00627 | 0.9929 | mg/L | 0.00627 | 0.63% |
| Si 251.611† | 80406.0 | 4.443 | mg/L | 0.0219 | 4.443 | mg/L | 0.0219 | 0.49% |
| Sn 189.927† | 2436.8 | 0.9883 | mg/L | 0.00253 | 0.9883 | mg/L | 0.00253 | 0.26% |
| Sr 421.552† | 682839.1 | 0.9797 | mg/L | 0.00737 | 0.9797 | mg/L | 0.00737 | 0.75% |
| Ti 334.903† | 267652.8 | 1.075 | mg/L | 0.0044 | 1.075 | mg/L | 0.0044 | 0.41% |
| Tl 190.801† | 639.3 | 1.053 | mg/L | 0.0026 | 1.053 | mg/L | 0.0026 | 0.25% |
| V 292.402† | 42209.7 | 1.086 | mg/L | 0.0132 | 1.086 | mg/L | 0.0132 | 1.22% |
| Zn 213.857† | 34131.5 | 0.9671 | mg/L | 0.00985 | 0.9671 | mg/L | 0.00985 | 1.02% |
| Zr 343.823† | 144003.7 | 1.009 | mg/L | 0.0098 | 1.009 | mg/L | 0.0098 | 0.97% |
| W 207.912† | 1937.5 | 0.9225 | mg/L | 0.00286 | 0.9225 | mg/L | 0.00286 | 0.31% |


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**Method Loaded**
**Method Name: 170824_ICP7** **Method Last Saved: 10/26/2017 10:15:43 AM**
**IEC File: 171025_ICP7 1233.iec** **MSF File:**
**Method Description: 150722_ICP7**

**Sequence No.: 10** **Autosampler Location: 1**
**Sample ID: CCB 4447504** **Date Collected: 10/26/2017 5:12:22 PM**
**Analyst:** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time: 10** **Auto Dilution Factor: 1**

**Nebulizer Parameters: CCB 4447504**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

**Mean Data: CCB 4447504**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2702662.8 | 105.5 | % | 0.12 | | | | 0.11% |
| Ag 328.068† | 10.7 | 0.0001 | mg/L | 0.00008 | 0.0001 | mg/L | 0.00008 | 74.17% |
| Al 308.215† | -278.3 | -0.0275 | mg/L | 0.00238 | -0.0275 | mg/L | 0.00238 | 8.66% |
| As 188.979† | 0.6 | 0.0009 | mg/L | 0.00348 | 0.0009 | mg/L | 0.00348 | 368.29% |
| B 249.677† | 42.6 | 0.0009 | mg/L | 0.00001 | 0.0009 | mg/L | 0.00001 | 0.92% |
| Ba 233.527† | 20.3 | 0.0006 | mg/L | 0.00001 | 0.0006 | mg/L | 0.00001 | 1.71% |
| Be 313.107† | -115.2 | -0.0001 | mg/L | 0.00000 | -0.0001 | mg/L | 0.00000 | 3.46% |
| Ca 315.887† | 156.7 | 0.0576 | mg/L | 0.00390 | 0.0576 | mg/L | 0.00390 | 6.76% |
| Cd 214.440† | 11.9 | 0.0004 | mg/L | 0.00000 | 0.0004 | mg/L | 0.00000 | 0.93% |
| Co 228.616† | 13.2 | 0.0016 | mg/L | 0.00028 | 0.0016 | mg/L | 0.00028 | 17.77% |
| Cr 205.560† | 5.0 | 0.0004 | mg/L | 0.00014 | 0.0004 | mg/L | 0.00014 | 36.82% |
| Cu 324.752† | 156.1 | 0.0014 | mg/L | 0.00062 | 0.0014 | mg/L | 0.00062 | 45.47% |
| Fe 238.204† | 105.1 | 0.0340 | mg/L | 0.00172 | 0.0340 | mg/L | 0.00172 | 5.05% |
| K 766.490† | 3.9 | 0.0015 | mg/L | 0.00594 | 0.0015 | mg/L | 0.00594 | 391.96% |
| Li 610.362† | 63.3 | 0.0006 | mg/L | 0.00108 | 0.0006 | mg/L | 0.00108 | 178.78% |
| Mg 279.077† | 100.0 | 0.0357 | mg/L | 0.00032 | 0.0357 | mg/L | 0.00032 | 0.89% |
| Mn 257.610† | 76.4 | 0.0005 | mg/L | 0.00003 | 0.0005 | mg/L | 0.00003 | 6.69% |
| Mo 202.031† | 86.4 | 0.0133 | mg/L | 0.00188 | 0.0133 | mg/L | 0.00188 | 14.12% |
| Na 589.592† | 487.9 | 0.0272 | mg/L | 0.00819 | 0.0272 | mg/L | 0.00819 | 30.14% |
| Ni 231.604† | 23.3 | 0.0021 | mg/L | 0.00039 | 0.0021 | mg/L | 0.00039 | 18.51% |
| P 214.914† | 0.4 | 0.0005 | mg/L | 0.00901 | 0.0005 | mg/L | 0.00901 | >999.9% |
| Pb 220.353† | 6.8 | 0.0035 | mg/L | 0.00144 | 0.0035 | mg/L | 0.00144 | 41.12% |
| Sb 206.836† | 1.6 | 0.0023 | mg/L | 0.00060 | 0.0023 | mg/L | 0.00060 | 26.33% |
| Se 196.026† | 0.7 | 0.0010 | mg/L | 0.00149 | 0.0010 | mg/L | 0.00149 | 154.79% |
| Si 251.611† | 65.4 | 0.0034 | mg/L | 0.00011 | 0.0034 | mg/L | 0.00011 | 3.11% |
| Sn 189.927† | -5.8 | -0.0023 | mg/L | 0.00089 | -0.0023 | mg/L | 0.00089 | 38.06% |
| Sr 421.552† | 497.1 | 0.0007 | mg/L | 0.00019 | 0.0007 | mg/L | 0.00019 | 27.36% |
| Ti 334.903† | 586.1 | 0.0024 | mg/L | 0.00003 | 0.0024 | mg/L | 0.00003 | 1.15% |
| Tl 190.801† | 0.9 | 0.0015 | mg/L | 0.00119 | 0.0015 | mg/L | 0.00119 | 81.84% |
| V 292.402† | 32.7 | 0.0008 | mg/L | 0.00051 | 0.0008 | mg/L | 0.00051 | 60.57% |
| Zn 213.857† | -63.3 | -0.0018 | mg/L | 0.00006 | -0.0018 | mg/L | 0.00006 | 3.05% |
| Zr 343.823† | -49.3 | -0.0003 | mg/L | 0.00010 | -0.0003 | mg/L | 0.00010 | 28.81% |
| W 207.912† | 3.2 | 0.0016 | mg/L | 0.00019 | 0.0016 | mg/L | 0.00019 | 11.88% |


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**Analytical Sequence**
**Method: 170824_ICP7**

| Seq. | Loc. | ID | Status |
|---|---|---|---|
| 1 | 209 | 440-194571-a-13-c@5 | Analyzed |
| 2 | 210 | 440-194571-a-14-c@5 | Analyzed |
| 3 | 211 | 440-194571-a-15-c@5 | Analyzed |
| 4 | 212 | 440-194571-a-16-c@5 | Analyzed |
| 5 | 213 | 440-194571-a-17-c@5 | Analyzed |
| 6 | 214 | 440-194571-a-6-g@5 | Analyzed |
| 7 | 215 | 440-194571-a-6-h ms@5 | Analyzed |
| 8 | 216 | 440-194571-a-6-i msd@5 | Analyzed |
| 9 | 4 | CCV 4447505 | Analyzed |
| 10 | 1 | CCB 4447504 | Analyzed |


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**Analysis Begun**

**Start Time: 10/26/2017 5:17:25 PM** **Plasma On Time: 10/26/2017 9:24:37 AM**
**Logged In Analyst: IRVINSTICP7** **Technique: ICP Continuous**
**Spectrometer: Optima 8300** **Autosampler: ESI**

**Sample Information File: C:\Users\Public\PerkinElmer\ICP\Data\Sample Information\CP 171026-1.sif**
**Batch ID:**
**Results Data Set: 171026-1 ICP7**
**Results Library: C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb**

==========

**Sequence No.: 1** **Autosampler Location: 8**
**Sample ID: RINSE** **Date Collected: 10/26/2017 5:17:37 PM**
**Analyst:** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time:**

---

**Nebulizer Parameters: RINSE**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

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**Mean Data: RINSE**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Calib. Std.Dev. | Sample Conc. | Sample Units | Sample Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2650296.6 | 103.4 | % | 1.17 | | | | 1.13% |
| Ag 328.068† | 48.9 | 0.0005 | mg/L | 0.00007 | 0.0005 | mg/L | 0.00007 | 13.72% |
| Al 308.215† | -207.1 | -0.0204 | mg/L | 0.00791 | -0.0204 | mg/L | 0.00791 | 38.87% |
| As 188.979† | 0.8 | 0.0012 | mg/L | 0.00161 | 0.0012 | mg/L | 0.00161 | 138.49% |
| B 249.677† | 37.9 | 0.0008 | mg/L | 0.00006 | 0.0008 | mg/L | 0.00006 | 7.27% |
| Ba 233.527† | 15.6 | 0.0005 | mg/L | 0.00012 | 0.0005 | mg/L | 0.00012 | 26.04% |
| Be 313.107† | -175.3 | -0.0002 | mg/L | 0.00008 | -0.0002 | mg/L | 0.00008 | 36.81% |
| Ca 315.887† | 236.9 | 0.0871 | mg/L | 0.04867 | 0.0871 | mg/L | 0.04867 | 55.89% |
| Cd 214.440† | 8.7 | 0.0003 | mg/L | 0.00030 | 0.0003 | mg/L | 0.00030 | 108.13% |
| Co 228.616† | 14.5 | 0.0017 | mg/L | 0.00041 | 0.0017 | mg/L | 0.00041 | 24.39% |
| Cr 205.560† | 2.2 | 0.0002 | mg/L | 0.00045 | 0.0002 | mg/L | 0.00045 | 252.50% |
| Cu 324.752† | 193.3 | 0.0017 | mg/L | 0.00025 | 0.0017 | mg/L | 0.00025 | 14.80% |
| Fe 238.204† | 121.9 | 0.0395 | mg/L | 0.03254 | 0.0395 | mg/L | 0.03254 | 82.47% |
| K 766.490† | 19.4 | 0.0076 | mg/L | 0.01601 | 0.0076 | mg/L | 0.01601 | 211.55% |
| Li 610.362† | 77.0 | 0.0007 | mg/L | 0.00059 | 0.0007 | mg/L | 0.00059 | 79.60% |
| Mg 279.077† | 63.2 | 0.0225 | mg/L | 0.00043 | 0.0225 | mg/L | 0.00043 | 1.90% |
| Mn 257.610† | 60.1 | 0.0004 | mg/L | 0.00002 | 0.0004 | mg/L | 0.00002 | 4.92% |
| Mo 202.031† | 3.8 | 0.0006 | mg/L | 0.00028 | 0.0006 | mg/L | 0.00028 | 48.60% |
| Na 589.592† | 643.9 | 0.0358 | mg/L | 0.00237 | 0.0358 | mg/L | 0.00237 | 6.60% |
| Ni 231.604† | 22.4 | 0.0020 | mg/L | 0.00020 | 0.0020 | mg/L | 0.00020 | 9.79% |
| P 214.914† | -6.1 | -0.0127 | mg/L | 0.00638 | -0.0127 | mg/L | 0.00638 | 50.37% |
| Pb 220.353† | 8.9 | 0.0046 | mg/L | 0.00042 | 0.0046 | mg/L | 0.00042 | 9.25% |
| Sb 206.836† | -4.6 | -0.0061 | mg/L | 0.00172 | -0.0061 | mg/L | 0.00172 | 28.22% |
| Se 196.026† | -1.7 | -0.0021 | mg/L | 0.00129 | -0.0021 | mg/L | 0.00129 | 61.72% |
| Si 251.611† | 127.0 | 0.0073 | mg/L | 0.00015 | 0.0073 | mg/L | 0.00015 | 2.10% |
| Sn 189.927† | -7.8 | -0.0031 | mg/L | 0.00090 | -0.0031 | mg/L | 0.00090 | 28.68% |
| Sr 421.552† | 483.2 | 0.0007 | mg/L | 0.00021 | 0.0007 | mg/L | 0.00021 | 31.04% |
| Ti 334.903† | 337.2 | 0.0014 | mg/L | 0.00006 | 0.0014 | mg/L | 0.00006 | 4.66% |
| Tl 190.801† | -1.1 | -0.0019 | mg/L | 0.00068 | -0.0019 | mg/L | 0.00068 | 36.43% |
| V 292.402† | 3.4 | 0.0001 | mg/L | 0.00021 | 0.0001 | mg/L | 0.00021 | 225.46% |
| Zn 213.857† | 99.3 | 0.0028 | mg/L | 0.00011 | 0.0028 | mg/L | 0.00011 | 4.07% |
| Zr 343.823† | -49.8 | -0.0003 | mg/L | 0.00002 | -0.0003 | mg/L | 0.00002 | 6.28% |
| W 207.912† | -7.4 | -0.0036 | mg/L | 0.00066 | -0.0036 | mg/L | 0.00066 | 18.47% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 2 Autosampler Location: 4
Sample ID: CCV 4447505 Date Collected: 10/26/2017 5:20:16 PM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: CCV 4447505

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: CCV 4447505

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2671492.4 | 104.2 | % | 1.09 | | | | 1.05% |
| Ag 328.068† | 47208.4 | 0.4801 | mg/L | 0.00529 | 0.4801 | mg/L | 0.00529 | 1.10% |
| Al 308.215† | 9982.9 | 0.9438 | mg/L | 0.00771 | 0.9438 | mg/L | 0.00771 | 0.82% |
| As 188.979† | 670.7 | 0.9950 | mg/L | 0.01022 | 0.9950 | mg/L | 0.01022 | 1.03% |
| B 249.677† | 44383.3 | 1.025 | mg/L | 0.0132 | 1.025 | mg/L | 0.0132 | 1.28% |
| Ba 233.527† | 29896.6 | 0.9138 | mg/L | 0.00594 | 0.9138 | mg/L | 0.00594 | 0.65% |
| Be 313.107† | 784643.5 | 0.9180 | mg/L | 0.00340 | 0.9180 | mg/L | 0.00340 | 0.37% |
| Ca 315.887† | 13971.0 | 5.139 | mg/L | 0.0152 | 5.139 | mg/L | 0.0152 | 0.30% |
| Cd 214.440† | 33365.3 | 1.054 | mg/L | 0.0144 | 1.054 | mg/L | 0.0144 | 1.37% |
| Co 228.616† | 9118.9 | 1.073 | mg/L | 0.0107 | 1.073 | mg/L | 0.0107 | 1.00% |
| Cr 205.560† | 12411.1 | 0.9772 | mg/L | 0.01348 | 0.9772 | mg/L | 0.01348 | 1.38% |
| Cu 324.752† | 109579.4 | 0.9622 | mg/L | 0.01119 | 0.9622 | mg/L | 0.01119 | 1.16% |
| Fe 238.204† | 3423.2 | 1.110 | mg/L | 0.0022 | 1.110 | mg/L | 0.0022 | 0.19% |
| K 766.490† | 25276.7 | 9.872 | mg/L | 0.1574 | 9.872 | mg/L | 0.1574 | 1.59% |
| Li 610.362† | 110795.4 | 0.9825 | mg/L | 0.01161 | 0.9825 | mg/L | 0.01161 | 1.18% |
| Mg 279.077† | 13298.4 | 4.743 | mg/L | 0.0678 | 4.743 | mg/L | 0.0678 | 1.43% |
| Mn 257.610† | 138917.1 | 0.8852 | mg/L | 0.00597 | 0.8852 | mg/L | 0.00597 | 0.67% |
| Mo 202.031† | 6243.8 | 0.9642 | mg/L | 0.01036 | 0.9642 | mg/L | 0.01036 | 1.07% |
| Na 589.592† | 190263.2 | 10.59 | mg/L | 0.234 | 10.59 | mg/L | 0.234 | 2.21% |
| Ni 231.604† | 10474.9 | 0.9470 | mg/L | 0.01633 | 0.9470 | mg/L | 0.01633 | 1.72% |
| P 214.914† | 449.4 | 0.8811 | mg/L | 0.01943 | 0.8811 | mg/L | 0.01943 | 2.21% |
| Pb 220.353† | 1971.8 | 1.014 | mg/L | 0.0111 | 1.014 | mg/L | 0.0111 | 1.10% |
| Sb 206.836† | 696.2 | 0.9355 | mg/L | 0.00714 | 0.9355 | mg/L | 0.00714 | 0.76% |
| Se 196.026† | 756.1 | 0.9705 | mg/L | 0.01052 | 0.9705 | mg/L | 0.01052 | 1.08% |
| Si 251.611† | 98728.4 | 5.473 | mg/L | 0.0616 | 5.473 | mg/L | 0.0616 | 1.13% |
| Sn 189.927† | 2402.6 | 0.9745 | mg/L | 0.01460 | 0.9745 | mg/L | 0.01460 | 1.50% |
| Sr 421.552† | 672020.6 | 0.9641 | mg/L | 0.00878 | 0.9641 | mg/L | 0.00878 | 0.91% |
| Ti 334.903† | 264601.3 | 1.063 | mg/L | 0.0037 | 1.063 | mg/L | 0.0037 | 0.35% |
| Tl 190.801† | 625.9 | 1.031 | mg/L | 0.0107 | 1.031 | mg/L | 0.0107 | 1.04% |
| V 292.402† | 41679.0 | 1.073 | mg/L | 0.0214 | 1.073 | mg/L | 0.0214 | 2.00% |
| Zn 213.857† | 33521.9 | 0.9498 | mg/L | 0.01243 | 0.9498 | mg/L | 0.01243 | 1.31% |
| Zr 343.823† | 140850.6 | 0.9867 | mg/L | 0.01198 | 0.9867 | mg/L | 0.01198 | 1.21% |
| W 207.912† | 1904.9 | 0.9070 | mg/L | 0.00854 | 0.9070 | mg/L | 0.00854 | 0.94% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 3 Autosampler Location: 1
Sample ID: CCB 4447504 Date Collected: 10/26/2017 5:22:16 PM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: CCB 4447504

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 196.0 kPa | 0.65 L/min |

Mean Data: CCB 4447504

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2733958.2 | 106.7 | % | 0.36 | | | | 0.34% |
| Ag 328.068† | 11.9 | 0.0001 | mg/L | 0.00036 | 0.0001 | mg/L | 0.00036 | 286.94% |
| Al 308.215† | -396.7 | -0.0391 | mg/L | 0.00377 | -0.0391 | mg/L | 0.00377 | 9.66% |
| As 188.979† | -0.6 | -0.0009 | mg/L | 0.00103 | -0.0009 | mg/L | 0.00103 | 116.87% |
| B 249.677† | 43.4 | 0.0010 | mg/L | 0.00029 | 0.0010 | mg/L | 0.00029 | 29.81% |
| Ba 233.527† | 15.4 | 0.0005 | mg/L | 0.00002 | 0.0005 | mg/L | 0.00002 | 3.99% |
| Be 313.107† | -147.7 | -0.0002 | mg/L | 0.00007 | -0.0002 | mg/L | 0.00007 | 42.07% |
| Ca 315.887† | 84.3 | 0.0310 | mg/L | 0.00308 | 0.0310 | mg/L | 0.00308 | 9.96% |
| Cd 214.440† | 11.7 | 0.0004 | mg/L | 0.00031 | 0.0004 | mg/L | 0.00031 | 83.20% |
| Co 228.616† | 16.8 | 0.0020 | mg/L | 0.00019 | 0.0020 | mg/L | 0.00019 | 9.72% |
| Cr 205.560† | 4.3 | 0.0003 | mg/L | 0.00014 | 0.0003 | mg/L | 0.00014 | 42.17% |
| Cu 324.752† | 142.0 | 0.0012 | mg/L | 0.00026 | 0.0012 | mg/L | 0.00026 | 21.11% |
| Fe 238.204† | 48.0 | 0.0155 | mg/L | 0.00088 | 0.0155 | mg/L | 0.00088 | 5.69% |
| K 766.490† | 26.9 | 0.0105 | mg/L | 0.00552 | 0.0105 | mg/L | 0.00552 | 52.48% |
| Li 610.362† | 189.0 | 0.0017 | mg/L | 0.00058 | 0.0017 | mg/L | 0.00058 | 34.21% |
| Mg 279.077† | 44.3 | 0.0159 | mg/L | 0.00110 | 0.0159 | mg/L | 0.00110 | 6.91% |
| Mn 257.610† | 32.0 | 0.0002 | mg/L | 0.00001 | 0.0002 | mg/L | 0.00001 | 3.67% |
| Mo 202.031† | 85.4 | 0.0132 | mg/L | 0.00140 | 0.0132 | mg/L | 0.00140 | 10.65% |
| Na 589.592† | 422.9 | 0.0235 | mg/L | 0.00171 | 0.0235 | mg/L | 0.00171 | 7.26% |
| Ni 231.604† | 28.4 | 0.0026 | mg/L | 0.00018 | 0.0026 | mg/L | 0.00018 | 6.85% |
| P 214.914† | -4.1 | -0.0089 | mg/L | 0.00010 | -0.0089 | mg/L | 0.00010 | 1.12% |
| Pb 220.353† | 5.0 | 0.0026 | mg/L | 0.00184 | 0.0026 | mg/L | 0.00184 | 70.45% |
| Sb 206.836† | -1.2 | -0.0014 | mg/L | 0.00123 | -0.0014 | mg/L | 0.00123 | 85.23% |
| Se 196.026† | 1.1 | 0.0014 | mg/L | 0.00149 | 0.0014 | mg/L | 0.00149 | 108.15% |
| Si 251.611† | 65.6 | 0.0034 | mg/L | 0.00040 | 0.0034 | mg/L | 0.00040 | 11.64% |
| Sn 189.927† | -9.4 | -0.0038 | mg/L | 0.00162 | -0.0038 | mg/L | 0.00162 | 42.68% |
| Sr 421.552† | 311.9 | 0.0004 | mg/L | 0.00003 | 0.0004 | mg/L | 0.00003 | 7.23% |
| Ti 334.903† | 346.8 | 0.0014 | mg/L | 0.00010 | 0.0014 | mg/L | 0.00010 | 6.84% |
| Tl 190.801† | 1.2 | 0.0019 | mg/L | 0.00046 | 0.0019 | mg/L | 0.00046 | 23.87% |
| V 292.402† | -5.1 | -0.0001 | mg/L | 0.00030 | -0.0001 | mg/L | 0.00030 | 240.57% |
| Zn 213.857† | -67.3 | -0.0019 | mg/L | 0.00013 | -0.0019 | mg/L | 0.00013 | 6.95% |
| Zr 343.823† | -49.6 | -0.0003 | mg/L | 0.00032 | -0.0003 | mg/L | 0.00032 | 93.42% |
| W 207.912† | 4.5 | 0.0022 | mg/L | 0.00105 | 0.0022 | mg/L | 0.00105 | 48.87% |


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**Analytical Sequence**
**Method: 170824_ICP7**

| Seq. | Loc. | ID | Status |
|---|---|---|---|
| 1 | 8 | RINSE | Analyzed |
| 2 | 4 | CCV 4447505 | Analyzed |
| 3 | 1 | CCB 4447504 | Analyzed |


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**Analysis Begun**

**Start Time: 10/26/2017 5:32:20 PM** **Plasma On Time: 10/26/2017 9:24:37 AM**
**Logged In Analyst: IRVINSTICP7** **Technique: ICP Continuous**
**Spectrometer: Optima 8300** **Autosampler: ESI**

**Sample Information File: C:\Users\Public\PerkinElmer\ICP\Data\Sample Information\CP 171026-1.sif**
**Batch ID:**
**Results Data Set: 171026-1 ICP7**
**Results Library: C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb**

==========

**Sequence No.: 1** **Autosampler Location: 193**
**Sample ID: 440-194910-e-1-e@5** **Date Collected: 10/26/2017 5:32:31 PM**
**Analyst: KE** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time:**

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**Nebulizer Parameters: 440-194910-e-1-e@5**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 195.0 kPa | 0.65 L/min |

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**Mean Data: 440-194910-e-1-e@5**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2659401.1 | 103.8 | % | 0.70 | | | | 0.68% |
| Ag 328.068† | -208.4 | 0.0009 | mg/L | 0.00010 | 0.0009 | mg/L | 0.00010 | 12.05% |
| Al 308.215† | 1027579.5 | 100.9 | mg/L | 0.92 | 100.9 | mg/L | 0.92 | 0.91% |
| As 188.979† | 23.6 | 0.0457 | mg/L | 0.01202 | 0.0457 | mg/L | 0.01202 | 26.30% |
| B 249.677† | 18327.3 | 0.0499 | mg/L | 0.00161 | 0.0499 | mg/L | 0.00161 | 3.23% |
| Ba 233.527† | 17130.9 | 0.5234 | mg/L | 0.00718 | 0.5234 | mg/L | 0.00718 | 1.37% |
| Be 313.107† | 2198.5 | 0.0026 | mg/L | 0.00012 | 0.0026 | mg/L | 0.00012 | 4.80% |
| Ca 315.887† | 84756.7 | 31.16 | mg/L | 0.574 | 31.16 | mg/L | 0.574 | 1.84% |
| Cd 214.440† | 103.2 | 0.0005 | mg/L | 0.00011 | 0.0005 | mg/L | 0.00011 | 21.65% |
| Co 228.616† | 503.9 | 0.0481 | mg/L | 0.00024 | 0.0481 | mg/L | 0.00024 | 0.51% |
| Cr 205.560† | 1667.4 | 0.1321 | mg/L | 0.00198 | 0.1321 | mg/L | 0.00198 | 1.50% |
| Cu 324.752† | 10390.4 | 0.1025 | mg/L | 0.00106 | 0.1025 | mg/L | 0.00106 | 1.03% |
| Fe 238.204† | 453734.0 | 146.9 | mg/L | 3.12 | 146.9 | mg/L | 3.12 | 2.13% |
| K 766.490† | 100571.1 | 39.28 | mg/L | 1.060 | 39.28 | mg/L | 1.060 | 2.70% |
| Li 610.362† | 10344.6 | 0.1149 | mg/L | 0.00122 | 0.1149 | mg/L | 0.00122 | 1.06% |
| Mg 279.077† | 112039.5 | 39.97 | mg/L | 0.457 | 39.97 | mg/L | 0.457 | 1.14% |
| Mn 257.610† | 295581.1 | 1.882 | mg/L | 0.0176 | 1.882 | mg/L | 0.0176 | 0.94% |
| Mo 202.031† | 17.4 | 0.0064 | mg/L | 0.00055 | 0.0064 | mg/L | 0.00055 | 8.66% |
| Na 589.592† | 66604.6 | 3.708 | mg/L | 0.1442 | 3.708 | mg/L | 0.1442 | 3.89% |
| Ni 231.604† | 1193.6 | 0.1054 | mg/L | 0.00014 | 0.1054 | mg/L | 0.00014 | 0.13% |
| P 214.914† | 1138.0 | 2.293 | mg/L | 0.0173 | 2.293 | mg/L | 0.0173 | 0.76% |
| Pb 220.353† | 161.8 | 0.0703 | mg/L | 0.00270 | 0.0703 | mg/L | 0.00270 | 3.83% |
| Sb 206.836† | -7.2 | -0.0037 | mg/L | 0.00169 | -0.0037 | mg/L | 0.00169 | 45.31% |
| Se 196.026† | -34.4 | 0.0162 | mg/L | 0.00517 | 0.0162 | mg/L | 0.00517 | 31.82% |
| Si 251.611† | 16468.7 | 0.9175 | mg/L | 0.05419 | 0.9175 | mg/L | 0.05419 | 5.91% |
| Sn 189.927† | -25.3 | 0.0355 | mg/L | 0.00248 | 0.0355 | mg/L | 0.00248 | 6.97% |
| Sr 421.552† | 187455.6 | 0.2681 | mg/L | 0.00386 | 0.2681 | mg/L | 0.00386 | 1.44% |
| Ti 334.903† | 1233692.1 | 4.958 | mg/L | 0.0403 | 4.958 | mg/L | 0.0403 | 0.81% |
| Tl 190.801† | -5.7 | 0.0346 | mg/L | 0.00238 | 0.0346 | mg/L | 0.00238 | 6.86% |
| V 292.402† | 9658.5 | 0.2616 | mg/L | 0.00508 | 0.2616 | mg/L | 0.00508 | 1.94% |
| Zn 213.857† | 10511.5 | 0.2825 | mg/L | 0.00365 | 0.2825 | mg/L | 0.00365 | 1.29% |
| Zr 343.823† | 3255.2 | 0.0228 | mg/L | 0.00180 | 0.0228 | mg/L | 0.00180 | 7.87% |
| W 207.912† | -1.8 | -0.0028 | mg/L | 0.00050 | -0.0028 | mg/L | 0.00050 | 17.54% |


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**Analytical Sequence**
**Method: 170824_ICP7**

| Seq. | Loc. | ID | Status |
|---|---|---|---|
| 1 | 193 | 440-194910-e-1-e@5 | Analyzed |


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==========

**Analysis Begun**

**Start Time: 10/26/2017 5:34:30 PM** **Plasma On Time: 10/26/2017 9:24:37 AM**
**Logged In Analyst: IRVINSTICP7** **Technique: ICP Continuous**
**Spectrometer: Optima 8300** **Autosampler: ESI**

**Sample Information File: C:\Users\Public\PerkinElmer\ICP\Data\Sample Information\CP 171026-1.sif**
**Batch ID:**
**Results Data Set: 171026-1 ICP7**
**Results Library: C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb**

==========

**Sequence No.: 1** **Autosampler Location: 4**
**Sample ID: CCV 4447505** **Date Collected: 10/26/2017 5:34:41 PM**
**Analyst:** **Data Type: Original**
**Initial Sample Wt:** **Initial Sample Vol:**
**Dilution:** **Sample Prep Vol:**
**Wash Time:**

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**Nebulizer Parameters: CCV 4447505**

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 195.0 kPa | 0.65 L/min |

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**Mean Data: CCV 4447505**

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2644014.7 | 103.2 | % | 1.65 | | | | 1.60% |
| Ag 328.068† | 47378.2 | 0.4818 | mg/L | 0.00120 | 0.4818 | mg/L | 0.00120 | 0.25% |
| Al 308.215† | 10107.6 | 0.9559 | mg/L | 0.00969 | 0.9559 | mg/L | 0.00969 | 1.01% |
| As 188.979† | 670.9 | 0.9954 | mg/L | 0.01020 | 0.9954 | mg/L | 0.01020 | 1.02% |
| B 249.677† | 44404.2 | 1.026 | mg/L | 0.0032 | 1.026 | mg/L | 0.0032 | 0.31% |
| Ba 233.527† | 29572.7 | 0.9039 | mg/L | 0.00323 | 0.9039 | mg/L | 0.00323 | 0.36% |
| Be 313.107† | 766892.0 | 0.8972 | mg/L | 0.00410 | 0.8972 | mg/L | 0.00410 | 0.46% |
| Ca 315.887† | 14033.0 | 5.162 | mg/L | 0.1347 | 5.162 | mg/L | 0.1347 | 2.61% |
| Cd 214.440† | 33570.7 | 1.061 | mg/L | 0.0037 | 1.061 | mg/L | 0.0037 | 0.35% |
| Co 228.616† | 9240.5 | 1.087 | mg/L | 0.0037 | 1.087 | mg/L | 0.0037 | 0.34% |
| Cr 205.560† | 12448.8 | 0.9802 | mg/L | 0.00063 | 0.9802 | mg/L | 0.00063 | 0.06% |
| Cu 324.752† | 109882.8 | 0.9648 | mg/L | 0.00426 | 0.9648 | mg/L | 0.00426 | 0.44% |
| Fe 238.204† | 3540.4 | 1.148 | mg/L | 0.0337 | 1.148 | mg/L | 0.0337 | 2.94% |
| K 766.490† | 25496.5 | 9.958 | mg/L | 0.1597 | 9.958 | mg/L | 0.1597 | 1.60% |
| Li 610.362† | 111521.5 | 0.9889 | mg/L | 0.00700 | 0.9889 | mg/L | 0.00700 | 0.71% |
| Mg 279.077† | 13254.3 | 4.728 | mg/L | 0.0091 | 4.728 | mg/L | 0.0091 | 0.19% |
| Mn 257.610† | 136918.3 | 0.8725 | mg/L | 0.00111 | 0.8725 | mg/L | 0.00111 | 0.13% |
| Mo 202.031† | 6192.6 | 0.9563 | mg/L | 0.00551 | 0.9563 | mg/L | 0.00551 | 0.58% |
| Na 589.592† | 190039.4 | 10.58 | mg/L | 0.179 | 10.58 | mg/L | 0.179 | 1.69% |
| Ni 231.604† | 10458.0 | 0.9455 | mg/L | 0.00695 | 0.9455 | mg/L | 0.00695 | 0.73% |
| P 214.914† | 444.1 | 0.8702 | mg/L | 0.01605 | 0.8702 | mg/L | 0.01605 | 1.84% |
| Pb 220.353† | 1961.0 | 1.008 | mg/L | 0.0099 | 1.008 | mg/L | 0.0099 | 0.98% |
| Sb 206.836† | 695.6 | 0.9346 | mg/L | 0.00555 | 0.9346 | mg/L | 0.00555 | 0.59% |
| Se 196.026† | 766.9 | 0.9846 | mg/L | 0.00125 | 0.9846 | mg/L | 0.00125 | 0.13% |
| Si 251.611† | 98604.4 | 5.467 | mg/L | 0.0200 | 5.467 | mg/L | 0.0200 | 0.37% |
| Sn 189.927† | 2394.1 | 0.9711 | mg/L | 0.01308 | 0.9711 | mg/L | 0.01308 | 1.35% |
| Sr 421.552† | 680262.6 | 0.9760 | mg/L | 0.01807 | 0.9760 | mg/L | 0.01807 | 1.85% |
| Ti 334.903† | 264442.6 | 1.062 | mg/L | 0.0089 | 1.062 | mg/L | 0.0089 | 0.84% |
| Tl 190.801† | 629.2 | 1.037 | mg/L | 0.0133 | 1.037 | mg/L | 0.0133 | 1.29% |
| V 292.402† | 41961.8 | 1.080 | mg/L | 0.0016 | 1.080 | mg/L | 0.0016 | 0.15% |
| Zn 213.857† | 33399.1 | 0.9463 | mg/L | 0.00214 | 0.9463 | mg/L | 0.00214 | 0.23% |
| Zr 343.823† | 141410.2 | 0.9907 | mg/L | 0.00717 | 0.9907 | mg/L | 0.00717 | 0.72% |
| W 207.912† | 1894.4 | 0.9020 | mg/L | 0.00800 | 0.9020 | mg/L | 0.00800 | 0.89% |


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Method Loaded
Method Name: 170824_ICP7 Method Last Saved: 10/26/2017 10:15:43 AM
IEC File: 171025_ICP7 1233.iec MSF File:
Method Description: 150722_ICP7

Sequence No.: 2 Autosampler Location: 1
Sample ID: CCB 4447504 Date Collected: 10/26/2017 5:36:45 PM
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time: 10 Auto Dilution Factor: 1

Nebulizer Parameters: CCB 4447504

| Analyte | Back Pressure | Flow |
|---|---|---|
| All | 195.0 kPa | 0.65 L/min |

Mean Data: CCB 4447504

| Analyte | Mean Corrected Intensity | Calib. Conc. | Calib. Units | Std.Dev. | Sample Conc. | Sample Units | Std.Dev. | RSD |
|---|---|---|---|---|---|---|---|---|
| Y 371.029 | 2692628.2 | 105.1 | % | 1.38 | | | | 1.31% |
| Ag 328.068† | 2.9 | 0.0000 | mg/L | 0.00044 | 0.0000 | mg/L | 0.00044 | >999.9% |
| Al 308.215† | -340.1 | -0.0335 | mg/L | 0.00647 | -0.0335 | mg/L | 0.00647 | 19.31% |
| As 188.979† | -2.0 | -0.0030 | mg/L | 0.00245 | -0.0030 | mg/L | 0.00245 | 82.02% |
| B 249.677† | 35.0 | 0.0007 | mg/L | 0.00004 | 0.0007 | mg/L | 0.00004 | 6.00% |
| Ba 233.527† | 17.0 | 0.0005 | mg/L | 0.00004 | 0.0005 | mg/L | 0.00004 | 7.58% |
| Be 313.107† | -127.5 | -0.0001 | mg/L | 0.00001 | -0.0001 | mg/L | 0.00001 | 3.87% |
| Ca 315.887† | 58.0 | 0.0213 | mg/L | 0.00086 | 0.0213 | mg/L | 0.00086 | 4.02% |
| Cd 214.440† | 9.1 | 0.0003 | mg/L | 0.00000 | 0.0003 | mg/L | 0.00000 | 0.48% |
| Co 228.616† | 14.5 | 0.0017 | mg/L | 0.00026 | 0.0017 | mg/L | 0.00026 | 15.29% |
| Cr 205.560† | 3.7 | 0.0003 | mg/L | 0.00008 | 0.0003 | mg/L | 0.00008 | 28.19% |
| Cu 324.752† | 142.4 | 0.0012 | mg/L | 0.00053 | 0.0012 | mg/L | 0.00053 | 42.13% |
| Fe 238.204† | 98.8 | 0.0320 | mg/L | 0.00169 | 0.0320 | mg/L | 0.00169 | 5.28% |
| K 766.490† | 98.1 | 0.0383 | mg/L | 0.01027 | 0.0383 | mg/L | 0.01027 | 26.81% |
| Li 610.362† | 233.5 | 0.0021 | mg/L | 0.00033 | 0.0021 | mg/L | 0.00033 | 15.67% |
| Mg 279.077† | 17.9 | 0.0064 | mg/L | 0.00105 | 0.0064 | mg/L | 0.00105 | 16.35% |
| Mn 257.610† | 36.3 | 0.0002 | mg/L | 0.00003 | 0.0002 | mg/L | 0.00003 | 13.67% |
| Mo 202.031† | 91.6 | 0.0142 | mg/L | 0.00194 | 0.0142 | mg/L | 0.00194 | 13.69% |
| Na 589.592† | 357.6 | 0.0199 | mg/L | 0.00003 | 0.0199 | mg/L | 0.00003 | 0.17% |
| Ni 231.604† | 24.6 | 0.0022 | mg/L | 0.00019 | 0.0022 | mg/L | 0.00019 | 8.64% |
| P 214.914† | -1.6 | -0.0036 | mg/L | 0.00429 | -0.0036 | mg/L | 0.00429 | 119.59% |
| Pb 220.353† | 3.4 | 0.0018 | mg/L | 0.00129 | 0.0018 | mg/L | 0.00129 | 72.96% |
| Sb 206.836† | 0.1 | 0.0003 | mg/L | 0.00134 | 0.0003 | mg/L | 0.00134 | 388.25% |
| Se 196.026† | 2.3 | 0.0029 | mg/L | 0.00328 | 0.0029 | mg/L | 0.00328 | 111.76% |
| Si 251.611† | 61.2 | 0.0032 | mg/L | 0.00049 | 0.0032 | mg/L | 0.00049 | 15.20% |
| Sn 189.927† | -3.4 | -0.0014 | mg/L | 0.00153 | -0.0014 | mg/L | 0.00153 | 112.42% |
| Sr 421.552† | 179.4 | 0.0003 | mg/L | 0.00014 | 0.0003 | mg/L | 0.00014 | 52.66% |
| Ti 334.903† | 366.6 | 0.0015 | mg/L | 0.00002 | 0.0015 | mg/L | 0.00002 | 1.33% |
| Tl 190.801† | -0.2 | -0.0004 | mg/L | 0.00349 | -0.0004 | mg/L | 0.00349 | 975.41% |
| V 292.402† | 6.9 | 0.0002 | mg/L | 0.00026 | 0.0002 | mg/L | 0.00026 | 142.62% |
| Zn 213.857† | -74.9 | -0.0022 | mg/L | 0.00004 | -0.0022 | mg/L | 0.00004 | 1.92% |
| Zr 343.823† | -27.4 | -0.0002 | mg/L | 0.00049 | -0.0002 | mg/L | 0.00049 | 256.49% |
| W 207.912† | 1.1 | 0.0006 | mg/L | 0.00028 | 0.0006 | mg/L | 0.00028 | 50.37% |


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**Analytical Sequence**
**Method: 170824_ICP7**

| Seq. | Loc. | ID | Status |
|---|---|---|---|
| 1 | 4 | CCV 4447505 | Analyzed |
| 2 | 1 | CCB 4447504 | Analyzed |


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Date created: 10/23/2017 9:09:39 AM

Sequence table:

| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| S1:5 | ICV 4439430 | 1.0 | 1.0 | 1.0 |
| S1:1 | ICB 4439426 | 1.0 | 1.0 | 1.0 |
| S1:6 | ICSA 4439431 | 1.0 | 1.0 | 1.0 |
| S1:7 | ICSAB 4439432 | 1.0 | 1.0 | 1.0 |
| S1:6 | ICSA 4439431 | 1.0 | 1.0 | 1.0 |
| S1:8 | XICIS 4439435 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4439436 | 1.0 | 1.0 | 1.0 |
| S1:9 | XCRI 4439433 | 1.0 | 1.0 | 1.0 |
| S1:10 | CRI 4439434 | 1.0 | 1.0 | 1.0 |
| 1:1 | mb 440-427707/1-a | 1.0 | 1.0 | 1.0 |
| 1:2 | lcs 440-427707/2-a | 1.0 | 1.0 | 1.0 |
| 1:3 | 440-191556-a-1-a | 1.0 | 1.0 | 1.0 |
| 1:4 | 440-191556-a-1-b ms | 1.0 | 1.0 | 1.0 |
| 1:5 | 440-191556-a-1-c msd | 1.0 | 1.0 | 1.0 |
| 1:6 | 440-191535-b-1-a | 1.0 | 1.0 | 1.0 |
| 1:7 | 440-191535-b-2-a | 1.0 | 1.0 | 1.0 |
| 1:8 | 440-191535-b-3-a | 1.0 | 1.0 | 1.0 |
| 1:9 | mb 440-436577/1-a@20 | 1.0 | 1.0 | 1.0 |
| 1:10 | lcs 440-436577/2-a@20 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4439427 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4439426 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4439427 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4439426 | 1.0 | 1.0 | 1.0 |
| 1:11 | 440-194492-b-14-d@20 | 1.0 | 1.0 | 1.0 |
| 1:12 | 440-194492-b-14-d ms@20 | 1.0 | 1.0 | 1.0 |
| 1:13 | 440-194492-b-14-d msd@20 | 1.0 | 1.0 | 1.0 |
| 1:14 | 440-194492-b-14-d sd@100 | 1.0 | 1.0 | 1.0 |
| 1:15 | 440-194492-b-15-c@20 | 1.0 | 1.0 | 1.0 |
| 1:16 | 440-194492-a-16-d@20 | 1.0 | 1.0 | 1.0 |
| 1:17 | 440-194077-a-1-g@20 | 1.0 | 1.0 | 1.0 |
| 1:18 | 440-193915-a-3-e@20 | 1.0 | 1.0 | 1.0 |
| 1:19 | 440-192743-a-19-c@20 | 1.0 | 1.0 | 1.0 |
| 1:20 | 440-192743-a-24-e@20 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4439427 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4439426 | 1.0 | 1.0 | 1.0 |
| 1:21 | mb 440-436837/1-a | 1.0 | 1.0 | 1.0 |
| 1:22 | lcs 440-436837/2-a | 1.0 | 1.0 | 1.0 |
| 1:23 | 440-194219-e-2-g@5 | 1.0 | 1.0 | 1.0 |
| 1:24 | 440-194219-e-2-h ms@5 | 1.0 | 1.0 | 1.0 |
| 1:25 | 440-194219-e-2-i msd@5 | 1.0 | 1.0 | 1.0 |

| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| 1:26 | 440-194219-e-1-c | 1.0 | 1.0 | 1.0 |
| 1:27 | 440-194219-e-3-c | 1.0 | 1.0 | 1.0 |
| 1:28 | 440-194107-l-7-c | 1.0 | 1.0 | 1.0 |
| 1:29 | 440-194107-l-6-c@10 | 1.0 | 1.0 | 1.0 |
| 1:30 | 440-194107-l-5-c | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4439427 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4439426 | 1.0 | 1.0 | 1.0 |
| 1:31 | 440-194107-l-4-c | 1.0 | 1.0 | 1.0 |
| 1:32 | 440-194107-l-3-c | 1.0 | 1.0 | 1.0 |
| 1:33 | 440-194107-l-2-c | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4439427 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4439426 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4439436 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4439427 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4439426 | 1.0 | 1.0 | 1.0 |
| 1:34 | mb 440-436853/1-a@5 | 1.0 | 1.0 | 1.0 |
| 1:35 | lcs 440-436853/2-a@5 | 1.0 | 1.0 | 1.0 |
| 1:36 | 440-194783-b-11-a@5 | 1.0 | 1.0 | 1.0 |
| 1:37 | 440-194783-b-11-b ms@5 | 1.0 | 1.0 | 1.0 |
| 1:38 | 440-194783-b-11-c msd@5 | 1.0 | 1.0 | 1.0 |
| 1:39 | 440-194783-b-11-aPDS@5 | 1.0 | 1.0 | 1.0 |
| 1:40 | 440-194783-b-11-aSD@25 | 1.0 | 1.0 | 1.0 |
| 1:41 | 440-194783-a-14-a@5 | 1.0 | 1.0 | 1.0 |
| 1:42 | 440-194783-b-15-a@5 | 1.0 | 1.0 | 1.0 |
| 1:43 | 440-194783-a-16-a@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4439427 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4439426 | 1.0 | 1.0 | 1.0 |
| 1:44 | 440-194783-b-17-a@5 | 1.0 | 1.0 | 1.0 |
| 1:45 | 440-194783-a-19-a@5 | 1.0 | 1.0 | 1.0 |
| 1:46 | 440-194783-b-20-a@5 | 1.0 | 1.0 | 1.0 |
| 1:47 | 440-194783-b-21-a@5 | 1.0 | 1.0 | 1.0 |
| 1:48 | mb 440-436841/1-a | 1.0 | 1.0 | 1.0 |
| 1:49 | lcs 440-436841/2-a | 1.0 | 1.0 | 1.0 |
| 1:50 | 440-194714-a-1-a | 1.0 | 1.0 | 1.0 |
| 1:51 | 440-194714-a-1-b ms | 1.0 | 1.0 | 1.0 |
| 1:52 | 440-194714-a-1-c msd | 1.0 | 1.0 | 1.0 |
| 1:53 | 440-194714-a-2-a | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4439427 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4439426 | 1.0 | 1.0 | 1.0 |
| 1:54 | 440-194714-a-3-a | 1.0 | 1.0 | 1.0 |
| 1:55 | 440-194714-a-4-a | 1.0 | 1.0 | 1.0 |
| 1:56 | 440-194714-a-5-a | 1.0 | 1.0 | 1.0 |
| 1:57 | 440-194732-c-1-a | 1.0 | 1.0 | 1.0 |
| 1:58 | mb 440-436845/1-a | 1.0 | 1.0 | 1.0 |
| 1:59 | lcs 440-436845/2-a | 1.0 | 1.0 | 1.0 |

| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| 1:60 | X440-194536-g-1-a | 1.0 | 1.0 | 1.0 |
| 2:1 | X440-194536-g-1-b ms | 1.0 | 1.0 | 1.0 |
| 2:2 | X440-194536-g-1-c msd | 1.0 | 1.0 | 1.0 |
| 2:3 | 440-194538-c-1-a | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4439427 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4439426 | 1.0 | 1.0 | 1.0 |
| 2:4 | 440-194466-g-2-a | 1.0 | 1.0 | 1.0 |
| 2:5 | 440-194466-g-1-a | 1.0 | 1.0 | 1.0 |
| 2:6 | 440-194228-w-1-c | 1.0 | 1.0 | 1.0 |
| 3:31 | 440-194788-1 | 1.0 | 1.0 | 1.0 |
| 1:60 | 440-194536-g-1-a@2 | 1.0 | 1.0 | 1.0 |
| 2:1 | 440-194536-g-1-b ms@2 | 1.0 | 1.0 | 1.0 |
| 2:2 | 440-194536-g-1-c msd@2 | 1.0 | 1.0 | 1.0 |
| 2:7 | mb 440-436823/1-a@5 | 1.0 | 1.0 | 1.0 |
| 2:8 | lcs 440-436823/2-a@5 | 1.0 | 1.0 | 1.0 |
| 2:9 | 440-194639-g-10-b@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4439427 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4439426 | 1.0 | 1.0 | 1.0 |
| 2:10 | 440-194639-g-10-c ms@5 | 1.0 | 1.0 | 1.0 |
| 2:11 | 440-194639-g-10-d msd@5 | 1.0 | 1.0 | 1.0 |
| 2:12 | 440-194639-g-10-b pds@5 | 1.0 | 1.0 | 1.0 |
| 2:13 | 440-194639-g-10-b sd@25 | 1.0 | 1.0 | 1.0 |
| 2:14 | 440-194639-g-9-b@5 | 1.0 | 1.0 | 1.0 |
| 2:15 | 440-194639-g-8-b@5 | 1.0 | 1.0 | 1.0 |
| 2:16 | 440-194639-g-7-b@5 | 1.0 | 1.0 | 1.0 |
| 2:17 | 440-194639-g-6-b@5 | 1.0 | 1.0 | 1.0 |
| 2:18 | 440-194639-g-5-b@5 | 1.0 | 1.0 | 1.0 |
| 2:19 | 440-194639-g-4-b@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4439427 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4439426 | 1.0 | 1.0 | 1.0 |
| 2:20 | 440-194639-g-3-b@5 | 1.0 | 1.0 | 1.0 |
| 2:21 | 440-194639-g-2-b@5 | 1.0 | 1.0 | 1.0 |
| 2:22 | 440-194639-g-1-b@5 | 1.0 | 1.0 | 1.0 |
| 2:23 | 440-194639-g-11-b@5 | 1.0 | 1.0 | 1.0 |
| 2:24 | 440-194639-g-12-b@5 | 1.0 | 1.0 | 1.0 |
| 2:25 | 440-194639-g-13-b@5 | 1.0 | 1.0 | 1.0 |
| 2:26 | 440-194639-g-14-b@5 | 1.0 | 1.0 | 1.0 |
| 2:27 | 440-194639-g-15-b@5 | 1.0 | 1.0 | 1.0 |
| 2:28 | 440-194639-g-16-b@5 | 1.0 | 1.0 | 1.0 |
| 2:29 | 440-194639-g-17-d@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4439427 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4439426 | 1.0 | 1.0 | 1.0 |
| 2:30 | 440-194639-g-18-b@5 | 1.0 | 1.0 | 1.0 |
| 2:31 | mb 440-436843/1-a | 1.0 | 1.0 | 1.0 |
| 2:32 | lcs 440-436843/2-a | 1.0 | 1.0 | 1.0 |

| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| 2:33 | 440-194404-e-1-d | 1.0 | 1.0 | 1.0 |
| 2:34 | 440-194404-e-1-e ms | 1.0 | 1.0 | 1.0 |
| 2:35 | 440-194404-e-1-f msd | 1.0 | 1.0 | 1.0 |
| 2:36 | 440-194404-e-2-b | 1.0 | 1.0 | 1.0 |
| 2:37 | 440-194404-e-3-b | 1.0 | 1.0 | 1.0 |
| 2:38 | 440-194404-e-5-b | 1.0 | 1.0 | 1.0 |
| 2:39 | 440-194404-e-4-b | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4439427 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4439426 | 1.0 | 1.0 | 1.0 |
| 2:40 | 440-194404-e-6-b | 1.0 | 1.0 | 1.0 |
| 2:41 | 440-194254-o-1-f | 1.0 | 1.0 | 1.0 |
| 2:42 | 440-194194-l-2-g | 1.0 | 1.0 | 1.0 |
| 2:43 | 440-194282-i-2-c | 1.0 | 1.0 | 1.0 |
| 2:44 | 440-194301-f-1-c | 1.0 | 1.0 | 1.0 |
| 2:45 | 440-194301-f-2-c | 1.0 | 1.0 | 1.0 |
| 2:46 | 440-194301-f-2-f ms | 1.0 | 1.0 | 1.0 |
| 2:47 | 440-194301-f-2-g msd | 1.0 | 1.0 | 1.0 |
| 2:48 | 440-194301-f-3-c | 1.0 | 1.0 | 1.0 |
| 2:49 | 440-194301-f-4-c | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4439427 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4439426 | 1.0 | 1.0 | 1.0 |
| 2:50 | mb 440-436848/1-a | 1.0 | 1.0 | 1.0 |
| 2:51 | lcs 440-436848/2-a | 1.0 | 1.0 | 1.0 |
| 2:52 | 440-194571-g-9-a@5 | 1.0 | 1.0 | 1.0 |
| 2:53 | 440-194571-g-9-b ms@5 | 1.0 | 1.0 | 1.0 |
| 2:54 | 440-194571-g-9-c msd@5 | 1.0 | 1.0 | 1.0 |
| 2:55 | 440-194571-g-9-d pds@5 | 1.0 | 1.0 | 1.0 |
| 2:56 | 440-194571-g-9-aSD@25 | 1.0 | 1.0 | 1.0 |
| 2:57 | 440-194571-g-18-a | 1.0 | 1.0 | 1.0 |
| 2:58 | 440-194623-g-9-a@5 | 1.0 | 1.0 | 1.0 |
| 2:59 | 440-194623-g-12-a | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4439427 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4439426 | 1.0 | 1.0 | 1.0 |
| 2:60 | 440-194702-e-1-a | 1.0 | 1.0 | 1.0 |
| 3:1 | 440-194570-m-1-a | 1.0 | 1.0 | 1.0 |
| 3:2 | 440-194570-m-2-a | 1.0 | 1.0 | 1.0 |
| 3:3 | 440-194759-g-4-a | 1.0 | 1.0 | 1.0 |
| 3:4 | 440-194754-g-14-a | 1.0 | 1.0 | 1.0 |
| 3:5 | mb 440-436824/1-a@5 | 1.0 | 1.0 | 1.0 |
| 3:6 | lcs 440-436824/2-a@5 | 1.0 | 1.0 | 1.0 |
| 3:7 | 440-194757-h-1-c@5 | 1.0 | 1.0 | 1.0 |
| 3:8 | 440-194757-h-1-d ms@5 | 1.0 | 1.0 | 1.0 |
| 3:9 | 440-194757-h-1-e msd@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4439427 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4439426 | 1.0 | 1.0 | 1.0 |

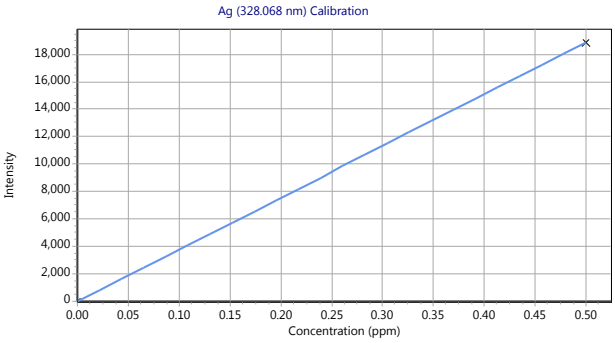
| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| 3:10 | 440-194757-h-1-cPDS@5 | 1.0 | 1.0 | 1.0 |
| 3:11 | 440-194757-h-1-cSD@25 | 1.0 | 1.0 | 1.0 |
| 3:12 | 440-194757-g-2-d@5 | 1.0 | 1.0 | 1.0 |
| 3:13 | 440-194757-h-3-d@5 | 1.0 | 1.0 | 1.0 |
| 3:14 | 440-194757-h-4-c@5 | 1.0 | 1.0 | 1.0 |
| 3:15 | 440-194757-h-5-d@5 | 1.0 | 1.0 | 1.0 |
| 3:16 | 440-194757-h-6-c@5 | 1.0 | 1.0 | 1.0 |
| 3:17 | 440-194757-h-7-d@5 | 1.0 | 1.0 | 1.0 |
| 3:18 | 440-194757-h-8-d@5 | 1.0 | 1.0 | 1.0 |
| 3:19 | 440-194757-h-9-d@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4439427 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4439426 | 1.0 | 1.0 | 1.0 |
| 3:20 | 440-194757-h-10-c@5 | 1.0 | 1.0 | 1.0 |
| 3:21 | 440-194757-h-11-d@5 | 1.0 | 1.0 | 1.0 |
| 3:22 | 440-194757-h-12-d@5 | 1.0 | 1.0 | 1.0 |
| 3:23 | 440-194757-h-13-c@5 | 1.0 | 1.0 | 1.0 |
| 3:24 | 440-194757-h-14-d@5 | 1.0 | 1.0 | 1.0 |
| 3:25 | 440-194757-h-15-d@5 | 1.0 | 1.0 | 1.0 |
| 3:26 | 440-194757-h-16-c@5 | 1.0 | 1.0 | 1.0 |
| 3:27 | 440-194757-h-18-d@5 | 1.0 | 1.0 | 1.0 |
| 3:28 | 440-194757-h-17-d@5 | 1.0 | 1.0 | 1.0 |
| 3:29 | 440-194757-h-19-a@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4439427 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4439426 | 1.0 | 1.0 | 1.0 |
| 3:30 | 440-194757-h-20-d@5 | 1.0 | 1.0 | 1.0 |
| 3:32 | mb 440-436825/1-a@5 | 1.0 | 1.0 | 1.0 |
| 3:33 | lcs 440-436825/2-a@5 | 1.0 | 1.0 | 1.0 |
| 3:34 | 440-194757-h-21-c@5 | 1.0 | 1.0 | 1.0 |
| 3:35 | 440-194757-h-21-d ms@5 | 1.0 | 1.0 | 1.0 |
| 3:36 | 440-194757-h-21-e msd@5 | 1.0 | 1.0 | 1.0 |
| 3:37 | 440-194757-h-21-cPDS@5 | 1.0 | 1.0 | 1.0 |
| 3:38 | 440-194757-h-21-cSD@25 | 1.0 | 1.0 | 1.0 |
| 3:39 | 440-194757-h-22-d@5 | 1.0 | 1.0 | 1.0 |
| 3:40 | 440-194757-h-23-a@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4439427 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4439426 | 1.0 | 1.0 | 1.0 |
| 3:41 | 440-194757-h-24-c@5 | 1.0 | 1.0 | 1.0 |
| 3:42 | 440-194757-h-25-d@5 | 1.0 | 1.0 | 1.0 |
| 3:43 | 440-194757-h-26-d@5 | 1.0 | 1.0 | 1.0 |
| 3:44 | 440-194757-h-27-d@5 | 1.0 | 1.0 | 1.0 |
| 3:45 | 440-194757-h-28-d@5 | 1.0 | 1.0 | 1.0 |
| 3:46 | 440-194757-h-29-a@5 | 1.0 | 1.0 | 1.0 |
| 3:47 | 440-194757-h-30-d@5 | 1.0 | 1.0 | 1.0 |
| 3:48 | 440-194757-h-31-d@5 | 1.0 | 1.0 | 1.0 |
| 3:49 | 440-194757-h-32-c@5 | 1.0 | 1.0 | 1.0 |

| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| 3:50 | 440-194757-h-33-d@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4439427 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4439426 | 1.0 | 1.0 | 1.0 |
| 3:51 | 440-194715-a-1-b@5 | 1.0 | 1.0 | 1.0 |
| 3:52 | 440-194715-a-2-b@5 | 1.0 | 1.0 | 1.0 |
| 3:53 | 440-194715-a-3-b@5 | 1.0 | 1.0 | 1.0 |
| 3:54 | 440-194715-a-4-b@5 | 1.0 | 1.0 | 1.0 |
| 3:55 | 440-194726-c-1-c@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4439427 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4439426 | 1.0 | 1.0 | 1.0 |
| S1:10 | CRI 4439434 | 1.0 | 1.0 | 1.0 |
| S1:6 | ICSA 4439431 | 1.0 | 1.0 | 1.0 |
| S1:7 | ICSAB 4439432 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4439436 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4439436 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4439436 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4439436 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4439436 | 1.0 | 1.0 | 1.0 |

Calibration Curves:

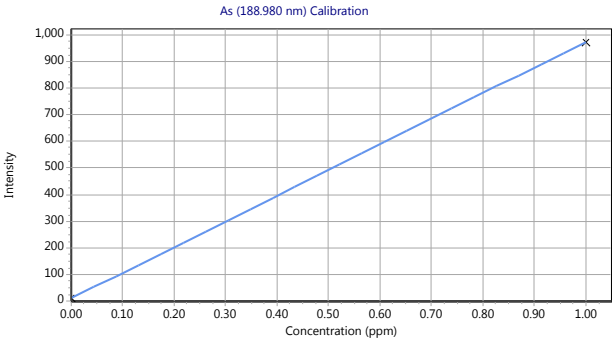
Ag (328.068 nm)
Intensity = 37801 * Concentration - 18

| Standards | Intensity |
|---|---|
| IEC Blank | -17.5600 |
| STD3 | 18880.0000 |



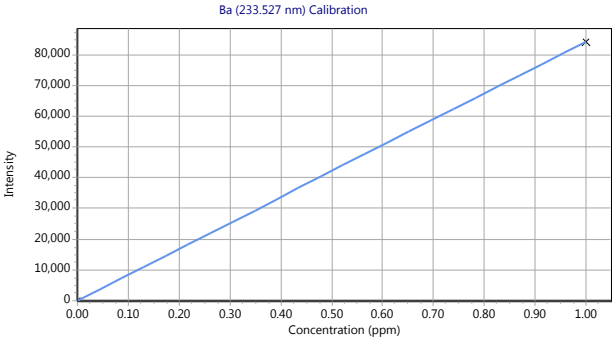

As (188.980 nm)
Intensity = 964 * Concentration + 10

| Standards | Intensity |
|---|---|
| IEC Blank | 9.8560 |
| STD3 | 973.9000 |



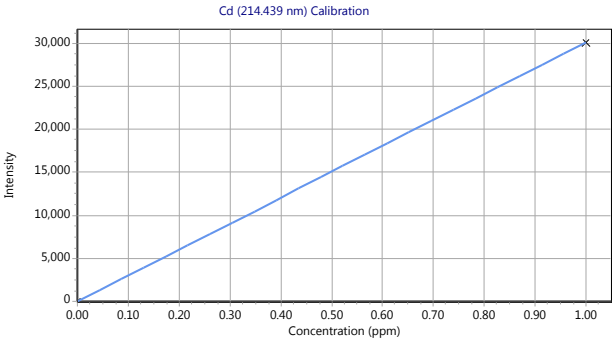

Ba (233.527 nm)
Intensity = 84304 * Concentration - 13

| Standards | Intensity |
|---|---|
| IEC Blank | -12.8900 |
| STD3 | 84290.0000 |



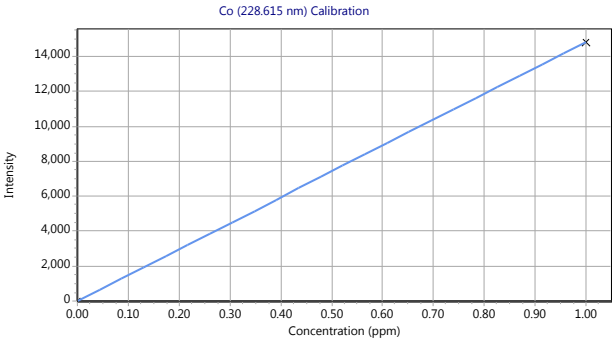

Cd (214.439 nm)
Intensity = 30108 * Concentration - 4

| Standards | Intensity |
|---|---|
| IEC Blank | -4.4850 |
| STD3 | 30100.0000 |



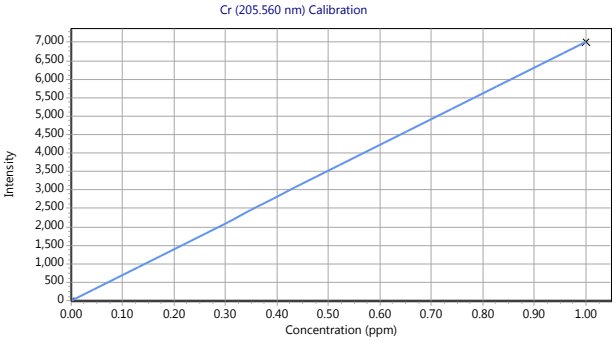

Co (228.615 nm)
Intensity = 14834 * Concentration - 3

| Standards | Intensity |
|---|---|
| IEC Blank | -2.8900 |
| STD3 | 14830.0000 |



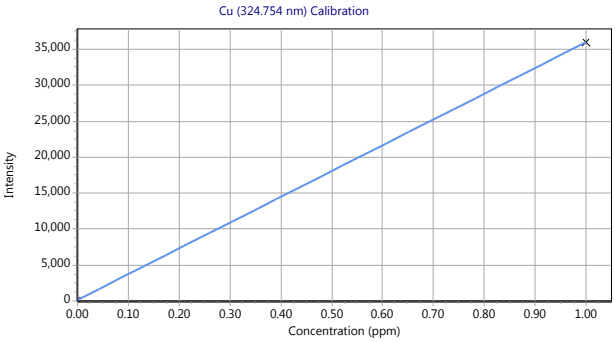

Cr (205.560 nm)
Intensity = 7017 * Concentration + 4

| Standards | Intensity |
|---|---|
| IEC Blank | 3.7230 |
| STD3 | 7020.0000 |



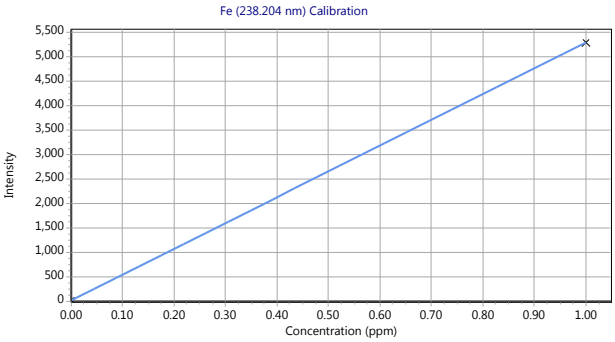

Cu (324.754 nm)
Intensity = 35890 * Concentration + 142

| Standards | Intensity |
|---|---|
| IEC Blank | 141.8000 |
| STD3 | 36030.0000 |



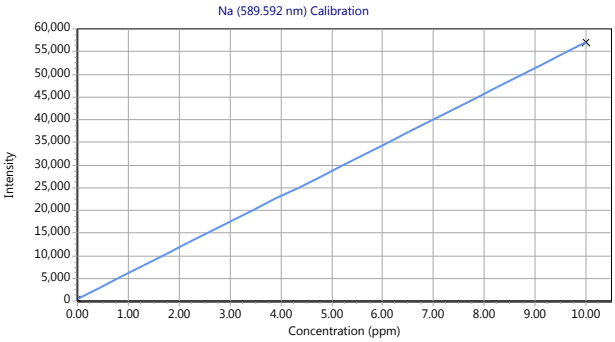

Fe (238.204 nm)
Intensity = 5267 * Concentration + 31

| Standards | Intensity |
|---|---|
| IEC Blank | 30.9700 |
| STD3 | 5298.0000 |



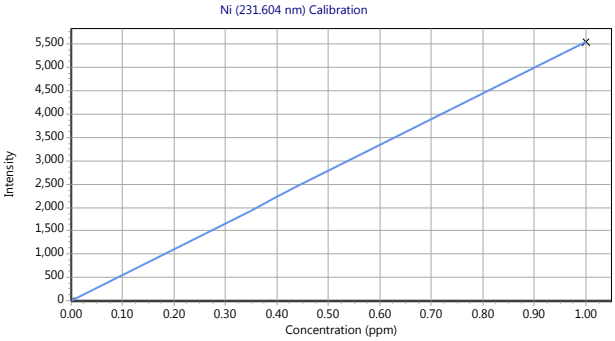

Na (589.592 nm)
Intensity = 5683 * Concentration + 369

| Standards | Intensity |
|---|---|
| IEC Blank | 368.6000 |
| STD3 | 57200.0000 |



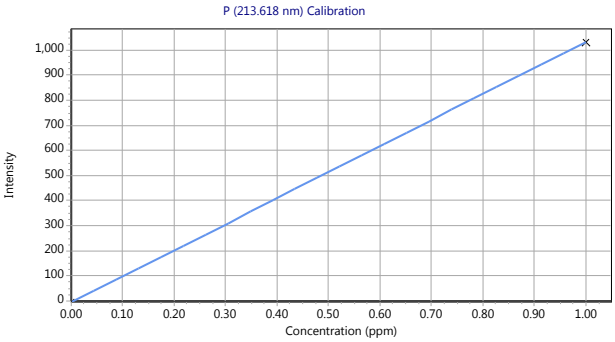

Ni (231.604 nm)
Intensity = 5561 * Concentration + 0

| Standards | Intensity |
|---|---|
| IEC Blank | 0.0688 |
| STD3 | 5561.0000 |



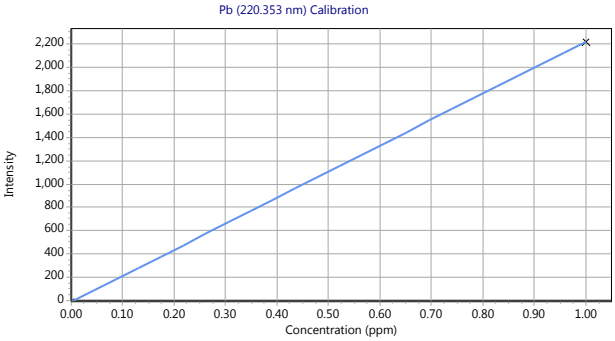

P (213.618 nm)
Intensity = 1038 * Concentration - 6

| Standards | Intensity |
|---|---|
| IEC Blank | -5.5350 |
| STD3 | 1032.0000 |



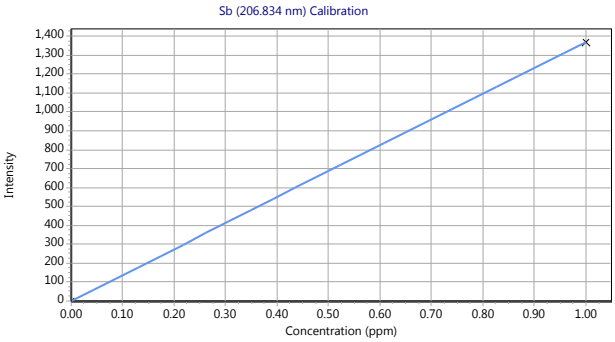

Pb (220.353 nm)
Intensity = 2232 * Concentration - 9

| Standards | Intensity |
|---|---|
| IEC Blank | -9.1450 |
| STD3 | 2222.0000 |



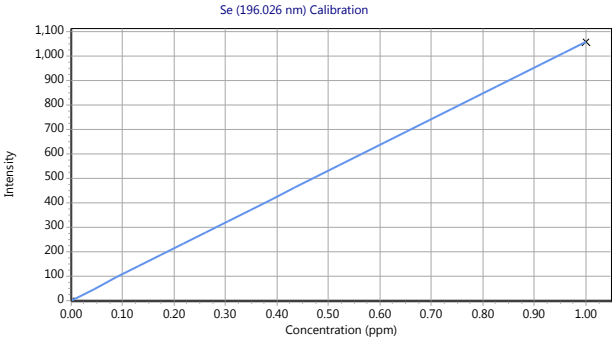

Sb (206.834 nm)
Intensity = 1369 * Concentration + 1

| Standards | Intensity |
|---|---|
| IEC Blank | 1.4010 |
| STD3 | 1370.0000 |



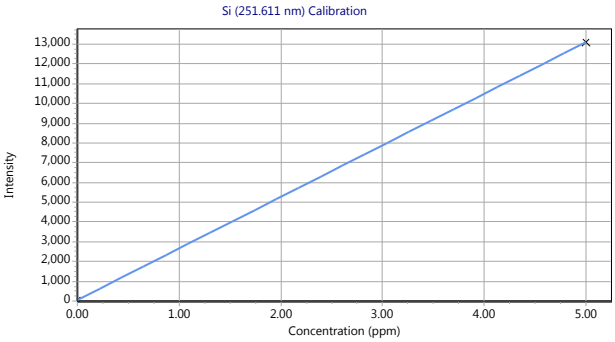

Se (196.026 nm)
Intensity = 1058 * Concentration + 2

| Standards | Intensity |
|---|---|
| IEC Blank | 1.9320 |
| STD3 | 1060.0000 |



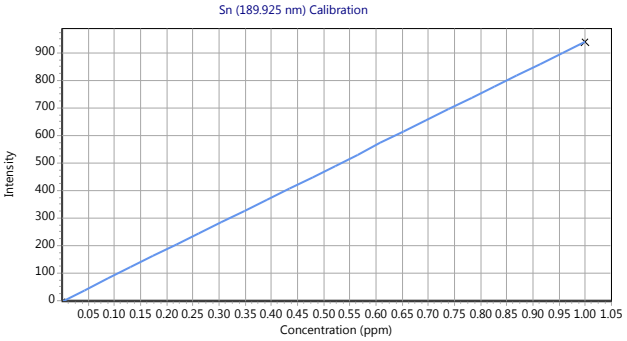

Si (251.611 nm)
Intensity = 2615 * Concentration + 45

| Standards | Intensity |
|---|---|
| IEC Blank | 44.9900 |
| STD3 | 13120.0000 |



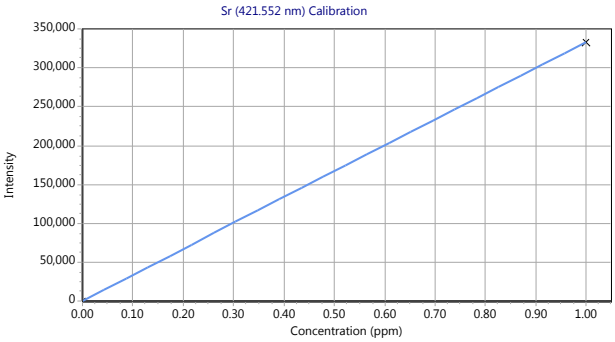

Sn (189.925 nm)
Intensity = 943 * Concentration - 2

| Standards | Intensity |
|---|---|
| IEC Blank | -2.2560 |
| STD3 | 940.4000 |



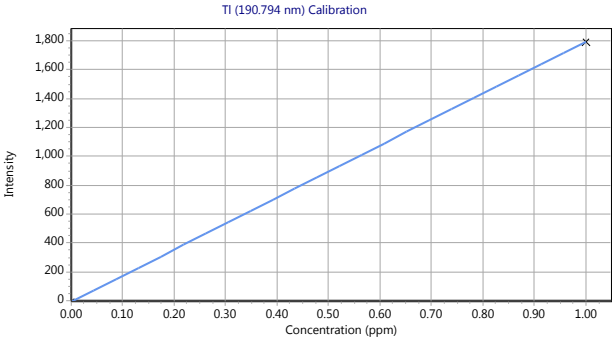

Sr (421.552 nm)
Intensity = 333367 * Concentration + 313

| Standards | Intensity |
|---|---|
| IEC Blank | 312.6000 |
| STD3 | 333700.0000 |



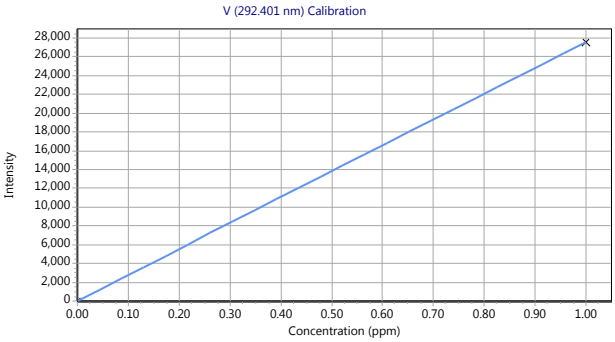

Tl (190.794 nm)
Intensity = 1801 * Concentration - 7

| Standards | Intensity |
|---|---|
| IEC Blank | -6.7290 |
| STD3 | 1794.0000 |



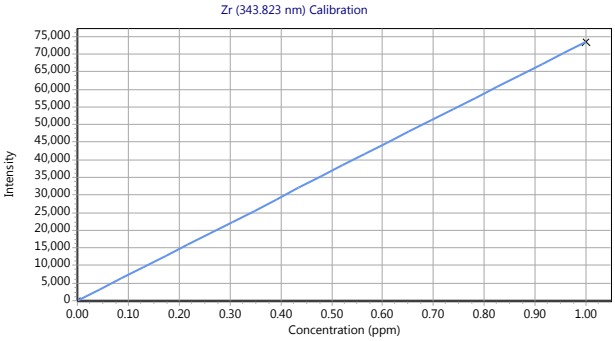

V (292.401 nm)
Intensity = 27558 * Concentration + 28

| Standards | Intensity |
|---|---|
| IEC Blank | 27.9500 |
| STD3 | 27590.0000 |



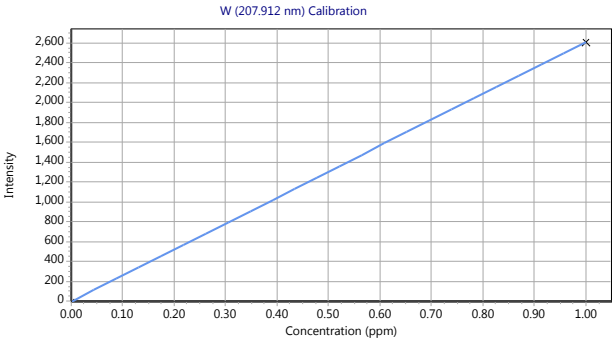

Zr (343.823 nm)
Intensity = 73556 * Concentration - 10

| Standards | Intensity |
|---|---|
| IEC Blank | -9.5530 |
| STD3 | 73550.0000 |



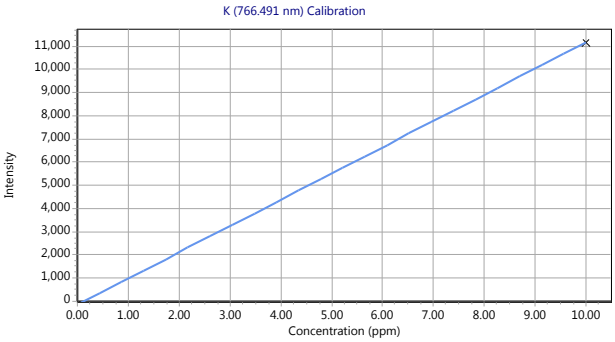

W (207.912 nm)
Intensity = 2614 * Concentration - 6

| Standards | Intensity |
|---|---|
| IEC Blank | -5.8860 |
| STD3 | 2608.0000 |



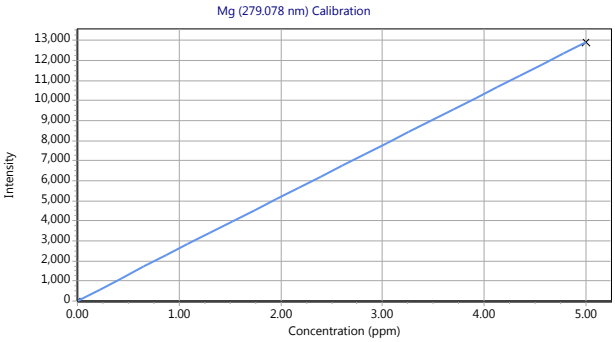

K (766.491 nm)
Intensity = 1132 * Concentration - 149

| Standards | Intensity |
|---|---|
| IEC Blank | -148.5000 |
| STD3 | 11170.0000 |



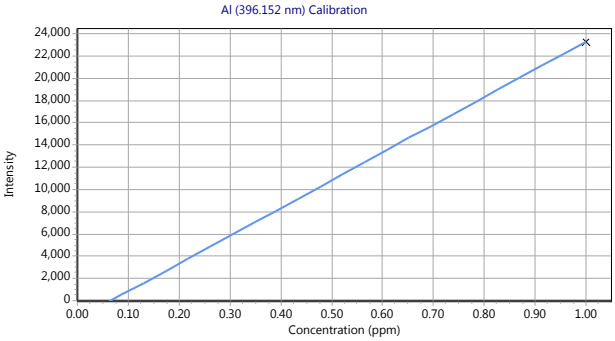

Mg (279.078 nm)
Intensity = 2581 * Concentration + 20

| Standards | Intensity |
|---|---|
| IEC Blank | 20.0500 |
| STD3 | 12930.0000 |



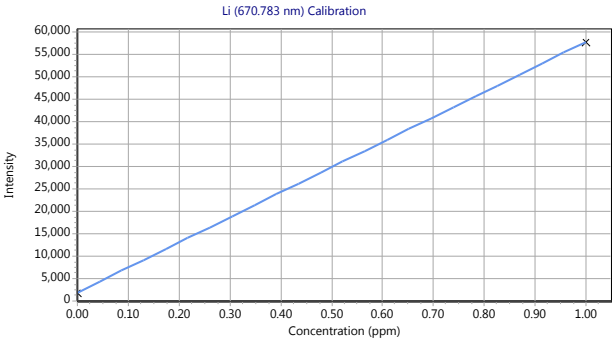

Al (396.152 nm)
Intensity = 24974 * Concentration - 1661

| Standards | Intensity |
|---|---|
| IEC Blank | -1661.0000 |
| STD3 | 23310.0000 |



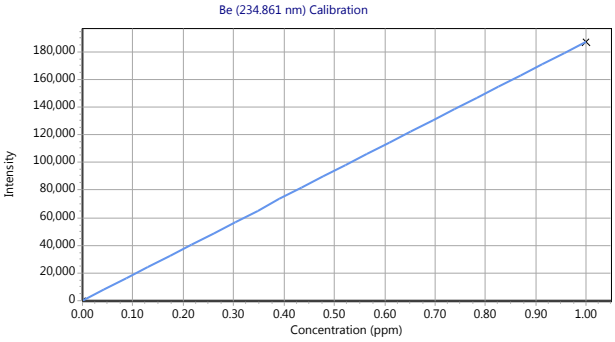

Li (670.783 nm)
Intensity = 55954 * Concentration + 1873

| Standards | Intensity |
|---|---|
| IEC Blank | 1873.0000 |
| STD3 | 57830.0000 |



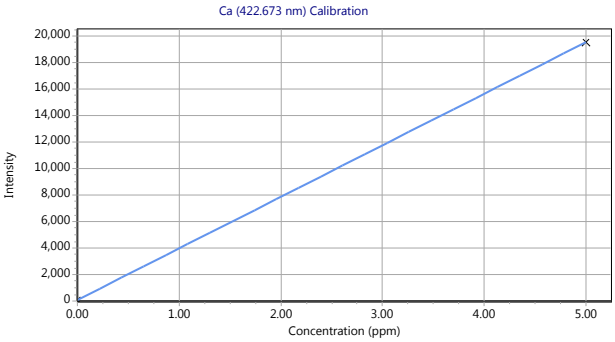

Be (234.861 nm)
Intensity = 187234 * Concentration + 1

| Standards | Intensity |
|---|---|
| IEC Blank | 0.5601 |
| STD3 | 187200.0000 |



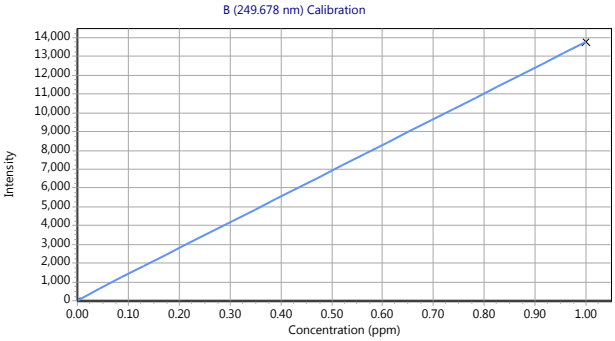

Ca (422.673 nm)
Intensity = 3899 * Concentration + 90

| Standards | Intensity |
|---|---|
| IEC Blank | 89.6400 |
| STD3 | 19590.0000 |



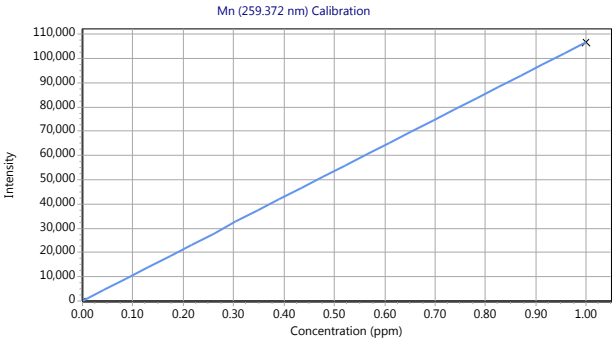

B (249.678 nm)
Intensity = 13775 * Concentration + 25

| Standards | Intensity |
|---|---|
| IEC Blank | 25.4900 |
| STD3 | 13800.0000 |



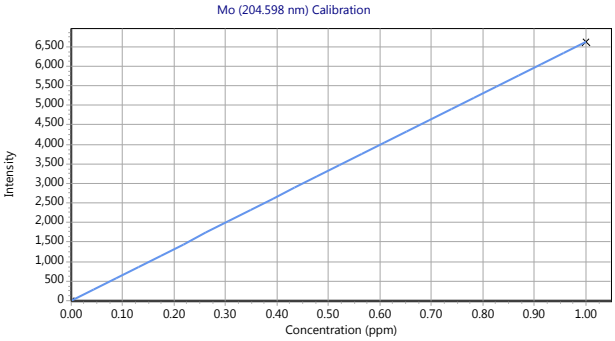

Mn (259.372 nm)
Intensity = 106786 * Concentration + 76

| Standards | Intensity |
|---|---|
| IEC Blank | 76.2600 |
| STD3 | 106900.0000 |



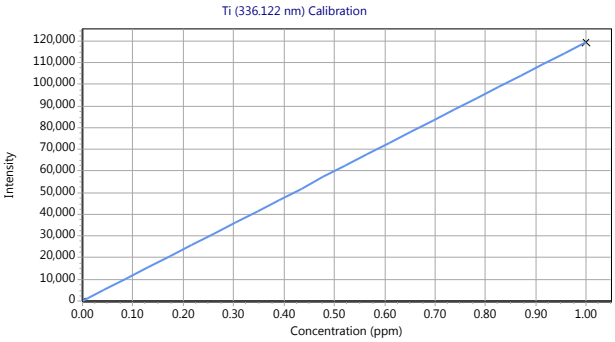

Mo (204.598 nm)
Intensity = 6623 * Concentration + 6

| Standards | Intensity |
|---|---|
| IEC Blank | 6.4530 |
| STD3 | 6629.0000 |



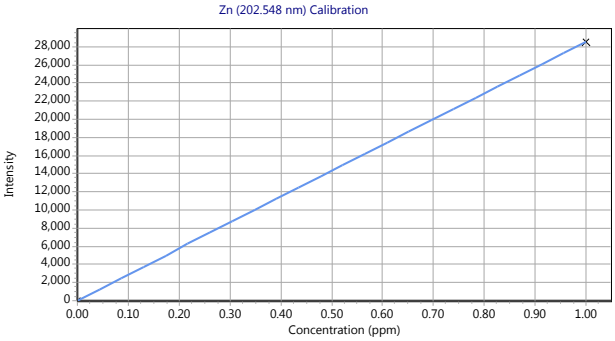

Ti (336.122 nm)
Intensity = 119615 * Concentration - 74

| Standards | Intensity |
|---|---|
| IEC Blank | -73.7000 |
| STD3 | 119500.0000 |



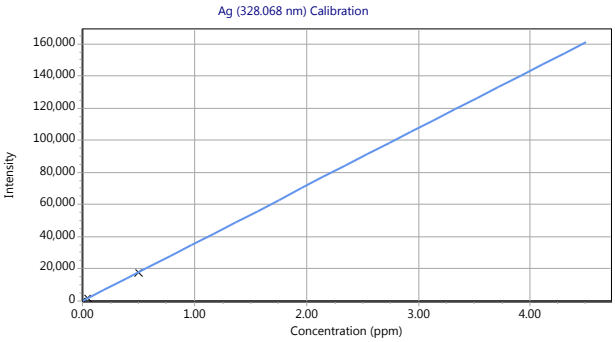

Zn (202.548 nm)
Intensity = 28533 * Concentration + 37

| Standards | Intensity |
|---|---|
| IEC Blank | 37.4200 |
| STD3 | 28570.0000 |



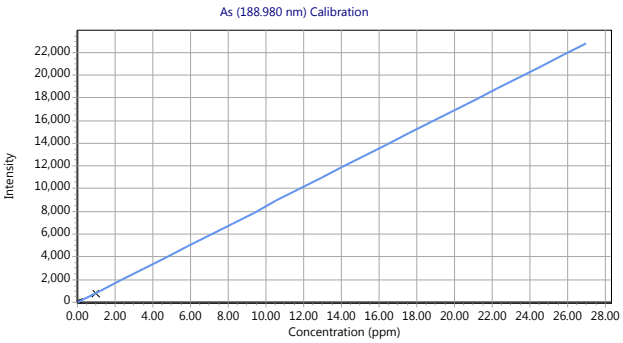

Ag (328.068 nm)
Intensity = 35832.86713375 * Concentration - 4.50041756
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | -4.5000 |
| STD1 4439429 | 96.7100 |
| STD2 4439428 | 1796.0000 |
| STD3 4439427 | 17910.0000 |



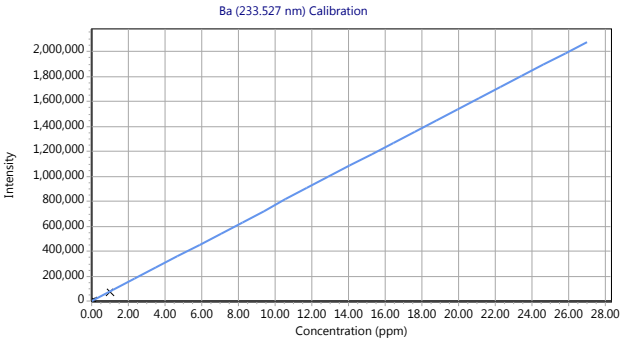

As (188.980 nm)
Intensity = 844.12157980 * Concentration + 7.10256508
Correlation coefficient: 0.99999

| Standards | Intensity |
|---|---|
| STD0 4439426 | 7.1030 |
| STD1 4439429 | 14.6700 |
| STD2 4439428 | 94.1700 |
| STD3 4439427 | 850.9000 |



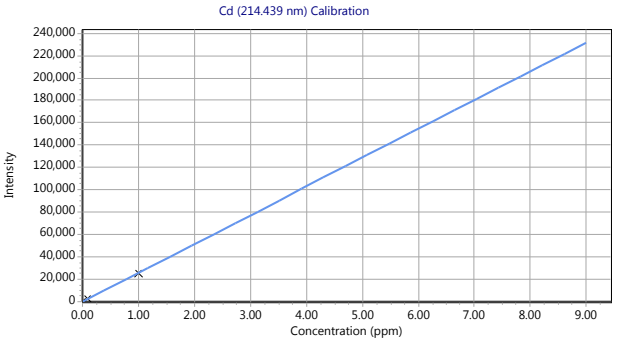

Ba (233.527 nm)
Intensity = 77022.76210858 * Concentration - 7.14908111
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | -7.1490 |
| STD1 4439429 | 387.6000 |
| STD2 4439428 | 7768.0000 |
| STD3 4439427 | 77010.0000 |



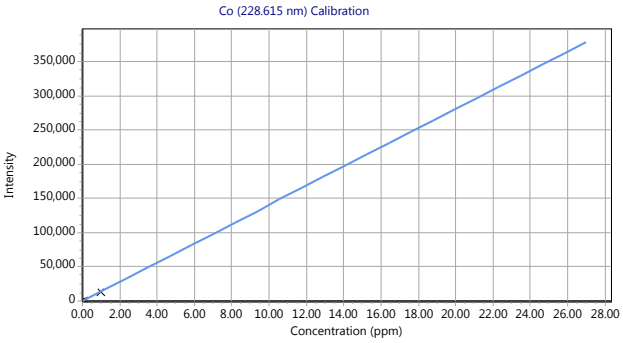

Cd (214.439 nm)
Intensity = 25746.09897710 * Concentration - 4.88558522
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | -4.8860 |
| STD1 4439429 | 125.8000 |
| STD2 4439428 | 2597.0000 |
| STD3 4439427 | 25740.0000 |



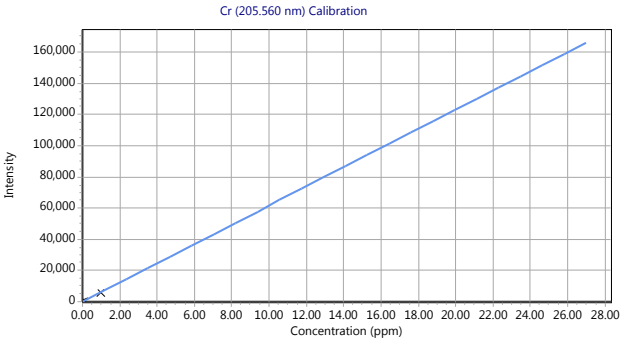

Co (228.615 nm)
Intensity = 14028.47340250 * Concentration - 2.86229567
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | -2.8620 |
| STD1 4439429 | 62.9200 |
| STD2 4439428 | 1397.0000 |
| STD3 4439427 | 14030.0000 |



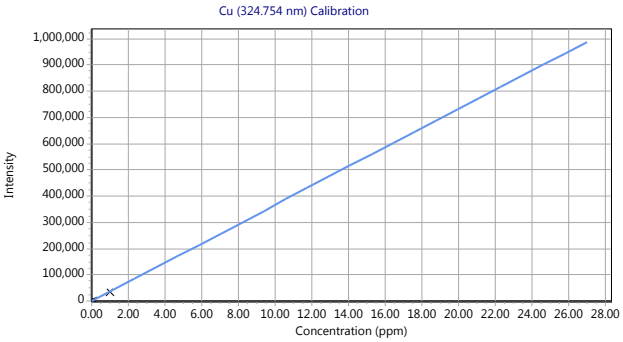

Cr (205.560 nm)
Intensity = 6157.41428634 * Concentration + 2.58440758
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | 2.5840 |
| STD1 4439429 | 33.2400 |
| STD2 4439428 | 620.4000 |
| STD3 4439427 | 6160.0000 |



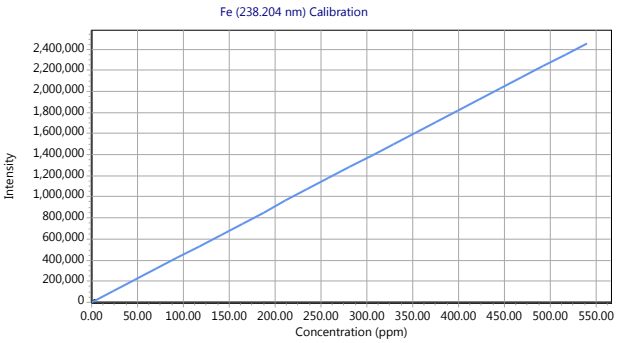

Cu (324.754 nm)
Intensity = 36585.93574141 * Concentration + 220.53337687
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | 220.5000 |
| STD1 4439429 | 393.2000 |
| STD2 4439428 | 3836.0000 |
| STD3 4439427 | 36810.0000 |



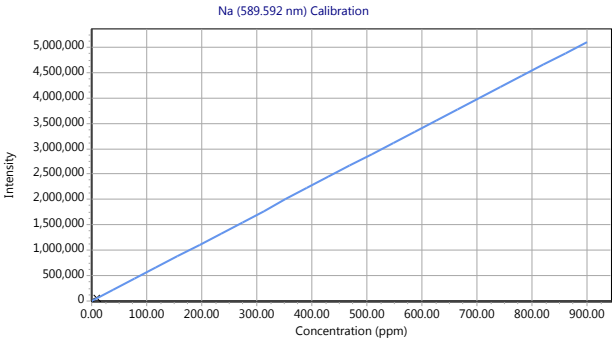

Fe (238.204 nm)
Intensity = 4548.23193015 * Concentration + 10.79695900
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | 10.8000 |
| STD2 4439428 | 451.3000 |
| STD3 4439427 | 4560.0000 |



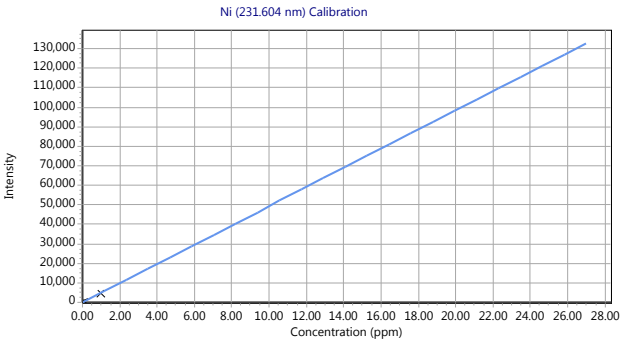

Na (589.592 nm)
Intensity = 5671.09521939 * Concentration + 783.26092464
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | 783.3000 |
| STD2 4439428 | 6559.0000 |
| STD3 4439427 | 57480.0000 |



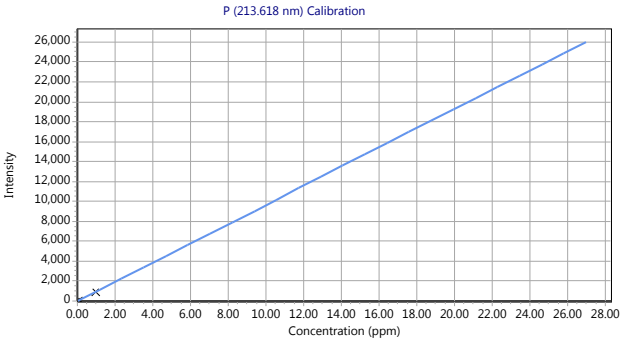

Ni (231.604 nm)
Intensity = 4920.88170263 * Concentration + 0.90707183
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | 0.9071 |
| STD1 4439429 | 27.5300 |
| STD2 4439428 | 499.7000 |
| STD3 4439427 | 4921.0000 |



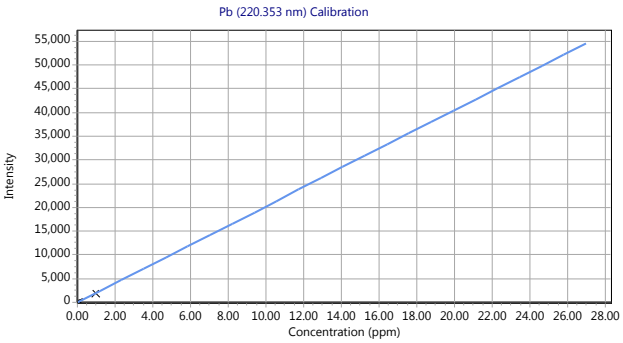

P (213.618 nm)
Intensity = 963.94452352 * Concentration - 9.75331975
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | -9.7530 |
| STD2 4439428 | 84.5700 |
| STD3 4439427 | 954.4000 |



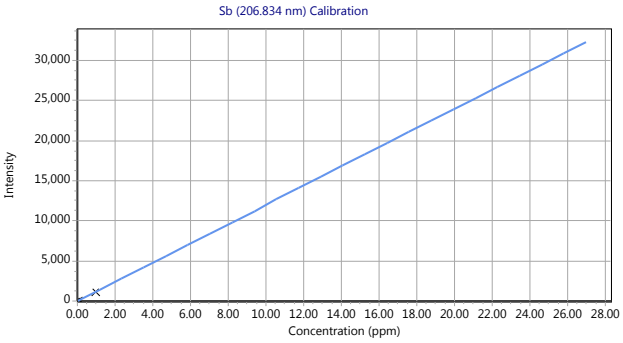

Pb (220.353 nm)
Intensity = 2021.19868261 * Concentration - 4.47874164
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | -4.4790 |
| STD1 4439429 | 6.6190 |
| STD2 4439428 | 194.2000 |
| STD3 4439427 | 2017.0000 |



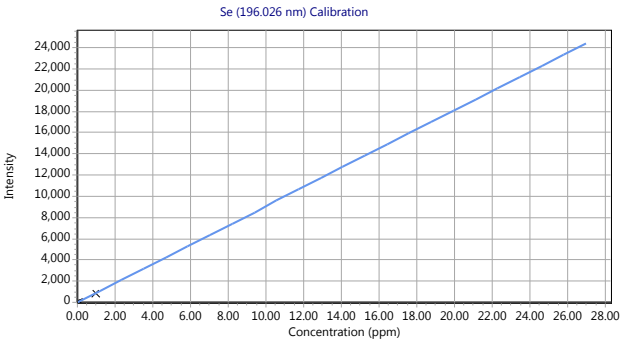

Sb (206.834 nm)
Intensity = 1196.99533928 * Concentration + 1.69718118
Correlation coefficient: 0.99999

| Standards | Intensity |
|---|---|
| STD0 4439426 | 1.6970 |
| STD1 4439429 | 9.4790 |
| STD2 4439428 | 118.7000 |
| STD3 4439427 | 1199.0000 |



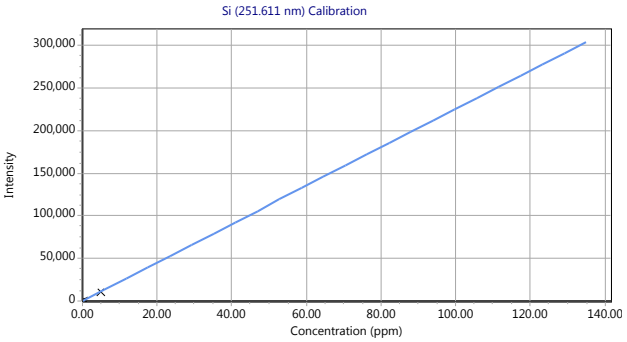

Se (196.026 nm)
Intensity = 904.31205461 * Concentration + 2.23685174
Correlation coefficient: 0.99999

| Standards | Intensity |
|---|---|
| STD0 4439426 | 2.2370 |
| STD1 4439429 | 3.8930 |
| STD2 4439428 | 88.2800 |
| STD3 4439427 | 907.0000 |



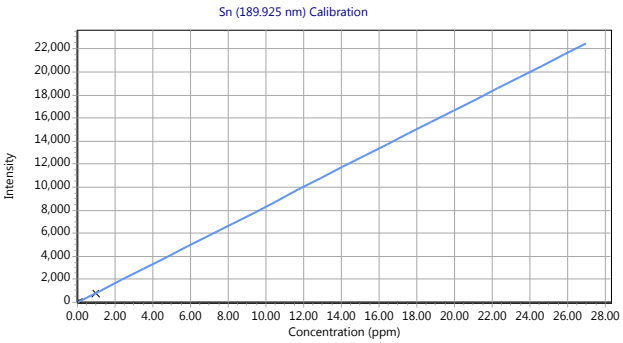

Si (251.611 nm)
Intensity = 2251.72020411 * Concentration + 22.40829422
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | 22.4100 |
| STD1 4439429 | 83.3100 |
| STD2 4439428 | 1150.0000 |
| STD3 4439427 | 11280.0000 |



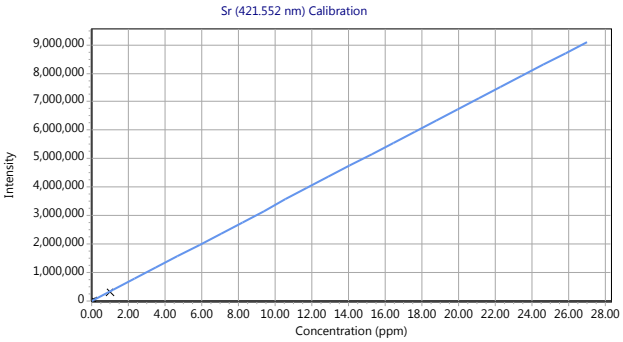

Sn (189.925 nm)
Intensity = 833.14084214 * Concentration - 1.49251481
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | -1.4930 |
| STD2 4439428 | 81.2200 |
| STD3 4439427 | 831.7000 |



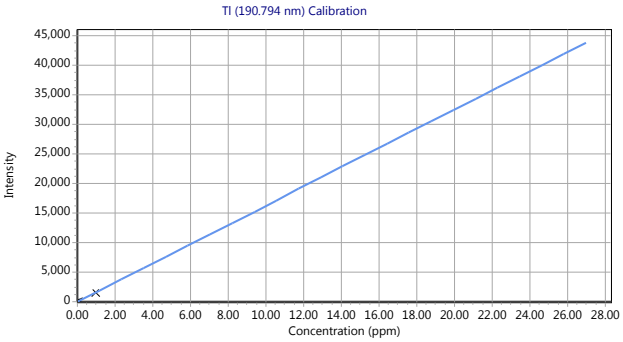

Sr (421.552 nm)
Intensity = 337201.71583729 * Concentration + 31.10188977
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | 31.1000 |
| STD1 4439429 | 1718.0000 |
| STD2 4439428 | 34080.0000 |
| STD3 4439427 | 337200.0000 |



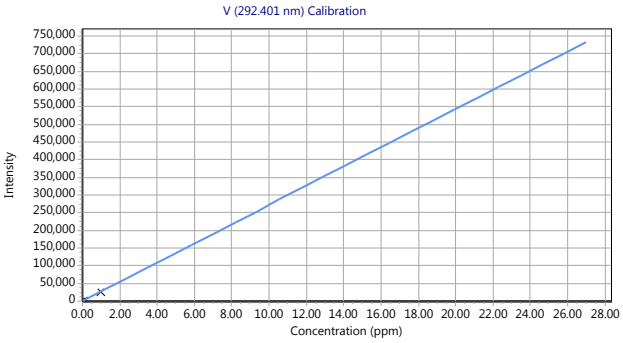

Tl (190.794 nm)
Intensity = 1626.24988056 * Concentration - 4.45950074
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | -4.4600 |
| STD1 4439429 | 3.1750 |
| STD2 4439428 | 157.4000 |
| STD3 4439427 | 1622.0000 |



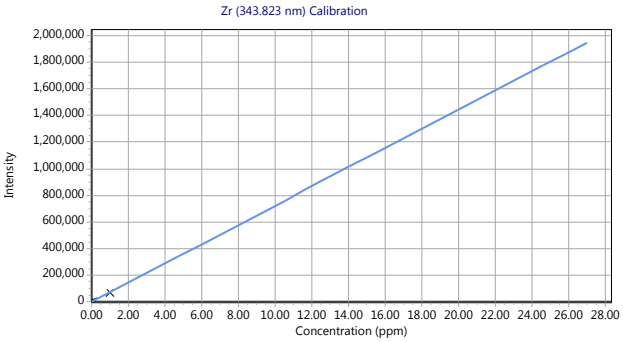

V (292.401 nm)
Intensity = 27164.40236852 * Concentration + 38.67781217
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | 38.6800 |
| STD1 4439429 | 175.3000 |
| STD2 4439428 | 2735.0000 |
| STD3 4439427 | 27210.0000 |



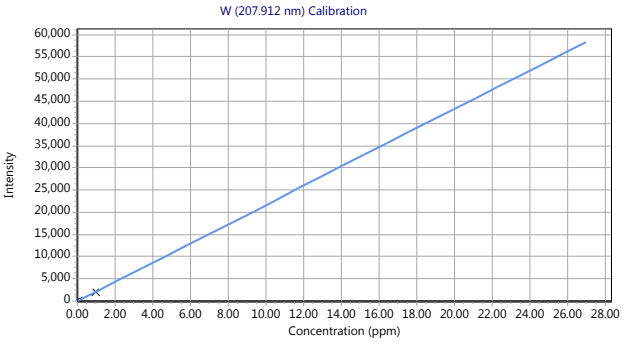

Zr (343.823 nm)
Intensity = 72187.21959798 * Concentration - 39.61188507
Correlation coefficient: 0.99999

| Standards | Intensity |
|---|---|
| STD0 4439426 | -39.6100 |
| STD1 4439429 | 90.9200 |
| STD2 4439428 | 6744.0000 |
| STD3 4439427 | 72190.0000 |



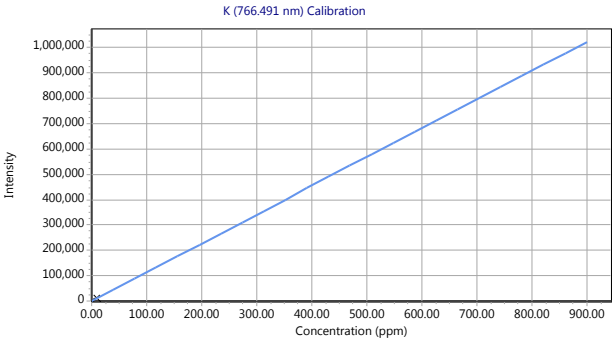

W (207.912 nm)
Intensity = 2162.30340842 * Concentration - 5.49480661
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | -5.4950 |
| STD1 4439429 | 3.5930 |
| STD2 4439428 | 205.0000 |
| STD3 4439427 | 2157.0000 |



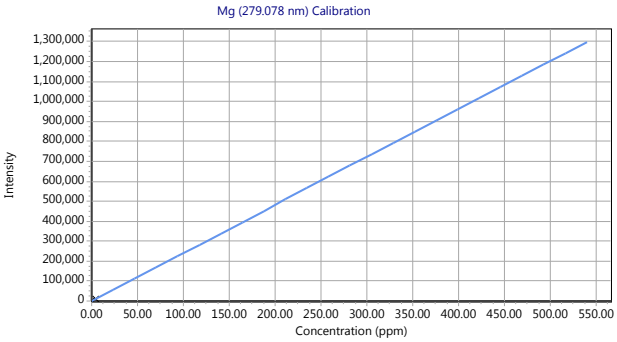

K (766.491 nm)
Intensity = 1136.44006136 * Concentration - 162.38332956
Correlation coefficient: 0.99998

| Standards | Intensity |
|---|---|
| STD0 4439426 | -162.4000 |
| STD2 4439428 | 1051.0000 |
| STD3 4439427 | 11190.0000 |



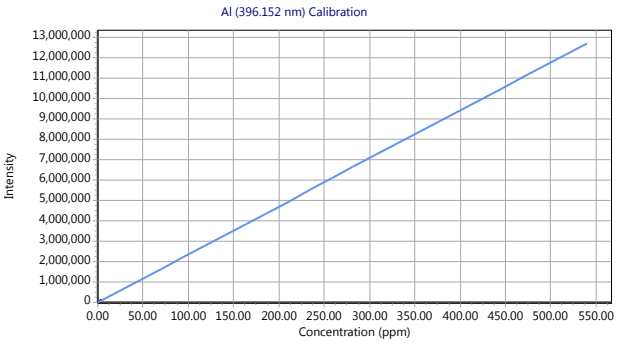

Mg (279.078 nm)
Intensity = 2404.93471987 * Concentration + 18.88392071
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | 18.8800 |
| STD1 4439429 | 67.9300 |
| STD2 4439428 | 1226.0000 |
| STD3 4439427 | 12040.0000 |



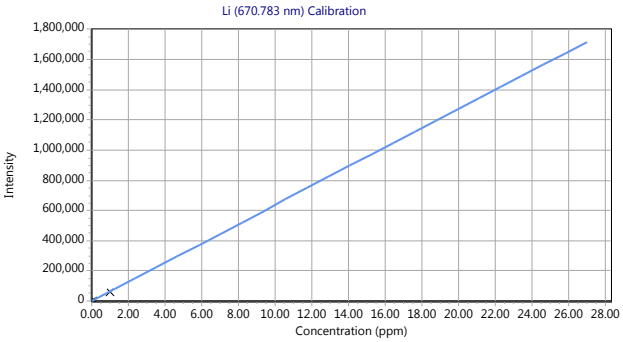

Al (396.152 nm)
Intensity = 23584.07595891 * Concentration - 1144.65906533
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | -1145.0000 |
| STD2 4439428 | 1188.0000 |
| STD3 4439427 | 22440.0000 |



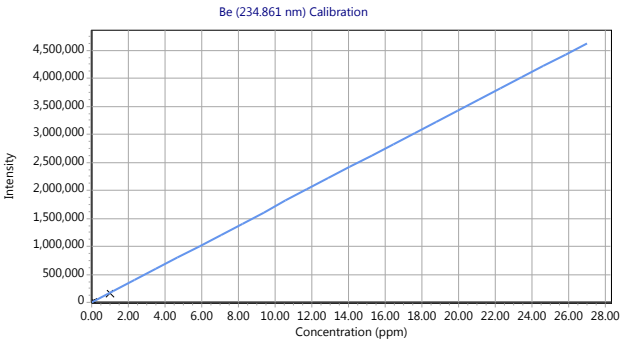

Li (670.783 nm)
Intensity = 63598.30480389 * Concentration + 54.87669453
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | 54.8800 |
| STD2 4439428 | 6372.0000 |
| STD3 4439427 | 63660.0000 |



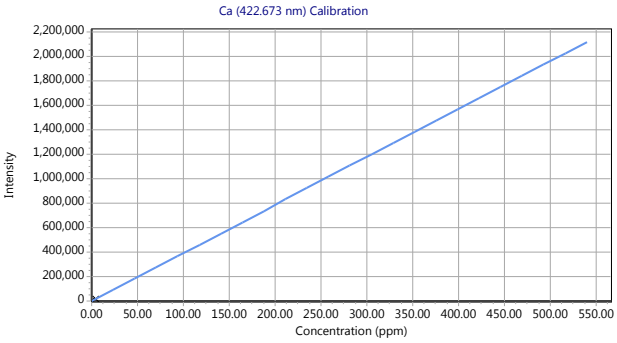

Be (234.861 nm)
Intensity = 171327.64358990 * Concentration + 4.42294940
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | 4.4230 |
| STD1 4439429 | 852.5000 |
| STD2 4439428 | 17040.0000 |
| STD3 4439427 | 171300.0000 |



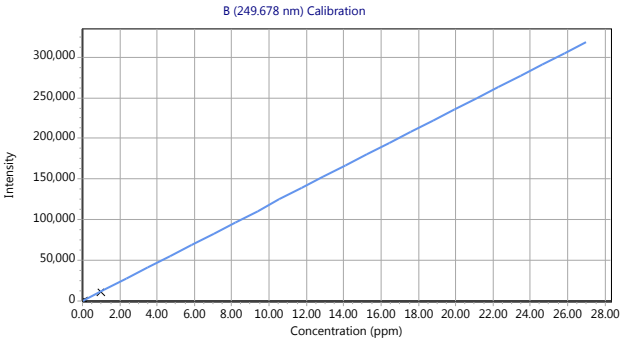

Ca (422.673 nm)
Intensity = 3919.23073818 * Concentration + 91.05147241
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | 91.0500 |
| STD1 4439429 | 171.4000 |
| STD2 4439428 | 2060.0000 |
| STD3 4439427 | 19690.0000 |



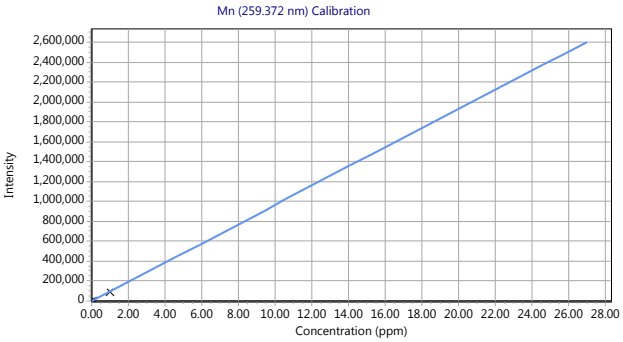

B (249.678 nm)
Intensity = 11802.00159579 * Concentration + 15.29108561
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | 15.2900 |
| STD2 4439428 | 1161.0000 |
| STD3 4439427 | 11820.0000 |



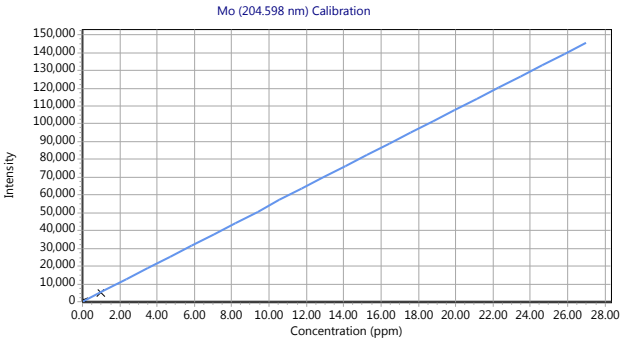

Mn (259.372 nm)
Intensity = 96543.65863473 * Concentration + 71.03814401
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | 71.0400 |
| STD1 4439429 | 565.8000 |
| STD2 4439428 | 9898.0000 |
| STD3 4439427 | 96600.0000 |



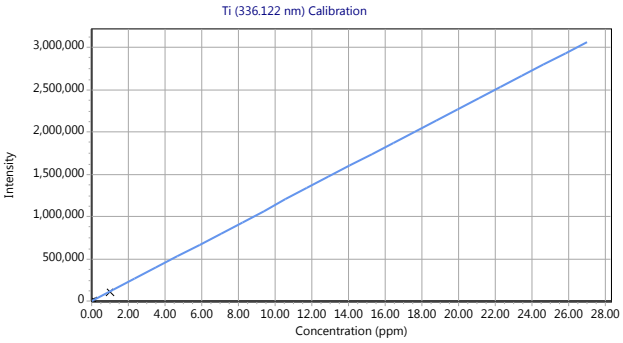

Mo (204.598 nm)
Intensity = 5394.26785476 * Concentration + 9.96475381
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | 9.9650 |
| STD1 4439429 | 36.6400 |
| STD2 4439428 | 538.8000 |
| STD3 4439427 | 5405.0000 |



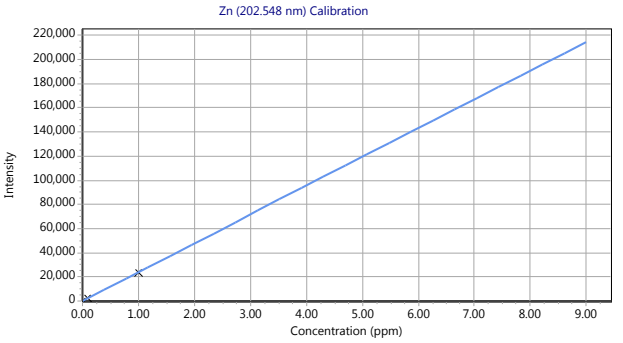

Ti (336.122 nm)
Intensity = 113494.48387728 * Concentration - 60.70218654
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | -60.7000 |
| STD1 4439429 | 493.1000 |
| STD2 4439428 | 11190.0000 |
| STD3 4439427 | 113400.0000 |




Zn (202.548 nm)
Intensity = 23838.16148528 * Concentration + 74.26552528
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4439426 | 74.2700 |
| STD2 4439428 | 2434.0000 |
| STD3 4439427 | 23910.0000 |



Sample Name: STD0 4439426

Date: 10/23/2017 9:23:15 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0000 ! | ppm | N/A | N/A | -4.5000 ! | 0.0000 ! (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0000 ! | ppm | N/A | N/A | -1145.0000 ! | 0.0000 ! (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0000 ! | ppm | N/A | N/A | 7.1030 ! | 0.0000 ! (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0000 ! | ppm | N/A | N/A | 15.2900 ! | 0.0000 ! (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0000 ! | ppm | N/A | N/A | -7.1490 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 ! | ppm | N/A | N/A | 4.4230 ! | 0.0000 ! (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0000 ! | ppm | N/A | N/A | 91.0500 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 ! | ppm | N/A | N/A | -4.8860 ! | 0.0000 ! (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0000 ! | ppm | N/A | N/A | -2.8620 ! | 0.0000 ! (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0000 ! | ppm | N/A | N/A | 2.5840 ! | 0.0000 ! (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0000 ! | ppm | N/A | N/A | 220.5000 ! | 0.0000 ! (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0000 ! | ppm | N/A | N/A | 10.8000 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0000 ! | ppm | N/A | N/A | -162.4000 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0000 ! | ppm | N/A | N/A | 54.8800 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0000 ! | ppm | N/A | N/A | 18.8800 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 ! | ppm | N/A | N/A | 71.0400 ! | 0.0000 ! (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0000 ! | ppm | N/A | N/A | 9.9650 ! | 0.0000 ! (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0000 ! | ppm | N/A | N/A | 783.3000 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0000 ! | ppm | N/A | N/A | 0.9071 ! | 0.0000 ! (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0000 ! | ppm | N/A | N/A | -9.7530 ! | 0.0000 ! (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0000 ! | ppm | N/A | N/A | -4.4790 ! | 0.0000 ! (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0000 ! | ppm | N/A | N/A | 1.6970 ! | 0.0000 ! (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0000 ! | ppm | N/A | N/A | 2.2370 ! | 0.0000 ! (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0000 ! | ppm | N/A | N/A | 22.4100 ! | 0.0000 ! (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0000 ! | ppm | N/A | N/A | -1.4930 ! | 0.0000 ! (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 ! | ppm | N/A | N/A | 31.1000 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0000 ! | ppm | N/A | N/A | -60.7000 ! | 0.0000 ! (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0000 ! | ppm | N/A | N/A | -4.4600 ! | 0.0000 ! (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0000 ! | ppm | N/A | N/A | 38.6800 ! | 0.0000 ! (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0000 ! | ppm | N/A | N/A | -5.4950 ! | 0.0000 ! (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0000 ! | ppm | N/A | N/A | 74.2700 ! | 0.0000 ! (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 ! | ppm | N/A | N/A | -39.6100 ! | 0.0000 ! (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0000 ! | 380400.0000 ! | 0.0000 | 0.00 |
| Y_R 371.029 | 1.0000 ! | 56410.0000 ! | 0.0000 | 0.00 |

Sample Name: STD1 4439429

Date: 10/23/2017 9:25:19 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0025 ! | ppm | N/A | N/A | 96.7100 ! | 0.0025 ! (ppm) | Y 371.029 |
| Al (396.152 nm) | | ppm | N/A | N/A | -1108.0000 ! | | Y 371.029 |
| As (188.980 nm) | 0.0050 ! | ppm | N/A | N/A | 14.6700 ! | 0.0050 ! (ppm) | Y 371.029 |
| B (249.678 nm) | | ppm | N/A | N/A | 70.2900 ! | | Y 371.029 |
| Ba (233.527 nm) | 0.0050 ! | ppm | N/A | N/A | 387.6000 ! | 0.0050 ! (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0050 ! | ppm | N/A | N/A | 852.5000 ! | 0.0050 ! (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0250 ! | ppm | N/A | N/A | 171.4000 ! | 0.0250 ! (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0050 ! | ppm | N/A | N/A | 125.8000 ! | 0.0050 ! (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0050 ! | ppm | N/A | N/A | 62.9200 ! | 0.0050 ! (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0050 ! | ppm | N/A | N/A | 33.2400 ! | 0.0050 ! (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0050 ! | ppm | N/A | N/A | 393.2000 ! | 0.0050 ! (ppm) | Y 371.029 |
| Fe (238.204 nm) | | ppm | N/A | N/A | 18.4100 ! | | Y_R 371.029 |
| K (766.491 nm) | | ppm | N/A | N/A | 59.8000 ! | | Y_R 371.029 |
| Li (670.783 nm) | | ppm | N/A | N/A | 425.8000 ! | | Y_R 371.029 |
| Mg (279.078 nm) | 0.0250 ! | ppm | N/A | N/A | 67.9300 ! | 0.0250 ! (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0050 ! | ppm | N/A | N/A | 565.8000 ! | 0.0050 ! (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0050 ! | ppm | N/A | N/A | 36.6400 ! | 0.0050 ! (ppm) | Y 371.029 |
| Na (589.592 nm) | | ppm | N/A | N/A | 1122.0000 ! | | Y_R 371.029 |
| Ni (231.604 nm) | 0.0050 ! | ppm | N/A | N/A | 27.5300 ! | 0.0050 ! (ppm) | Y 371.029 |
| P (213.618 nm) | | ppm | N/A | N/A | -4.0260 ! | | Y 371.029 |
| Pb (220.353 nm) | 0.0050 ! | ppm | N/A | N/A | 6.6190 ! | 0.0050 ! (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0050 ! | ppm | N/A | N/A | 9.4790 ! | 0.0050 ! (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0050 ! | ppm | N/A | N/A | 3.8930 ! | 0.0050 ! (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0250 ! | ppm | N/A | N/A | 83.3100 ! | 0.0250 ! (ppm) | Y 371.029 |
| Sn (189.925 nm) | | ppm | N/A | N/A | 4.5610 ! | | Y 371.029 |
| Sr (421.552 nm) | 0.0050 ! | ppm | N/A | N/A | 1718.0000 ! | 0.0050 ! (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0050 ! | ppm | N/A | N/A | 493.1000 ! | 0.0050 ! (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0050 ! | ppm | N/A | N/A | 3.1750 ! | 0.0050 ! (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0050 ! | ppm | N/A | N/A | 175.3000 ! | 0.0050 ! (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0050 ! | ppm | N/A | N/A | 3.5930 ! | 0.0050 ! (ppm) | Y 371.029 |
| Zn (202.548 nm) | | ppm | N/A | N/A | 180.1000 ! | | Y 371.029 |
| Zr (343.823 nm) | 0.0050 ! | ppm | N/A | N/A | 90.9200 ! | 0.0050 ! (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9966 ! | 379100.0000 ! | 0.0028 | 0.28 |
| Y_R 371.029 | 0.9877 ! | 55720.0000 ! | 0.0045 | 0.45 |

Sample Name: STD2 4439428

Date: 10/23/2017 9:27:22 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0500 ! | ppm | N/A | N/A | 1796.0000 ! | 0.0500 ! (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.1000 ! | ppm | N/A | N/A | 1188.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1000 ! | ppm | N/A | N/A | 94.1700 ! | 0.1000 ! (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1000 ! | ppm | N/A | N/A | 1161.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1000 ! | ppm | N/A | N/A | 7768.0000 ! | 0.1000 ! (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.1000 ! | ppm | N/A | N/A | 17040.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.5000 ! | ppm | N/A | N/A | 2060.0000 ! | 0.5000 ! (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.1000 ! | ppm | N/A | N/A | 2597.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.1000 ! | ppm | N/A | N/A | 1397.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1000 ! | ppm | N/A | N/A | 620.4000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1000 ! | ppm | N/A | N/A | 3836.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.1000 ! | ppm | N/A | N/A | 451.3000 ! | 0.1000 ! (ppm) | Y_R 371.029 |
| K (766.491 nm) | 1.0000 ! | ppm | N/A | N/A | 1051.0000 ! | 1.0000 ! (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1000 ! | ppm | N/A | N/A | 6372.0000 ! | 0.1000 ! (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.5000 ! | ppm | N/A | N/A | 1226.0000 ! | 0.5000 ! (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1000 ! | ppm | N/A | N/A | 9898.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.1000 ! | ppm | N/A | N/A | 538.8000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.0000 ! | ppm | N/A | N/A | 6559.0000 ! | 1.0000 ! (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1000 ! | ppm | N/A | N/A | 499.7000 ! | 0.1000 ! (ppm) | Y 371.029 |
| P (213.618 nm) | 0.1000 ! | ppm | N/A | N/A | 84.5700 ! | 0.1000 ! (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.1000 ! | ppm | N/A | N/A | 194.2000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.1000 ! | ppm | N/A | N/A | 118.7000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.1000 ! | ppm | N/A | N/A | 88.2800 ! | 0.1000 ! (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.5000 ! | ppm | N/A | N/A | 1150.0000 ! | 0.5000 ! (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.1000 ! | ppm | N/A | N/A | 81.2200 ! | 0.1000 ! (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1000 ! | ppm | N/A | N/A | 34080.0000 ! | 0.1000 ! (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.1000 ! | ppm | N/A | N/A | 11190.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.1000 ! | ppm | N/A | N/A | 157.4000 ! | 0.1000 ! (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1000 ! | ppm | N/A | N/A | 2735.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| W (207.912 nm) | 0.1000 ! | ppm | N/A | N/A | 205.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.1000 ! | ppm | N/A | N/A | 2434.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1000 ! | ppm | N/A | N/A | 6744.0000 ! | 0.1000 ! (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0000 ! | 380600.0000 ! | 0.0026 | 0.26 |
| Y_R 371.029 | 0.9989 ! | 56350.0000 ! | 0.0089 | 0.89 |

Sample Name: STD3 4439427

Date: 10/23/2017 9:29:27 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5000 ! | ppm | N/A | N/A | 17910.0000 ! | 0.5000 ! (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0000 ! | ppm | N/A | N/A | 22440.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0000 ! | ppm | N/A | N/A | 850.9000 ! | 1.0000 ! (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0000 ! | ppm | N/A | N/A | 11820.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0000 ! | ppm | N/A | N/A | 77010.0000 ! | 1.0000 ! (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0000 ! | ppm | N/A | N/A | 171300.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.0000 ! | ppm | N/A | N/A | 19690.0000 ! | 5.0000 ! (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0000 ! | ppm | N/A | N/A | 25740.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0000 ! | ppm | N/A | N/A | 14030.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0000 ! | ppm | N/A | N/A | 6160.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0000 ! | ppm | N/A | N/A | 36810.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0000 ! | ppm | N/A | N/A | 4560.0000 ! | 1.0000 ! (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.0000 ! | ppm | N/A | N/A | 11190.0000 ! | 10.0000 ! (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0000 ! | ppm | N/A | N/A | 63660.0000 ! | 1.0000 ! (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.0000 ! | ppm | N/A | N/A | 12040.0000 ! | 5.0000 ! (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0000 ! | ppm | N/A | N/A | 96600.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0000 ! | ppm | N/A | N/A | 5405.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.0000 ! | ppm | N/A | N/A | 57480.0000 ! | 10.0000 ! (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0000 ! | ppm | N/A | N/A | 4921.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0000 ! | ppm | N/A | N/A | 954.4000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0000 ! | ppm | N/A | N/A | 2017.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0000 ! | ppm | N/A | N/A | 1199.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0000 ! | ppm | N/A | N/A | 907.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.0000 ! | ppm | N/A | N/A | 11280.0000 ! | 5.0000 ! (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0000 ! | ppm | N/A | N/A | 831.7000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0000 ! | ppm | N/A | N/A | 337200.0000 ! | 1.0000 ! (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0000 ! | ppm | N/A | N/A | 113400.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0000 ! | ppm | N/A | N/A | 1622.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0000 ! | ppm | N/A | N/A | 27210.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0000 ! | ppm | N/A | N/A | 2157.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0000 ! | ppm | N/A | N/A | 23910.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0000 ! | ppm | N/A | N/A | 72190.0000 ! | 1.0000 ! (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9856 ! | 374900.0000 ! | 0.0024 | 0.24 |
| Y_R 371.029 | 0.9870 ! | 55680.0000 ! | 0.0148 | 1.49 |

Sample Name: ICV 4439430

Date: 10/23/2017 9:32:49 AM Rack:Tube: S1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5021 | ppm | 0.0004 | 0.08 | 18150.0000 | 0.5021 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0040 | ppm | 0.0070 | 0.70 | 23460.0000 | 1.0040 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0340 | ppm | 0.0064 | 0.62 | 869.2000 | 1.0340 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9938 | ppm | 0.0016 | 0.16 | 11630.0000 | 0.9938 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0060 | ppm | 0.0153 | 1.52 | 77480.0000 | 1.0060 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0170 | ppm | 0.0005 | 0.05 | 174200.0000 | 1.0170 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 1.0460 | ppm | 0.0340 | 3.25 | 4189.0000 | 1.0460 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0240 | ppm | 0.0016 | 0.15 | 26360.0000 | 1.0240 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0050 | ppm | 0.0020 | 0.20 | 14130.0000 | 1.0050 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0230 | ppm | 0.0012 | 0.12 | 6300.0000 | 1.0230 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0500 Q | ppm | 0.0045 | 0.42 | 38660.0000 Q | 1.0500 Q (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0120 | ppm | 0.0141 | 1.39 | 4609.0000 | 1.0120 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.9350 | ppm | 0.2490 | 2.51 | 11140.0000 | 9.9350 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0310 | ppm | 0.0178 | 1.73 | 65220.0000 | 1.0310 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 1.0230 | ppm | 0.0157 | 1.54 | 2476.0000 | 1.0230 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0360 | ppm | 0.0007 | 0.07 | 100700.0000 | 1.0360 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0170 | ppm | 0.0013 | 0.12 | 5497.0000 | 1.0170 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.1500 | ppm | 0.1551 | 1.53 | 58420.0000 | 10.1500 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0290 | ppm | 0.0014 | 0.14 | 5063.0000 | 1.0290 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0210 | ppm | 0.0016 | 0.16 | 913.5000 | 1.0210 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0200 | ppm | 0.0033 | 0.32 | 2054.0000 | 1.0200 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0170 | ppm | 0.0015 | 0.15 | 1207.0000 | 1.0170 (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0260 | ppm | 0.0021 | 0.21 | 938.4000 | 1.0260 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.7850 | ppm | 0.1069 | 2.23 | 10990.0000 | 4.7850 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0270 | ppm | 0.0080 | 0.78 | 855.3000 | 1.0270 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0300 | ppm | 0.0147 | 1.43 | 347500.0000 | 1.0300 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0050 | ppm | 0.0009 | 0.09 | 114100.0000 | 1.0050 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0210 | ppm | 0.0078 | 0.77 | 1610.0000 | 1.0210 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0050 | ppm | 0.0022 | 0.22 | 27130.0000 | 1.0050 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9880 | ppm | 0.0022 | 0.22 | 2150.0000 | 0.9880 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0370 | ppm | 0.0007 | 0.07 | 24980.0000 | 1.0370 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0000 | ppm | 0.0044 | 0.44 | 72140.0000 | 1.0000 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9928 | 377600.0000 | 0.0016 | 0.16 |
| Y_R 371.029 | 0.9939 | 56070.0000 | 0.0168 | 1.69 |

Sample Name: ICB 4439426

Date: 10/23/2017 9:36:05 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0002 u | ppm | 0.0004 | > 100.00 | 1.3500 | 0.0002 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0017 u | ppm | 0.0001 | 4.67 | -1184.0000 | -0.0017 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0009 u | ppm | 0.0017 | > 100.00 | 7.8450 | 0.0009 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0003 u | ppm | 0.0004 | > 100.00 | 18.0400 | 0.0003 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0000 | 52.63 | -2.9470 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | 49.67 | 10.6000 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0017 u | ppm | 0.0061 | > 100.00 | 84.2300 | -0.0017 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -4.6030 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0001 | 32.91 | -6.8430 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0001 | ppm | 0.0000 | 18.62 | 2.9010 | 0.0001 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0000 u | ppm | 0.0003 | > 100.00 | 220.1000 | 0.0000 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0005 u | ppm | 0.0009 | > 100.00 | 8.6820 | -0.0005 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0414 u | ppm | 0.0821 | > 100.00 | -115.3000 | 0.0414 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0018 | ppm | 0.0000 | 0.34 | 171.7000 | 0.0018 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | -0.0029 u | ppm | 0.0006 | 21.55 | 11.9000 | -0.0029 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0000 | 28.16 | 78.6500 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0004 | ppm | 0.0004 | 96.02 | 12.2000 | 0.0004 (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0039 u | ppm | 0.0082 | > 100.00 | 761.1000 | -0.0039 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0004 u | ppm | 0.0007 | > 100.00 | 2.9050 | 0.0004 u (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0064 u | ppm | 0.0051 | 79.09 | -15.9700 | -0.0064 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0011 u | ppm | 0.0012 | > 100.00 | -6.6440 | -0.0011 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0045 | ppm | 0.0007 | 14.62 | 7.1140 | 0.0045 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0000 u | ppm | 0.0017 | > 100.00 | 2.2700 | 0.0000 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0009 u | ppm | 0.0000 | 3.70 | 20.7600 | -0.0009 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0006 | ppm | 0.0005 | 86.21 | -1.0330 | 0.0006 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0001 | ppm | 0.0000 | 0.72 | 70.8500 | 0.0001 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | -50.2300 | 0.0001 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | -4.3720 | 0.0000 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0001 u | ppm | 0.0005 | > 100.00 | 40.4800 | 0.0001 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0018 | ppm | 0.0004 | 21.86 | -1.5950 | 0.0018 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 74.5600 | 0.0000 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 | ppm | 0.0000 | 48.43 | -37.7600 | 0.0000 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0030 | 381500.0000 | 0.0048 | 0.48 |
| Y_R 371.029 | 0.9984 | 56320.0000 | 0.0111 | 1.11 |

Sample Name: ICSA 4439431

Date: 10/23/2017 9:38:09 AM Rack:Tube: S1:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0014 | ppm | 0.0001 | 8.34 | -221.7000 | 0.0014 (ppm) | Y 371.029 |
| Al (396.152 nm) | 561.6000 o | ppm | 1.5770 | 0.28 | 13240000.0000 | 561.6000 o (ppm) | Y 371.029 |
| As (188.980 nm) | -0.0008 u | ppm | 0.0001 | 12.42 | 21.3300 | -0.0008 u (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0010 u | ppm | 0.0007 | 75.97 | -587.5000 | -0.0010 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0032 | ppm | 0.0000 | 0.95 | 345.2000 | 0.0032 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0007 u | ppm | 0.0014 | > 100.00 | 12080.0000 | 0.0007 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 572.0000 o | ppm | 11.2600 | 1.97 | 2242000.0000 | 572.0000 o (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0041 | ppm | 0.0002 | 4.05 | 258.9000 | 0.0041 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0017 u | ppm | 0.0011 | 66.91 | 58.4500 | -0.0017 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | -0.0007 u | ppm | 0.0012 | > 100.00 | 29.0600 | -0.0007 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | -0.0059 u | ppm | 0.0004 | 6.33 | 94.5800 | -0.0059 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | 531.9000 | ppm | 5.9410 | 1.12 | 2419000.0000 | 531.9000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.1212 u | ppm | 0.0396 | 32.63 | 142.9000 | -0.1212 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | -0.0725 u | ppm | 0.0005 | 0.68 | 517.4000 | -0.0725 u (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 549.2000 o | ppm | 0.8025 | 0.15 | 1320000.0000 | 549.2000 o (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0164 u | ppm | 0.0019 | 11.78 | 72480.0000 | -0.0164 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0009 u | ppm | 0.0028 | > 100.00 | 107.5000 | -0.0009 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.3183 | ppm | 0.0084 | 2.64 | 2994.0000 | 0.3183 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0021 | ppm | 0.0005 | 26.27 | 10.8400 | 0.0021 (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0107 u | ppm | 0.0031 | 28.86 | -32.6900 | -0.0107 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0029 u | ppm | 0.0030 | > 100.00 | -60.5900 | -0.0029 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0243 Ku | ppm | 0.0107 | 43.95 | -15.6000 K | -0.0243 Ku (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0127 | ppm | 0.0062 | 48.68 | -107.7000 | 0.0127 (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0233 u | ppm | 0.0012 | 5.35 | 31.3900 | -0.0233 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0079 u | ppm | 0.0004 | 4.80 | -6.3760 | -0.0079 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0178 u | ppm | 0.0000 | 0.08 | 1016.0000 | -0.0178 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0014 | ppm | 0.0000 | 1.13 | -436.9000 | 0.0014 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0069 | ppm | 0.0045 | 65.90 | 14.7800 | 0.0069 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0080 u | ppm | 0.0003 | 3.50 | 611.1000 | -0.0080 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0011 u | ppm | 0.0031 | > 100.00 | -33.2600 | 0.0011 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0159 u | ppm | 0.0000 | 0.25 | 125.6000 | -0.0159 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0012 | ppm | 0.0002 | 14.86 | 625.7000 | 0.0012 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8706 | 331100.0000 | 0.0044 | 0.50 |
| Y_R 371.029 | 0.9220 | 52010.0000 | 0.0046 | 0.50 |

Sample Name: ICSAB 4439432

Date: 10/23/2017 9:42:01 AM Rack:Tube: S1:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2865 | ppm | 0.0044 | 1.55 | 10060.0000 | 0.2865 (ppm) | Y 371.029 |
| Al (396.152 nm) | 608.7000 o | ppm | 10.3700 | 1.70 | 14360000.0000 | 608.7000 o (ppm) | Y 371.029 |
| As (188.980 nm) | 0.5248 | ppm | 0.0002 | 0.03 | 460.9000 | 0.5248 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.5370 | ppm | 0.0053 | 0.99 | 5665.0000 | 0.5370 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4846 | ppm | 0.0040 | 0.82 | 37420.0000 | 0.4846 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.5444 | ppm | 0.0131 | 2.41 | 106000.0000 | 0.5444 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 613.9000 o | ppm | 2.6210 | 0.43 | 2406000.0000 | 613.9000 o (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4815 | ppm | 0.0066 | 1.38 | 12560.0000 | 0.4815 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4682 | ppm | 0.0090 | 1.92 | 6671.0000 | 0.4682 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.5110 | ppm | 0.0064 | 1.26 | 3181.0000 | 0.5110 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.5566 | ppm | 0.0098 | 1.75 | 20690.0000 | 0.5566 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 564.2000 o | ppm | 2.8010 | 0.50 | 2566000.0000 | 564.2000 o (ppm) | Y_R 371.029 |
| K (766.491 nm) | 11.5100 | ppm | 0.1286 | 1.12 | 13400.0000 | 11.5100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4920 | ppm | 0.0034 | 0.69 | 36610.0000 | 0.4920 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 588.0000 o | ppm | 3.7850 | 0.64 | 1414000.0000 | 588.0000 o (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4986 | ppm | 0.0211 | 4.24 | 127200.0000 | 0.4986 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.5295 | ppm | 0.0094 | 1.77 | 2978.0000 | 0.5295 (ppm) | Y 371.029 |
| Na (589.592 nm) | 11.1700 | ppm | 0.0048 | 0.04 | 64620.0000 | 11.1700 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4750 | ppm | 0.0113 | 2.38 | 2336.0000 | 0.4750 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.5241 | ppm | 0.0070 | 1.33 | 449.4000 | 0.5241 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4796 | ppm | 0.0118 | 2.47 | 908.6000 | 0.4796 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.5292 | ppm | 0.0154 | 2.91 | 641.6000 | 0.5292 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.4934 | ppm | 0.0011 | 0.23 | 323.3000 | 0.4934 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.6870 | ppm | 0.0316 | 1.18 | 6238.0000 | 2.6870 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4922 | ppm | 0.0026 | 0.52 | 410.8000 | 0.4922 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5050 | ppm | 0.0032 | 0.63 | 177800.0000 | 0.5050 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.5405 | ppm | 0.0081 | 1.50 | 60700.0000 | 0.5405 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4799 | ppm | 0.0046 | 0.96 | 759.9000 | 0.4799 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.5165 | ppm | 0.0092 | 1.79 | 14810.0000 | 0.5165 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.5088 | ppm | 0.0131 | 2.58 | 1070.0000 | 0.5088 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4419 | ppm | 0.0069 | 1.55 | 11170.0000 | 0.4419 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.5050 | ppm | 0.0080 | 1.58 | 37030.0000 | 0.5050 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8484 | 322700.0000 | 0.0094 | 1.11 |
| Y_R 371.029 | 0.9093 | 51290.0000 | 0.0015 | 0.16 |

Sample Name: ICSA 4439431

Date: 10/23/2017 9:47:23 AM Rack:Tube: S1:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0013 | ppm | 0.0002 | 14.94 | -223.6000 | 0.0013 (ppm) | Y 371.029 |
| Al (396.152 nm) | 558.9000 o | ppm | 0.2992 | 0.05 | 13180000.0000 | 558.9000 o (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0006 u | ppm | 0.0041 | > 100.00 | 22.4000 | 0.0006 u (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0028 u | ppm | 0.0014 | 49.13 | -601.8000 | -0.0028 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0032 | ppm | 0.0000 | 1.50 | 343.5000 | 0.0032 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0013 u | ppm | 0.0003 | 21.31 | 11620.0000 | -0.0013 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 575.9000 o | ppm | 7.6000 | 1.32 | 2257000.0000 | 575.9000 o (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0042 | ppm | 0.0005 | 12.50 | 259.8000 | 0.0042 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0007 | > 100.00 | 78.2000 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | -0.0005 u | ppm | 0.0005 | > 100.00 | 30.5300 | -0.0005 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | -0.0054 u | ppm | 0.0004 | 7.48 | 107.9000 | -0.0054 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | 527.3000 | ppm | 1.8020 | 0.34 | 2399000.0000 | 527.3000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.1294 u | ppm | 0.0032 | 2.44 | 132.6000 | -0.1294 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | -0.0728 u | ppm | 0.0008 | 1.14 | 498.7000 | -0.0728 u (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 548.4000 o | ppm | 4.8850 | 0.89 | 1319000.0000 | 548.4000 o (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0133 u | ppm | 0.0002 | 1.81 | 72010.0000 | -0.0133 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0011 u | ppm | 0.0007 | 65.18 | 106.2000 | -0.0011 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.2985 | ppm | 0.0056 | 1.88 | 2882.0000 | 0.2985 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0012 | ppm | 0.0002 | 17.83 | 6.2050 | 0.0012 (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0060 u | ppm | 0.0149 | > 100.00 | -28.0700 | -0.0060 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0006 u | ppm | 0.0037 | > 100.00 | -53.0800 | 0.0006 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0145 u | ppm | 0.0055 | 38.20 | -3.8410 | -0.0145 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0112 | ppm | 0.0008 | 7.36 | -107.9000 | 0.0112 (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0243 u | ppm | 0.0001 | 0.54 | 29.5100 | -0.0243 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0099 u | ppm | 0.0059 | 59.63 | -8.0200 | -0.0099 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0179 u | ppm | 0.0000 | 0.14 | 1021.0000 | -0.0179 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0012 | ppm | 0.0002 | 14.11 | -469.6000 | 0.0012 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0011 u | ppm | 0.0022 | > 100.00 | 5.2300 | 0.0011 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0083 u | ppm | 0.0001 | 1.32 | 606.7000 | -0.0083 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0000 u | ppm | 0.0031 | > 100.00 | -35.6100 | 0.0000 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0163 u | ppm | 0.0003 | 1.64 | 117.7000 | -0.0163 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0021 | ppm | 0.0002 | 10.08 | 682.1000 | 0.0021 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8787 | 334200.0000 | 0.0043 | 0.49 |
| Y_R 371.029 | 0.9255 | 52210.0000 | 0.0055 | 0.59 |

Sample Name: XICIS 4439435

Date: 10/23/2017 9:49:27 AM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0002 | ppm | 0.0003 | > 100.00 | 4.1230 | 0.0002 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0733 | ppm | 0.0635 | 86.54 | 585.7000 | 0.0733 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0044 | ppm | 0.0031 | 69.95 | 10.8000 | 0.0044 (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0006 u | ppm | 0.0005 | 82.33 | 8.5600 | -0.0006 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -8.7600 | 0.0000 u (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | > 100.00 | 7.8630 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0078 | ppm | 0.0030 | 38.11 | 121.5000 | 0.0078 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | -3.0110 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0005 u | ppm | 0.0004 | 79.60 | -9.3900 | -0.0005 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0001 u | ppm | 0.0004 | > 100.00 | 3.0100 | 0.0001 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0000 u | ppm | 0.0000 | 65.37 | 219.0000 | 0.0000 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0489 | ppm | 0.0003 | 0.63 | 233.1000 | 0.0489 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0974 | ppm | 0.0684 | 70.19 | -51.6500 | 0.0974 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | 59.3400 | 0.0001 u (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0757 Z | ppm | 0.0637 | 84.15 | 200.8000 Z | 0.0757 Z (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0001 | 47.13 | 90.0300 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0001 u | ppm | 0.0004 | > 100.00 | 9.5340 | -0.0001 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0090 u | ppm | 0.0208 | > 100.00 | 834.4000 | 0.0090 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0002 u | ppm | 0.0001 | 37.61 | 0.0433 | -0.0002 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0061 u | ppm | 0.0102 | > 100.00 | -3.9360 | 0.0061 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0016 u | ppm | 0.0019 | > 100.00 | -7.7250 | -0.0016 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0005 u | ppm | 0.0051 | > 100.00 | 1.0660 | -0.0005 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0039 u | ppm | 0.0007 | 16.92 | -1.2650 | -0.0039 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0007 | ppm | 0.0000 | 0.27 | 24.0700 | 0.0007 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0013 u | ppm | 0.0025 | > 100.00 | -0.4486 | 0.0013 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0001 | ppm | 0.0000 | 9.82 | 50.8900 | 0.0001 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0003 u | ppm | 0.0001 | 18.40 | -98.3600 | -0.0003 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0017 u | ppm | 0.0021 | > 100.00 | -7.1570 | -0.0017 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | 40.6500 | 0.0001 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0003 u | ppm | 0.0018 | > 100.00 | -6.2300 | -0.0003 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0024 u | ppm | 0.0001 | 2.39 | 16.4800 | -0.0024 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 18.50 | -31.3300 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0100 | 384000.0000 | 0.0095 | 0.94 |
| Y_R 371.029 | 0.9977 | 56280.0000 | 0.0097 | 0.97 |

Sample Name: RINSE 4439436

Date: 10/23/2017 9:51:31 AM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | -1.9470 | 0.0001 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0092 | ppm | 0.0002 | 2.60 | -927.5000 | 0.0092 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0045 | ppm | 0.0021 | 45.73 | 10.9400 | 0.0045 (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0006 u | ppm | 0.0008 | > 100.00 | 7.8710 | -0.0006 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | -11.2000 | -0.0001 u (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 5.5550 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0020 u | ppm | 0.0038 | > 100.00 | 99.0600 | 0.0020 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0000 | 24.32 | -3.4500 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0002 u | ppm | 0.0000 | 6.67 | -5.1800 | -0.0002 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 u | ppm | 0.0003 | > 100.00 | 3.5740 | 0.0002 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | 221.6000 | 0.0000 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0204 | ppm | 0.0001 | 0.64 | 103.6000 | 0.0204 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0225 u | ppm | 0.0548 | > 100.00 | -136.9000 | 0.0225 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0003 | ppm | 0.0002 | 91.38 | 71.0500 | 0.0003 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0077 | ppm | 0.0009 | 11.39 | 37.4800 | 0.0077 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0000 | 29.52 | 79.6300 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0008 u | ppm | 0.0017 | > 100.00 | 5.5900 | -0.0008 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0092 | ppm | 0.0063 | 69.20 | 835.3000 | 0.0092 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0003 | ppm | 0.0002 | 76.59 | 2.3360 | 0.0003 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0008 u | ppm | 0.0014 | > 100.00 | -8.9780 | 0.0008 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0002 u | ppm | 0.0014 | > 100.00 | -4.0730 | 0.0002 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0014 u | ppm | 0.0054 | > 100.00 | 0.0277 | -0.0014 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0035 u | ppm | 0.0008 | 22.44 | -0.9361 | -0.0035 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0008 u | ppm | 0.0008 | 94.30 | 20.6200 | -0.0008 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0008 u | ppm | 0.0001 | 11.11 | -2.1410 | -0.0008 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 | ppm | 0.0000 | > 100.00 | 43.1100 | 0.0000 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0003 u | ppm | 0.0000 | 11.92 | -90.6000 | -0.0003 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0003 | ppm | 0.0004 | > 100.00 | -3.9010 | 0.0003 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 38.3000 | 0.0000 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0008 u | ppm | 0.0014 | > 100.00 | -3.7360 | 0.0008 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0025 u | ppm | 0.0001 | 2.12 | 14.6000 | -0.0025 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -39.8900 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0070 | 383100.0000 | 0.0012 | 0.12 |
| Y_R 371.029 | 1.0040 | 56640.0000 | 0.0106 | 1.05 |

Sample Name: XCRI 4439433

Date: 10/23/2017 9:53:35 AM Rack:Tube: S1:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0096 | ppm | 0.0001 | 1.17 | 354.3000 | 0.0096 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0473 | ppm | 0.0012 | 2.62 | 7.8330 | 0.0473 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0144 | ppm | 0.0022 | 14.96 | 19.3000 | 0.0144 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0454 | ppm | 0.0003 | 0.65 | 539.0000 | 0.0454 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0097 | ppm | 0.0000 | 0.19 | 736.9000 | 0.0097 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0019 | ppm | 0.0000 | 1.06 | 334.4000 | 0.0019 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.1003 | ppm | 0.0030 | 2.94 | 483.6000 | 0.1003 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0048 | ppm | 0.0000 | 0.84 | 118.9000 | 0.0048 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0094 | ppm | 0.0001 | 0.71 | 129.1000 | 0.0094 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0050 | ppm | 0.0000 | 0.54 | 33.5700 | 0.0050 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0097 | ppm | 0.0001 | 0.96 | 574.1000 | 0.0097 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0396 | ppm | 0.0010 | 2.59 | 190.9000 | 0.0396 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.5586 | ppm | 0.0772 | 13.81 | 473.0000 | 0.5586 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0472 | ppm | 0.0008 | 1.61 | 3038.0000 | 0.0472 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0161 | ppm | 0.0026 | 16.29 | 57.3700 | 0.0161 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0196 | ppm | 0.0000 | 0.18 | 1979.0000 | 0.0196 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0179 | ppm | 0.0014 | 7.71 | 106.5000 | 0.0179 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.4765 | ppm | 0.0054 | 1.13 | 3490.0000 | 0.4765 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0101 | ppm | 0.0000 | 0.41 | 50.4700 | 0.0101 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0360 | ppm | 0.0019 | 5.30 | 24.1500 | 0.0360 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0057 | ppm | 0.0013 | 23.02 | 7.0340 | 0.0057 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0087 | ppm | 0.0034 | 39.50 | 11.6700 | 0.0087 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0062 | ppm | 0.0012 | 19.94 | 8.7020 | 0.0062 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0412 | ppm | 0.0012 | 2.93 | 130.4000 | 0.0412 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0945 | ppm | 0.0003 | 0.34 | 77.3100 | 0.0945 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0197 | ppm | 0.0001 | 0.65 | 6670.0000 | 0.0197 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0044 | ppm | 0.0001 | 1.16 | 446.8000 | 0.0044 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0100 | ppm | 0.0008 | 7.66 | 11.5800 | 0.0100 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0095 | ppm | 0.0000 | 0.25 | 292.4000 | 0.0095 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0937 | ppm | 0.0003 | 0.33 | 197.6000 | 0.0937 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0191 | ppm | 0.0001 | 0.51 | 533.5000 | 0.0191 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0981 | ppm | 0.0002 | 0.24 | 7041.0000 | 0.0981 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0050 | 382100.0000 | 0.0038 | 0.38 |
| Y_R 371.029 | 0.9948 | 56120.0000 | 0.0019 | 0.19 |

Sample Name: CRI 4439434

Date: 10/23/2017 9:55:40 AM Rack:Tube: S1:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0193 | ppm | 0.0001 | 0.28 | 717.4000 | 0.0193 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0921 | ppm | 0.0012 | 1.28 | 1101.0000 | 0.0921 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0203 | ppm | 0.0009 | 4.68 | 24.2500 | 0.0203 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0907 | ppm | 0.0004 | 0.45 | 1062.0000 | 0.0907 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0192 | ppm | 0.0003 | 1.34 | 1470.0000 | 0.0192 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0037 | ppm | 0.0000 | 0.80 | 647.0000 | 0.0037 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.1889 | ppm | 0.0099 | 5.24 | 830.5000 | 0.1889 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0097 | ppm | 0.0001 | 1.41 | 243.7000 | 0.0097 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0175 | ppm | 0.0003 | 1.65 | 243.5000 | 0.0175 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0093 | ppm | 0.0002 | 2.38 | 60.5900 | 0.0093 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0191 | ppm | 0.0000 | 0.16 | 920.4000 | 0.0191 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0771 | ppm | 0.0006 | 0.74 | 361.8000 | 0.0771 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.9574 | ppm | 0.0728 | 7.60 | 926.6000 | 0.9574 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0953 | ppm | 0.0001 | 0.13 | 6086.0000 | 0.0953 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0382 | ppm | 0.0006 | 1.60 | 110.5000 | 0.0382 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0391 | ppm | 0.0001 | 0.18 | 3875.0000 | 0.0391 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0382 | ppm | 0.0006 | 1.53 | 215.9000 | 0.0382 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.9288 | ppm | 0.0035 | 0.38 | 6059.0000 | 0.9288 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0181 | ppm | 0.0005 | 2.69 | 89.8100 | 0.0181 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0743 | ppm | 0.0023 | 3.03 | 60.1400 | 0.0743 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0088 | ppm | 0.0008 | 8.99 | 13.1600 | 0.0088 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0200 | ppm | 0.0015 | 7.52 | 24.8000 | 0.0200 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0122 | ppm | 0.0064 | 52.10 | 14.9600 | 0.0122 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0807 | ppm | 0.0003 | 0.38 | 233.6000 | 0.0807 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.1887 | ppm | 0.0020 | 1.04 | 155.8000 | 0.1887 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0383 | ppm | 0.0000 | 0.08 | 12960.0000 | 0.0383 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0090 | ppm | 0.0000 | 0.52 | 970.1000 | 0.0090 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0207 | ppm | 0.0009 | 4.17 | 28.5900 | 0.0207 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0187 | ppm | 0.0001 | 0.38 | 538.9000 | 0.0187 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.1835 | ppm | 0.0002 | 0.12 | 391.9000 | 0.1835 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0376 | ppm | 0.0001 | 0.34 | 976.1000 | 0.0376 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1897 | ppm | 0.0003 | 0.14 | 13660.0000 | 0.1897 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0150 | 386000.0000 | 0.0054 | 0.54 |
| Y_R 371.029 | 1.0060 | 56740.0000 | 0.0090 | 0.89 |

Sample Name: mb 440-427707/1-a

Date: 10/23/2017 10:28:17 AM Rack:Tube: 1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0004 | ppm | 0.0002 | 43.18 | 9.6600 | 0.0004 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0001 | ppm | 0.0001 | 82.77 | -1142.0000 | 0.0001 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0022 | ppm | 0.0020 | 89.16 | 8.9560 | 0.0022 (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0007 u | ppm | 0.0003 | 41.60 | 6.5970 | -0.0007 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -8.4330 | 0.0000 u (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 3.0780 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0062 u | ppm | 0.0148 | > 100.00 | 115.4000 | 0.0062 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -3.6830 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0005 u | ppm | 0.0000 | 1.66 | -9.9750 | -0.0005 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | -0.0003 u | ppm | 0.0004 | > 100.00 | 1.0100 | -0.0003 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | -0.0001 u | ppm | 0.0003 | > 100.00 | 216.7000 | -0.0001 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0013 u | ppm | 0.0008 | 57.73 | 4.7400 | -0.0013 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0752 | ppm | 0.0848 | > 100.00 | -76.8900 | 0.0752 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0000 u | ppm | 0.0009 | > 100.00 | 52.3900 | 0.0000 u (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | -0.0017 u | ppm | 0.0012 | 69.97 | 14.6800 | -0.0017 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0001 | 72.04 | 80.6200 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0003 u | ppm | 0.0021 | > 100.00 | 11.7800 | 0.0003 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0261 | ppm | 0.0118 | 45.02 | 931.3000 | 0.0261 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0005 u | ppm | 0.0010 | > 100.00 | -1.6170 | -0.0005 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0007 u | ppm | 0.0051 | > 100.00 | -9.0420 | 0.0007 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0012 u | ppm | 0.0007 | 60.06 | -6.9510 | -0.0012 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0015 u | ppm | 0.0044 | > 100.00 | -0.0623 | -0.0015 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0019 u | ppm | 0.0001 | 4.91 | 0.5257 | -0.0019 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0059 | ppm | 0.0019 | 32.04 | 35.8000 | 0.0059 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0026 | ppm | 0.0008 | 30.76 | 0.6619 | 0.0026 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 70.5700 | 0.0001 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0002 u | ppm | 0.0001 | 65.57 | -82.7700 | -0.0002 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0017 u | ppm | 0.0017 | > 100.00 | -7.2100 | -0.0017 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0002 | ppm | 0.0000 | 1.44 | 43.1900 | 0.0002 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0000 u | ppm | 0.0012 | > 100.00 | -5.4170 | 0.0000 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0026 u | ppm | 0.0001 | 1.95 | 11.1700 | -0.0026 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | -33.7500 | 0.0001 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0310 | 392000.0000 | 0.0068 | 0.66 |
| Y_R 371.029 | 1.0180 | 57430.0000 | 0.0126 | 1.24 |

Sample Name: lcs 440-427707/2-a

Date: 10/23/2017 10:30:22 AM Rack:Tube: 1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1441 | ppm | 0.0002 | 0.17 | 5234.0000 | 0.1441 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.4697 | ppm | 0.0043 | 0.91 | 10370.0000 | 0.4697 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4735 | ppm | 0.0068 | 1.44 | 402.0000 | 0.4735 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4631 | ppm | 0.0023 | 0.49 | 5429.0000 | 0.4631 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4737 | ppm | 0.0002 | 0.05 | 36470.0000 | 0.4737 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.4699 | ppm | 0.0001 | 0.01 | 80530.0000 | 0.4699 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 2.3680 | ppm | 0.0289 | 1.22 | 9371.0000 | 2.3680 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4738 | ppm | 0.0016 | 0.33 | 12190.0000 | 0.4738 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4712 | ppm | 0.0023 | 0.50 | 6621.0000 | 0.4712 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4722 | ppm | 0.0013 | 0.28 | 2909.0000 | 0.4722 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4648 | ppm | 0.0015 | 0.32 | 17230.0000 | 0.4648 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.4687 | ppm | 0.0031 | 0.66 | 2141.0000 | 0.4687 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 4.7830 | ppm | 0.0688 | 1.44 | 5279.0000 | 4.7830 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4642 | ppm | 0.0034 | 0.74 | 29390.0000 | 0.4642 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 2.3680 | ppm | 0.0065 | 0.27 | 5712.0000 | 2.3680 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4760 | ppm | 0.0006 | 0.12 | 46330.0000 | 0.4760 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4639 | ppm | 0.0014 | 0.29 | 2513.0000 | 0.4639 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.7340 | ppm | 0.0454 | 0.96 | 27660.0000 | 4.7340 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4753 | ppm | 0.0018 | 0.37 | 2338.0000 | 0.4753 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.4691 | ppm | 0.0050 | 1.06 | 415.1000 | 0.4691 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4743 | ppm | 0.0014 | 0.29 | 952.6000 | 0.4743 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.4894 | ppm | 0.0026 | 0.52 | 582.5000 | 0.4894 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.4673 | ppm | 0.0045 | 0.97 | 428.4000 | 0.4673 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.2620 | ppm | 0.0037 | 0.16 | 5204.0000 | 2.2620 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4678 | ppm | 0.0010 | 0.20 | 388.6000 | 0.4678 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.4677 | ppm | 0.0063 | 1.34 | 157800.0000 | 0.4677 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.4666 | ppm | 0.0004 | 0.10 | 52890.0000 | 0.4666 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4724 | ppm | 0.0020 | 0.43 | 742.6000 | 0.4724 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4675 | ppm | 0.0010 | 0.22 | 12640.0000 | 0.4675 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.4534 | ppm | 0.0020 | 0.45 | 983.4000 | 0.4534 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4726 | ppm | 0.0005 | 0.10 | 11420.0000 | 0.4726 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.4701 | ppm | 0.0010 | 0.21 | 33900.0000 | 0.4701 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0090 | 384000.0000 | 0.0015 | 0.15 |
| Y_R 371.029 | 1.0090 | 56920.0000 | 0.0036 | 0.36 |

Sample Name: 440-191556-a-1-a

Date: 10/23/2017 10:32:26 AM Rack:Tube: 1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0011 | ppm | 0.0001 | 6.01 | 54.5900 | 0.0011 (ppm) | Y 371.029 |
| Al (396.152 nm) | 3.6640 | ppm | 0.0106 | 0.29 | 85330.0000 | 3.6640 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0056 | ppm | 0.0055 | 98.17 | 11.5000 | 0.0056 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.3120 | ppm | 0.0002 | 0.08 | 3687.0000 | 0.3120 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1941 | ppm | 0.0014 | 0.72 | 14950.0000 | 0.1941 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0004 | ppm | 0.0002 | 45.56 | 157.7000 | 0.0004 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 21.7300 | ppm | 0.0973 | 0.45 | 85270.0000 | 21.7300 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0091 | ppm | 0.0001 | 1.05 | 232.0000 | 0.0091 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0192 | ppm | 0.0002 | 1.11 | 269.8000 | 0.0192 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0380 | ppm | 0.0007 | 1.85 | 237.6000 | 0.0380 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4029 | ppm | 0.0014 | 0.34 | 14950.0000 | 0.4029 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 4.1040 | ppm | 0.0196 | 0.48 | 18680.0000 | 4.1040 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 17.2700 | ppm | 0.1258 | 0.73 | 19460.0000 | 17.2700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0319 | ppm | 0.0004 | 1.28 | 2054.0000 | 0.0319 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 6.8260 | ppm | 0.0606 | 0.89 | 16430.0000 | 6.8260 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0925 | ppm | 0.0001 | 0.12 | 9590.0000 | 0.0925 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0198 | ppm | 0.0005 | 2.31 | 118.1000 | 0.0198 (ppm) | Y 371.029 |
| Na (589.592 nm) | 350.2000 | ppm | 1.8960 | 0.54 | 1987000.0000 | 350.2000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0685 | ppm | 0.0006 | 0.83 | 337.5000 | 0.0685 (ppm) | Y 371.029 |
| P (213.618 nm) | 2.1710 | ppm | 0.0041 | 0.19 | 2067.0000 | 2.1710 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.1722 | ppm | 0.0038 | 2.20 | 343.3000 | 0.1722 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0343 | ppm | 0.0001 | 0.38 | 43.0200 | 0.0343 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0029 u | ppm | 0.0005 | 17.25 | -1.1400 | -0.0029 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 28.6400 | ppm | 0.1930 | 0.67 | 64520.0000 | 28.6400 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0215 | ppm | 0.0049 | 22.60 | 16.5900 | 0.0215 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.2341 | ppm | 0.0016 | 0.66 | 79240.0000 | 0.2341 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.1012 | ppm | 0.0002 | 0.20 | 11410.0000 | 0.1012 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0007 u | ppm | 0.0046 | > 100.00 | -5.1870 | 0.0007 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0094 | ppm | 0.0001 | 0.91 | 318.5000 | 0.0094 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0378 | ppm | 0.0016 | 4.26 | 97.3900 | 0.0378 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.2180 | ppm | 0.0039 | 0.32 | 29190.0000 | 1.2180 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1568 | ppm | 0.0005 | 0.30 | 11280.0000 | 0.1568 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9399 | 357500.0000 | 0.0056 | 0.59 |
| Y_R 371.029 | 0.9504 | 53610.0000 | 0.0116 | 1.22 |

Sample Name: 440-191556-a-1-b ms

Date: 10/23/2017 10:34:31 AM Rack:Tube: 1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1651 | ppm | 0.0013 | 0.78 | 6013.0000 | 0.1651 (ppm) | Y 371.029 |
| Al (396.152 nm) | 4.2040 | ppm | 0.0130 | 0.31 | 98510.0000 | 4.2040 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4996 | ppm | 0.0006 | 0.13 | 423.8000 | 0.4996 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.7607 | ppm | 0.0042 | 0.56 | 8931.0000 | 0.7607 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.6365 | ppm | 0.0045 | 0.71 | 49010.0000 | 0.6365 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.4744 | ppm | 0.0025 | 0.52 | 81390.0000 | 0.4744 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 22.5300 | ppm | 0.0552 | 0.25 | 88400.0000 | 22.5300 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4632 | ppm | 0.0007 | 0.15 | 11920.0000 | 0.4632 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4764 | ppm | 0.0009 | 0.19 | 6696.0000 | 0.4764 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4990 | ppm | 0.0018 | 0.35 | 3075.0000 | 0.4990 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.8619 | ppm | 0.0008 | 0.09 | 31750.0000 | 0.8619 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 4.2650 | ppm | 0.0351 | 0.82 | 19410.0000 | 4.2650 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 20.9600 | ppm | 0.2237 | 1.07 | 23670.0000 | 20.9600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4983 | ppm | 0.0051 | 1.02 | 31530.0000 | 0.4983 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 8.6390 | ppm | 0.0628 | 0.73 | 20790.0000 | 8.6390 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.5502 | ppm | 0.0009 | 0.16 | 54040.0000 | 0.5502 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4842 | ppm | 0.0012 | 0.25 | 2624.0000 | 0.4842 (ppm) | Y 371.029 |
| Na (589.592 nm) | 330.9000 | ppm | 2.7190 | 0.82 | 1877000.0000 | 330.9000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.5215 | ppm | 0.0006 | 0.11 | 2565.0000 | 0.5215 (ppm) | Y 371.029 |
| P (213.618 nm) | 2.5110 | ppm | 0.0102 | 0.40 | 2367.0000 | 2.5110 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.6160 | ppm | 0.0002 | 0.03 | 1239.0000 | 0.6160 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.5280 | ppm | 0.0007 | 0.13 | 628.8000 | 0.5280 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.4555 | ppm | 0.0048 | 1.05 | 417.0000 | 0.4555 (ppm) | Y 371.029 |
| Si (251.611 nm) | 29.1400 | ppm | 0.0451 | 0.15 | 65750.0000 | 29.1400 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4554 | ppm | 0.0005 | 0.11 | 378.5000 | 0.4554 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.6798 | ppm | 0.0042 | 0.62 | 229500.0000 | 0.6798 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.5768 | ppm | 0.0014 | 0.25 | 65390.0000 | 0.5768 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4449 | ppm | 0.0016 | 0.36 | 695.5000 | 0.4449 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4816 | ppm | 0.0018 | 0.38 | 13050.0000 | 0.4816 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.4894 | ppm | 0.0010 | 0.21 | 1081.0000 | 0.4894 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.6000 | ppm | 0.0025 | 0.15 | 38390.0000 | 1.6000 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.6583 | ppm | 0.0026 | 0.40 | 47480.0000 | 0.6583 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9450 | 359500.0000 | 0.0036 | 0.38 |
| Y_R 371.029 | 0.9622 | 54280.0000 | 0.0046 | 0.48 |

Sample Name: 440-191556-a-1-c msd

Date: 10/23/2017 10:36:35 AM Rack:Tube: 1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1677 | ppm | 0.0004 | 0.24 | 6108.0000 | 0.1677 (ppm) | Y 371.029 |
| Al (396.152 nm) | 4.1210 | ppm | 0.0004 | 0.01 | 96550.0000 | 4.1210 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.5030 | ppm | 0.0024 | 0.48 | 426.5000 | 0.5030 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.7655 | ppm | 0.0014 | 0.18 | 8986.0000 | 0.7655 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.6451 | ppm | 0.0077 | 1.19 | 49670.0000 | 0.6451 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.4864 | ppm | 0.0018 | 0.36 | 83440.0000 | 0.4864 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 22.0200 | ppm | 0.0461 | 0.21 | 86390.0000 | 22.0200 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4763 | ppm | 0.0004 | 0.09 | 12260.0000 | 0.4763 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4922 | ppm | 0.0024 | 0.49 | 6919.0000 | 0.4922 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.5123 | ppm | 0.0006 | 0.12 | 3157.0000 | 0.5123 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.8628 | ppm | 0.0021 | 0.24 | 31790.0000 | 0.8628 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 4.1840 | ppm | 0.0187 | 0.45 | 19040.0000 | 4.1840 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 20.5900 | ppm | 0.0802 | 0.39 | 23250.0000 | 20.5900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.5103 | ppm | 0.0007 | 0.14 | 32290.0000 | 0.5103 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 8.5170 | ppm | 0.0928 | 1.09 | 20500.0000 | 8.5170 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.5597 | ppm | 0.0005 | 0.09 | 54950.0000 | 0.5597 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4964 | ppm | 0.0003 | 0.06 | 2689.0000 | 0.4964 (ppm) | Y 371.029 |
| Na (589.592 nm) | 323.2000 | ppm | 0.7060 | 0.22 | 1833000.0000 | 323.2000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.5349 | ppm | 0.0018 | 0.33 | 2631.0000 | 0.5349 (ppm) | Y 371.029 |
| P (213.618 nm) | 2.4550 | ppm | 0.0058 | 0.24 | 2313.0000 | 2.4550 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.6269 | ppm | 0.0019 | 0.30 | 1261.0000 | 0.6269 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.5365 | ppm | 0.0057 | 1.06 | 638.8000 | 0.5365 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.4643 | ppm | 0.0033 | 0.71 | 425.1000 | 0.4643 (ppm) | Y 371.029 |
| Si (251.611 nm) | 28.5900 | ppm | 0.0553 | 0.19 | 64520.0000 | 28.5900 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4664 | ppm | 0.0017 | 0.36 | 387.6000 | 0.4664 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.6858 | ppm | 0.0012 | 0.18 | 231600.0000 | 0.6858 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.5820 | ppm | 0.0005 | 0.08 | 65980.0000 | 0.5820 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4590 | ppm | 0.0019 | 0.42 | 718.1000 | 0.4590 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4932 | ppm | 0.0002 | 0.04 | 13360.0000 | 0.4932 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.5003 | ppm | 0.0014 | 0.28 | 1104.0000 | 0.5003 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.5830 | ppm | 0.0014 | 0.09 | 37980.0000 | 1.5830 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.6639 | ppm | 0.0006 | 0.08 | 47890.0000 | 0.6639 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9431 | 358700.0000 | 0.0027 | 0.29 |
| Y_R 371.029 | 0.9600 | 54160.0000 | 0.0070 | 0.73 |

Sample Name: 440-191535-b-1-a

Date: 10/23/2017 10:38:39 AM Rack:Tube: 1:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0008 u | ppm | 0.0004 | 58.26 | -41.1900 | -0.0008 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0383 | ppm | 0.0006 | 1.53 | -194.5000 | 0.0383 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0020 u | ppm | 0.0069 | > 100.00 | 8.5900 | 0.0020 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1451 | ppm | 0.0001 | 0.10 | 1728.0000 | 0.1451 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0616 | ppm | 0.0003 | 0.49 | 4739.0000 | 0.0616 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 11.0300 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 62.5600 | ppm | 0.4803 | 0.77 | 245300.0000 | 62.5600 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0003 | > 100.00 | 0.4952 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0001 u | ppm | 0.0005 | > 100.00 | -0.1107 | 0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0010 | ppm | 0.0000 | 0.67 | 9.6770 | 0.0010 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0451 | ppm | 0.0002 | 0.42 | 1824.0000 | 0.0451 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0180 | ppm | 0.0044 | 24.26 | 95.2200 | 0.0180 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 3.2840 | ppm | 0.1091 | 3.32 | 3582.0000 | 3.2840 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0113 | ppm | 0.0007 | 6.13 | 927.2000 | 0.0113 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 16.7800 | ppm | 0.0596 | 0.36 | 40370.0000 | 16.7800 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0089 | ppm | 0.0001 | 0.61 | 1003.0000 | 0.0089 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0097 | ppm | 0.0023 | 23.35 | 62.3200 | 0.0097 (ppm) | Y 371.029 |
| Na (589.592 nm) | 57.3800 | ppm | 0.5000 | 0.87 | 326200.0000 | 57.3800 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0003 u | ppm | 0.0003 | > 100.00 | -1.7290 | -0.0003 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0155 | ppm | 0.0018 | 11.54 | 2.4290 | 0.0155 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0034 u | ppm | 0.0002 | 6.57 | -10.5500 | -0.0034 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0012 u | ppm | 0.0039 | > 100.00 | 3.2100 | 0.0012 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0015 u | ppm | 0.0026 | > 100.00 | 3.1080 | 0.0015 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 9.3290 | ppm | 0.0536 | 0.57 | 21030.0000 | 9.3290 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0010 u | ppm | 0.0035 | > 100.00 | -2.2720 | -0.0010 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5505 | ppm | 0.0046 | 0.83 | 186400.0000 | 0.5505 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0010 | ppm | 0.0002 | 16.24 | -12.8200 | 0.0010 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0011 u | ppm | 0.0000 | 3.66 | -6.8460 | -0.0011 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0027 | ppm | 0.0000 | 0.94 | 186.3000 | 0.0027 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0003 u | ppm | 0.0026 | > 100.00 | -7.5160 | -0.0003 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0050 | ppm | 0.0003 | 6.36 | 219.8000 | 0.0050 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0006 | ppm | 0.0001 | 19.20 | 8.4360 | 0.0006 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9777 | 371900.0000 | 0.0025 | 0.26 |
| Y_R 371.029 | 0.9984 | 56320.0000 | 0.0008 | 0.08 |

Sample Name: 440-191535-b-2-a

Date: 10/23/2017 10:40:43 AM Rack:Tube: 1:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0011 u | ppm | 0.0001 | 9.45 | -81.5400 | -0.0011 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.1426 | ppm | 0.0012 | 0.87 | 2855.0000 | 0.1426 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0089 | ppm | 0.0011 | 12.59 | 13.9400 | 0.0089 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.7430 | ppm | 0.0046 | 0.62 | 8789.0000 | 0.7430 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.2636 | ppm | 0.0042 | 1.59 | 20300.0000 | 0.2636 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 35.50 | 3.2280 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 252.9000 | ppm | 3.0900 | 1.22 | 991100.0000 | 252.9000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0000 | 23.16 | 1.5260 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0004 | > 100.00 | -0.5784 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0029 | ppm | 0.0006 | 20.38 | 22.3900 | 0.0029 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0312 | ppm | 0.0001 | 0.37 | 1174.0000 | 0.0312 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.1648 | ppm | 0.0055 | 3.35 | 770.6000 | 0.1648 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 18.6400 | ppm | 0.3434 | 1.84 | 21070.0000 | 18.6400 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0709 | ppm | 0.0042 | 5.86 | 5189.0000 | 0.0709 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 70.0900 | ppm | 0.7206 | 1.03 | 168600.0000 | 70.0900 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0073 | ppm | 0.0000 | 0.05 | 1405.0000 | 0.0073 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.6898 | ppm | 0.0032 | 0.47 | 3731.0000 | 0.6898 (ppm) | Y 371.029 |
| Na (589.592 nm) | 401.6000 | ppm | 4.8300 | 1.20 | 2278000.0000 | 401.6000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0024 | ppm | 0.0000 | 0.73 | 7.4330 | 0.0024 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.7750 | ppm | 0.0056 | 0.31 | 1682.0000 | 1.7750 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0061 u | ppm | 0.0012 | 20.26 | -14.3200 | -0.0061 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0000 u | ppm | 0.0053 | > 100.00 | -13.8200 | 0.0000 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0067 | ppm | 0.0038 | 56.24 | 6.3600 | 0.0067 (ppm) | Y 371.029 |
| Si (251.611 nm) | 38.1200 | ppm | 0.0909 | 0.24 | 85890.0000 | 38.1200 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0066 u | ppm | 0.0012 | 18.82 | -6.9280 | -0.0066 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 2.5060 | ppm | 0.0341 | 1.36 | 847900.0000 | 2.5060 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0019 | ppm | 0.0003 | 17.44 | -113.0000 | 0.0019 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0017 u | ppm | 0.0019 | > 100.00 | -9.4340 | -0.0017 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0092 | ppm | 0.0007 | 7.94 | 425.4000 | 0.0092 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0013 u | ppm | 0.0011 | 79.43 | -13.4000 | -0.0013 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0384 | ppm | 0.0001 | 0.14 | 1064.0000 | 0.0384 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0015 | ppm | 0.0001 | 7.82 | 101.6000 | 0.0015 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9335 | 355100.0000 | 0.0020 | 0.21 |
| Y_R 371.029 | 0.9695 | 54690.0000 | 0.0100 | 1.03 |

Sample Name: 440-191535-b-3-a

Date: 10/23/2017 10:42:46 AM Rack:Tube: 1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0006 u | ppm | 0.0001 | 23.32 | -33.0600 | -0.0006 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0147 | ppm | 0.0011 | 7.23 | -672.8000 | 0.0147 (ppm) | Y 371.029 |
| As (188.980 nm) | -0.0009 u | ppm | 0.0003 | 33.42 | 6.1890 | -0.0009 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9268 | ppm | 0.0054 | 0.59 | 10950.0000 | 0.9268 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0162 | ppm | 0.0001 | 0.53 | 1240.0000 | 0.0162 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 56.00 | 0.3139 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 53.0200 | ppm | 0.5015 | 0.95 | 207900.0000 | 53.0200 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 51.54 | -0.8511 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0006 u | ppm | 0.0003 | 52.46 | -9.5260 | -0.0006 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0005 | ppm | 0.0002 | 33.50 | 5.8470 | 0.0005 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0476 | ppm | 0.0004 | 0.75 | 1922.0000 | 0.0476 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0881 | ppm | 0.0007 | 0.82 | 413.6000 | 0.0881 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 7.5100 | ppm | 0.0666 | 0.89 | 8383.0000 | 7.5100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0200 | ppm | 0.0023 | 11.26 | 1465.0000 | 0.0200 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 16.8400 | ppm | 0.0217 | 0.13 | 40510.0000 | 16.8400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0319 | ppm | 0.0002 | 0.51 | 3288.0000 | 0.0319 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.1280 | ppm | 0.0043 | 3.37 | 700.4000 | 0.1280 (ppm) | Y 371.029 |
| Na (589.592 nm) | 158.9000 | ppm | 0.9037 | 0.57 | 902200.0000 | 158.9000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0005 u | ppm | 0.0002 | 44.59 | -2.9430 | -0.0005 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.2077 | ppm | 0.0006 | 0.30 | 185.3000 | 0.2077 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0025 u | ppm | 0.0012 | 47.92 | -8.9250 | -0.0025 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0060 u | ppm | 0.0020 | 33.66 | -8.3040 | -0.0060 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0015 u | ppm | 0.0013 | 89.99 | 0.5062 | -0.0015 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 12.2600 | ppm | 0.0322 | 0.26 | 27640.0000 | 12.2600 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0012 u | ppm | 0.0011 | 92.61 | -2.4710 | -0.0012 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5357 | ppm | 0.0054 | 1.01 | 181300.0000 | 0.5357 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | -103.7000 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0030 u | ppm | 0.0002 | 5.62 | -9.5800 | -0.0030 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0015 u | ppm | 0.0000 | 2.59 | 32.3000 | -0.0015 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0018 u | ppm | 0.0006 | 34.61 | -10.6000 | -0.0018 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0012 | ppm | 0.0001 | 10.26 | 129.2000 | 0.0012 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0001 | 40.67 | -11.7200 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9703 | 369100.0000 | 0.0035 | 0.37 |
| Y_R 371.029 | 0.9855 | 55590.0000 | 0.0022 | 0.22 |

Sample Name: mb 440-436577/1-a@20

Date: 10/23/2017 10:44:51 AM Rack:Tube: 1:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0001 u | ppm | 0.0001 | 68.81 | -9.5110 | -0.0001 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0040 u | ppm | 0.0000 | 0.27 | -1237.0000 | -0.0040 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0022 | ppm | 0.0011 | 51.08 | 8.9180 | 0.0022 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0020 | ppm | 0.0012 | 61.38 | 38.4900 | 0.0020 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0000 | 42.82 | 0.7941 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 1.8720 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0025 u | ppm | 0.0063 | > 100.00 | 100.8000 | 0.0025 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -4.7760 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0003 | 87.14 | -6.9640 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0003 | ppm | 0.0000 | 8.13 | 4.2280 | 0.0003 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0012 | ppm | 0.0003 | 23.01 | 263.6000 | 0.0012 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0022 | ppm | 0.0009 | 41.24 | 20.8600 | 0.0022 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.3996 | ppm | 0.0048 | 1.19 | 291.8000 | 0.3996 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0011 | ppm | 0.0009 | 78.32 | 126.5000 | 0.0011 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | -0.0005 u | ppm | 0.0005 | 98.79 | 17.6900 | -0.0005 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 | ppm | 0.0000 | 60.88 | 76.8300 | 0.0000 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0024 | ppm | 0.0008 | 34.24 | 22.7000 | 0.0024 (ppm) | Y 371.029 |
| Na (589.592 nm) | 417.6000 | ppm | 2.9860 | 0.72 | 2369000.0000 | 417.6000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0040 | ppm | 0.0007 | 18.70 | 20.4500 | 0.0040 (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0017 u | ppm | 0.0070 | > 100.00 | -11.4800 | -0.0017 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0003 u | ppm | 0.0012 | > 100.00 | -5.1670 | -0.0003 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0018 u | ppm | 0.0009 | 52.17 | -0.5474 | -0.0018 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0046 u | ppm | 0.0004 | 9.43 | -1.8950 | -0.0046 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0115 | ppm | 0.0000 | 0.16 | 48.3900 | 0.0115 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0017 u | ppm | 0.0049 | > 100.00 | -0.0373 | 0.0017 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 51.3400 | 0.0001 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0001 u | ppm | 0.0000 | 58.56 | -68.6300 | -0.0001 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0024 u | ppm | 0.0019 | 80.32 | -8.3440 | -0.0024 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0002 | ppm | 0.0002 | 87.88 | 43.2800 | 0.0002 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0020 u | ppm | 0.0003 | 15.47 | -9.7600 | -0.0020 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0010 | ppm | 0.0001 | 7.34 | 97.6700 | 0.0010 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0001 | 43.76 | -25.0900 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9352 | 355700.0000 | 0.0028 | 0.30 |
| Y_R 371.029 | 0.9650 | 54440.0000 | 0.0057 | 0.59 |

Sample Name: lcs 440-436577/2-a@20

Date: 10/23/2017 10:46:55 AM Rack:Tube: 1:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4840 | ppm | 0.0017 | 0.36 | 17500.0000 | 0.4840 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0570 | ppm | 0.0108 | 1.03 | 24720.0000 | 1.0570 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0080 | ppm | 0.0008 | 0.08 | 848.2000 | 1.0080 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9840 | ppm | 0.0033 | 0.34 | 11510.0000 | 0.9840 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9325 | ppm | 0.0047 | 0.51 | 71800.0000 | 0.9325 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9871 | ppm | 0.0020 | 0.20 | 169100.0000 | 0.9871 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.9000 | ppm | 0.0282 | 0.57 | 19290.0000 | 4.9000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9568 | ppm | 0.0020 | 0.21 | 24630.0000 | 0.9568 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9576 | ppm | 0.0051 | 0.53 | 13460.0000 | 0.9576 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9764 | ppm | 0.0018 | 0.19 | 6013.0000 | 0.9764 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0190 | ppm | 0.0031 | 0.31 | 37530.0000 | 1.0190 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9707 | ppm | 0.0005 | 0.05 | 4423.0000 | 0.9707 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.7200 | ppm | 0.1015 | 0.95 | 12030.0000 | 10.7200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0010 | ppm | 0.0045 | 0.45 | 63350.0000 | 1.0010 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.6200 | ppm | 0.0294 | 0.64 | 11130.0000 | 4.6200 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9501 | ppm | 0.0027 | 0.28 | 92450.0000 | 0.9501 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0110 | ppm | 0.0035 | 0.34 | 5464.0000 | 1.0110 (ppm) | Y 371.029 |
| Na (589.592 nm) | 424.3000 | ppm | 1.2330 | 0.29 | 2407000.0000 | 424.3000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9716 | ppm | 0.0002 | 0.02 | 4778.0000 | 0.9716 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0270 | ppm | 0.0048 | 0.47 | 920.3000 | 1.0270 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9528 | ppm | 0.0022 | 0.23 | 1918.0000 | 0.9528 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0100 | ppm | 0.0023 | 0.23 | 1199.0000 | 1.0100 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9668 | ppm | 0.0026 | 0.27 | 884.5000 | 0.9668 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.9260 | ppm | 0.1392 | 2.83 | 11310.0000 | 4.9260 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9917 | ppm | 0.0015 | 0.15 | 825.4000 | 0.9917 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9635 | ppm | 0.0139 | 1.44 | 325000.0000 | 0.9635 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9940 | ppm | 0.0038 | 0.38 | 112800.0000 | 0.9940 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9287 | ppm | 0.0013 | 0.14 | 1460.0000 | 0.9287 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9947 | ppm | 0.0031 | 0.31 | 26850.0000 | 0.9947 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0100 | ppm | 0.0047 | 0.47 | 2195.0000 | 1.0100 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9636 | ppm | 0.0017 | 0.18 | 23220.0000 | 0.9636 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9915 | ppm | 0.0036 | 0.36 | 71530.0000 | 0.9915 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9374 | 356600.0000 | 0.0053 | 0.57 |
| Y_R 371.029 | 0.9660 | 54490.0000 | 0.0085 | 0.88 |

Sample Name: CCV 4439427

Date: 10/23/2017 10:49:00 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0009 Q | ppm | 0.0001 | 11.44 | 26.3500 Q | 0.0009 Q (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0272 Q | ppm | 0.0016 | 6.04 | -497.8000 Q | 0.0272 Q (ppm) | Y 371.029 |
| As (188.980 nm) | -0.0033 Qu | ppm | 0.0005 | 13.98 | 4.3260 Q | -0.0033 Qu (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0004 Qu | ppm | 0.0008 | > 100.00 | 9.4950 Q | -0.0004 Qu (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 Qu | ppm | 0.0002 | > 100.00 | 4.8880 Q | 0.0002 Qu (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 Qu | ppm | 0.0002 | > 100.00 | 19.0900 Q | 0.0001 Qu (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0111 Qu | ppm | 0.0077 | 69.43 | 47.4900 Q | -0.0111 Qu (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 Q | ppm | 0.0002 | > 100.00 | -0.0188 Q | 0.0002 Q (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0001 Qu | ppm | 0.0003 | > 100.00 | -3.8730 Q | -0.0001 Qu (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0001 Q | ppm | 0.0000 | 60.78 | 2.9030 Q | 0.0001 Q (ppm) | Y 371.029 |
| Cu (324.754 nm) | -0.0035 Qu | ppm | 0.0001 | 3.21 | 90.8600 Q | -0.0035 Qu (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0042 Q | ppm | 0.0045 | > 100.00 | 29.7200 Q | 0.0042 Q (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0998 Q | ppm | 0.0556 | 55.69 | -48.9500 Q | 0.0998 Q (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0015 Q | ppm | 0.0018 | > 100.00 | 149.8000 Q | 0.0015 Q (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | -0.0026 Qu | ppm | 0.0008 | 31.49 | 12.6800 Q | -0.0026 Qu (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0002 Qu | ppm | 0.0001 | 82.11 | 56.9700 Q | -0.0002 Qu (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0049 Q | ppm | 0.0035 | 71.39 | 36.4700 Q | 0.0049 Q (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.2234 Q | ppm | 0.0181 | 8.11 | 2050.0000 Q | 0.2234 Q (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0005 Qu | ppm | 0.0008 | > 100.00 | 3.3050 Q | 0.0005 Qu (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0004 Q | ppm | 0.0001 | 12.69 | -9.2400 Q | 0.0004 Q (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0017 Q | ppm | 0.0001 | 4.24 | -1.1100 Q | 0.0017 Q (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0010 Q | ppm | 0.0005 | 48.47 | 2.7450 Q | 0.0010 Q (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0034 Qu | ppm | 0.0006 | 18.27 | -0.7970 Q | -0.0034 Qu (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0202 Q | ppm | 0.0100 | 49.27 | 68.9000 Q | 0.0202 Q (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0021 Q | ppm | 0.0019 | 89.88 | 0.2604 Q | 0.0021 Q (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 Qu | ppm | 0.0000 | 27.91 | 6.9140 Q | -0.0001 Qu (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0051 Q | ppm | 0.0010 | 19.42 | 523.9000 Q | 0.0051 Q (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0009 Qu | ppm | 0.0011 | > 100.00 | -6.0970 Q | -0.0009 Qu (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0001 Qu | ppm | 0.0003 | > 100.00 | 38.7600 Q | 0.0001 Qu (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0041 Q | ppm | 0.0007 | 17.50 | 3.3260 Q | 0.0041 Q (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0027 Qu | ppm | 0.0002 | 6.69 | 8.5170 Q | -0.0027 Qu (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0007 Q | ppm | 0.0001 | 19.15 | 13.5800 Q | 0.0007 Q (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.9630 | 746600.0000 | 0.1535 | 7.82 |
| Y_R 371.029 | 1.7400 | 98140.0000 | 0.0680 | 3.91 |

Sample Name: CCB 4439426

Date: 10/23/2017 10:53:16 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0003 u | ppm | 0.0006 | > 100.00 | 4.6830 | 0.0003 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0024 | ppm | 0.0011 | 46.60 | -1087.0000 | 0.0024 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0006 u | ppm | 0.0014 | > 100.00 | 7.5740 | 0.0006 u (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0001 u | ppm | 0.0003 | > 100.00 | 13.4300 | -0.0001 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | -0.5530 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 34.67 | 0.8512 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0077 u | ppm | 0.0090 | > 100.00 | 60.6900 | -0.0077 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0000 | 17.32 | -3.2370 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0005 u | ppm | 0.0003 | 54.90 | -9.7390 | -0.0005 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0001 | ppm | 0.0000 | 45.91 | 3.0880 | 0.0001 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | 223.0000 | 0.0001 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0017 u | ppm | 0.0010 | 59.24 | 3.1550 | -0.0017 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0339 | ppm | 0.0329 | 96.94 | -123.8000 | 0.0339 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0024 | ppm | 0.0010 | 41.55 | 204.5000 | 0.0024 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | -0.0023 u | ppm | 0.0000 | 1.82 | 13.3200 | -0.0023 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 73.8500 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0006 | ppm | 0.0006 | 98.11 | 13.3300 | 0.0006 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.1789 | ppm | 0.0023 | 1.30 | 1798.0000 | 0.1789 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0005 | ppm | 0.0007 | > 100.00 | 3.4660 | 0.0005 (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0017 u | ppm | 0.0011 | 64.96 | -11.4600 | -0.0017 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0006 u | ppm | 0.0002 | 29.80 | -5.7630 | -0.0006 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0031 u | ppm | 0.0024 | 77.82 | -2.0410 | -0.0031 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0016 u | ppm | 0.0008 | 48.33 | 0.8366 | -0.0016 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0011 | ppm | 0.0003 | 28.88 | 25.1200 | 0.0011 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0030 | ppm | 0.0025 | 82.88 | 0.9838 | 0.0030 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 23.9500 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0002 u | ppm | 0.0000 | 3.14 | -83.0300 | -0.0002 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0011 u | ppm | 0.0014 | > 100.00 | -6.2490 | -0.0011 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0000 u | ppm | 0.0000 | 92.21 | 37.2800 | 0.0000 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0010 | ppm | 0.0004 | 41.95 | -3.3420 | 0.0010 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0003 u | ppm | 0.0000 | 18.13 | 68.0200 | -0.0003 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 29.39 | -33.8400 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0330 | 392800.0000 | 0.0104 | 1.01 |
| Y_R 371.029 | 1.0170 | 57370.0000 | 0.0080 | 0.78 |

Sample Name: CCV 4439427

Date: 10/23/2017 10:55:20 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4928 | ppm | 0.0041 | 0.82 | 17810.0000 | 0.4928 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.9846 | ppm | 0.0028 | 0.29 | 23000.0000 | 0.9846 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9898 | ppm | 0.0043 | 0.44 | 832.6000 | 0.9898 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9849 | ppm | 0.0057 | 0.58 | 11520.0000 | 0.9849 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9769 | ppm | 0.0015 | 0.16 | 75220.0000 | 0.9769 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9862 | ppm | 0.0089 | 0.91 | 169000.0000 | 0.9862 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.8590 | ppm | 0.0392 | 0.81 | 19130.0000 | 4.8590 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9839 | ppm | 0.0080 | 0.81 | 25330.0000 | 0.9839 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9805 | ppm | 0.0078 | 0.79 | 13780.0000 | 0.9805 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9843 | ppm | 0.0099 | 1.01 | 6061.0000 | 0.9843 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9871 | ppm | 0.0074 | 0.75 | 36350.0000 | 0.9871 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9719 | ppm | 0.0141 | 1.45 | 4429.0000 | 0.9719 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.7970 | ppm | 0.0524 | 0.54 | 10980.0000 | 9.7970 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9713 | ppm | 0.0097 | 0.99 | 61430.0000 | 0.9713 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.9030 | ppm | 0.0030 | 0.06 | 11810.0000 | 4.9030 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9829 | ppm | 0.0095 | 0.97 | 95600.0000 | 0.9829 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9846 | ppm | 0.0059 | 0.60 | 5323.0000 | 0.9846 (ppm) | Y 371.029 |
| Na (589.592 nm) | 9.9020 | ppm | 0.1258 | 1.27 | 57000.0000 | 9.9020 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9872 | ppm | 0.0094 | 0.95 | 4855.0000 | 0.9872 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9895 | ppm | 0.0077 | 0.78 | 885.7000 | 0.9895 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9808 | ppm | 0.0070 | 0.71 | 1975.0000 | 0.9808 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9854 | ppm | 0.0057 | 0.58 | 1170.0000 | 0.9854 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9883 | ppm | 0.0081 | 0.82 | 903.8000 | 0.9883 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.9360 | ppm | 0.0776 | 1.57 | 11330.0000 | 4.9360 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9872 | ppm | 0.0113 | 1.14 | 821.7000 | 0.9872 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9760 | ppm | 0.0149 | 1.53 | 329200.0000 | 0.9760 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9836 | ppm | 0.0090 | 0.91 | 111600.0000 | 0.9836 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9837 | ppm | 0.0052 | 0.53 | 1550.0000 | 0.9837 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9852 | ppm | 0.0098 | 0.99 | 26600.0000 | 0.9852 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9823 | ppm | 0.0095 | 0.96 | 2136.0000 | 0.9823 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9858 | ppm | 0.0072 | 0.73 | 23750.0000 | 0.9858 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9830 | ppm | 0.0050 | 0.51 | 70920.0000 | 0.9830 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9997 | 380300.0000 | 0.0043 | 0.43 |
| Y_R 371.029 | 1.0080 | 56840.0000 | 0.0045 | 0.45 |

Sample Name: CCB 4439426

Date: 10/23/2017 10:57:24 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | -1.7250 | 0.0001 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0027 | ppm | 0.0003 | 10.63 | -1076.0000 | 0.0027 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0015 | ppm | 0.0013 | 81.93 | 8.4010 | 0.0015 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0007 | ppm | 0.0003 | 42.78 | 22.8400 | 0.0007 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | -1.3540 | 0.0001 u (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 81.65 | 22.9100 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0030 u | ppm | 0.0065 | > 100.00 | 79.3700 | -0.0030 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -3.6360 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0003 | > 100.00 | -7.0690 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 2.5990 | 0.0000 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0002 | ppm | 0.0001 | 78.31 | 227.3000 | 0.0002 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0011 u | ppm | 0.0049 | > 100.00 | 5.5850 | -0.0011 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0089 u | ppm | 0.0250 | > 100.00 | -152.2000 | 0.0089 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0013 | ppm | 0.0009 | 68.38 | 135.1000 | 0.0013 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | -0.0032 u | ppm | 0.0043 | > 100.00 | 11.2900 | -0.0032 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 83.7100 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0057 | ppm | 0.0026 | 46.24 | 40.8700 | 0.0057 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.1311 | ppm | 0.0103 | 7.84 | 1527.0000 | 0.1311 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0007 | ppm | 0.0004 | 54.49 | 4.1900 | 0.0007 (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0072 u | ppm | 0.0012 | 16.62 | -16.8300 | -0.0072 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0016 u | ppm | 0.0010 | 62.79 | -7.8010 | -0.0016 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0014 u | ppm | 0.0084 | > 100.00 | 3.2110 | 0.0014 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0026 u | ppm | 0.0009 | 32.40 | -0.1117 | -0.0026 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0100 | ppm | 0.0075 | 75.06 | 45.5100 | 0.0100 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0003 | ppm | 0.0001 | 40.14 | -1.2690 | 0.0003 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | 50.0200 | 0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0012 | ppm | 0.0003 | 21.45 | 80.0800 | 0.0012 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0001 u | ppm | 0.0016 | > 100.00 | -4.6680 | -0.0001 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0002 | ppm | 0.0002 | 85.90 | 42.7800 | 0.0002 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0018 | ppm | 0.0008 | 45.67 | -1.5470 | 0.0018 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0002 u | ppm | 0.0002 | > 100.00 | 70.2900 | -0.0002 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 2.35 | -25.9700 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0220 | 388700.0000 | 0.0034 | 0.33 |
| Y_R 371.029 | 1.0160 | 57310.0000 | 0.0018 | 0.17 |

Sample Name: 440-194492-b-14-d@20

Date: 10/23/2017 11:01:05 AM Rack:Tube: 1:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0009 u | ppm | 0.0004 | 46.20 | -48.2600 | -0.0009 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.8280 | ppm | 0.0018 | 0.10 | 42000.0000 | 1.8280 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0087 | ppm | 0.0022 | 25.28 | 13.9600 | 0.0087 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0177 | ppm | 0.0006 | 3.19 | 222.9000 | 0.0177 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1107 | ppm | 0.0026 | 2.37 | 8525.0000 | 0.1107 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0003 | ppm | 0.0000 | 6.04 | 96.7600 | 0.0003 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 84.7000 | ppm | 1.7740 | 2.10 | 332000.0000 | 84.7000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0011 | ppm | 0.0000 | 3.69 | 23.8300 | 0.0011 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0032 | ppm | 0.0003 | 10.19 | 45.2700 | 0.0032 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0109 | ppm | 0.0004 | 3.81 | 71.6400 | 0.0109 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0316 | ppm | 0.0003 | 0.96 | 1312.0000 | 0.0316 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.9450 | ppm | 0.0341 | 1.76 | 8859.0000 | 1.9450 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 1.4020 | ppm | 0.0341 | 2.43 | 1443.0000 | 1.4020 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0010 | ppm | 0.0011 | > 100.00 | 233.8000 | 0.0010 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.0770 | ppm | 0.1165 | 2.29 | 12230.0000 | 5.0770 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.7722 | ppm | 0.0004 | 0.05 | 74910.0000 | 0.7722 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0002 u | ppm | 0.0000 | 8.22 | 9.3960 | -0.0002 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 393.8000 | ppm | 8.2350 | 2.09 | 2234000.0000 | 393.8000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0072 | ppm | 0.0001 | 1.07 | 34.4600 | 0.0072 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.3645 | ppm | 0.0006 | 0.16 | 339.1000 | 0.3645 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.6909 | ppm | 0.0046 | 0.67 | 1393.0000 | 0.6909 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0046 | ppm | 0.0003 | 5.87 | 7.6740 | 0.0046 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0021 u | ppm | 0.0036 | > 100.00 | -0.2699 | -0.0021 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.0360 | ppm | 0.0038 | 0.09 | 9117.0000 | 4.0360 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0052 | ppm | 0.0004 | 8.13 | 2.8820 | 0.0052 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.4876 | ppm | 0.0102 | 2.08 | 165500.0000 | 0.4876 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0635 | ppm | 0.0000 | 0.06 | 7063.0000 | 0.0635 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0012 u | ppm | 0.0004 | 35.08 | -6.7620 | -0.0012 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0122 | ppm | 0.0003 | 2.19 | 473.5000 | 0.0122 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0006 u | ppm | 0.0002 | 37.19 | -6.1280 | -0.0006 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.1533 | ppm | 0.0001 | 0.08 | 3745.0000 | 0.1533 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0047 | ppm | 0.0001 | 1.66 | 314.0000 | 0.0047 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9474 | 360400.0000 | 0.0083 | 0.87 |
| Y_R 371.029 | 0.9755 | 55030.0000 | 0.0152 | 1.56 |

Sample Name: 440-194492-b-14-d ms@20

Date: 10/23/2017 11:03:09 AM Rack:Tube: 1:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4822 | ppm | 0.0002 | 0.05 | 17420.0000 | 0.4822 (ppm) | Y 371.029 |
| Al (396.152 nm) | 2.8450 | ppm | 0.0087 | 0.31 | 66930.0000 | 2.8450 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0090 | ppm | 0.0008 | 0.08 | 848.8000 | 1.0090 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0090 | ppm | 0.0009 | 0.09 | 11800.0000 | 1.0090 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0290 | ppm | 0.0124 | 1.20 | 79220.0000 | 1.0290 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9881 | ppm | 0.0012 | 0.12 | 169400.0000 | 0.9881 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 88.9500 | ppm | 0.6974 | 0.78 | 348700.0000 | 88.9500 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9370 | ppm | 0.0016 | 0.17 | 24120.0000 | 0.9370 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9403 | ppm | 0.0006 | 0.07 | 13220.0000 | 0.9403 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9771 | ppm | 0.0014 | 0.15 | 6019.0000 | 0.9771 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0400 | ppm | 0.0001 | 0.01 | 38220.0000 | 1.0400 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 2.9060 | ppm | 0.0043 | 0.15 | 13230.0000 | 2.9060 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 11.3600 | ppm | 0.0787 | 0.69 | 12770.0000 | 11.3600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9921 | ppm | 0.0048 | 0.48 | 62880.0000 | 0.9921 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 9.6550 | ppm | 0.1003 | 1.04 | 23240.0000 | 9.6550 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.6970 | ppm | 0.0012 | 0.07 | 164900.0000 | 1.6970 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0040 | ppm | 0.0018 | 0.18 | 5427.0000 | 1.0040 (ppm) | Y 371.029 |
| Na (589.592 nm) | 404.1000 | ppm | 2.4470 | 0.61 | 2292000.0000 | 404.1000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9336 | ppm | 0.0000 | 0.00 | 4589.0000 | 0.9336 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.4100 | ppm | 0.0070 | 0.50 | 1287.0000 | 1.4100 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.6160 | ppm | 0.0041 | 0.25 | 3258.0000 | 1.6160 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9979 | ppm | 0.0005 | 0.05 | 1185.0000 | 0.9979 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9609 | ppm | 0.0028 | 0.29 | 878.7000 | 0.9609 (ppm) | Y 371.029 |
| Si (251.611 nm) | 8.7140 | ppm | 0.1426 | 1.64 | 19840.0000 | 8.7140 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9622 | ppm | 0.0061 | 0.63 | 800.9000 | 0.9622 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.4320 | ppm | 0.0228 | 1.59 | 483900.0000 | 1.4320 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0500 | ppm | 0.0019 | 0.18 | 119000.0000 | 1.0500 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9153 | ppm | 0.0024 | 0.26 | 1438.0000 | 0.9153 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0070 | ppm | 0.0008 | 0.08 | 27280.0000 | 1.0070 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0050 | ppm | 0.0032 | 0.32 | 2185.0000 | 1.0050 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0910 | ppm | 0.0000 | 0.00 | 26270.0000 | 1.0910 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9864 | ppm | 0.0025 | 0.25 | 71180.0000 | 0.9864 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9391 | 357200.0000 | 0.0002 | 0.02 |
| Y_R 371.029 | 0.9619 | 54260.0000 | 0.0111 | 1.15 |

Sample Name: 440-194492-b-14-d msd@20

Date: 10/23/2017 11:05:13 AM Rack:Tube: 1:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4835 | ppm | 0.0021 | 0.43 | 17470.0000 | 0.4835 (ppm) | Y 371.029 |
| Al (396.152 nm) | 2.8590 | ppm | 0.0145 | 0.51 | 67240.0000 | 2.8590 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0140 | ppm | 0.0034 | 0.34 | 852.5000 | 1.0140 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0110 | ppm | 0.0050 | 0.50 | 11830.0000 | 1.0110 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0270 | ppm | 0.0008 | 0.08 | 79120.0000 | 1.0270 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9887 | ppm | 0.0027 | 0.27 | 169500.0000 | 0.9887 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 90.6500 | ppm | 0.5932 | 0.65 | 355400.0000 | 90.6500 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9373 | ppm | 0.0054 | 0.58 | 24130.0000 | 0.9373 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9366 | ppm | 0.0048 | 0.51 | 13170.0000 | 0.9366 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9776 | ppm | 0.0050 | 0.51 | 6022.0000 | 0.9776 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0380 | ppm | 0.0027 | 0.26 | 38160.0000 | 1.0380 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 2.9480 | ppm | 0.0305 | 1.03 | 13420.0000 | 2.9480 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 11.5900 | ppm | 0.0336 | 0.29 | 13030.0000 | 11.5900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9970 | ppm | 0.0022 | 0.22 | 63200.0000 | 0.9970 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 9.6990 | ppm | 0.0117 | 0.12 | 23340.0000 | 9.6990 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.7060 | ppm | 0.0035 | 0.20 | 165800.0000 | 1.7060 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9998 | ppm | 0.0055 | 0.55 | 5406.0000 | 0.9998 (ppm) | Y 371.029 |
| Na (589.592 nm) | 410.9000 | ppm | 3.9210 | 0.95 | 2331000.0000 | 410.9000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9357 | ppm | 0.0044 | 0.47 | 4600.0000 | 0.9357 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.4080 | ppm | 0.0081 | 0.57 | 1285.0000 | 1.4080 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.6190 | ppm | 0.0060 | 0.37 | 3264.0000 | 1.6190 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9933 | ppm | 0.0041 | 0.41 | 1179.0000 | 0.9933 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9590 | ppm | 0.0105 | 1.09 | 876.8000 | 0.9590 (ppm) | Y 371.029 |
| Si (251.611 nm) | 8.8650 | ppm | 0.1300 | 1.47 | 20180.0000 | 8.8650 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9525 | ppm | 0.0036 | 0.37 | 792.8000 | 0.9525 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.4520 | ppm | 0.0240 | 1.65 | 490700.0000 | 1.4520 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0450 | ppm | 0.0044 | 0.42 | 118400.0000 | 1.0450 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9139 | ppm | 0.0004 | 0.04 | 1436.0000 | 0.9139 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0080 | ppm | 0.0036 | 0.35 | 27320.0000 | 1.0080 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9962 | ppm | 0.0073 | 0.73 | 2166.0000 | 0.9962 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0900 | ppm | 0.0057 | 0.53 | 26250.0000 | 1.0900 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9754 | ppm | 0.0030 | 0.31 | 70380.0000 | 0.9754 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9391 | 357200.0000 | 0.0055 | 0.58 |
| Y_R 371.029 | 0.9633 | 54340.0000 | 0.0018 | 0.18 |

Sample Name: 440-194492-b-14-d sd@100

Date: 10/23/2017 11:07:17 AM Rack:Tube: 1:14

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0002 u | ppm | 0.0002 | > 100.00 | -12.1700 | -0.0002 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.3544 | ppm | 0.0007 | 0.20 | 7222.0000 | 0.3544 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0044 | ppm | 0.0020 | 45.75 | 10.7600 | 0.0044 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0056 | ppm | 0.0009 | 15.60 | 80.9000 | 0.0056 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0231 | ppm | 0.0004 | 1.76 | 1771.0000 | 0.0231 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0002 | ppm | 0.0000 | 26.75 | 40.7800 | 0.0002 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 17.0800 | ppm | 0.1498 | 0.88 | 67020.0000 | 17.0800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0004 | ppm | 0.0002 | 46.25 | 4.8210 | 0.0004 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0008 | ppm | 0.0002 | 27.73 | 8.8870 | 0.0008 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0026 | ppm | 0.0002 | 8.06 | 19.2300 | 0.0026 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0066 | ppm | 0.0001 | 0.93 | 447.5000 | 0.0066 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.3963 | ppm | 0.0018 | 0.45 | 1813.0000 | 0.3963 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.3273 | ppm | 0.0427 | 13.06 | 212.0000 | 0.3273 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0004 u | ppm | 0.0014 | > 100.00 | 103.3000 | 0.0004 u (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 1.0610 | ppm | 0.0171 | 1.61 | 2571.0000 | 1.0610 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1568 | ppm | 0.0006 | 0.40 | 15270.0000 | 0.1568 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0020 | ppm | 0.0009 | 47.42 | 20.7100 | 0.0020 (ppm) | Y 371.029 |
| Na (589.592 nm) | 80.7500 | ppm | 0.2331 | 0.29 | 458700.0000 | 80.7500 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0010 | ppm | 0.0005 | 45.82 | 5.6220 | 0.0010 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0648 | ppm | 0.0006 | 0.86 | 52.1200 | 0.0648 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.1410 | ppm | 0.0016 | 1.16 | 280.8000 | 0.1410 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0027 | ppm | 0.0027 | 98.62 | 4.9620 | 0.0027 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0037 u | ppm | 0.0010 | 25.97 | -1.2450 | -0.0037 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.8136 | ppm | 0.0049 | 0.60 | 1856.0000 | 0.8136 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0031 | ppm | 0.0020 | 65.29 | 1.0850 | 0.0031 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0982 | ppm | 0.0002 | 0.21 | 33330.0000 | 0.0982 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0141 | ppm | 0.0004 | 2.85 | 1519.0000 | 0.0141 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0012 u | ppm | 0.0005 | 42.76 | -6.5550 | -0.0012 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0022 | ppm | 0.0001 | 3.21 | 119.3000 | 0.0022 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0000 u | ppm | 0.0007 | > 100.00 | -5.2330 | 0.0000 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0326 | ppm | 0.0002 | 0.67 | 855.1000 | 0.0326 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0014 | ppm | 0.0001 | 5.24 | 65.5600 | 0.0014 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9891 | 376200.0000 | 0.0019 | 0.19 |
| Y_R 371.029 | 0.9984 | 56320.0000 | 0.0073 | 0.74 |

Sample Name: 440-194492-b-15-c@20

Date: 10/23/2017 11:09:21 AM Rack:Tube: 1:15

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0011 u | ppm | 0.0002 | 22.81 | -46.4700 | -0.0011 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0970 | ppm | 0.0017 | 0.15 | 24740.0000 | 1.0970 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0033 | ppm | 0.0034 | > 100.00 | 9.7080 | 0.0033 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0042 | ppm | 0.0002 | 3.75 | 62.8600 | 0.0042 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0798 | ppm | 0.0017 | 2.16 | 6138.0000 | 0.0798 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0002 | ppm | 0.0001 | 41.82 | 72.9800 | 0.0002 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 31.6100 | ppm | 0.3375 | 1.07 | 124000.0000 | 31.6100 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0007 | ppm | 0.0001 | 8.16 | 14.4500 | 0.0007 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0018 | ppm | 0.0002 | 10.53 | 24.2300 | 0.0018 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0070 | ppm | 0.0005 | 7.24 | 46.5200 | 0.0070 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0315 | ppm | 0.0001 | 0.25 | 1349.0000 | 0.0315 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.8880 | ppm | 0.0188 | 1.00 | 8600.0000 | 1.8880 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 1.0820 | ppm | 0.0234 | 2.16 | 1071.0000 | 1.0820 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0033 | ppm | 0.0001 | 3.44 | 301.5000 | 0.0033 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 1.2660 | ppm | 0.0305 | 2.41 | 3064.0000 | 1.2660 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.3825 | ppm | 0.0002 | 0.06 | 37260.0000 | 0.3825 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0005 | ppm | 0.0006 | > 100.00 | 12.9400 | 0.0005 (ppm) | Y 371.029 |
| Na (589.592 nm) | 407.2000 | ppm | 3.2990 | 0.81 | 2310000.0000 | 407.2000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0061 | ppm | 0.0013 | 20.78 | 30.0700 | 0.0061 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.1944 | ppm | 0.0076 | 3.89 | 175.9000 | 0.1944 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.3940 | ppm | 0.0005 | 0.12 | 792.0000 | 0.3940 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0000 u | ppm | 0.0000 | 68.53 | 1.8240 | 0.0000 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0007 u | ppm | 0.0024 | > 100.00 | 2.4730 | 0.0007 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.9930 | ppm | 0.0025 | 0.12 | 4512.0000 | 1.9930 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0019 | ppm | 0.0000 | 2.31 | 0.0576 | 0.0019 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0986 | ppm | 0.0010 | 1.03 | 33660.0000 | 0.0986 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0512 | ppm | 0.0004 | 0.71 | 5718.0000 | 0.0512 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0046 u | ppm | 0.0010 | 22.41 | -12.5300 | -0.0046 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0104 | ppm | 0.0001 | 0.82 | 360.3000 | 0.0104 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0005 u | ppm | 0.0016 | > 100.00 | -5.7910 | -0.0005 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0865 | ppm | 0.0001 | 0.15 | 2145.0000 | 0.0865 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0025 | ppm | 0.0001 | 4.55 | 147.4000 | 0.0025 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9439 | 359000.0000 | 0.0041 | 0.43 |
| Y_R 371.029 | 0.9729 | 54880.0000 | 0.0269 | 2.76 |

Sample Name: 440-194492-a-16-d@20

Date: 10/23/2017 11:11:25 AM Rack:Tube: 1:16

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0010 u | ppm | 0.0004 | 40.14 | -43.9200 | -0.0010 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.6820 | ppm | 0.0030 | 0.18 | 38540.0000 | 1.6820 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0060 | ppm | 0.0019 | 31.55 | 11.9500 | 0.0060 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0073 | ppm | 0.0003 | 3.79 | 99.5100 | 0.0073 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0934 | ppm | 0.0008 | 0.86 | 7189.0000 | 0.0934 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0002 | ppm | 0.0000 | 10.94 | 88.0100 | 0.0002 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 39.4700 | ppm | 1.0280 | 2.60 | 154800.0000 | 39.4700 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0007 | ppm | 0.0000 | 2.08 | 14.3800 | 0.0007 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0016 | ppm | 0.0003 | 21.45 | 21.6300 | 0.0016 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0084 | ppm | 0.0005 | 5.59 | 54.9500 | 0.0084 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0403 | ppm | 0.0001 | 0.12 | 1665.0000 | 0.0403 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 2.4310 | ppm | 0.0265 | 1.09 | 11070.0000 | 2.4310 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 1.1450 | ppm | 0.0165 | 1.44 | 1144.0000 | 1.1450 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0010 | ppm | 0.0012 | > 100.00 | 164.9000 | 0.0010 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 1.9020 | ppm | 0.0126 | 0.66 | 4592.0000 | 1.9020 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.3882 | ppm | 0.0002 | 0.05 | 37890.0000 | 0.3882 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0000 u | ppm | 0.0003 | > 100.00 | 10.2600 | 0.0000 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 405.1000 | ppm | 5.7000 | 1.41 | 2298000.0000 | 405.1000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0064 | ppm | 0.0003 | 4.11 | 31.6300 | 0.0064 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.2229 | ppm | 0.0017 | 0.77 | 202.9000 | 0.2229 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.2215 | ppm | 0.0011 | 0.51 | 443.5000 | 0.2215 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0071 | ppm | 0.0013 | 18.08 | 10.5100 | 0.0071 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0034 u | ppm | 0.0034 | > 100.00 | -1.4260 | -0.0034 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.8480 | ppm | 0.0046 | 0.16 | 6438.0000 | 2.8480 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0064 | ppm | 0.0006 | 9.91 | 3.8180 | 0.0064 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1317 | ppm | 0.0013 | 0.98 | 44900.0000 | 0.1317 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0718 | ppm | 0.0001 | 0.12 | 8042.0000 | 0.0718 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0033 u | ppm | 0.0024 | 71.73 | -10.8100 | -0.0033 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0114 | ppm | 0.0004 | 3.82 | 398.1000 | 0.0114 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0005 u | ppm | 0.0013 | > 100.00 | -4.3400 | -0.0005 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.1806 | ppm | 0.0004 | 0.21 | 4391.0000 | 0.1806 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0034 | ppm | 0.0000 | 0.15 | 210.0000 | 0.0034 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9497 | 361300.0000 | 0.0005 | 0.06 |
| Y_R 371.029 | 0.9818 | 55390.0000 | 0.0098 | 1.00 |

Sample Name: 440-194077-a-1-g@20

Date: 10/23/2017 11:13:29 AM Rack:Tube: 1:17

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0003 u | ppm | 0.0000 | 1.48 | -14.4800 | -0.0003 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.5232 | ppm | 0.0006 | 0.11 | 11190.0000 | 0.5232 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0047 | ppm | 0.0024 | 50.15 | 11.0700 | 0.0047 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0007 | ppm | 0.0002 | 30.60 | 21.9300 | 0.0007 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0004 | ppm | 0.0001 | 23.51 | 19.9400 | 0.0004 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 35.0900 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0681 | ppm | 0.0103 | 15.13 | 357.4000 | 0.0681 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 73.81 | -1.0090 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0007 | > 100.00 | -6.2850 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0016 | ppm | 0.0004 | 26.29 | 12.2500 | 0.0016 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0006 | ppm | 0.0002 | 37.47 | 244.6000 | 0.0006 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.4070 | ppm | 0.0136 | 0.96 | 6410.0000 | 1.4070 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.3798 | ppm | 0.0188 | 4.95 | 269.8000 | 0.3798 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0029 | ppm | 0.0007 | 23.94 | 242.1000 | 0.0029 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0016 | ppm | 0.0008 | 50.78 | 22.0000 | 0.0016 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0130 | ppm | 0.0000 | 0.03 | 1516.0000 | 0.0130 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0006 | ppm | 0.0004 | 70.77 | 13.0800 | 0.0006 (ppm) | Y 371.029 |
| Na (589.592 nm) | 408.3000 | ppm | 2.9790 | 0.73 | 2316000.0000 | 408.3000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0092 | ppm | 0.0001 | 0.90 | 46.3900 | 0.0092 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0140 | ppm | 0.0002 | 1.42 | 3.6240 | 0.0140 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0019 u | ppm | 0.0006 | 33.23 | -8.3540 | -0.0019 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0056 u | ppm | 0.0054 | 97.22 | -4.9720 | -0.0056 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0036 u | ppm | 0.0046 | > 100.00 | -1.3420 | -0.0036 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.3161 | ppm | 0.0005 | 0.15 | 734.4000 | 0.3161 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0008 | ppm | 0.0003 | 41.14 | -0.8673 | 0.0008 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0002 | ppm | 0.0001 | 77.96 | 96.2100 | 0.0002 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0393 | ppm | 0.0001 | 0.20 | 4402.0000 | 0.0393 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0006 u | ppm | 0.0028 | > 100.00 | -4.1150 | 0.0006 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0002 | ppm | 0.0001 | 51.85 | 45.5200 | 0.0002 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0015 u | ppm | 0.0005 | 33.06 | -8.5910 | -0.0015 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0025 | ppm | 0.0001 | 2.50 | 134.6000 | 0.0025 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0004 | ppm | 0.0001 | 16.08 | -6.9400 | 0.0004 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9469 | 360200.0000 | 0.0043 | 0.45 |
| Y_R 371.029 | 0.9713 | 54790.0000 | 0.0046 | 0.48 |

Sample Name: 440-193915-a-3-e@20

Date: 10/23/2017 11:15:34 AM Rack:Tube: 1:18

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0005 u | ppm | 0.0004 | 85.61 | -22.4000 | -0.0005 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0410 | ppm | 0.0060 | 0.58 | 23410.0000 | 1.0410 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0058 | ppm | 0.0000 | 0.61 | 11.8800 | 0.0058 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0024 | ppm | 0.0002 | 6.27 | 42.3300 | 0.0024 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1002 | ppm | 0.0005 | 0.51 | 7710.0000 | 0.1002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0000 | 20.21 | 45.1300 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 21.0200 | ppm | 0.5953 | 2.83 | 82470.0000 | 21.0200 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0004 | ppm | 0.0000 | 2.57 | 6.0040 | 0.0004 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0344 | ppm | 0.0005 | 1.59 | 482.1000 | 0.0344 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0023 | ppm | 0.0003 | 13.50 | 17.3200 | 0.0023 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0062 | ppm | 0.0003 | 4.93 | 431.5000 | 0.0062 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9804 | ppm | 0.0082 | 0.84 | 4471.0000 | 0.9804 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.5944 | ppm | 0.0310 | 5.22 | 517.5000 | 0.5944 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0041 | ppm | 0.0003 | 6.99 | 327.5000 | 0.0041 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.5010 | ppm | 0.0090 | 0.16 | 13250.0000 | 5.5010 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.1310 | ppm | 0.0050 | 0.44 | 109400.0000 | 1.1310 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0003 u | ppm | 0.0001 | 23.39 | 8.7850 | -0.0003 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 380.6000 | ppm | 2.1580 | 0.57 | 2159000.0000 | 380.6000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0309 | ppm | 0.0013 | 4.05 | 152.1000 | 0.0309 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.1856 | ppm | 0.0036 | 1.93 | 168.5000 | 0.1856 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0004 u | ppm | 0.0006 | > 100.00 | -4.6390 | -0.0004 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0004 u | ppm | 0.0010 | > 100.00 | 1.3190 | -0.0004 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0013 u | ppm | 0.0054 | > 100.00 | 3.6340 | 0.0013 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.7600 | ppm | 0.0058 | 0.33 | 3988.0000 | 1.7600 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0004 u | ppm | 0.0007 | > 100.00 | -1.0650 | 0.0004 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1006 | ppm | 0.0003 | 0.26 | 34190.0000 | 0.1006 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0891 | ppm | 0.0004 | 0.42 | 10030.0000 | 0.0891 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0029 u | ppm | 0.0001 | 3.25 | -9.1170 | -0.0029 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0346 | ppm | 0.0001 | 0.39 | 1008.0000 | 0.0346 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0021 u | ppm | 0.0004 | 20.25 | -10.4800 | -0.0021 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0038 | ppm | 0.0001 | 1.41 | 173.1000 | 0.0038 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0092 | ppm | 0.0005 | 5.25 | 625.6000 | 0.0092 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9552 | 363300.0000 | 0.0041 | 0.43 |
| Y_R 371.029 | 0.9841 | 55510.0000 | 0.0099 | 1.00 |

Sample Name: 440-192743-a-19-c@20

Date: 10/23/2017 11:17:38 AM Rack:Tube: 1:19

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0006 u | ppm | 0.0000 | 2.44 | -27.9000 | -0.0006 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.3190 | ppm | 0.0014 | 0.11 | 29970.0000 | 1.3190 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0079 | ppm | 0.0023 | 29.68 | 13.5200 | 0.0079 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0154 | ppm | 0.0003 | 1.81 | 189.7000 | 0.0154 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1672 | ppm | 0.0025 | 1.47 | 12870.0000 | 0.1672 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0002 | ppm | 0.0000 | 1.91 | 153.2000 | 0.0002 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 27.9200 | ppm | 0.3566 | 1.28 | 109500.0000 | 27.9200 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0029 | ppm | 0.0001 | 2.51 | 70.9500 | 0.0029 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0074 | ppm | 0.0002 | 2.58 | 102.6000 | 0.0074 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0114 | ppm | 0.0003 | 2.96 | 73.9100 | 0.0114 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1132 | ppm | 0.0001 | 0.11 | 4346.0000 | 0.1132 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 4.9960 | ppm | 0.0762 | 1.52 | 22740.0000 | 4.9960 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 2.2080 | ppm | 0.0642 | 2.91 | 2350.0000 | 2.2080 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0036 | ppm | 0.0010 | 27.58 | 252.8000 | 0.0036 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 1.6570 | ppm | 0.0238 | 1.44 | 4002.0000 | 1.6570 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.7173 | ppm | 0.0004 | 0.06 | 70010.0000 | 0.7173 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0010 | ppm | 0.0011 | > 100.00 | 16.3000 | 0.0010 (ppm) | Y 371.029 |
| Na (589.592 nm) | 422.4000 | ppm | 5.9060 | 1.40 | 2396000.0000 | 422.4000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0192 | ppm | 0.0004 | 1.85 | 94.8800 | 0.0192 (ppm) | Y 371.029 |
| P (213.618 nm) | 5.7050 | ppm | 0.0125 | 0.22 | 5485.0000 | 5.7050 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.5991 | ppm | 0.0010 | 0.17 | 1207.0000 | 0.5991 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0028 | ppm | 0.0004 | 13.28 | 5.4280 | 0.0028 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0049 u | ppm | 0.0013 | 26.14 | -3.0870 | -0.0049 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.1310 | ppm | 0.0012 | 0.10 | 2575.0000 | 1.1310 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0062 | ppm | 0.0005 | 7.69 | 3.7050 | 0.0062 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1292 | ppm | 0.0019 | 1.43 | 43920.0000 | 0.1292 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0593 | ppm | 0.0000 | 0.03 | 6640.0000 | 0.0593 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0021 u | ppm | 0.0019 | 90.48 | -8.1030 | -0.0021 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0227 | ppm | 0.0001 | 0.58 | 691.3000 | 0.0227 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0020 u | ppm | 0.0011 | 54.14 | 7.4520 | -0.0020 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0050 | ppm | 0.0014 | 0.14 | 24050.0000 | 1.0050 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0027 | ppm | 0.0001 | 3.54 | 163.3000 | 0.0027 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9447 | 359400.0000 | 0.0036 | 0.38 |
| Y_R 371.029 | 0.9759 | 55050.0000 | 0.0176 | 1.80 |

Sample Name: 440-192743-a-24-e@20

Date: 10/23/2017 11:19:42 AM Rack:Tube: 1:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0006 u | ppm | 0.0001 | 15.83 | -25.6600 | -0.0006 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.8813 | ppm | 0.0031 | 0.35 | 19650.0000 | 0.8813 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0077 | ppm | 0.0007 | 9.39 | 13.5200 | 0.0077 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0153 | ppm | 0.0004 | 2.58 | 194.2000 | 0.0153 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.2414 | ppm | 0.0051 | 2.11 | 18580.0000 | 0.2414 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0002 | ppm | 0.0000 | 1.98 | 61.3900 | 0.0002 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 19.1900 | ppm | 0.5215 | 2.72 | 75310.0000 | 19.1900 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0007 | ppm | 0.0001 | 10.13 | 14.8800 | 0.0007 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0143 | ppm | 0.0001 | 0.50 | 198.8000 | 0.0143 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0026 | ppm | 0.0001 | 3.55 | 19.1000 | 0.0026 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0173 | ppm | 0.0001 | 0.35 | 841.5000 | 0.0173 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0290 | ppm | 0.0216 | 2.10 | 4690.0000 | 1.0290 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 2.1680 | ppm | 0.0686 | 3.16 | 2304.0000 | 2.1680 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0021 | ppm | 0.0002 | 10.11 | 176.2000 | 0.0021 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 1.7790 | ppm | 0.0369 | 2.08 | 4300.0000 | 1.7790 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0910 | ppm | 0.0032 | 0.30 | 105500.0000 | 1.0910 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0008 | ppm | 0.0010 | > 100.00 | 14.4100 | 0.0008 (ppm) | Y 371.029 |
| Na (589.592 nm) | 393.1000 | ppm | 7.9320 | 2.02 | 2230000.0000 | 393.1000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0173 | ppm | 0.0010 | 5.92 | 85.3400 | 0.0173 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.8613 | ppm | 0.0030 | 0.35 | 819.3000 | 0.8613 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.1192 | ppm | 0.0018 | 1.49 | 237.0000 | 0.1192 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0004 u | ppm | 0.0020 | > 100.00 | 2.2030 | 0.0004 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0026 u | ppm | 0.0009 | 33.64 | 0.1050 | -0.0026 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.1570 | ppm | 0.0027 | 0.23 | 2630.0000 | 1.1570 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0006 | ppm | 0.0003 | 55.92 | -0.9472 | 0.0006 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1260 | ppm | 0.0019 | 1.53 | 42730.0000 | 0.1260 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0333 | ppm | 0.0000 | 0.03 | 3700.0000 | 0.0333 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0017 u | ppm | 0.0000 | 1.27 | -6.0400 | -0.0017 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0216 | ppm | 0.0000 | 0.10 | 650.0000 | 0.0216 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0017 u | ppm | 0.0002 | 8.76 | -6.9300 | -0.0017 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.1554 | ppm | 0.0008 | 0.49 | 3786.0000 | 0.1554 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0015 | ppm | 0.0000 | 2.78 | 67.4100 | 0.0015 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9468 | 360200.0000 | 0.0059 | 0.63 |
| Y_R 371.029 | 0.9698 | 54710.0000 | 0.0157 | 1.62 |

Sample Name: CCV 4439427

Date: 10/23/2017 11:21:46 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4877 | ppm | 0.0014 | 0.30 | 17630.0000 | 0.4877 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.9706 | ppm | 0.0073 | 0.75 | 22650.0000 | 0.9706 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9829 | ppm | 0.0044 | 0.45 | 826.9000 | 0.9829 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9729 | ppm | 0.0036 | 0.37 | 11380.0000 | 0.9729 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9683 | ppm | 0.0049 | 0.50 | 74560.0000 | 0.9683 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9745 | ppm | 0.0018 | 0.19 | 167000.0000 | 0.9745 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.8440 | ppm | 0.0250 | 0.52 | 19070.0000 | 4.8440 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9748 | ppm | 0.0026 | 0.27 | 25090.0000 | 0.9748 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9701 | ppm | 0.0037 | 0.38 | 13630.0000 | 0.9701 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9735 | ppm | 0.0008 | 0.08 | 5995.0000 | 0.9735 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9750 | ppm | 0.0021 | 0.22 | 35900.0000 | 0.9750 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9814 | ppm | 0.0029 | 0.30 | 4472.0000 | 0.9814 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.7930 | ppm | 0.0734 | 0.75 | 10980.0000 | 9.7930 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9682 | ppm | 0.0040 | 0.41 | 61250.0000 | 0.9682 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.8590 | ppm | 0.0221 | 0.46 | 11700.0000 | 4.8590 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9726 | ppm | 0.0017 | 0.17 | 94600.0000 | 0.9726 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9621 | ppm | 0.0054 | 0.56 | 5202.0000 | 0.9621 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.2300 | ppm | 0.0483 | 0.47 | 58890.0000 | 10.2300 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9764 | ppm | 0.0006 | 0.07 | 4802.0000 | 0.9764 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9860 | ppm | 0.0009 | 0.09 | 883.3000 | 0.9860 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9748 | ppm | 0.0014 | 0.15 | 1962.0000 | 0.9748 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9662 | ppm | 0.0107 | 1.10 | 1148.0000 | 0.9662 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9767 | ppm | 0.0016 | 0.16 | 893.1000 | 0.9767 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.8750 | ppm | 0.1181 | 2.42 | 11190.0000 | 4.8750 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9723 | ppm | 0.0009 | 0.10 | 809.3000 | 0.9723 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9787 | ppm | 0.0086 | 0.87 | 330100.0000 | 0.9787 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9720 | ppm | 0.0027 | 0.28 | 110200.0000 | 0.9720 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9800 | ppm | 0.0001 | 0.01 | 1545.0000 | 0.9800 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9753 | ppm | 0.0019 | 0.20 | 26340.0000 | 0.9753 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9660 | ppm | 0.0021 | 0.22 | 2101.0000 | 0.9660 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9771 | ppm | 0.0022 | 0.22 | 23540.0000 | 0.9771 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9729 | ppm | 0.0032 | 0.33 | 70190.0000 | 0.9729 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0060 | 382600.0000 | 0.0041 | 0.41 |
| Y_R 371.029 | 1.0120 | 57070.0000 | 0.0028 | 0.27 |

Sample Name: CCB 4439426

Date: 10/23/2017 11:23:49 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0001 | ppm | 0.0000 | 52.45 | -1.3820 | 0.0001 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0013 | ppm | 0.0008 | 62.40 | -1110.0000 | 0.0013 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0028 | ppm | 0.0024 | 84.67 | 9.4580 | 0.0028 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0004 u | ppm | 0.0005 | > 100.00 | 18.7600 | 0.0004 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | -1.6220 | 0.0001 u (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 20.6500 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0069 u | ppm | 0.0147 | > 100.00 | 64.0000 | -0.0069 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0000 | 1.85 | 0.6540 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0001 u | ppm | 0.0002 | > 100.00 | -4.6640 | -0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 | ppm | 0.0001 | 45.32 | 3.6750 | 0.0002 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | 223.1000 | 0.0001 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0012 | ppm | 0.0015 | > 100.00 | 16.4200 | 0.0012 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0561 | ppm | 0.0339 | 60.41 | -98.6400 | 0.0561 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 57.4600 | 0.0000 u (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | -0.0028 u | ppm | 0.0021 | 72.40 | 12.0400 | -0.0028 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0001 | 53.77 | 93.7900 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0063 | ppm | 0.0033 | 52.00 | 43.7500 | 0.0063 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.3693 | ppm | 0.0097 | 2.62 | 2878.0000 | 0.3693 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0006 u | ppm | 0.0014 | > 100.00 | 3.8040 | 0.0006 u (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0105 u | ppm | 0.0030 | 28.81 | -20.0800 | -0.0105 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0006 u | ppm | 0.0014 | > 100.00 | -3.2910 | 0.0006 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0004 u | ppm | 0.0012 | > 100.00 | 1.0900 | -0.0004 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0008 u | ppm | 0.0005 | 63.51 | 1.5310 | -0.0008 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0085 | ppm | 0.0045 | 53.59 | 42.3300 | 0.0085 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0008 | ppm | 0.0008 | 94.54 | -0.8069 | 0.0008 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0001 | ppm | 0.0000 | 0.90 | 76.2100 | 0.0001 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0014 | ppm | 0.0005 | 32.68 | 98.9400 | 0.0014 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0008 u | ppm | 0.0013 | > 100.00 | -5.7140 | -0.0008 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0001 | ppm | 0.0001 | 63.29 | 39.5400 | 0.0001 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0026 | ppm | 0.0014 | 52.46 | 0.1092 | 0.0026 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0002 u | ppm | 0.0000 | 4.43 | 70.3600 | -0.0002 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0001 u | ppm | 0.0001 | 48.10 | -47.2400 | -0.0001 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0190 | 387800.0000 | 0.0024 | 0.24 |
| Y_R 371.029 | 1.0210 | 57610.0000 | 0.0074 | 0.73 |

Sample Name: mb 440-436837/1-a

Date: 10/23/2017 11:26:38 AM Rack:Tube: 1:21

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | 1.5030 | 0.0002 (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0024 u | ppm | 0.0005 | 20.67 | -1202.0000 | -0.0024 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0038 | ppm | 0.0002 | 5.43 | 10.3100 | 0.0038 (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0011 u | ppm | 0.0008 | 71.52 | 2.8120 | -0.0011 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -6.8790 | 0.0000 u (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | 75.05 | 5.6580 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0005 u | ppm | 0.0109 | > 100.00 | 89.0000 | -0.0005 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 | ppm | 0.0000 | 85.25 | -4.4170 | 0.0000 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0004 | > 100.00 | -6.7870 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 | ppm | 0.0001 | 76.18 | 3.6730 | 0.0002 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | 219.8000 | 0.0000 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0002 u | ppm | 0.0007 | > 100.00 | 11.5400 | 0.0002 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1017 | ppm | 0.0650 | 63.93 | -46.7700 | 0.1017 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0021 | ppm | 0.0011 | 50.87 | 187.7000 | 0.0021 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | -0.0044 u | ppm | 0.0028 | 63.41 | 8.1940 | -0.0044 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 | ppm | 0.0000 | > 100.00 | 74.3200 | 0.0000 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0003 u | ppm | 0.0005 | > 100.00 | 8.5590 | -0.0003 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.2660 | ppm | 0.0018 | 0.66 | 2292.0000 | 0.2660 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0011 | ppm | 0.0003 | 29.62 | 6.0890 | 0.0011 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0033 | ppm | 0.0014 | 42.33 | -6.6150 | 0.0033 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0014 u | ppm | 0.0015 | > 100.00 | -7.4060 | -0.0014 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0014 u | ppm | 0.0003 | 17.34 | -0.0449 | -0.0014 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0047 u | ppm | 0.0010 | 22.35 | -1.9670 | -0.0047 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0007 u | ppm | 0.0005 | 71.22 | 20.8600 | -0.0007 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0000 u | ppm | 0.0003 | > 100.00 | -1.4870 | 0.0000 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | 19.4200 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | -67.2300 | -0.0001 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0003 | ppm | 0.0001 | 34.47 | -3.9040 | 0.0003 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0000 u | ppm | 0.0003 | > 100.00 | 38.0300 | 0.0000 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0018 u | ppm | 0.0011 | 63.70 | -9.3580 | -0.0018 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0005 u | ppm | 0.0001 | 13.40 | 61.2200 | -0.0005 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | -43.8200 | -0.0001 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0290 | 391400.0000 | 0.0071 | 0.69 |
| Y_R 371.029 | 1.0290 | 58050.0000 | 0.0008 | 0.07 |

Sample Name: lcs 440-436837/2-a

Date: 10/23/2017 11:28:42 AM Rack:Tube: 1:22

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2383 | ppm | 0.0000 | 0.02 | 8610.0000 | 0.2383 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.4749 | ppm | 0.0023 | 0.49 | 10490.0000 | 0.4749 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4832 | ppm | 0.0102 | 2.11 | 410.0000 | 0.4832 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4745 | ppm | 0.0041 | 0.86 | 5561.0000 | 0.4745 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4878 | ppm | 0.0037 | 0.75 | 37560.0000 | 0.4878 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.4812 | ppm | 0.0012 | 0.24 | 82460.0000 | 0.4812 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 2.4320 | ppm | 0.0152 | 0.62 | 9621.0000 | 2.4320 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4856 | ppm | 0.0025 | 0.52 | 12500.0000 | 0.4856 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4818 | ppm | 0.0008 | 0.16 | 6770.0000 | 0.4818 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4825 | ppm | 0.0004 | 0.09 | 2973.0000 | 0.4825 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4762 | ppm | 0.0001 | 0.02 | 17650.0000 | 0.4762 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.4779 | ppm | 0.0061 | 1.27 | 2183.0000 | 0.4779 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 4.9570 | ppm | 0.0694 | 1.40 | 5477.0000 | 4.9570 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4787 | ppm | 0.0044 | 0.93 | 30310.0000 | 0.4787 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 2.4380 | ppm | 0.0228 | 0.93 | 5879.0000 | 2.4380 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4880 | ppm | 0.0003 | 0.07 | 47490.0000 | 0.4880 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4603 | ppm | 0.0010 | 0.22 | 2494.0000 | 0.4603 (ppm) | Y 371.029 |
| Na (589.592 nm) | 5.0920 | ppm | 0.0562 | 1.10 | 29690.0000 | 5.0920 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4835 | ppm | 0.0005 | 0.10 | 2378.0000 | 0.4835 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.4799 | ppm | 0.0019 | 0.39 | 425.1000 | 0.4799 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4881 | ppm | 0.0013 | 0.26 | 980.5000 | 0.4881 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.4784 | ppm | 0.0030 | 0.63 | 569.5000 | 0.4784 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.4854 | ppm | 0.0022 | 0.46 | 444.9000 | 0.4854 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.3120 | ppm | 0.0120 | 0.52 | 5320.0000 | 2.3120 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4834 | ppm | 0.0032 | 0.66 | 401.6000 | 0.4834 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.4893 | ppm | 0.0061 | 1.25 | 165000.0000 | 0.4893 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.4791 | ppm | 0.0002 | 0.05 | 54320.0000 | 0.4791 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4886 | ppm | 0.0003 | 0.07 | 768.3000 | 0.4886 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4815 | ppm | 0.0001 | 0.01 | 13020.0000 | 0.4815 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.4645 | ppm | 0.0028 | 0.60 | 1008.0000 | 0.4645 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4855 | ppm | 0.0007 | 0.14 | 11730.0000 | 0.4855 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.4792 | ppm | 0.0003 | 0.07 | 34550.0000 | 0.4792 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0220 | 388700.0000 | 0.0017 | 0.16 |
| Y_R 371.029 | 1.0170 | 57390.0000 | 0.0098 | 0.96 |

Sample Name: 440-194219-e-2-g@5

Date: 10/23/2017 11:30:46 AM Rack:Tube: 1:23

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0009 u | ppm | 0.0001 | 8.33 | -95.4400 | -0.0009 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0080 | ppm | 0.0002 | 1.93 | -652.9000 | 0.0080 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0119 | ppm | 0.0078 | 64.90 | -42.6500 | 0.0119 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.2390 | ppm | 0.0040 | 0.32 | 14660.0000 | 1.2390 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0370 | ppm | 0.0003 | 0.75 | 2862.0000 | 0.0370 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 12.7000 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 306.7000 | ppm | 1.3090 | 0.43 | 1202000.0000 | 306.7000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -3.9670 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0000 u | ppm | 0.0003 | > 100.00 | 12.1400 | 0.0000 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 5.4280 | ppm | 0.0127 | 0.23 | 33430.0000 | 5.4280 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0041 | ppm | 0.0005 | 12.25 | 142.7000 | 0.0041 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0025 u | ppm | 0.0027 | > 100.00 | 16.1000 | -0.0025 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 16.3100 | ppm | 0.3064 | 1.88 | 18470.0000 | 16.3100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1026 | ppm | 0.0025 | 2.44 | 7578.0000 | 0.1026 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 161.9000 | ppm | 1.5020 | 0.93 | 389400.0000 | 161.9000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0150 | ppm | 0.0002 | 1.09 | 2131.0000 | 0.0150 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0112 | ppm | 0.0017 | 15.13 | 72.6000 | 0.0112 (ppm) | Y 371.029 |
| Na (589.592 nm) | 576.3000 | ppm | 3.2590 | 0.57 | 3269000.0000 | 576.3000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0006 u | ppm | 0.0009 | > 100.00 | -8.8010 | -0.0006 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0008 u | ppm | 0.0029 | > 100.00 | -12.3100 | 0.0008 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0068 u | ppm | 0.0014 | 21.06 | -12.0200 | -0.0068 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0169 | ppm | 0.0021 | 12.50 | 91.1500 | 0.0169 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0014 u | ppm | 0.0007 | 49.06 | -1.6500 | -0.0014 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.0500 | ppm | 0.0091 | 0.23 | 9179.0000 | 4.0500 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0065 u | ppm | 0.0012 | 18.78 | -6.5550 | -0.0065 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 8.8860 | ppm | 0.0170 | 0.19 | 3000000.0000 | 8.8860 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0013 | ppm | 0.0006 | 42.52 | -241.7000 | 0.0013 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0026 | ppm | 0.0020 | 75.57 | 0.3539 | 0.0026 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0111 u | ppm | 0.0003 | 2.63 | 145.1000 | -0.0111 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0023 | ppm | 0.0006 | 25.03 | -8.1630 | 0.0023 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0127 u | ppm | 0.0003 | 2.22 | -302.0000 | -0.0127 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0003 u | ppm | 0.0000 | 0.93 | -18.5900 | -0.0003 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8998 | 342300.0000 | 0.0011 | 0.12 |
| Y_R 371.029 | 0.9413 | 53100.0000 | 0.0078 | 0.83 |

Sample Name: 440-194219-e-2-h ms@5

Date: 10/23/2017 11:32:50 AM Rack:Tube: 1:24

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0495 | ppm | 0.0005 | 0.95 | 1727.0000 | 0.0495 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.1154 | ppm | 0.0006 | 0.52 | 1954.0000 | 0.1154 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1092 | ppm | 0.0136 | 12.46 | 40.8600 | 0.1092 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.3050 | ppm | 0.0011 | 0.09 | 15440.0000 | 1.3050 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1240 | ppm | 0.0010 | 0.77 | 9562.0000 | 0.1240 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0989 | ppm | 0.0002 | 0.18 | 16950.0000 | 0.0989 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 299.5000 | ppm | 4.0870 | 1.36 | 1174000.0000 | 299.5000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0912 | ppm | 0.0002 | 0.22 | 2345.0000 | 0.0912 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0921 | ppm | 0.0010 | 1.04 | 1307.0000 | 0.0921 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 5.3110 | ppm | 0.0035 | 0.07 | 32710.0000 | 5.3110 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1036 | ppm | 0.0000 | 0.01 | 3792.0000 | 0.1036 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0894 | ppm | 0.0004 | 0.44 | 433.6000 | 0.0894 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 17.0100 | ppm | 0.1830 | 1.08 | 19260.0000 | 17.0100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1998 | ppm | 0.0051 | 2.57 | 13700.0000 | 0.1998 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 157.9000 | ppm | 1.6010 | 1.01 | 379600.0000 | 157.9000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1082 | ppm | 0.0001 | 0.10 | 11170.0000 | 0.1082 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.1000 | ppm | 0.0014 | 1.40 | 551.6000 | 0.1000 (ppm) | Y 371.029 |
| Na (589.592 nm) | 560.4000 | ppm | 7.4870 | 1.34 | 3179000.0000 | 560.4000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0904 | ppm | 0.0002 | 0.18 | 438.5000 | 0.0904 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.1109 | ppm | 0.0047 | 4.28 | 88.1800 | 0.1109 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0843 | ppm | 0.0010 | 1.15 | 171.8000 | 0.0843 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.1233 | ppm | 0.0040 | 3.21 | 214.9000 | 0.1233 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0960 | ppm | 0.0038 | 3.94 | 87.2000 | 0.0960 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.4170 | ppm | 0.0073 | 0.17 | 10020.0000 | 4.4170 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0888 | ppm | 0.0004 | 0.43 | 72.8700 | 0.0888 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 8.7600 | ppm | 0.1287 | 1.47 | 2957000.0000 | 8.7600 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0975 | ppm | 0.0002 | 0.20 | 10690.0000 | 0.0975 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0866 | ppm | 0.0014 | 1.66 | 132.4000 | 0.0866 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0866 | ppm | 0.0006 | 0.72 | 2769.0000 | 0.0866 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0900 | ppm | 0.0001 | 0.11 | 183.2000 | 0.0900 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0770 | ppm | 0.0006 | 0.78 | 1857.0000 | 0.0770 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0890 | ppm | 0.0002 | 0.17 | 6425.0000 | 0.0890 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9051 | 344300.0000 | 0.0007 | 0.07 |
| Y_R 371.029 | 0.9473 | 53440.0000 | 0.0092 | 0.98 |

Sample Name: 440-194219-e-2-i msd@5

Date: 10/23/2017 11:34:55 AM Rack:Tube: 1:25

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0522 | ppm | 0.0009 | 1.70 | 1822.0000 | 0.0522 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.1178 | ppm | 0.0011 | 0.95 | 2037.0000 | 0.1178 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1181 | ppm | 0.0010 | 0.89 | 43.1000 | 0.1181 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.3980 | ppm | 0.0184 | 1.32 | 16540.0000 | 1.3980 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1301 | ppm | 0.0013 | 1.01 | 10030.0000 | 0.1301 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.1039 | ppm | 0.0015 | 1.43 | 17820.0000 | 0.1039 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 315.1000 | ppm | 0.6881 | 0.22 | 1235000.0000 | 315.1000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0956 | ppm | 0.0014 | 1.44 | 2457.0000 | 0.0956 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0960 | ppm | 0.0018 | 1.92 | 1362.0000 | 0.0960 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 5.7670 | ppm | 0.0713 | 1.24 | 35520.0000 | 5.7670 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1094 | ppm | 0.0011 | 1.00 | 3991.0000 | 0.1094 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0933 | ppm | 0.0002 | 0.18 | 452.2000 | 0.0933 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 17.7100 | ppm | 0.0557 | 0.31 | 20060.0000 | 17.7100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2084 | ppm | 0.0006 | 0.29 | 14300.0000 | 0.2084 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 168.3000 | ppm | 1.3880 | 0.83 | 404700.0000 | 168.3000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1138 | ppm | 0.0018 | 1.54 | 11760.0000 | 0.1138 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.1064 | ppm | 0.0011 | 1.06 | 586.5000 | 0.1064 (ppm) | Y 371.029 |
| Na (589.592 nm) | 584.6000 | ppm | 1.9860 | 0.34 | 3316000.0000 | 584.6000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0939 | ppm | 0.0003 | 0.36 | 455.3000 | 0.0939 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.1092 | ppm | 0.0006 | 0.57 | 86.0700 | 0.1092 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0883 | ppm | 0.0009 | 1.02 | 180.1000 | 0.0883 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.1283 | ppm | 0.0040 | 3.09 | 226.7000 | 0.1283 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.1043 | ppm | 0.0053 | 5.12 | 94.6700 | 0.1043 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.7380 | ppm | 0.0636 | 1.34 | 10750.0000 | 4.7380 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0940 | ppm | 0.0016 | 1.70 | 77.2700 | 0.0940 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 9.2160 | ppm | 0.0214 | 0.23 | 3111000.0000 | 9.2160 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.1032 | ppm | 0.0013 | 1.23 | 11320.0000 | 0.1032 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0918 | ppm | 0.0015 | 1.59 | 140.7000 | 0.0918 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0911 | ppm | 0.0013 | 1.48 | 2911.0000 | 0.0911 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0972 | ppm | 0.0018 | 1.90 | 198.4000 | 0.0972 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0798 | ppm | 0.0012 | 1.47 | 1916.0000 | 0.0798 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0993 | ppm | 0.0016 | 1.65 | 7169.0000 | 0.0993 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8998 | 342300.0000 | 0.0040 | 0.45 |
| Y_R 371.029 | 0.9460 | 53370.0000 | 0.0086 | 0.91 |

Sample Name: 440-194219-e-1-c

Date: 10/23/2017 11:36:59 AM Rack:Tube: 1:26

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0011 u | ppm | 0.0001 | 6.29 | -75.5600 | -0.0011 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0171 | ppm | 0.0009 | 5.54 | -568.6000 | 0.0171 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0118 | ppm | 0.0033 | 27.98 | 11.7800 | 0.0118 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9376 | ppm | 0.0047 | 0.50 | 11090.0000 | 0.9376 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0976 | ppm | 0.0001 | 0.12 | 7525.0000 | 0.0976 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 7.5900 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 182.7000 | ppm | 2.1170 | 1.16 | 716300.0000 | 182.7000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | 0.4412 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0004 u | ppm | 0.0000 | 1.32 | -2.3680 | -0.0004 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4597 | ppm | 0.0017 | 0.38 | 2837.0000 | 0.4597 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0003 | ppm | 0.0003 | > 100.00 | 93.4000 | 0.0003 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0033 | ppm | 0.0008 | 25.18 | 37.6100 | 0.0033 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 16.8100 | ppm | 0.1873 | 1.11 | 19000.0000 | 16.8100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1435 | ppm | 0.0014 | 0.99 | 9800.0000 | 0.1435 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 91.9100 | ppm | 0.1002 | 0.11 | 221100.0000 | 91.9100 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0156 | ppm | 0.0001 | 0.62 | 1924.0000 | 0.0156 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0062 | ppm | 0.0007 | 11.92 | 43.4600 | 0.0062 (ppm) | Y 371.029 |
| Na (589.592 nm) | 302.3000 | ppm | 3.3080 | 1.09 | 1715000.0000 | 302.3000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0022 u | ppm | 0.0009 | 41.59 | -14.1700 | -0.0022 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0296 | ppm | 0.0008 | 2.86 | 16.5100 | 0.0296 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0030 u | ppm | 0.0016 | 51.52 | -6.9310 | -0.0030 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0025 u | ppm | 0.0018 | 72.51 | 4.9990 | -0.0025 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0028 u | ppm | 0.0001 | 5.16 | -1.7250 | -0.0028 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 14.9000 | ppm | 0.0175 | 0.12 | 33590.0000 | 14.9000 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0025 u | ppm | 0.0031 | > 100.00 | -3.3890 | -0.0025 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 5.8390 | ppm | 0.0714 | 1.22 | 1971000.0000 | 5.8390 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0003 | ppm | 0.0002 | 77.40 | -215.3000 | 0.0003 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0001 u | ppm | 0.0029 | > 100.00 | -5.2450 | 0.0001 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0005 | ppm | 0.0001 | 18.74 | 277.0000 | 0.0005 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0016 u | ppm | 0.0005 | 30.48 | -13.4500 | -0.0016 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0064 u | ppm | 0.0003 | 4.92 | -19.1400 | -0.0064 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 14.59 | -1.0720 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9349 | 355600.0000 | 0.0047 | 0.50 |
| Y_R 371.029 | 0.9692 | 54670.0000 | 0.0031 | 0.32 |

Sample Name: 440-194219-e-3-c

Date: 10/23/2017 11:39:03 AM Rack:Tube: 1:27

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0012 u | ppm | 0.0003 | 22.56 | -76.6500 | -0.0012 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0160 | ppm | 0.0005 | 3.23 | -628.7000 | 0.0160 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0213 | ppm | 0.0041 | 19.29 | -7.0790 | 0.0213 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.4410 | ppm | 0.0004 | 0.03 | 17040.0000 | 1.4410 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0767 | ppm | 0.0009 | 1.15 | 5910.0000 | 0.0767 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 0.4945 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 149.2000 | ppm | 0.5898 | 0.40 | 584700.0000 | 149.2000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | -1.5410 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0001 | 22.11 | 0.0438 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 2.9000 | ppm | 0.0084 | 0.29 | 17860.0000 | 2.9000 (ppm) | Y 371.029 |
| Cu (324.754 nm) | -0.0002 u | ppm | 0.0003 | > 100.00 | 104.4000 | -0.0002 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0009 u | ppm | 0.0011 | > 100.00 | 14.0300 | -0.0009 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 16.2600 | ppm | 0.1940 | 1.19 | 18360.0000 | 16.2600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1443 | ppm | 0.0000 | 0.02 | 9693.0000 | 0.1443 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 72.6200 | ppm | 0.7981 | 1.10 | 174700.0000 | 72.6200 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0054 | ppm | 0.0001 | 1.67 | 869.4000 | 0.0054 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0032 | ppm | 0.0003 | 7.96 | 28.4000 | 0.0032 (ppm) | Y 371.029 |
| Na (589.592 nm) | 264.7000 | ppm | 3.0010 | 1.13 | 1502000.0000 | 264.7000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0015 u | ppm | 0.0010 | 67.68 | -9.7530 | -0.0015 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0070 | ppm | 0.0001 | 1.23 | -4.5460 | 0.0070 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0033 u | ppm | 0.0007 | 19.99 | -8.1580 | -0.0033 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0053 | ppm | 0.0001 | 2.65 | 45.1600 | 0.0053 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0035 u | ppm | 0.0003 | 9.56 | -2.1720 | -0.0035 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 17.2300 | ppm | 0.0604 | 0.35 | 38840.0000 | 17.2300 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0036 u | ppm | 0.0003 | 7.54 | -4.3700 | -0.0036 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 4.9070 | ppm | 0.0081 | 0.16 | 1657000.0000 | 4.9070 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -221.0000 | 0.0000 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0004 u | ppm | 0.0003 | 72.87 | -5.1410 | -0.0004 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0053 | ppm | 0.0004 | 8.06 | 383.4000 | 0.0053 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0033 u | ppm | 0.0004 | 12.52 | -16.2200 | -0.0033 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0046 u | ppm | 0.0002 | 3.82 | -87.2600 | -0.0046 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 3.10 | -4.8540 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9460 | 359800.0000 | 0.0013 | 0.13 |
| Y_R 371.029 | 0.9647 | 54420.0000 | 0.0098 | 1.02 |

Sample Name: 440-194107-I-7-c

Date: 10/23/2017 11:41:06 AM Rack:Tube: 1:28

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0012 u | ppm | 0.0003 | 24.87 | -81.0700 | -0.0012 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0195 | ppm | 0.0005 | 2.47 | -495.4000 | 0.0195 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1139 | ppm | 0.0068 | 6.00 | 102.4000 | 0.1139 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.7480 | ppm | 0.0412 | 2.36 | 20650.0000 | 1.7480 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0288 | ppm | 0.0002 | 0.56 | 2227.0000 | 0.0288 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 42.94 | -4.6310 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 200.8000 | ppm | 1.3670 | 0.68 | 787300.0000 | 200.8000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 56.38 | -0.5542 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | 3.4090 | 0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0498 | ppm | 0.0017 | 3.48 | 313.1000 | 0.0498 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0003 | ppm | 0.0003 | > 100.00 | 79.0600 | 0.0003 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0002 u | ppm | 0.0008 | > 100.00 | 22.2900 | -0.0002 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 12.3100 | ppm | 0.0963 | 0.78 | 13880.0000 | 12.3100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1882 | ppm | 0.0012 | 0.65 | 12670.0000 | 0.1882 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 92.7100 | ppm | 0.4358 | 0.47 | 223000.0000 | 92.7100 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0026 u | ppm | 0.0001 | 1.95 | 182.9000 | -0.0026 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0202 | ppm | 0.0003 | 1.73 | 119.0000 | 0.0202 (ppm) | Y 371.029 |
| Na (589.592 nm) | 377.3000 | ppm | 0.7442 | 0.20 | 2140000.0000 | 377.3000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0006 u | ppm | 0.0010 | > 100.00 | -6.3590 | -0.0006 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0050 | ppm | 0.0049 | 96.78 | -7.7580 | 0.0050 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0051 u | ppm | 0.0000 | 0.17 | -11.0200 | -0.0051 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0040 u | ppm | 0.0028 | 69.65 | -2.2840 | -0.0040 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0007 u | ppm | 0.0023 | > 100.00 | 0.0066 | -0.0007 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 36.7700 | ppm | 0.8947 | 2.43 | 82840.0000 | 36.7700 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0044 u | ppm | 0.0019 | 42.27 | -5.0200 | -0.0044 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 4.6740 | ppm | 0.0279 | 0.60 | 1578000.0000 | 4.6740 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -266.8000 | 0.0000 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0003 | ppm | 0.0000 | 11.02 | -6.5520 | 0.0003 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0365 | ppm | 0.0014 | 3.74 | 1271.0000 | 0.0365 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0032 u | ppm | 0.0014 | 43.39 | -17.2300 | -0.0032 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0061 u | ppm | 0.0001 | 1.31 | 7.2470 | -0.0061 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0001 | 39.29 | 4.6120 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9499 | 361300.0000 | 0.0211 | 2.22 |
| Y_R 371.029 | 0.9710 | 54770.0000 | 0.0044 | 0.46 |

Sample Name: 440-194107-I-6-c@10

Date: 10/23/2017 11:43:10 AM Rack:Tube: 1:29

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0008 u | ppm | 0.0000 | 4.04 | -49.6600 | -0.0008 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0124 | ppm | 0.0001 | 1.20 | -757.1000 | 0.0124 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0092 | ppm | 0.0022 | 24.04 | 14.6900 | 0.0092 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.2336 | ppm | 0.0012 | 0.50 | 2774.0000 | 0.2336 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0073 | ppm | 0.0000 | 0.46 | 564.7000 | 0.0073 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 24.86 | -3.3560 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 105.6000 | ppm | 1.3270 | 1.26 | 413800.0000 | 105.6000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 85.90 | -0.4652 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0005 u | ppm | 0.0001 | 18.36 | -6.7040 | -0.0005 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0012 | ppm | 0.0006 | 48.63 | 12.1500 | 0.0012 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0005 | ppm | 0.0004 | 86.76 | 159.2000 | 0.0005 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0023 u | ppm | 0.0014 | 58.73 | 6.9000 | -0.0023 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 3.6700 | ppm | 0.0575 | 1.57 | 4036.0000 | 3.6700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0277 | ppm | 0.0012 | 4.36 | 2164.0000 | 0.0277 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 49.7500 | ppm | 0.0820 | 0.16 | 119700.0000 | 49.7500 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0015 | ppm | 0.0000 | 1.51 | 400.9000 | 0.0015 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0014 | ppm | 0.0005 | 36.50 | 17.7300 | 0.0014 (ppm) | Y 371.029 |
| Na (589.592 nm) | 141.8000 | ppm | 1.4390 | 1.01 | 804700.0000 | 141.8000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0017 u | ppm | 0.0008 | 45.04 | -10.0600 | -0.0017 u (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0020 u | ppm | 0.0053 | > 100.00 | -12.9900 | -0.0020 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0037 u | ppm | 0.0027 | 72.84 | -9.9680 | -0.0037 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0011 u | ppm | 0.0006 | 50.89 | 0.6689 | -0.0011 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0033 u | ppm | 0.0003 | 9.77 | -1.5270 | -0.0033 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 3.4920 | ppm | 0.0225 | 0.64 | 7897.0000 | 3.4920 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0009 u | ppm | 0.0015 | > 100.00 | -0.6781 | 0.0009 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 2.5590 | ppm | 0.0080 | 0.31 | 864200.0000 | 2.5590 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0002 u | ppm | 0.0002 | 95.40 | -189.2000 | -0.0002 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0008 u | ppm | 0.0019 | > 100.00 | -3.7020 | 0.0008 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0017 u | ppm | 0.0003 | 19.30 | 121.0000 | -0.0017 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0026 u | ppm | 0.0020 | 78.13 | -13.6100 | -0.0026 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0041 u | ppm | 0.0000 | 0.58 | 18.4000 | -0.0041 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -24.7600 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9511 | 361800.0000 | 0.0034 | 0.35 |
| Y_R 371.029 | 0.9722 | 54840.0000 | 0.0018 | 0.18 |

Sample Name: 440-194107-I-5-c

Date: 10/23/2017 11:45:15 AM Rack:Tube: 1:30

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0005 u | ppm | 0.0002 | 36.87 | -28.4800 | -0.0005 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0090 | ppm | 0.0012 | 13.13 | -895.6000 | 0.0090 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0165 | ppm | 0.0011 | 6.40 | 20.8100 | 0.0165 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.8131 | ppm | 0.0007 | 0.08 | 9612.0000 | 0.8131 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0256 | ppm | 0.0006 | 2.52 | 1966.0000 | 0.0256 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 68.77 | 0.5049 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 30.0200 | ppm | 0.1785 | 0.59 | 117700.0000 | 30.0200 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0000 | 62.93 | -3.3310 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0002 | 68.29 | -6.6080 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0183 | ppm | 0.0004 | 2.45 | 115.6000 | 0.0183 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | 204.9000 | 0.0002 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0020 u | ppm | 0.0007 | 34.73 | 3.9410 | -0.0020 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 6.1100 | ppm | 0.0556 | 0.91 | 6790.0000 | 6.1100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0398 | ppm | 0.0006 | 1.51 | 2690.0000 | 0.0398 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 16.2300 | ppm | 0.2203 | 1.36 | 39060.0000 | 16.2300 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0152 | ppm | 0.0001 | 0.62 | 1601.0000 | 0.0152 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0089 | ppm | 0.0005 | 5.49 | 57.8600 | 0.0089 (ppm) | Y 371.029 |
| Na (589.592 nm) | 124.5000 | ppm | 0.9357 | 0.75 | 706900.0000 | 124.5000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0016 u | ppm | 0.0004 | 25.02 | -7.7590 | -0.0016 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0057 | ppm | 0.0015 | 25.93 | -4.8690 | 0.0057 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0027 u | ppm | 0.0001 | 4.64 | -9.2580 | -0.0027 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0008 u | ppm | 0.0009 | > 100.00 | 0.7950 | -0.0008 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0023 u | ppm | 0.0009 | 40.77 | -0.0744 | -0.0023 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 11.9300 | ppm | 0.0032 | 0.03 | 26890.0000 | 11.9300 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0014 | ppm | 0.0001 | 9.50 | -0.3219 | 0.0014 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9866 | ppm | 0.0053 | 0.54 | 333100.0000 | 0.9866 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0001 u | ppm | 0.0002 | > 100.00 | -108.1000 | -0.0001 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0018 u | ppm | 0.0017 | 93.92 | -7.8830 | -0.0018 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0087 | ppm | 0.0001 | 0.91 | 309.1000 | 0.0087 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0016 u | ppm | 0.0012 | 75.89 | -9.7040 | -0.0016 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0014 u | ppm | 0.0001 | 6.77 | 54.9700 | -0.0014 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0001 | 25.94 | -14.7900 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9753 | 371000.0000 | 0.0035 | 0.36 |
| Y_R 371.029 | 0.9829 | 55450.0000 | 0.0095 | 0.97 |

Sample Name: CCV 4439427

Date: 10/23/2017 11:47:19 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4904 | ppm | 0.0014 | 0.28 | 17730.0000 | 0.4904 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.9720 | ppm | 0.0063 | 0.65 | 22690.0000 | 0.9720 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9928 | ppm | 0.0008 | 0.08 | 835.2000 | 0.9928 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9801 | ppm | 0.0038 | 0.38 | 11470.0000 | 0.9801 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9817 | ppm | 0.0168 | 1.71 | 75590.0000 | 0.9817 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9788 | ppm | 0.0029 | 0.30 | 167700.0000 | 0.9788 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.9050 | ppm | 0.0669 | 1.36 | 19310.0000 | 4.9050 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9802 | ppm | 0.0033 | 0.33 | 25230.0000 | 0.9802 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9787 | ppm | 0.0008 | 0.08 | 13750.0000 | 0.9787 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9789 | ppm | 0.0035 | 0.36 | 6028.0000 | 0.9789 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9777 | ppm | 0.0009 | 0.09 | 36000.0000 | 0.9777 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9708 | ppm | 0.0184 | 1.90 | 4424.0000 | 0.9708 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.8040 | ppm | 0.0703 | 0.72 | 10990.0000 | 9.8040 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9779 | ppm | 0.0176 | 1.80 | 61860.0000 | 0.9779 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.9440 | ppm | 0.0848 | 1.72 | 11900.0000 | 4.9440 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9773 | ppm | 0.0035 | 0.35 | 95060.0000 | 0.9773 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9779 | ppm | 0.0047 | 0.48 | 5287.0000 | 0.9779 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.3600 | ppm | 0.1593 | 1.54 | 59600.0000 | 10.3600 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9787 | ppm | 0.0045 | 0.46 | 4813.0000 | 0.9787 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9853 | ppm | 0.0059 | 0.60 | 882.3000 | 0.9853 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9781 | ppm | 0.0035 | 0.36 | 1969.0000 | 0.9781 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9746 | ppm | 0.0067 | 0.69 | 1157.0000 | 0.9746 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9836 | ppm | 0.0002 | 0.02 | 899.5000 | 0.9836 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.8930 | ppm | 0.1184 | 2.42 | 11230.0000 | 4.8930 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9809 | ppm | 0.0045 | 0.45 | 816.5000 | 0.9809 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9794 | ppm | 0.0203 | 2.08 | 330400.0000 | 0.9794 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9760 | ppm | 0.0035 | 0.36 | 110700.0000 | 0.9760 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9769 | ppm | 0.0025 | 0.25 | 1540.0000 | 0.9769 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9792 | ppm | 0.0053 | 0.54 | 26440.0000 | 0.9792 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9756 | ppm | 0.0032 | 0.32 | 2122.0000 | 0.9756 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9826 | ppm | 0.0032 | 0.32 | 23670.0000 | 0.9826 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9847 | ppm | 0.0033 | 0.33 | 71040.0000 | 0.9847 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9914 | 377100.0000 | 0.0037 | 0.37 |
| Y_R 371.029 | 0.9877 | 55720.0000 | 0.0179 | 1.81 |

Sample Name: CCB 4439426

Date: 10/23/2017 11:49:23 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0001 u | ppm | 0.0003 | > 100.00 | -9.4260 | -0.0001 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0033 u | ppm | 0.0004 | 10.62 | -1219.0000 | -0.0033 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0055 | ppm | 0.0018 | 33.36 | 11.7400 | 0.0055 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0013 | ppm | 0.0014 | > 100.00 | 29.5300 | 0.0013 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0002 | > 100.00 | 4.1710 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 87.68 | 24.8900 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0036 u | ppm | 0.0074 | > 100.00 | 105.0000 | 0.0036 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | -1.5480 | 0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0004 u | ppm | 0.0002 | 60.21 | -7.8420 | -0.0004 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0003 | ppm | 0.0001 | 31.86 | 4.5340 | 0.0003 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0002 | ppm | 0.0000 | 17.75 | 226.6000 | 0.0002 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0012 u | ppm | 0.0009 | 77.84 | 5.2720 | -0.0012 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1471 | ppm | 0.0871 | 59.23 | 4.8130 | 0.1471 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0019 | ppm | 0.0005 | 28.60 | 175.6000 | 0.0019 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | -0.0030 u | ppm | 0.0003 | 8.86 | 11.7200 | -0.0030 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0001 | 72.57 | 88.0700 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0045 | ppm | 0.0029 | 65.05 | 34.3700 | 0.0045 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.4726 | ppm | 0.0042 | 0.88 | 3464.0000 | 0.4726 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0002 u | ppm | 0.0009 | > 100.00 | 1.7060 | 0.0002 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0010 | ppm | 0.0006 | 57.46 | -8.9030 | 0.0010 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0014 u | ppm | 0.0001 | 8.48 | -7.2250 | -0.0014 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0002 u | ppm | 0.0010 | > 100.00 | 1.7690 | 0.0002 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0037 u | ppm | 0.0001 | 2.40 | -1.1140 | -0.0037 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0103 | ppm | 0.0046 | 45.08 | 46.3000 | 0.0103 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0002 u | ppm | 0.0010 | > 100.00 | -1.3100 | 0.0002 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0001 | ppm | 0.0000 | 32.93 | 75.7500 | 0.0001 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0014 | ppm | 0.0003 | 22.38 | 95.3100 | 0.0014 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0005 u | ppm | 0.0037 | > 100.00 | -5.2900 | -0.0005 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 40.4400 | 0.0001 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0032 | ppm | 0.0017 | 53.94 | 1.4710 | 0.0032 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0014 u | ppm | 0.0000 | 0.50 | 40.6100 | -0.0014 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0001 u | ppm | 0.0001 | 45.96 | -47.8700 | -0.0001 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9982 | 379700.0000 | 0.0059 | 0.59 |
| Y_R 371.029 | 0.9982 | 56310.0000 | 0.0060 | 0.60 |

Sample Name: 440-194107-I-4-c

Date: 10/23/2017 11:51:27 AM Rack:Tube: 1:31

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0012 u | ppm | 0.0001 | 5.85 | -90.1600 | -0.0012 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0125 | ppm | 0.0011 | 8.99 | -615.2000 | 0.0125 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0768 | ppm | 0.0068 | 8.85 | 71.5300 | 0.0768 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.3990 | ppm | 0.0059 | 0.42 | 16530.0000 | 1.3990 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0147 | ppm | 0.0002 | 1.40 | 1144.0000 | 0.0147 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 2.6810 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 250.1000 | ppm | 2.5310 | 1.01 | 980400.0000 | 250.1000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 97.25 | 0.2883 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0006 u | ppm | 0.0008 | > 100.00 | -4.5890 | -0.0006 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0007 | ppm | 0.0002 | 27.95 | 11.2300 | 0.0007 (ppm) | Y 371.029 |
| Cu (324.754 nm) | -0.0005 u | ppm | 0.0003 | 70.73 | 13.1800 | -0.0005 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0035 u | ppm | 0.0018 | 50.37 | 9.7210 | -0.0035 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 38.6800 | ppm | 0.6260 | 1.62 | 43860.0000 | 38.6800 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3523 | ppm | 0.0051 | 1.45 | 23260.0000 | 0.3523 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 109.2000 | ppm | 1.3590 | 1.24 | 262600.0000 | 109.2000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0065 | ppm | 0.0001 | 1.16 | 1133.0000 | 0.0065 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0318 | ppm | 0.0013 | 4.10 | 181.4000 | 0.0318 (ppm) | Y 371.029 |
| Na (589.592 nm) | 309.0000 | ppm | 1.8190 | 0.59 | 1753000.0000 | 309.0000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0009 u | ppm | 0.0007 | 76.86 | -9.1080 | -0.0009 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0006 u | ppm | 0.0029 | > 100.00 | -12.8700 | 0.0006 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0056 u | ppm | 0.0003 | 5.06 | -11.2800 | -0.0056 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0026 u | ppm | 0.0034 | > 100.00 | -1.3110 | -0.0026 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0104 | ppm | 0.0044 | 42.05 | 9.7010 | 0.0104 (ppm) | Y 371.029 |
| Si (251.611 nm) | 28.7900 | ppm | 0.0503 | 0.17 | 64880.0000 | 28.7900 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0030 u | ppm | 0.0031 | > 100.00 | -3.8150 | -0.0030 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 7.3990 | ppm | 0.0739 | 1.00 | 2498000.0000 | 7.3990 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0003 | > 100.00 | -291.3000 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0003 u | ppm | 0.0013 | > 100.00 | -5.7520 | 0.0003 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0064 | ppm | 0.0005 | 7.35 | 512.4000 | 0.0064 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0022 u | ppm | 0.0012 | 53.63 | -16.4500 | -0.0022 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0071 u | ppm | 0.0002 | 2.81 | 0.2050 | -0.0071 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | -3.6090 | 0.0001 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9214 | 350500.0000 | 0.0048 | 0.52 |
| Y_R 371.029 | 0.9440 | 53250.0000 | 0.0151 | 1.60 |

Sample Name: 440-194107-I-3-c

Date: 10/23/2017 11:53:31 AM Rack:Tube: 1:32

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0014 u | ppm | 0.0001 | 3.93 | -95.2900 | -0.0014 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0117 | ppm | 0.0005 | 3.90 | -639.0000 | 0.0117 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0697 | ppm | 0.0063 | 9.06 | 65.4600 | 0.0697 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.3950 | ppm | 0.0039 | 0.28 | 16490.0000 | 1.3950 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0145 | ppm | 0.0002 | 1.70 | 1126.0000 | 0.0145 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 34.62 | -4.1530 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 246.7000 | ppm | 1.1940 | 0.48 | 967000.0000 | 246.7000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0000 | 18.13 | -0.5186 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0000 u | ppm | 0.0003 | > 100.00 | 3.1850 | 0.0000 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0008 | ppm | 0.0006 | 71.87 | 12.1400 | 0.0008 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0018 | ppm | 0.0002 | 12.23 | 97.7900 | 0.0018 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0037 u | ppm | 0.0003 | 8.24 | 8.6030 | -0.0037 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 38.1500 | ppm | 0.0606 | 0.16 | 43250.0000 | 38.1500 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3507 | ppm | 0.0016 | 0.46 | 23130.0000 | 0.3507 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 106.6000 | ppm | 0.1521 | 0.14 | 256500.0000 | 106.6000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0067 | ppm | 0.0000 | 0.73 | 1135.0000 | 0.0067 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0318 | ppm | 0.0003 | 1.02 | 181.7000 | 0.0318 (ppm) | Y 371.029 |
| Na (589.592 nm) | 306.2000 | ppm | 0.9811 | 0.32 | 1737000.0000 | 306.2000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0006 u | ppm | 0.0001 | 8.65 | -7.5220 | -0.0006 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0053 u | ppm | 0.0139 | > 100.00 | -8.3920 | 0.0053 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0033 u | ppm | 0.0023 | 70.06 | -6.7540 | -0.0033 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0050 u | ppm | 0.0000 | 0.02 | -4.1050 | -0.0050 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0058 | ppm | 0.0053 | 92.06 | 5.6000 | 0.0058 (ppm) | Y 371.029 |
| Si (251.611 nm) | 28.5900 | ppm | 0.0070 | 0.02 | 64430.0000 | 28.5900 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0075 u | ppm | 0.0001 | 0.79 | -7.5710 | -0.0075 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 7.2960 | ppm | 0.0432 | 0.59 | 2463000.0000 | 7.2960 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | -316.6000 | 0.0000 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0007 | ppm | 0.0001 | 8.45 | -5.1590 | 0.0007 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0062 | ppm | 0.0003 | 4.87 | 502.2000 | 0.0062 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0028 u | ppm | 0.0018 | 62.11 | -17.6000 | -0.0028 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0059 u | ppm | 0.0002 | 2.73 | 28.0400 | -0.0059 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -5.8720 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9239 | 351400.0000 | 0.0006 | 0.06 |
| Y_R 371.029 | 0.9652 | 54450.0000 | 0.0005 | 0.05 |

Sample Name: 440-194107-I-2-c

Date: 10/23/2017 11:55:34 AM Rack:Tube: 1:33

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0013 u | ppm | 0.0002 | 12.38 | -106.9000 | -0.0013 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0175 | ppm | 0.0000 | 0.12 | -446.7000 | 0.0175 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0860 | ppm | 0.0012 | 1.36 | 78.8800 | 0.0860 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.7600 | ppm | 0.0000 | 0.00 | 20790.0000 | 1.7600 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0163 | ppm | 0.0004 | 2.15 | 1272.0000 | 0.0163 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0002 u | ppm | 0.0000 | 3.56 | -13.8500 | -0.0002 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 351.1000 | ppm | 0.1997 | 0.06 | 1376000.0000 | 351.1000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0000 | 17.05 | 2.5910 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0002 | ppm | 0.0003 | > 100.00 | 8.2120 | 0.0002 (ppm) | Y 371.029 |
| Cr (205.560 nm) | -0.0002 u | ppm | 0.0004 | > 100.00 | 7.7860 | -0.0002 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0006 | ppm | 0.0001 | 22.22 | -24.3300 | 0.0006 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0120 | ppm | 0.0004 | 3.25 | 82.2200 | 0.0120 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 35.3800 | ppm | 0.1983 | 0.56 | 40120.0000 | 35.3800 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4246 | ppm | 0.0013 | 0.32 | 28030.0000 | 0.4246 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 117.0000 | ppm | 1.3520 | 1.16 | 281300.0000 | 117.0000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1020 | ppm | 0.0005 | 0.45 | 10390.0000 | 0.1020 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0440 | ppm | 0.0009 | 2.08 | 247.2000 | 0.0440 (ppm) | Y 371.029 |
| Na (589.592 nm) | 368.3000 | ppm | 2.2970 | 0.62 | 2090000.0000 | 368.3000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0008 u | ppm | 0.0001 | 15.80 | -10.6200 | -0.0008 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0058 | ppm | 0.0018 | 31.69 | -9.5380 | 0.0058 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0053 u | ppm | 0.0019 | 36.07 | -9.6110 | -0.0053 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0090 u | ppm | 0.0015 | 16.29 | -8.7640 | -0.0090 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0009 u | ppm | 0.0049 | > 100.00 | -1.1030 | -0.0009 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 21.4600 | ppm | 0.0458 | 0.21 | 48390.0000 | 21.4600 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0040 u | ppm | 0.0029 | 72.50 | -4.6780 | -0.0040 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 10.9600 | ppm | 0.0001 | 0.00 | 3700000.0000 | 10.9600 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0003 | ppm | 0.0000 | 14.76 | -389.1000 | 0.0003 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0003 u | ppm | 0.0021 | > 100.00 | -6.8960 | -0.0003 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0110 u | ppm | 0.0003 | 2.33 | 157.1000 | -0.0110 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0013 u | ppm | 0.0006 | 43.69 | -16.8000 | -0.0013 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0081 u | ppm | 0.0003 | 3.79 | -11.0000 | -0.0081 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0004 u | ppm | 0.0001 | 15.76 | -20.2400 | -0.0004 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9125 | 347100.0000 | 0.0008 | 0.09 |
| Y_R 371.029 | 0.9506 | 53620.0000 | 0.0111 | 1.17 |

Sample Name: CCV 4439427

Date: 10/23/2017 12:03:46 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4932 | ppm | 0.0004 | 0.07 | 17830.0000 | 0.4932 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.9810 | ppm | 0.0047 | 0.48 | 22910.0000 | 0.9810 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9986 | ppm | 0.0008 | 0.08 | 840.0000 | 0.9986 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9873 | ppm | 0.0020 | 0.20 | 11550.0000 | 0.9873 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9850 | ppm | 0.0246 | 2.50 | 75840.0000 | 0.9850 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9886 | ppm | 0.0006 | 0.06 | 169400.0000 | 0.9886 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.9100 | ppm | 0.0943 | 1.92 | 19330.0000 | 4.9100 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9870 | ppm | 0.0014 | 0.14 | 25410.0000 | 0.9870 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9838 | ppm | 0.0011 | 0.11 | 13830.0000 | 0.9838 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9883 | ppm | 0.0003 | 0.03 | 6086.0000 | 0.9883 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9879 | ppm | 0.0017 | 0.17 | 36380.0000 | 0.9879 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9785 | ppm | 0.0219 | 2.24 | 4459.0000 | 0.9785 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.9760 | ppm | 0.1264 | 1.27 | 11190.0000 | 9.9760 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9784 | ppm | 0.0130 | 1.33 | 61890.0000 | 0.9784 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.9500 | ppm | 0.1228 | 2.48 | 11920.0000 | 4.9500 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9855 | ppm | 0.0009 | 0.09 | 95850.0000 | 0.9855 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9880 | ppm | 0.0004 | 0.05 | 5341.0000 | 0.9880 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.2500 | ppm | 0.1367 | 1.33 | 58970.0000 | 10.2500 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9876 | ppm | 0.0014 | 0.14 | 4857.0000 | 0.9876 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9940 | ppm | 0.0085 | 0.86 | 890.0000 | 0.9940 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9872 | ppm | 0.0005 | 0.05 | 1987.0000 | 0.9872 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9838 | ppm | 0.0038 | 0.39 | 1168.0000 | 0.9838 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9971 | ppm | 0.0038 | 0.38 | 911.7000 | 0.9971 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.9210 | ppm | 0.1171 | 2.38 | 11290.0000 | 4.9210 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9914 | ppm | 0.0005 | 0.05 | 825.3000 | 0.9914 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9833 | ppm | 0.0218 | 2.21 | 331700.0000 | 0.9833 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9840 | ppm | 0.0003 | 0.03 | 111600.0000 | 0.9840 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9851 | ppm | 0.0004 | 0.05 | 1553.0000 | 0.9851 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9861 | ppm | 0.0022 | 0.22 | 26620.0000 | 0.9861 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9868 | ppm | 0.0019 | 0.19 | 2146.0000 | 0.9868 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9916 | ppm | 0.0003 | 0.03 | 23880.0000 | 0.9916 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9851 | ppm | 0.0044 | 0.45 | 71070.0000 | 0.9851 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9931 | 377800.0000 | 0.0019 | 0.20 |
| Y_R 371.029 | 0.9949 | 56130.0000 | 0.0215 | 2.16 |

Sample Name: CCB 4439426

Date: 10/23/2017 12:05:50 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0004 | ppm | 0.0001 | 29.88 | 8.9740 | 0.0004 (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0026 u | ppm | 0.0007 | 26.21 | -1202.0000 | -0.0026 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0025 | ppm | 0.0004 | 15.90 | 9.2400 | 0.0025 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0012 | ppm | 0.0009 | 79.80 | 28.1700 | 0.0012 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | -2.6230 | 0.0001 u (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 55.60 | 19.8300 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0004 u | ppm | 0.0039 | > 100.00 | 92.5300 | 0.0004 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | -1.9820 | 0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0005 u | ppm | 0.0004 | 77.18 | -9.5360 | -0.0005 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 u | ppm | 0.0006 | > 100.00 | 3.8160 | 0.0002 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0003 | ppm | 0.0001 | 34.75 | 232.5000 | 0.0003 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0007 u | ppm | 0.0016 | > 100.00 | 7.4070 | -0.0007 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1106 | ppm | 0.0146 | 13.20 | -36.6800 | 0.1106 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | -0.0001 u | ppm | 0.0008 | > 100.00 | 48.4500 | -0.0001 u (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | -0.0010 u | ppm | 0.0021 | > 100.00 | 16.4200 | -0.0010 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0000 | 19.39 | 85.3200 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0058 | ppm | 0.0025 | 42.66 | 41.2400 | 0.0058 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.3609 | ppm | 0.0044 | 1.21 | 2830.0000 | 0.3609 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0004 u | ppm | 0.0005 | > 100.00 | -1.0130 | -0.0004 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0035 | ppm | 0.0006 | 18.03 | -6.4980 | 0.0035 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0008 u | ppm | 0.0011 | > 100.00 | -6.0390 | -0.0008 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0033 | ppm | 0.0037 | > 100.00 | 5.4930 | 0.0033 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0047 u | ppm | 0.0000 | 0.40 | -1.9940 | -0.0047 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0092 | ppm | 0.0046 | 50.39 | 43.9000 | 0.0092 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0026 | ppm | 0.0035 | > 100.00 | 0.6665 | 0.0026 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 23.3100 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0015 | ppm | 0.0004 | 27.71 | 113.6000 | 0.0015 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0002 u | ppm | 0.0014 | > 100.00 | -4.8280 | -0.0002 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | 38.7600 | 0.0001 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0027 | ppm | 0.0009 | 33.42 | 0.4226 | 0.0027 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0013 u | ppm | 0.0001 | 11.60 | 43.9100 | -0.0013 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -40.0800 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9987 | 379900.0000 | 0.0075 | 0.75 |
| Y_R 371.029 | 0.9989 | 56350.0000 | 0.0036 | 0.36 |

Sample Name: RINSE 4439436

Date: 10/23/2017 2:44:21 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0000 u | ppm | 0.0004 | > 100.00 | -4.0800 | 0.0000 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0007 u | ppm | 0.0003 | 42.95 | -1162.0000 | -0.0007 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0004 u | ppm | 0.0016 | > 100.00 | 7.4070 | 0.0004 u (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0020 u | ppm | 0.0002 | 8.77 | -8.1760 | -0.0020 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0000 u | ppm | 0.0000 | 24.38 | -10.4000 | 0.0000 u (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 48.63 | 4.0090 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0023 u | ppm | 0.0070 | > 100.00 | 82.0300 | -0.0023 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -4.2770 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0005 u | ppm | 0.0003 | 61.82 | -10.3600 | -0.0005 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0001 | ppm | 0.0000 | 6.46 | 3.1720 | 0.0001 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0002 u | ppm | 0.0003 | > 100.00 | 226.4000 | 0.0002 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0005 | ppm | 0.0007 | > 100.00 | 13.1600 | 0.0005 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0684 u | ppm | 0.1198 | > 100.00 | -84.6800 | 0.0684 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0021 | ppm | 0.0009 | 40.74 | 189.4000 | 0.0021 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | -0.0013 u | ppm | 0.0013 | > 100.00 | 15.8000 | -0.0013 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 | ppm | 0.0000 | 10.01 | 72.4700 | 0.0000 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0014 u | ppm | 0.0002 | 12.77 | 2.3250 | -0.0014 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0260 | ppm | 0.0103 | 39.63 | 930.6000 | 0.0260 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0004 u | ppm | 0.0003 | 73.24 | -1.2610 | -0.0004 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0020 | ppm | 0.0018 | 88.23 | -7.7860 | 0.0020 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0009 u | ppm | 0.0009 | 91.83 | -6.3650 | -0.0009 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0030 | ppm | 0.0031 | > 100.00 | 5.3090 | 0.0030 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0032 u | ppm | 0.0029 | 90.58 | -0.6740 | -0.0032 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0036 | ppm | 0.0014 | 37.91 | 30.5700 | 0.0036 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0003 u | ppm | 0.0007 | > 100.00 | -1.7080 | -0.0003 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 20.9100 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0004 u | ppm | 0.0001 | 14.01 | -103.7000 | -0.0004 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0003 u | ppm | 0.0011 | > 100.00 | -4.9790 | -0.0003 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0003 u | ppm | 0.0004 | > 100.00 | 31.9600 | -0.0003 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0007 u | ppm | 0.0013 | > 100.00 | -6.9760 | -0.0007 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0022 u | ppm | 0.0000 | 1.24 | 22.9200 | -0.0022 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | -43.1800 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0130 | 385200.0000 | 0.0053 | 0.52 |
| Y_R 371.029 | 0.9983 | 56320.0000 | 0.0103 | 1.03 |

Sample Name: CCV 4439427

Date: 10/23/2017 2:46:25 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4867 | ppm | 0.0006 | 0.13 | 17590.0000 | 0.4867 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.9717 | ppm | 0.0047 | 0.48 | 22670.0000 | 0.9717 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9814 | ppm | 0.0030 | 0.30 | 825.7000 | 0.9814 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9765 | ppm | 0.0025 | 0.25 | 11430.0000 | 0.9765 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9904 | ppm | 0.0130 | 1.32 | 76260.0000 | 0.9904 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9775 | ppm | 0.0001 | 0.01 | 167500.0000 | 0.9775 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.8570 | ppm | 0.0674 | 1.39 | 19120.0000 | 4.8570 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9809 | ppm | 0.0013 | 0.13 | 25250.0000 | 0.9809 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9692 | ppm | 0.0037 | 0.38 | 13620.0000 | 0.9692 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9775 | ppm | 0.0000 | 0.00 | 6020.0000 | 0.9775 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9657 | ppm | 0.0040 | 0.42 | 35570.0000 | 0.9657 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9822 | ppm | 0.0134 | 1.36 | 4476.0000 | 0.9822 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.7760 | ppm | 0.0643 | 0.66 | 10960.0000 | 9.7760 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9608 | ppm | 0.0095 | 0.99 | 60780.0000 | 0.9608 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.9670 | ppm | 0.0703 | 1.42 | 11960.0000 | 4.9670 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9759 | ppm | 0.0001 | 0.01 | 94910.0000 | 0.9759 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9776 | ppm | 0.0024 | 0.25 | 5285.0000 | 0.9776 (ppm) | Y 371.029 |
| Na (589.592 nm) | 9.7480 | ppm | 0.0893 | 0.92 | 56130.0000 | 9.7480 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9788 | ppm | 0.0002 | 0.02 | 4814.0000 | 0.9788 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9886 | ppm | 0.0017 | 0.17 | 886.5000 | 0.9886 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9752 | ppm | 0.0014 | 0.15 | 1963.0000 | 0.9752 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9657 | ppm | 0.0006 | 0.06 | 1147.0000 | 0.9657 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9832 | ppm | 0.0016 | 0.17 | 898.9000 | 0.9832 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.7930 | ppm | 0.0625 | 1.30 | 11000.0000 | 4.7930 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9706 | ppm | 0.0058 | 0.60 | 807.9000 | 0.9706 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9821 | ppm | 0.0057 | 0.58 | 331200.0000 | 0.9821 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9679 | ppm | 0.0003 | 0.03 | 109800.0000 | 0.9679 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9756 | ppm | 0.0007 | 0.07 | 1538.0000 | 0.9756 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9690 | ppm | 0.0009 | 0.09 | 26170.0000 | 0.9690 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9780 | ppm | 0.0006 | 0.06 | 2127.0000 | 0.9780 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9846 | ppm | 0.0003 | 0.03 | 23710.0000 | 0.9846 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9736 | ppm | 0.0010 | 0.10 | 70240.0000 | 0.9736 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0020 | 381300.0000 | 0.0025 | 0.25 |
| Y_R 371.029 | 0.9885 | 55760.0000 | 0.0102 | 1.04 |

Sample Name: CCB 4439426

Date: 10/23/2017 2:48:29 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0002 u | ppm | 0.0002 | > 100.00 | -11.9100 | -0.0002 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0016 u | ppm | 0.0000 | 0.22 | -1180.0000 | -0.0016 u (ppm) | Y 371.029 |
| As (188.980 nm) | -0.0001 u | ppm | 0.0019 | > 100.00 | 7.0220 | -0.0001 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0000 u | ppm | 0.0007 | > 100.00 | 15.3700 | 0.0000 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | -4.9590 | 0.0000 u (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0000 | 50.06 | 18.4500 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0023 u | ppm | 0.0060 | > 100.00 | 99.9200 | 0.0023 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | -0.8743 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0000 | ppm | 0.0000 | 76.85 | -2.3910 | 0.0000 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 | ppm | 0.0002 | 88.47 | 3.6490 | 0.0002 (ppm) | Y 371.029 |
| Cu (324.754 nm) | -0.0001 u | ppm | 0.0001 | 79.28 | 217.9000 | -0.0001 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0004 u | ppm | 0.0006 | > 100.00 | 9.0200 | -0.0004 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0453 | ppm | 0.0186 | 40.94 | -110.9000 | 0.0453 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0021 | ppm | 0.0008 | 38.75 | 188.5000 | 0.0021 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | -0.0038 u | ppm | 0.0002 | 4.64 | 9.6760 | -0.0038 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | 88.5900 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0049 | ppm | 0.0025 | 51.47 | 36.3700 | 0.0049 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0326 | ppm | 0.0073 | 22.52 | 968.1000 | 0.0326 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0009 u | ppm | 0.0002 | 27.32 | -3.3380 | -0.0009 u (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0092 u | ppm | 0.0128 | > 100.00 | -18.7500 | -0.0092 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0004 u | ppm | 0.0009 | > 100.00 | -5.3160 | -0.0004 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0023 u | ppm | 0.0009 | 38.30 | -1.1380 | -0.0023 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0007 u | ppm | 0.0003 | 35.34 | 1.6060 | -0.0007 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0066 | ppm | 0.0030 | 45.21 | 37.9100 | 0.0066 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0014 u | ppm | 0.0009 | 65.72 | -2.6940 | -0.0014 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0001 | ppm | 0.0000 | 51.33 | 56.4400 | 0.0001 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0016 | ppm | 0.0004 | 24.97 | 118.0000 | 0.0016 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0003 u | ppm | 0.0004 | > 100.00 | -4.9490 | -0.0003 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 37.6400 | 0.0000 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0017 | ppm | 0.0012 | 69.94 | -1.8930 | 0.0017 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0013 u | ppm | 0.0003 | 19.93 | 43.4600 | -0.0013 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -39.5300 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0100 | 384300.0000 | 0.0024 | 0.24 |
| Y_R 371.029 | 0.9991 | 56360.0000 | 0.0057 | 0.57 |

Sample Name: mb 440-436853/1-a@5

Date: 10/23/2017 2:50:33 PM Rack:Tube: 1:34

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0001 u | ppm | 0.0000 | 60.27 | -6.7080 | -0.0001 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0041 | ppm | 0.0005 | 11.32 | -1048.0000 | 0.0041 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0032 | ppm | 0.0018 | 56.02 | 9.7860 | 0.0032 (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0007 u | ppm | 0.0002 | 32.21 | 6.0970 | -0.0007 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0004 | ppm | 0.0001 | 12.56 | 24.3500 | 0.0004 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 7.08 | -5.4760 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0507 | ppm | 0.0017 | 3.36 | 289.7000 | 0.0507 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 | ppm | 0.0000 | > 100.00 | -4.0070 | 0.0000 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0002 u | ppm | 0.0007 | > 100.00 | -5.8160 | -0.0002 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0011 | ppm | 0.0010 | 90.62 | 9.4750 | 0.0011 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0032 | ppm | 0.0000 | 0.80 | 336.4000 | 0.0032 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0251 | ppm | 0.0033 | 13.15 | 125.1000 | 0.0251 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1782 | ppm | 0.0226 | 12.67 | 40.1300 | 0.1782 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0025 | ppm | 0.0011 | 41.84 | 216.0000 | 0.0025 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0056 | ppm | 0.0016 | 28.45 | 32.3200 | 0.0056 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0018 | ppm | 0.0000 | 0.84 | 244.7000 | 0.0018 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0001 u | ppm | 0.0019 | > 100.00 | 10.7400 | 0.0001 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0896 | ppm | 0.0133 | 14.88 | 1292.0000 | 0.0896 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0001 | ppm | 0.0000 | 14.40 | 1.6300 | 0.0001 (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0030 u | ppm | 0.0002 | 6.92 | -12.8000 | -0.0030 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0007 u | ppm | 0.0008 | > 100.00 | -5.8130 | -0.0007 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0074 u | ppm | 0.0025 | 34.20 | -7.2330 | -0.0074 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0028 u | ppm | 0.0006 | 23.25 | -0.2415 | -0.0028 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0163 | ppm | 0.0015 | 9.24 | 59.6700 | 0.0163 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0039 | ppm | 0.0000 | 0.85 | 1.7870 | 0.0039 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0002 | ppm | 0.0001 | 68.67 | 88.7800 | 0.0002 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0006 | ppm | 0.0003 | 55.86 | 8.6950 | 0.0006 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0034 u | ppm | 0.0004 | 10.78 | -10.0100 | -0.0034 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | 36.0600 | -0.0001 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0009 | ppm | 0.0008 | 83.73 | -3.4120 | 0.0009 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0049 | ppm | 0.0001 | 1.25 | 192.2000 | 0.0049 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 19.23 | -25.8000 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0080 | 383600.0000 | 0.0007 | 0.07 |
| Y_R 371.029 | 1.0010 | 56470.0000 | 0.0129 | 1.29 |

Sample Name: lcs 440-436853/2-a@5

Date: 10/23/2017 2:52:38 PM Rack:Tube: 1:35

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1848 | ppm | 0.0003 | 0.16 | 6616.0000 | 0.1848 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.3618 | ppm | 0.0002 | 0.04 | 7634.0000 | 0.3618 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.3696 | ppm | 0.0104 | 2.80 | 315.0000 | 0.3696 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.3598 | ppm | 0.0014 | 0.39 | 4266.0000 | 0.3598 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.3721 | ppm | 0.0078 | 2.09 | 28650.0000 | 0.3721 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3638 | ppm | 0.0013 | 0.36 | 62350.0000 | 0.3638 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.4129 | ppm | 0.0087 | 2.11 | 1709.0000 | 0.4129 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3690 | ppm | 0.0002 | 0.05 | 9494.0000 | 0.3690 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.3680 | ppm | 0.0045 | 1.23 | 5170.0000 | 0.3680 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.3767 | ppm | 0.0012 | 0.31 | 2320.0000 | 0.3767 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.3857 | ppm | 0.0019 | 0.50 | 14340.0000 | 0.3857 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.4018 | ppm | 0.0058 | 1.44 | 1836.0000 | 0.4018 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 3.7320 | ppm | 0.0825 | 2.21 | 4082.0000 | 3.7320 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3677 | ppm | 0.0051 | 1.39 | 23300.0000 | 0.3677 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.3833 | ppm | 0.0085 | 2.21 | 939.8000 | 0.3833 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.3824 | ppm | 0.0016 | 0.41 | 37230.0000 | 0.3824 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.3746 | ppm | 0.0025 | 0.67 | 2031.0000 | 0.3746 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.7940 | ppm | 0.0319 | 0.84 | 22310.0000 | 3.7940 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.3778 | ppm | 0.0010 | 0.26 | 1858.0000 | 0.3778 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.3659 | ppm | 0.0054 | 1.47 | 320.9000 | 0.3659 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.3776 | ppm | 0.0064 | 1.71 | 757.5000 | 0.3776 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.3634 | ppm | 0.0016 | 0.43 | 432.8000 | 0.3634 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3458 | ppm | 0.0004 | 0.12 | 314.6000 | 0.3458 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.6453 | ppm | 0.0007 | 0.11 | 1492.0000 | 0.6453 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.3759 | ppm | 0.0056 | 1.50 | 311.8000 | 0.3759 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.3719 | ppm | 0.0059 | 1.57 | 125400.0000 | 0.3719 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.3675 | ppm | 0.0011 | 0.29 | 41630.0000 | 0.3675 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3694 | ppm | 0.0004 | 0.11 | 579.5000 | 0.3694 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3657 | ppm | 0.0013 | 0.34 | 9895.0000 | 0.3657 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0014 | ppm | 0.0006 | 43.92 | 4.2490 | 0.0014 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.3748 | ppm | 0.0014 | 0.37 | 9070.0000 | 0.3748 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0045 | ppm | 0.0000 | 1.02 | 283.7000 | 0.0045 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0010 | 380600.0000 | 0.0026 | 0.26 |
| Y_R 371.029 | 0.9959 | 56180.0000 | 0.0192 | 1.93 |

Sample Name: 440-194783-b-11-a@5

Date: 10/23/2017 2:54:42 PM Rack:Tube: 1:36

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0015 u | ppm | 0.0003 | 19.37 | -101.9000 | -0.0015 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 50.3000 | ppm | 0.0827 | 0.16 | 1185000.0000 | 50.3000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0209 | ppm | 0.0022 | 10.38 | 25.4700 | 0.0209 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0462 | ppm | 0.0006 | 1.26 | 447.3000 | 0.0462 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.6645 | ppm | 0.0140 | 2.10 | 51190.0000 | 0.6645 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0028 | ppm | 0.0001 | 4.23 | 2716.0000 | 0.0028 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 65.2600 | ppm | 0.6022 | 0.92 | 255800.0000 | 65.2600 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0042 | ppm | 0.0000 | 0.45 | 134.6000 | 0.0042 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0338 | ppm | 0.0003 | 0.89 | 550.6000 | 0.0338 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0880 | ppm | 0.0002 | 0.22 | 549.6000 | 0.0880 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0710 | ppm | 0.0003 | 0.47 | 2880.0000 | 0.0710 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 101.2000 | ppm | 1.4520 | 1.43 | 460200.0000 | 101.2000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 14.9200 | ppm | 0.2549 | 1.71 | 16840.0000 | 14.9200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0734 | ppm | 0.0012 | 1.63 | 5080.0000 | 0.0734 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 30.8800 | ppm | 0.6553 | 2.12 | 74220.0000 | 30.8800 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.6570 | ppm | 0.0031 | 0.18 | 173600.0000 | 1.6570 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0099 | ppm | 0.0004 | 3.64 | 74.7500 | 0.0099 (ppm) | Y 371.029 |
| Na (589.592 nm) | 2.0510 | ppm | 0.0433 | 2.11 | 12470.0000 | 2.0510 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0832 | ppm | 0.0020 | 2.34 | 411.0000 | 0.0832 (ppm) | Y 371.029 |
| P (213.618 nm) | 5.9640 | ppm | 0.0216 | 0.36 | 5734.0000 | 5.9640 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0303 | ppm | 0.0011 | 3.73 | 48.8000 | 0.0303 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0015 u | ppm | 0.0041 | > 100.00 | 2.8640 | -0.0015 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0035 | ppm | 0.0025 | 71.37 | -15.9900 | 0.0035 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.6000 | ppm | 0.0028 | 0.18 | 3652.0000 | 1.6000 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0068 | ppm | 0.0003 | 4.61 | 4.0860 | 0.0068 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.3680 | ppm | 0.0026 | 0.71 | 124900.0000 | 0.3680 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 2.8360 | ppm | 0.0074 | 0.26 | 321800.0000 | 2.8360 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0004 u | ppm | 0.0010 | > 100.00 | -51.9900 | 0.0004 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1775 | ppm | 0.0000 | 0.02 | 5010.0000 | 0.1775 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0030 u | ppm | 0.0007 | 23.99 | -11.4500 | -0.0030 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2402 | ppm | 0.0006 | 0.24 | 5840.0000 | 0.2402 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0078 | ppm | 0.0003 | 3.64 | 614.1000 | 0.0078 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9798 | 372700.0000 | 0.0024 | 0.24 |
| Y_R 371.029 | 0.9865 | 55650.0000 | 0.0168 | 1.70 |

Sample Name: 440-194783-b-11-b ms@5

Date: 10/23/2017 2:56:46 PM Rack:Tube: 1:37

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1762 | ppm | 0.0001 | 0.08 | 6262.0000 | 0.1762 (ppm) | Y 371.029 |
| Al (396.152 nm) | 65.3500 | ppm | 0.2088 | 0.32 | 1540000.0000 | 65.3500 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.3920 | ppm | 0.0017 | 0.45 | 334.8000 | 0.3920 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4030 | ppm | 0.0038 | 0.93 | 4660.0000 | 0.4030 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0250 | ppm | 0.0043 | 0.42 | 78960.0000 | 1.0250 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3611 | ppm | 0.0002 | 0.05 | 64140.0000 | 0.3611 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 78.7500 | ppm | 0.3443 | 0.44 | 308700.0000 | 78.7500 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3528 | ppm | 0.0013 | 0.37 | 9109.0000 | 0.3528 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.3721 | ppm | 0.0009 | 0.24 | 5323.0000 | 0.3721 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4635 | ppm | 0.0003 | 0.07 | 2860.0000 | 0.4635 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4391 | ppm | 0.0011 | 0.24 | 16350.0000 | 0.4391 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 103.2000 | ppm | 0.3659 | 0.35 | 469300.0000 | 103.2000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 20.6900 | ppm | 0.0360 | 0.17 | 23410.0000 | 20.6900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4371 | ppm | 0.0004 | 0.10 | 28180.0000 | 0.4371 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 33.5300 | ppm | 0.0652 | 0.19 | 80600.0000 | 33.5300 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.0300 | ppm | 0.0031 | 0.15 | 210100.0000 | 2.0300 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.3618 | ppm | 0.0009 | 0.26 | 1976.0000 | 0.3618 (ppm) | Y 371.029 |
| Na (589.592 nm) | 5.4340 | ppm | 0.0242 | 0.45 | 31670.0000 | 5.4340 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4317 | ppm | 0.0023 | 0.54 | 2124.0000 | 0.4317 (ppm) | Y 371.029 |
| P (213.618 nm) | 6.1060 | ppm | 0.0116 | 0.19 | 5850.0000 | 6.1060 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.3771 | ppm | 0.0004 | 0.11 | 746.8000 | 0.3771 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.1782 | ppm | 0.0020 | 1.11 | 215.0000 | 0.1782 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3451 | ppm | 0.0030 | 0.86 | 292.0000 | 0.3451 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.3170 | ppm | 0.0041 | 0.18 | 5288.0000 | 2.3170 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.3540 | ppm | 0.0007 | 0.19 | 293.4000 | 0.3540 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.8009 | ppm | 0.0042 | 0.53 | 271100.0000 | 0.8009 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 3.9280 | ppm | 0.0077 | 0.20 | 445600.0000 | 3.9280 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3471 | ppm | 0.0006 | 0.18 | 481.8000 | 0.3471 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.5687 | ppm | 0.0007 | 0.13 | 15600.0000 | 0.5687 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0038 u | ppm | 0.0023 | 59.84 | -7.4340 | -0.0038 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.5877 | ppm | 0.0015 | 0.26 | 14190.0000 | 0.5877 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0139 | ppm | 0.0002 | 1.25 | 1060.0000 | 0.0139 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9745 | 370700.0000 | 0.0007 | 0.07 |
| Y_R 371.029 | 0.9885 | 55760.0000 | 0.0051 | 0.51 |

Sample Name: 440-194783-b-11-c msd@5

Date: 10/23/2017 2:58:50 PM Rack:Tube: 1:38

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1752 | ppm | 0.0004 | 0.20 | 6224.0000 | 0.1752 (ppm) | Y 371.029 |
| Al (396.152 nm) | 67.0800 | ppm | 0.0476 | 0.07 | 1581000.0000 | 67.0800 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.3851 | ppm | 0.0093 | 2.41 | 329.0000 | 0.3851 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4052 | ppm | 0.0024 | 0.58 | 4683.0000 | 0.4052 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0490 | ppm | 0.0173 | 1.65 | 80810.0000 | 1.0490 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3595 | ppm | 0.0000 | 0.01 | 63940.0000 | 0.3595 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 77.8400 | ppm | 1.2080 | 1.55 | 305100.0000 | 77.8400 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3509 | ppm | 0.0002 | 0.06 | 9063.0000 | 0.3509 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.3717 | ppm | 0.0002 | 0.06 | 5320.0000 | 0.3717 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4646 | ppm | 0.0006 | 0.13 | 2867.0000 | 0.4646 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4401 | ppm | 0.0001 | 0.02 | 16390.0000 | 0.4401 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 106.1000 | ppm | 1.1140 | 1.05 | 482700.0000 | 106.1000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 21.0400 | ppm | 0.3693 | 1.76 | 23820.0000 | 21.0400 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4377 | ppm | 0.0055 | 1.27 | 28220.0000 | 0.4377 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 34.2800 | ppm | 0.5110 | 1.49 | 82410.0000 | 34.2800 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.0760 | ppm | 0.0036 | 0.18 | 214800.0000 | 2.0760 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.3608 | ppm | 0.0007 | 0.20 | 1971.0000 | 0.3608 (ppm) | Y 371.029 |
| Na (589.592 nm) | 5.5390 | ppm | 0.0755 | 1.36 | 32260.0000 | 5.5390 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4337 | ppm | 0.0019 | 0.43 | 2134.0000 | 0.4337 (ppm) | Y 371.029 |
| P (213.618 nm) | 6.1340 | ppm | 0.0017 | 0.03 | 5877.0000 | 6.1340 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.3794 | ppm | 0.0009 | 0.23 | 751.0000 | 0.3794 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.1872 | ppm | 0.0020 | 1.06 | 225.8000 | 0.1872 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3434 | ppm | 0.0008 | 0.24 | 289.9000 | 0.3434 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.6900 | ppm | 0.0096 | 0.36 | 6129.0000 | 2.6900 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.3558 | ppm | 0.0001 | 0.03 | 294.9000 | 0.3558 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.7972 | ppm | 0.0118 | 1.48 | 269800.0000 | 0.7972 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.0260 | ppm | 0.0023 | 0.06 | 456800.0000 | 4.0260 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3467 | ppm | 0.0042 | 1.20 | 479.5000 | 0.3467 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.5721 | ppm | 0.0006 | 0.10 | 15690.0000 | 0.5721 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0015 u | ppm | 0.0000 | 1.08 | -2.4250 | -0.0015 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.5989 | ppm | 0.0003 | 0.05 | 14450.0000 | 0.5989 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0134 | ppm | 0.0001 | 0.46 | 1022.0000 | 0.0134 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9727 | 370000.0000 | 0.0034 | 0.35 |
| Y_R 371.029 | 0.9817 | 55380.0000 | 0.0130 | 1.32 |

Sample Name: 440-194783-b-11-aPDS@5

Date: 10/23/2017 3:00:54 PM Rack:Tube: 1:39

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1958 | ppm | 0.0003 | 0.17 | 7028.0000 | 0.1958 (ppm) | Y 371.029 |
| Al (396.152 nm) | 51.6600 | ppm | 0.3271 | 0.63 | 1218000.0000 | 51.6600 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4217 | ppm | 0.0027 | 0.63 | 359.9000 | 0.4217 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4392 | ppm | 0.0016 | 0.37 | 5039.0000 | 0.4392 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0490 | ppm | 0.0137 | 1.30 | 80760.0000 | 1.0490 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3936 | ppm | 0.0006 | 0.15 | 69700.0000 | 0.3936 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 67.8900 | ppm | 0.4645 | 0.68 | 266200.0000 | 67.8900 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3831 | ppm | 0.0010 | 0.26 | 9889.0000 | 0.3831 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4072 | ppm | 0.0002 | 0.05 | 5802.0000 | 0.4072 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4800 | ppm | 0.0005 | 0.11 | 2962.0000 | 0.4800 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4663 | ppm | 0.0008 | 0.17 | 17350.0000 | 0.4663 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 102.7000 | ppm | 1.5040 | 1.46 | 467300.0000 | 102.7000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 18.8900 | ppm | 0.0375 | 0.20 | 21360.0000 | 18.8900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4621 | ppm | 0.0035 | 0.75 | 29650.0000 | 0.4621 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 33.0400 | ppm | 0.5197 | 1.57 | 79410.0000 | 33.0400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.0670 | ppm | 0.0107 | 0.52 | 213600.0000 | 2.0670 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4062 | ppm | 0.0001 | 0.03 | 2213.0000 | 0.4062 (ppm) | Y 371.029 |
| Na (589.592 nm) | 5.9540 | ppm | 0.0429 | 0.72 | 34630.0000 | 5.9540 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4625 | ppm | 0.0005 | 0.10 | 2276.0000 | 0.4625 (ppm) | Y 371.029 |
| P (213.618 nm) | 6.4560 | ppm | 0.0288 | 0.45 | 6186.0000 | 6.4560 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4120 | ppm | 0.0022 | 0.53 | 818.7000 | 0.4120 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.3951 | ppm | 0.0052 | 1.32 | 473.2000 | 0.3951 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3803 | ppm | 0.0051 | 1.35 | 327.7000 | 0.3803 (ppm) | Y 371.029 |
| Si (251.611 nm) | 3.4920 | ppm | 0.0125 | 0.36 | 7987.0000 | 3.4920 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.3901 | ppm | 0.0005 | 0.14 | 323.7000 | 0.3901 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.7637 | ppm | 0.0052 | 0.68 | 258400.0000 | 0.7637 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 3.2800 | ppm | 0.0148 | 0.45 | 372100.0000 | 3.2800 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3829 | ppm | 0.0032 | 0.82 | 551.3000 | 0.3829 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.5710 | ppm | 0.0002 | 0.04 | 15620.0000 | 0.5710 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.3901 | ppm | 0.0029 | 0.74 | 845.2000 | 0.3901 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.6168 | ppm | 0.0003 | 0.05 | 14890.0000 | 0.6168 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.3965 | ppm | 0.0012 | 0.29 | 28680.0000 | 0.3965 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9741 | 370500.0000 | 0.0006 | 0.07 |
| Y_R 371.029 | 0.9874 | 55700.0000 | 0.0096 | 0.97 |

Sample Name: 440-194783-b-11-aSD@25

Date: 10/23/2017 3:02:58 PM Rack:Tube: 1:40

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0002 u | ppm | 0.0000 | 10.05 | -21.7900 | -0.0002 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 9.5730 | ppm | 0.0261 | 0.27 | 224600.0000 | 9.5730 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0075 | ppm | 0.0044 | 58.31 | 13.6100 | 0.0075 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0089 | ppm | 0.0006 | 6.91 | 97.1800 | 0.0089 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1326 | ppm | 0.0025 | 1.91 | 10210.0000 | 0.1326 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0006 | ppm | 0.0002 | 30.22 | 547.5000 | 0.0006 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 12.7800 | ppm | 0.1220 | 0.95 | 50180.0000 | 12.7800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0009 | ppm | 0.0001 | 15.91 | 23.5000 | 0.0009 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0066 | ppm | 0.0000 | 0.31 | 104.9000 | 0.0066 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0174 | ppm | 0.0000 | 0.22 | 110.5000 | 0.0174 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0133 | ppm | 0.0003 | 2.47 | 719.8000 | 0.0133 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 20.2600 | ppm | 0.2089 | 1.03 | 92160.0000 | 20.2600 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 2.9130 | ppm | 0.0458 | 1.57 | 3158.0000 | 2.9130 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0112 | ppm | 0.0010 | 9.03 | 837.0000 | 0.0112 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 6.1840 | ppm | 0.1068 | 1.73 | 14880.0000 | 6.1840 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.3287 | ppm | 0.0014 | 0.42 | 34510.0000 | 0.3287 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0024 | ppm | 0.0009 | 38.17 | 25.2500 | 0.0024 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.4106 | ppm | 0.0050 | 1.21 | 3122.0000 | 0.4106 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0176 | ppm | 0.0002 | 1.39 | 87.8300 | 0.0176 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.1630 | ppm | 0.0024 | 0.21 | 1111.0000 | 1.1630 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0051 | ppm | 0.0041 | 80.78 | 4.2350 | 0.0051 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0001 u | ppm | 0.0005 | > 100.00 | 2.3750 | 0.0001 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0024 u | ppm | 0.0001 | 2.17 | -4.1940 | -0.0024 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.3182 | ppm | 0.0015 | 0.46 | 744.3000 | 0.3182 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | -1.3620 | 0.0002 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0723 | ppm | 0.0008 | 1.11 | 24570.0000 | 0.0723 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.5502 | ppm | 0.0021 | 0.39 | 62370.0000 | 0.5502 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0023 u | ppm | 0.0022 | 95.62 | -17.5800 | -0.0023 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0346 | ppm | 0.0001 | 0.24 | 1008.0000 | 0.0346 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0002 u | ppm | 0.0014 | > 100.00 | -5.8810 | -0.0002 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0474 | ppm | 0.0004 | 0.85 | 1213.0000 | 0.0474 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0014 | ppm | 0.0001 | 5.26 | 82.6700 | 0.0014 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9991 | 380000.0000 | 0.0039 | 0.39 |
| Y_R 371.029 | 0.9874 | 55700.0000 | 0.0090 | 0.92 |

Sample Name: 440-194783-a-14-a@5

Date: 10/23/2017 3:05:01 PM Rack:Tube: 1:41

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0010 u | ppm | 0.0002 | 19.34 | -83.0800 | -0.0010 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 53.2300 | ppm | 0.0818 | 0.15 | 1254000.0000 | 53.2300 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0272 | ppm | 0.0046 | 16.90 | 31.0600 | 0.0272 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0487 | ppm | 0.0005 | 1.13 | 465.3000 | 0.0487 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.5472 | ppm | 0.0056 | 1.02 | 42150.0000 | 0.5472 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0031 | ppm | 0.0000 | 0.39 | 2982.0000 | 0.0031 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 29.2300 | ppm | 0.0524 | 0.18 | 114600.0000 | 29.2300 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0043 | ppm | 0.0000 | 0.85 | 139.4000 | 0.0043 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0366 | ppm | 0.0001 | 0.23 | 593.1000 | 0.0366 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0962 | ppm | 0.0002 | 0.19 | 599.8000 | 0.0962 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0805 | ppm | 0.0003 | 0.34 | 3267.0000 | 0.0805 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 111.2000 | ppm | 0.3379 | 0.30 | 505700.0000 | 111.2000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 19.9700 | ppm | 0.0798 | 0.40 | 22580.0000 | 19.9700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0666 | ppm | 0.0010 | 1.47 | 4589.0000 | 0.0666 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 28.2700 | ppm | 0.3059 | 1.08 | 67950.0000 | 28.2700 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.7060 | ppm | 0.0039 | 0.23 | 179600.0000 | 1.7060 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0087 | ppm | 0.0008 | 9.19 | 68.7600 | 0.0087 (ppm) | Y 371.029 |
| Na (589.592 nm) | 2.6110 | ppm | 0.0042 | 0.16 | 15630.0000 | 2.6110 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0947 | ppm | 0.0002 | 0.17 | 468.4000 | 0.0947 (ppm) | Y 371.029 |
| P (213.618 nm) | 6.4430 | ppm | 0.0419 | 0.65 | 6196.0000 | 6.4430 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0312 | ppm | 0.0013 | 4.01 | 49.5700 | 0.0312 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0013 u | ppm | 0.0018 | > 100.00 | 3.1620 | -0.0013 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0017 | ppm | 0.0002 | 11.52 | -19.3700 | 0.0017 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.4240 | ppm | 0.0015 | 0.10 | 3253.0000 | 1.4240 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0044 | ppm | 0.0036 | 80.68 | 2.1240 | 0.0044 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.2566 | ppm | 0.0005 | 0.19 | 86940.0000 | 0.2566 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 2.9860 | ppm | 0.0020 | 0.07 | 338800.0000 | 2.9860 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0002 u | ppm | 0.0004 | > 100.00 | -54.9200 | -0.0002 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1837 | ppm | 0.0000 | 0.02 | 5140.0000 | 0.1837 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0040 u | ppm | 0.0013 | 33.48 | -11.7100 | -0.0040 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.3013 | ppm | 0.0011 | 0.35 | 7293.0000 | 0.3013 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0093 | ppm | 0.0000 | 0.53 | 727.3000 | 0.0093 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194783-b-15-a@5

Date: 10/23/2017 3:07:06 PM Rack:Tube: 1:42

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194783-a-16-a@5

Date: 10/23/2017 3:09:10 PM Rack:Tube: 1:43

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4439427

Date: 10/23/2017 3:11:14 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4439426

Date: 10/23/2017 3:13:17 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194783-b-17-a@5

Date: 10/23/2017 3:15:21 PM Rack:Tube: 1:44

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194783-a-19-a@5

Date: 10/23/2017 3:17:25 PM Rack:Tube: 1:45

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194783-b-20-a@5

Date: 10/23/2017 3:19:29 PM Rack:Tube: 1:46

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194783-b-21-a@5

Date: 10/23/2017 3:21:33 PM Rack:Tube: 1:47

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: mb 440-436841/1-a

Date: 10/23/2017 3:28:09 PM Rack:Tube: 1:48

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: lcs 440-436841/2-a

Date: 10/23/2017 3:30:13 PM Rack:Tube: 1:49

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194714-a-1-a

Date: 10/23/2017 3:32:17 PM Rack:Tube: 1:50

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194714-a-1-b ms

Date: 10/23/2017 3:34:21 PM Rack:Tube: 1:51

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194714-a-1-c msd

Date: 10/23/2017 3:36:25 PM Rack:Tube: 1:52

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194714-a-2-a

Date: 10/23/2017 3:38:29 PM Rack:Tube: 1:53

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4439427

Date: 10/23/2017 3:40:33 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4439426

Date: 10/23/2017 3:42:38 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194714-a-3-a

Date: 10/23/2017 3:44:42 PM Rack:Tube: 1:54

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194714-a-4-a

Date: 10/23/2017 3:46:46 PM Rack:Tube: 1:55

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194714-a-5-a

Date: 10/23/2017 3:48:50 PM Rack:Tube: 1:56

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194732-c-1-a

Date: 10/23/2017 3:50:55 PM Rack:Tube: 1:57

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: mb 440-436845/1-a

Date: 10/23/2017 3:52:59 PM Rack:Tube: 1:58

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: lcs 440-436845/2-a

Date: 10/23/2017 3:55:04 PM Rack:Tube: 1:59

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: X440-194536-g-1-a

Date: 10/23/2017 3:57:09 PM Rack:Tube: 1:60

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: X440-194536-g-1-b ms

Date: 10/23/2017 3:59:13 PM Rack:Tube: 2:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: X440-194536-g-1-c msd

Date: 10/23/2017 4:01:17 PM Rack:Tube: 2:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194538-c-1-a

Date: 10/23/2017 4:03:21 PM Rack:Tube: 2:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4439427

Date: 10/23/2017 4:05:25 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4439426

Date: 10/23/2017 4:07:29 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194466-g-2-a

Date: 10/23/2017 4:09:33 PM Rack:Tube: 2:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194466-g-1-a

Date: 10/23/2017 4:11:37 PM Rack:Tube: 2:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194228-w-1-c

Date: 10/23/2017 4:13:41 PM Rack:Tube: 2:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194788-1

Date: 10/23/2017 4:16:59 PM Rack:Tube: 3:31

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194536-g-1-a@2

Date: 10/23/2017 4:19:04 PM Rack:Tube: 1:60

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194536-g-1-b ms@2

Date: 10/23/2017 4:21:08 PM Rack:Tube: 2:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194536-g-1-c msd@2

Date: 10/23/2017 4:23:12 PM Rack:Tube: 2:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: mb 440-436823/1-a@5

Date: 10/23/2017 4:25:15 PM Rack:Tube: 2:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: lcs 440-436823/2-a@5

Date: 10/23/2017 4:27:20 PM Rack:Tube: 2:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194639-g-10-b@5

Date: 10/23/2017 4:29:24 PM Rack:Tube: 2:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4439427

Date: 10/23/2017 4:31:28 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4439426

Date: 10/23/2017 4:33:31 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194639-g-10-c ms@5

Date: 10/23/2017 4:35:36 PM Rack:Tube: 2:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194639-g-10-d msd@5

Date: 10/23/2017 4:37:40 PM Rack:Tube: 2:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194639-g-10-b pds@5

Date: 10/23/2017 4:39:44 PM Rack:Tube: 2:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194639-g-10-b sd@25

Date: 10/23/2017 4:41:49 PM Rack:Tube: 2:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194639-g-9-b@5

Date: 10/23/2017 4:43:52 PM Rack:Tube: 2:14

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194639-g-8-b@5

Date: 10/23/2017 4:45:56 PM Rack:Tube: 2:15

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194639-g-7-b@5

Date: 10/23/2017 4:48:00 PM Rack:Tube: 2:16

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194639-g-6-b@5

Date: 10/23/2017 4:50:04 PM Rack:Tube: 2:17

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194639-g-5-b@5

Date: 10/23/2017 4:52:08 PM Rack:Tube: 2:18

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194639-g-4-b@5

Date: 10/23/2017 4:54:12 PM Rack:Tube: 2:19

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4439427

Date: 10/23/2017 4:56:15 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4439426

Date: 10/23/2017 4:58:20 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194639-g-3-b@5

Date: 10/23/2017 5:00:24 PM Rack:Tube: 2:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194639-g-2-b@5

Date: 10/23/2017 5:02:28 PM Rack:Tube: 2:21

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194639-g-1-b@5

Date: 10/23/2017 5:04:32 PM Rack:Tube: 2:22

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194639-g-11-b@5

Date: 10/23/2017 5:06:36 PM Rack:Tube: 2:23

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194639-g-12-b@5

Date: 10/23/2017 5:08:41 PM Rack:Tube: 2:24

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194639-g-13-b@5

Date: 10/23/2017 5:10:45 PM Rack:Tube: 2:25

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194639-g-14-b@5

Date: 10/23/2017 5:12:49 PM Rack:Tube: 2:26

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194639-g-15-b@5

Date: 10/23/2017 5:14:52 PM Rack:Tube: 2:27

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194639-g-16-b@5

Date: 10/23/2017 5:16:56 PM Rack:Tube: 2:28

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194639-g-17-d@5

Date: 10/23/2017 5:18:59 PM Rack:Tube: 2:29

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4439427

Date: 10/23/2017 5:21:03 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4439426

Date: 10/23/2017 5:23:07 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194639-g-18-b@5

Date: 10/23/2017 5:25:10 PM Rack:Tube: 2:30

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: mb 440-436843/1-a

Date: 10/23/2017 5:27:15 PM Rack:Tube: 2:31

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: lcs 440-436843/2-a

Date: 10/23/2017 5:29:19 PM Rack:Tube: 2:32

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194404-e-1-d

Date: 10/23/2017 5:31:23 PM Rack:Tube: 2:33

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194404-e-1-e ms

Date: 10/23/2017 5:33:27 PM Rack:Tube: 2:34

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194404-e-1-f msd

Date: 10/23/2017 5:35:31 PM Rack:Tube: 2:35

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194404-e-2-b

Date: 10/23/2017 5:37:36 PM Rack:Tube: 2:36

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194404-e-3-b

Date: 10/23/2017 5:39:40 PM Rack:Tube: 2:37

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194404-e-5-b

Date: 10/23/2017 5:41:44 PM Rack:Tube: 2:38

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194404-e-4-b

Date: 10/23/2017 5:43:47 PM Rack:Tube: 2:39

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4439427

Date: 10/23/2017 5:45:51 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4439426

Date: 10/23/2017 5:47:55 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194404-e-6-b

Date: 10/23/2017 5:49:59 PM Rack:Tube: 2:40

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194254-o-1-f

Date: 10/23/2017 5:52:02 PM Rack:Tube: 2:41

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194194-I-2-g

Date: 10/23/2017 5:54:06 PM Rack:Tube: 2:42

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194282-i-2-c

Date: 10/23/2017 5:56:09 PM Rack:Tube: 2:43

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194301-f-1-c

Date: 10/23/2017 5:58:14 PM Rack:Tube: 2:44

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194301-f-2-c

Date: 10/23/2017 6:00:18 PM Rack:Tube: 2:45

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194301-f-2-f ms

Date: 10/23/2017 6:02:22 PM Rack:Tube: 2:46

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194301-f-2-g msd

Date: 10/23/2017 6:04:27 PM Rack:Tube: 2:47

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194301-f-3-c

Date: 10/23/2017 6:06:31 PM Rack:Tube: 2:48

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194301-f-4-c

Date: 10/23/2017 6:08:35 PM Rack:Tube: 2:49

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4439427

Date: 10/23/2017 6:10:39 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4439426

Date: 10/23/2017 6:12:43 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: mb 440-436848/1-a

Date: 10/23/2017 6:16:21 PM Rack:Tube: 2:50

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: lcs 440-436848/2-a

Date: 10/23/2017 6:18:25 PM Rack:Tube: 2:51

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194571-g-9-a@5

Date: 10/23/2017 6:20:29 PM Rack:Tube: 2:52

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194571-g-9-b ms@5

Date: 10/23/2017 6:22:33 PM Rack:Tube: 2:53

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194571-g-9-c msd@5

Date: 10/23/2017 6:24:37 PM Rack:Tube: 2:54

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194571-g-9-d pds@5

Date: 10/23/2017 6:26:40 PM Rack:Tube: 2:55

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194571-g-9-aSD@25

Date: 10/23/2017 6:28:44 PM Rack:Tube: 2:56

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194571-g-18-a

Date: 10/23/2017 6:30:48 PM Rack:Tube: 2:57

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194623-g-9-a@5

Date: 10/23/2017 6:32:52 PM Rack:Tube: 2:58

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194623-g-12-a

Date: 10/23/2017 6:34:56 PM Rack:Tube: 2:59

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4439427

Date: 10/23/2017 6:36:59 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4439426

Date: 10/23/2017 6:39:03 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194702-e-1-a

Date: 10/23/2017 6:41:08 PM Rack:Tube: 2:60

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194570-m-1-a

Date: 10/23/2017 6:43:13 PM Rack:Tube: 3:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194570-m-2-a

Date: 10/23/2017 6:45:17 PM Rack:Tube: 3:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194759-g-4-a

Date: 10/23/2017 6:47:22 PM Rack:Tube: 3:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194754-g-14-a

Date: 10/23/2017 6:49:27 PM Rack:Tube: 3:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: mb 440-436824/1-a@5

Date: 10/23/2017 6:51:32 PM Rack:Tube: 3:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: lcs 440-436824/2-a@5

Date: 10/23/2017 6:53:36 PM Rack:Tube: 3:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-1-c@5

Date: 10/23/2017 6:55:41 PM Rack:Tube: 3:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-1-d ms@5

Date: 10/23/2017 6:57:45 PM Rack:Tube: 3:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-1-e msd@5

Date: 10/23/2017 6:59:50 PM Rack:Tube: 3:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4439427

Date: 10/23/2017 7:01:54 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4439426

Date: 10/23/2017 7:03:58 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-1-cPDS@5

Date: 10/23/2017 7:06:02 PM Rack:Tube: 3:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-1-cSD@25

Date: 10/23/2017 7:08:07 PM Rack:Tube: 3:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-g-2-d@5

Date: 10/23/2017 7:10:11 PM Rack:Tube: 3:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-3-d@5

Date: 10/23/2017 7:12:17 PM Rack:Tube: 3:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-4-c@5

Date: 10/23/2017 7:14:21 PM Rack:Tube: 3:14

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-5-d@5

Date: 10/23/2017 7:16:26 PM Rack:Tube: 3:15

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-6-c@5

Date: 10/23/2017 7:18:31 PM Rack:Tube: 3:16

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-7-d@5

Date: 10/23/2017 7:20:36 PM Rack:Tube: 3:17

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-8-d@5

Date: 10/23/2017 7:22:40 PM Rack:Tube: 3:18

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-9-d@5

Date: 10/23/2017 7:24:44 PM Rack:Tube: 3:19

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4439427

Date: 10/23/2017 7:26:48 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4439426

Date: 10/23/2017 7:28:52 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-10-c@5

Date: 10/23/2017 7:30:57 PM Rack:Tube: 3:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-11-d@5

Date: 10/23/2017 7:33:01 PM Rack:Tube: 3:21

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-12-d@5

Date: 10/23/2017 7:35:05 PM Rack:Tube: 3:22

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-13-c@5

Date: 10/23/2017 7:37:10 PM Rack:Tube: 3:23

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-14-d@5

Date: 10/23/2017 7:39:14 PM Rack:Tube: 3:24

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-15-d@5

Date: 10/23/2017 7:41:20 PM Rack:Tube: 3:25

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-16-c@5

Date: 10/23/2017 7:43:25 PM Rack:Tube: 3:26

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-18-d@5

Date: 10/23/2017 7:45:30 PM Rack:Tube: 3:27

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-17-d@5

Date: 10/23/2017 7:47:35 PM Rack:Tube: 3:28

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-19-a@5

Date: 10/23/2017 7:49:39 PM Rack:Tube: 3:29

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4439427

Date: 10/23/2017 7:51:43 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4439426

Date: 10/23/2017 7:53:48 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-20-d@5

Date: 10/23/2017 7:55:52 PM Rack:Tube: 3:30

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: mb 440-436825/1-a@5

Date: 10/23/2017 7:57:57 PM Rack:Tube: 3:32

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: lcs 440-436825/2-a@5

Date: 10/23/2017 8:00:02 PM Rack:Tube: 3:33

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-21-c@5

Date: 10/23/2017 8:02:06 PM Rack:Tube: 3:34

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-21-d ms@5

Date: 10/23/2017 8:04:10 PM Rack:Tube: 3:35

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-21-e msd@5

Date: 10/23/2017 8:06:15 PM Rack:Tube: 3:36

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-21-cPDS@5

Date: 10/23/2017 8:08:20 PM Rack:Tube: 3:37

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-21-cSD@25

Date: 10/23/2017 8:10:25 PM Rack:Tube: 3:38

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-22-d@5

Date: 10/23/2017 8:12:31 PM Rack:Tube: 3:39

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-23-a@5

Date: 10/23/2017 8:14:36 PM Rack:Tube: 3:40

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4439427

Date: 10/23/2017 8:16:40 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4439426

Date: 10/23/2017 8:18:43 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-24-c@5

Date: 10/23/2017 8:20:49 PM Rack:Tube: 3:41

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-25-d@5

Date: 10/23/2017 8:22:53 PM Rack:Tube: 3:42

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-26-d@5

Date: 10/23/2017 8:24:58 PM Rack:Tube: 3:43

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-27-d@5

Date: 10/23/2017 8:27:03 PM Rack:Tube: 3:44

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-28-d@5

Date: 10/23/2017 8:29:07 PM Rack:Tube: 3:45

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-29-a@5

Date: 10/23/2017 8:31:12 PM Rack:Tube: 3:46

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-30-d@5

Date: 10/23/2017 8:33:16 PM Rack:Tube: 3:47

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-31-d@5

Date: 10/23/2017 8:35:21 PM Rack:Tube: 3:48

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-32-c@5

Date: 10/23/2017 8:37:26 PM Rack:Tube: 3:49

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194757-h-33-d@5

Date: 10/23/2017 8:39:31 PM Rack:Tube: 3:50

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4439427

Date: 10/23/2017 8:41:35 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4439426

Date: 10/23/2017 8:43:39 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194715-a-1-b@5

Date: 10/23/2017 8:45:43 PM Rack:Tube: 3:51

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194715-a-2-b@5

Date: 10/23/2017 8:47:48 PM Rack:Tube: 3:52

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194715-a-3-b@5

Date: 10/23/2017 8:49:54 PM Rack:Tube: 3:53

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194715-a-4-b@5

Date: 10/23/2017 8:51:58 PM Rack:Tube: 3:54

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194726-c-1-c@5

Date: 10/23/2017 8:54:02 PM Rack:Tube: 3:55

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4439427

Date: 10/23/2017 8:56:06 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4439426

Date: 10/23/2017 8:58:10 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CRI 4439434

Date: 10/23/2017 9:00:14 PM Rack:Tube: S1:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: ICSA 4439431

Date: 10/23/2017 9:02:18 PM Rack:Tube: S1:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: ICSAB 4439432

Date: 10/23/2017 9:04:22 PM Rack:Tube: S1:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: RINSE 4439436

Date: 10/23/2017 9:06:26 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: RINSE 4439436

Date: 10/23/2017 9:08:30 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: RINSE 4439436

Date: 10/23/2017 9:10:35 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: RINSE 4439436

Date: 10/23/2017 9:12:39 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: RINSE 4439436

Date: 10/23/2017 9:14:43 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Date created: 10/25/2017 7:52:50 AM

Sequence table:

| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| S1:5 | ICV 4444441 | 1.0 | 1.0 | 1.0 |
| S1:1 | ICB 4444437 | 1.0 | 1.0 | 1.0 |
| S1:6 | ICSA 4444442 | 1.0 | 1.0 | 1.0 |
| S1:7 | ICSAB 4444443 | 1.0 | 1.0 | 1.0 |
| S1:7 | ICSAB 4444443 | 1.0 | 1.0 | 1.0 |
| S1:8 | XICIS 4444446 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4444447 | 1.0 | 1.0 | 1.0 |
| S1:9 | XCRI 4444444 | 1.0 | 1.0 | 1.0 |
| S1:10 | CRI 4444445 | 1.0 | 1.0 | 1.0 |
| 1:1 | MB 440-437059/1-A@5 | 1.0 | 1.0 | 1.0 |
| 1:2 | LCS 440-437059/2-A@5 | 1.0 | 1.0 | 1.0 |
| 1:3 | 440-194816-A-1-A@50 | 1.0 | 1.0 | 1.0 |
| 1:4 | 440-194816-A-1-B MS@50 | 1.0 | 1.0 | 1.0 |
| 1:5 | 440-194816-A-1-C MSD@50 | 1.0 | 1.0 | 1.0 |
| 1:6 | 440-194816-A-1-A pds@50 | 1.0 | 1.0 | 1.0 |
| 1:7 | 440-194816-A-1-A sd@250 | 1.0 | 1.0 | 1.0 |
| 1:8 | 440-194814-A-1-E@5 | 1.0 | 1.0 | 1.0 |
| 1:9 | 440-194814-a-2-c@5 | 1.0 | 1.0 | 1.0 |
| 1:10 | 440-194814-A-3-C@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 1:11 | 440-194758-A-1-C@5 | 1.0 | 1.0 | 1.0 |
| 1:12 | 440-194797-A-1-B@5 | 1.0 | 1.0 | 1.0 |
| 1:13 | 440-194797-A-2-B@5 | 1.0 | 1.0 | 1.0 |
| 1:14 | 440-194797-A-3-B@5 | 1.0 | 1.0 | 1.0 |
| 1:15 | 440-194797-A-4-B@5 | 1.0 | 1.0 | 1.0 |
| 1:16 | 440-194573-G-3-A@5 | 1.0 | 1.0 | 1.0 |
| 1:17 | 440-194573-H-5-C@5 | 1.0 | 1.0 | 1.0 |
| 1:18 | 440-194573-H-9-C@5 | 1.0 | 1.0 | 1.0 |
| 1:11 | 440-194758-A-1-C@125 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 1:19 | mb 440-437213/1-a | 1.0 | 1.0 | 1.0 |
| 1:20 | lcs 440-437213/2-a | 1.0 | 1.0 | 1.0 |
| 1:21 | 440-194847-c-2-a | 1.0 | 1.0 | 1.0 |
| 1:22 | 440-194847-c-2-b ms | 1.0 | 1.0 | 1.0 |
| 1:23 | 440-194847-c-2-c msd | 1.0 | 1.0 | 1.0 |
| 1:24 | 440-194847-c-2-d pds | 1.0 | 1.0 | 1.0 |
| 1:25 | 440-194847-c-2-a sd@5 | 1.0 | 1.0 | 1.0 |
| 1:26 | 440-194784-d-8-a | 1.0 | 1.0 | 1.0 |

| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| 1:27 | 440-194653-h-4-b | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 1:28 | mb 440-437022/1-b | 1.0 | 1.0 | 1.0 |
| 1:29 | lcs 440-437022/2-b | 1.0 | 1.0 | 1.0 |
| 1:30 | 440-194799-c-1-f | 1.0 | 1.0 | 1.0 |
| 1:31 | 440-194799-c-1-g ms | 1.0 | 1.0 | 1.0 |
| 1:32 | 440-194799-c-1-h msd | 1.0 | 1.0 | 1.0 |
| 1:33 | 440-194799-c-1-fPDS | 1.0 | 1.0 | 1.0 |
| 1:34 | 440-194799-c-1-fSD@5 | 1.0 | 1.0 | 1.0 |
| 1:35 | 440-192743-a-18-g | 1.0 | 1.0 | 1.0 |
| 1:36 | 440-192743-a-19-e | 1.0 | 1.0 | 1.0 |
| 1:37 | 440-192743-a-24-g | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 1:38 | 440-192979-a-7-g | 1.0 | 1.0 | 1.0 |
| 1:39 | 440-192979-a-13-f | 1.0 | 1.0 | 1.0 |
| 1:40 | 440-192979-a-17-h | 1.0 | 1.0 | 1.0 |
| 1:41 | 440-192850-a-4-f | 1.0 | 1.0 | 1.0 |
| 1:42 | 440-192850-a-10-f | 1.0 | 1.0 | 1.0 |
| 1:43 | 440-192850-a-11-d | 1.0 | 1.0 | 1.0 |
| 1:44 | 440-194758-a-1-d | 1.0 | 1.0 | 1.0 |
| 1:21 | 440-194847-c-2-a | 1.0 | 1.0 | 1.0 |
| 1:27 | 440-194653-h-4-b | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 1:45 | mb 440-436965/1-a@5 | 1.0 | 1.0 | 1.0 |
| 1:46 | lcs 440-436965/2-a@5 | 1.0 | 1.0 | 1.0 |
| 1:47 | X440-194781-a-1-a@5 | 1.0 | 1.0 | 1.0 |
| 1:48 | X440-194781-a-1-b ms@5 | 1.0 | 1.0 | 1.0 |
| 1:49 | X440-194781-a-1-c msd@5 | 1.0 | 1.0 | 1.0 |
| 1:50 | X440-194781-a-1-aPDS@5 | 1.0 | 1.0 | 1.0 |
| 1:51 | X440-194781-a-1-aSD@25 | 1.0 | 1.0 | 1.0 |
| 1:52 | X440-194781-a-2-a@5 | 1.0 | 1.0 | 1.0 |
| 1:53 | X440-194781-a-3-a@5 | 1.0 | 1.0 | 1.0 |
| 1:44 | 440-194758-a-1-d@100 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 1:47 | 440-194781-a-1-a@10 | 1.0 | 1.0 | 1.0 |
| 1:48 | 440-194781-a-1-b ms@10 | 1.0 | 1.0 | 1.0 |
| 1:49 | 440-194781-a-1-c msd@10 | 1.0 | 1.0 | 1.0 |
| 1:50 | 440-194781-a-1-aPDS@10 | 1.0 | 1.0 | 1.0 |
| 1:51 | 440-194781-a-1-aSD@50 | 1.0 | 1.0 | 1.0 |
| 1:52 | 440-194781-a-2-a@10 | 1.0 | 1.0 | 1.0 |

| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| 1:53 | 440-194781-a-3-a@10 | 1.0 | 1.0 | 1.0 |
| 1:54 | 440-194781-a-4-a@10 | 1.0 | 1.0 | 1.0 |
| 1:55 | 440-194782-a-1-a@10 | 1.0 | 1.0 | 1.0 |
| 1:56 | 440-194782-a-2-a@10 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 1:57 | 440-194782-a-3-a@10 | 1.0 | 1.0 | 1.0 |
| 1:58 | 440-194782-a-4-a@10 | 1.0 | 1.0 | 1.0 |
| 1:59 | 440-194782-a-5-a@10 | 1.0 | 1.0 | 1.0 |
| 1:60 | 440-194782-a-6-a@10 | 1.0 | 1.0 | 1.0 |
| 2:1 | 440-194782-a-7-a@10 | 1.0 | 1.0 | 1.0 |
| 2:2 | 440-194782-a-8-a@10 | 1.0 | 1.0 | 1.0 |
| 2:3 | 440-194782-a-9-a@10 | 1.0 | 1.0 | 1.0 |
| 2:4 | 440-194782-a-10-a@10 | 1.0 | 1.0 | 1.0 |
| 2:5 | 440-194782-a-11-a@10 | 1.0 | 1.0 | 1.0 |
| 2:6 | 440-194782-a-12-a@10 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 2:7 | mb 440-436943/1-a | 1.0 | 1.0 | 1.0 |
| 2:8 | lcs 440-436943/2-a | 1.0 | 1.0 | 1.0 |
| 2:9 | 440-194613-a-1-b | 1.0 | 1.0 | 1.0 |
| 2:10 | 440-194613-a-1-c ms | 1.0 | 1.0 | 1.0 |
| 2:11 | 440-194613-a-1-d msd | 1.0 | 1.0 | 1.0 |
| 2:12 | 440-194617-a-1-b | 1.0 | 1.0 | 1.0 |
| 2:13 | 440-194713-j-6-a | 1.0 | 1.0 | 1.0 |
| 2:14 | 440-194713-j-5-a | 1.0 | 1.0 | 1.0 |
| 2:15 | 440-194713-j-4-a | 1.0 | 1.0 | 1.0 |
| 2:16 | 440-194713-j-3-a | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 1:46 | lcs 440-436965/2-a@5 | 1.0 | 1.0 | 1.0 |
| 2:17 | 440-194713-j-1-a | 1.0 | 1.0 | 1.0 |
| 2:18 | 440-194600-s-1-b | 1.0 | 1.0 | 1.0 |
| 2:19 | 440-194600-s-2-b | 1.0 | 1.0 | 1.0 |
| 2:19 | 440-194600-s-2-b@10 | 1.0 | 1.0 | 1.0 |
| 2:20 | mb 440-436944/1-a | 1.0 | 1.0 | 1.0 |
| 2:21 | lcs 440-436944/2-a | 1.0 | 1.0 | 1.0 |
| 2:22 | 440-194642-c-2-a | 1.0 | 1.0 | 1.0 |
| 2:23 | 440-194642-c-2-b ms | 1.0 | 1.0 | 1.0 |
| 2:24 | 440-194642-c-2-c msd | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 2:25 | 440-194625-m-1-a | 1.0 | 1.0 | 1.0 |

| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| 2:26 | 440-194625-m-2-a | 1.0 | 1.0 | 1.0 |
| 2:27 | 440-194564-g-4-a | 1.0 | 1.0 | 1.0 |
| 2:28 | 440-194014-c-3-a | 1.0 | 1.0 | 1.0 |
| 2:29 | 440-194014-c-4-a | 1.0 | 1.0 | 1.0 |
| 2:30 | 440-194028-c-1-a | 1.0 | 1.0 | 1.0 |
| 2:31 | 440-194028-c-2-a | 1.0 | 1.0 | 1.0 |
| 2:32 | 440-194616-b-1-a | 1.0 | 1.0 | 1.0 |
| 2:33 | 440-194616-b-2-a | 1.0 | 1.0 | 1.0 |
| 2:34 | 440-194642-c-1-a | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4444447 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 2:35 | 440-194642-c-1-b ms | 1.0 | 1.0 | 1.0 |
| 2:36 | 440-194642-c-1-c msd | 1.0 | 1.0 | 1.0 |
| 2:37 | 440-194642-c-3-a | 1.0 | 1.0 | 1.0 |
| 2:38 | 440-194647-i-1-a | 1.0 | 1.0 | 1.0 |
| 2:39 | 440-194647-i-2-a | 1.0 | 1.0 | 1.0 |
| 2:40 | 440-194647-i-3-a | 1.0 | 1.0 | 1.0 |
| 2:41 | 440-194647-i-4-a | 1.0 | 1.0 | 1.0 |
| 2:42 | 440-194647-i-5-a | 1.0 | 1.0 | 1.0 |
| 2:43 | 440-194647-i-6-a | 1.0 | 1.0 | 1.0 |
| 2:44 | 440-194647-i-7-a | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 2:45 | 440-194656-f-1-a | 1.0 | 1.0 | 1.0 |
| 2:29 | 440-194014-c-4-a@20 | 1.0 | 1.0 | 1.0 |
| 2:30 | 440-194028-c-1-a@10 | 1.0 | 1.0 | 1.0 |
| 2:31 | 440-194028-c-2-a@20 | 1.0 | 1.0 | 1.0 |
| 2:39 | 440-194647-i-2-a@5 | 1.0 | 1.0 | 1.0 |
| 2:40 | 440-194647-i-3-a@5 | 1.0 | 1.0 | 1.0 |
| 2:42 | 440-194647-i-5-a@5 | 1.0 | 1.0 | 1.0 |
| 2:43 | 440-194647-i-6-a@5 | 1.0 | 1.0 | 1.0 |
| 2:44 | 440-194647-i-7-a@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 2:46 | mb 440-437212/1-a@5 | 1.0 | 1.0 | 1.0 |
| 2:47 | lcs 440-437212/2-a@5 | 1.0 | 1.0 | 1.0 |
| 2:48 | 440-194754-a-6-d@5 | 1.0 | 1.0 | 1.0 |
| 2:49 | 440-194754-a-6-e ms@5 | 1.0 | 1.0 | 1.0 |

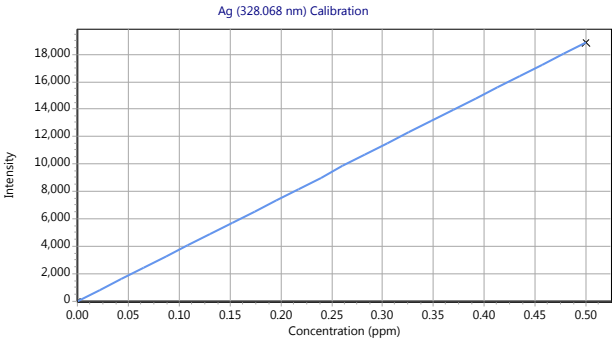
| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| 2:50 | 440-194754-a-6-f msd@5 | 1.0 | 1.0 | 1.0 |
| 2:51 | 440-194754-a-6-dPDS@5 | 1.0 | 1.0 | 1.0 |
| 2:52 | 440-194754-a-6-dSD@25 | 1.0 | 1.0 | 1.0 |
| 2:53 | 440-194754-a-2-b@5 | 1.0 | 1.0 | 1.0 |
| 2:54 | 440-194754-a-3-b@5 | 1.0 | 1.0 | 1.0 |
| 2:55 | 440-194754-a-4-b@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 2:56 | 440-194754-a-5-b@5 | 1.0 | 1.0 | 1.0 |
| 2:57 | 440-194754-a-7-b@5 | 1.0 | 1.0 | 1.0 |
| 2:58 | 440-194754-a-8-b@5 | 1.0 | 1.0 | 1.0 |
| 2:59 | 440-194754-a-10-b@5 | 1.0 | 1.0 | 1.0 |
| 2:60 | 440-194754-a-11-b@5 | 1.0 | 1.0 | 1.0 |
| 3:1 | 440-194754-a-12-b@5 | 1.0 | 1.0 | 1.0 |
| 3:2 | 440-194754-a-13-b@5 | 1.0 | 1.0 | 1.0 |
| 3:3 | 440-194754-a-15-b@5 | 1.0 | 1.0 | 1.0 |
| 3:4 | 440-194754-a-16-b@5 | 1.0 | 1.0 | 1.0 |
| 3:5 | 440-194754-a-17-b@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 3:6 | 440-194754-a-18-b@5 | 1.0 | 1.0 | 1.0 |
| 3:7 | 440-194641-a-1-e@5 | 1.0 | 1.0 | 1.0 |
| 3:8 | 440-194623-a-14-b@5 | 1.0 | 1.0 | 1.0 |
| 3:9 | 440-194876-a-1-a@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 3:10 | mb 440-437352/1-a | 1.0 | 1.0 | 1.0 |
| 3:11 | lcs 440-437352/2-a | 1.0 | 1.0 | 1.0 |
| 3:12 | 440-194768-a-1-a | 1.0 | 1.0 | 1.0 |
| 3:13 | 440-194768-a-1-b ms | 1.0 | 1.0 | 1.0 |
| 3:14 | 440-194768-a-1-c msd | 1.0 | 1.0 | 1.0 |
| 3:15 | 440-194768-a-2-a | 1.0 | 1.0 | 1.0 |
| 3:16 | 440-194768-a-3-a | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 3:17 | mb 440-437356/1-a | 1.0 | 1.0 | 1.0 |
| 3:18 | lcs 440-437356/2-a | 1.0 | 1.0 | 1.0 |
| 3:19 | 440-194756-g-2-a@5 | 1.0 | 1.0 | 1.0 |
| 3:20 | 440-194756-g-2-b ms@5 | 1.0 | 1.0 | 1.0 |
| 3:21 | 440-194756-g-2-c msd@5 | 1.0 | 1.0 | 1.0 |
| 3:22 | 440-194829-c-2-a | 1.0 | 1.0 | 1.0 |
| 3:23 | 440-194829-c-1-a | 1.0 | 1.0 | 1.0 |
| 3:24 | 440-194825-g-4-a | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |

| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 3:25 | mb 440-437401/1-a@5 | 1.0 | 1.0 | 1.0 |
| 3:26 | lcs 440-437401/2-a@5 | 1.0 | 1.0 | 1.0 |
| 3:27 | 440-194907-a-2-a@5 | 1.0 | 1.0 | 1.0 |
| 3:28 | 440-194907-a-2-b ms@5 | 1.0 | 1.0 | 1.0 |
| 3:29 | 440-194907-a-2-c msd@5 | 1.0 | 1.0 | 1.0 |
| 3:30 | 440-194907-a-2-aPDS@5 | 1.0 | 1.0 | 1.0 |
| 3:31 | 440-194907-a-2-aSD@25 | 1.0 | 1.0 | 1.0 |
| 3:32 | 440-194907-a-1-a@5 | 1.0 | 1.0 | 1.0 |
| 3:33 | 440-191869-b-1-d@5 | 1.0 | 1.0 | 1.0 |
| 3:34 | 440-191869-b-1-e@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| S1:10 | CRI 4444445 | 1.0 | 1.0 | 1.0 |
| S1:6 | ICSA 4444442 | 1.0 | 1.0 | 1.0 |
| S1:7 | ICSAB 4444443 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4444447 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4444447 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4444447 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4444447 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4444447 | 1.0 | 1.0 | 1.0 |

Calibration Curves:

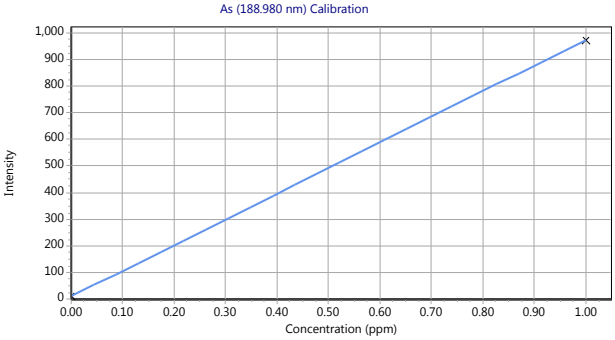
Ag (328.068 nm)
Intensity = 37801 * Concentration - 18

| Standards | Intensity |
|---|---|
| IEC Blank | -17.5600 |
| STD3 | 18880.0000 |



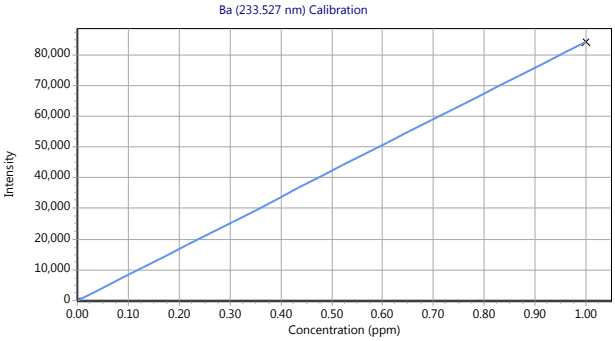

As (188.980 nm)
Intensity = 964 * Concentration + 10

| Standards | Intensity |
|---|---|
| IEC Blank | 9.8560 |
| STD3 | 973.9000 |



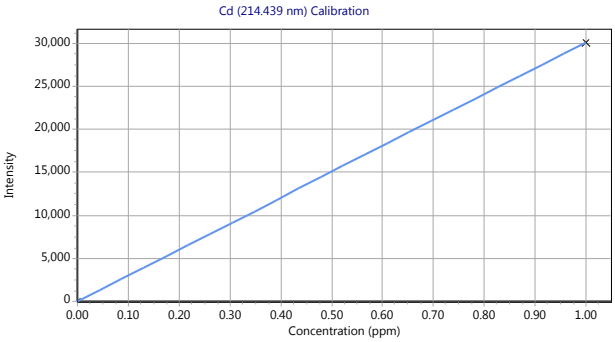

Ba (233.527 nm)
Intensity = 84304 * Concentration - 13

| Standards | Intensity |
|---|---|
| IEC Blank | -12.8900 |
| STD3 | 84290.0000 |



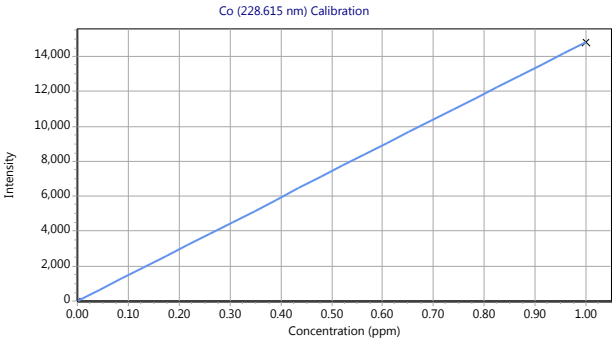

Cd (214.439 nm)
Intensity = 30108 * Concentration - 4

| Standards | Intensity |
|---|---|
| IEC Blank | -4.4850 |
| STD3 | 30100.0000 |



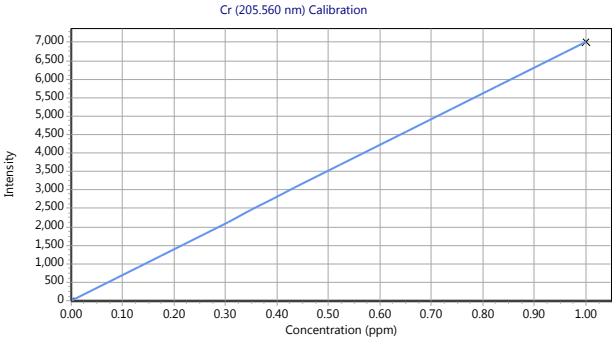

Co (228.615 nm)
Intensity = 14834 * Concentration - 3

| Standards | Intensity |
|---|---|
| IEC Blank | -2.8900 |
| STD3 | 14830.0000 |



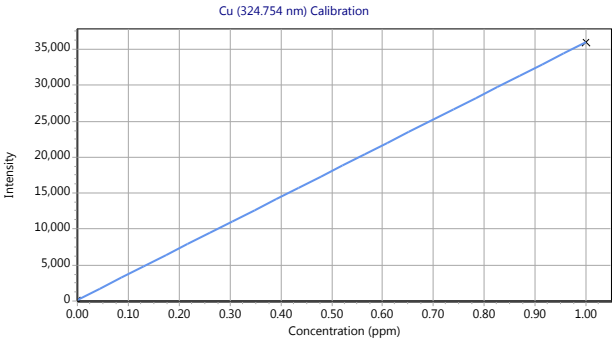

Cr (205.560 nm)
Intensity = 7017 * Concentration + 4

| Standards | Intensity |
|---|---|
| IEC Blank | 3.7230 |
| STD3 | 7020.0000 |



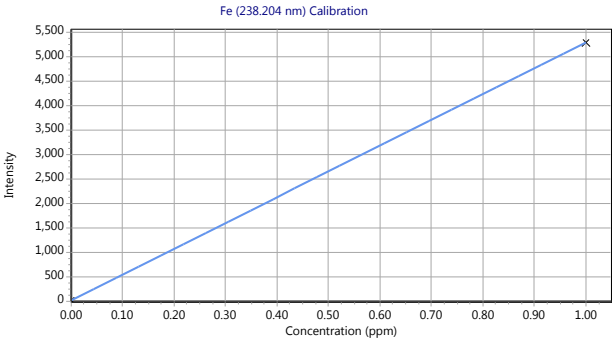

Cu (324.754 nm)
Intensity = 35890 * Concentration + 142

| Standards | Intensity |
|---|---|
| IEC Blank | 141.8000 |
| STD3 | 36030.0000 |



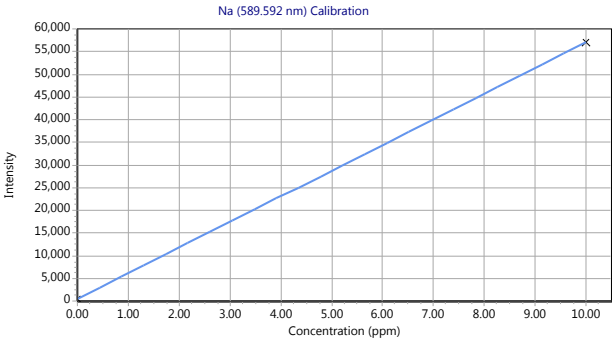

Fe (238.204 nm)
Intensity = 5267 * Concentration + 31

| Standards | Intensity |
|---|---|
| IEC Blank | 30.9700 |
| STD3 | 5298.0000 |



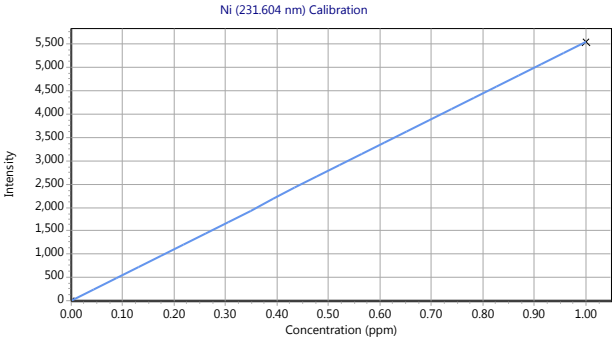

Na (589.592 nm)
Intensity = 5683 * Concentration + 369

| Standards | Intensity |
|---|---|
| IEC Blank | 368.6000 |
| STD3 | 57200.0000 |



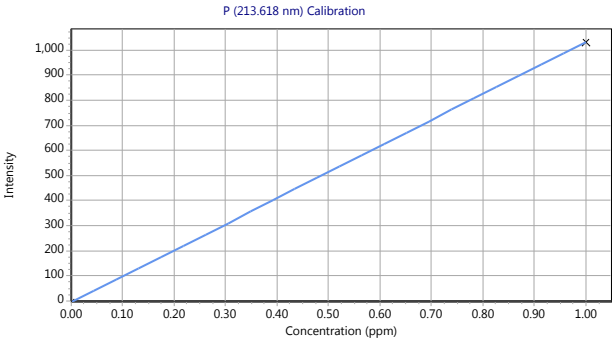

Ni (231.604 nm)
Intensity = 5561 * Concentration + 0

| Standards | Intensity |
|---|---|
| IEC Blank | 0.0688 |
| STD3 | 5561.0000 |



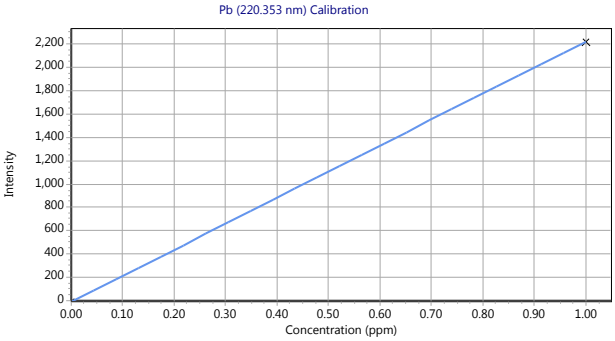

P (213.618 nm)
Intensity = 1038 * Concentration - 6

| Standards | Intensity |
|---|---|
| IEC Blank | -5.5350 |
| STD3 | 1032.0000 |



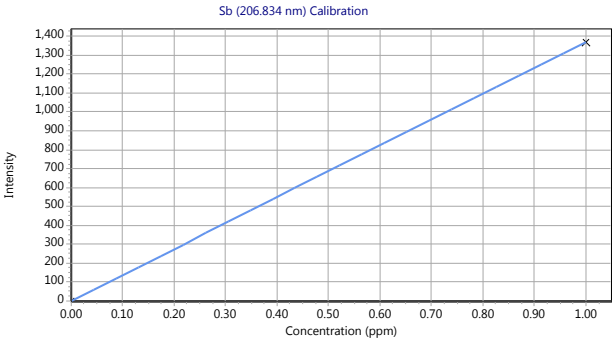

Pb (220.353 nm)
Intensity = 2232 * Concentration - 9

| Standards | Intensity |
|---|---|
| IEC Blank | -9.1450 |
| STD3 | 2222.0000 |



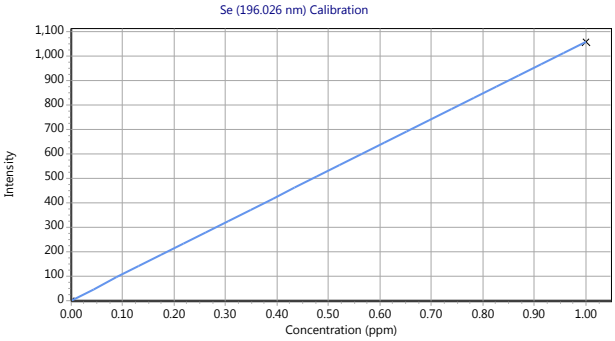

Sb (206.834 nm)
Intensity = 1369 * Concentration + 1

| Standards | Intensity |
|---|---|
| IEC Blank | 1.4010 |
| STD3 | 1370.0000 |



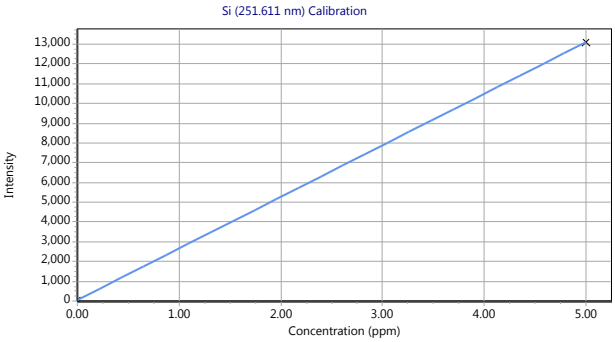

Se (196.026 nm)
Intensity = 1058 * Concentration + 2

| Standards | Intensity |
|---|---|
| IEC Blank | 1.9320 |
| STD3 | 1060.0000 |



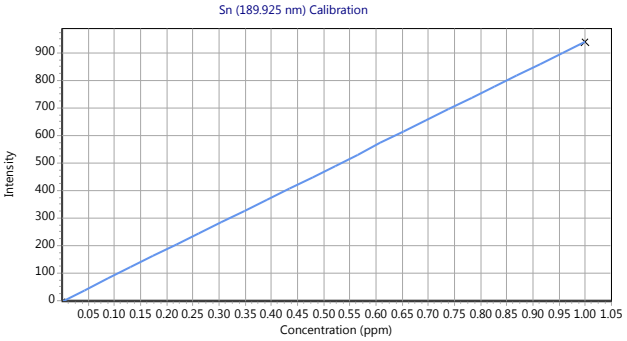

Si (251.611 nm)
Intensity = 2615 * Concentration + 45

| Standards | Intensity |
|---|---|
| IEC Blank | 44.9900 |
| STD3 | 13120.0000 |



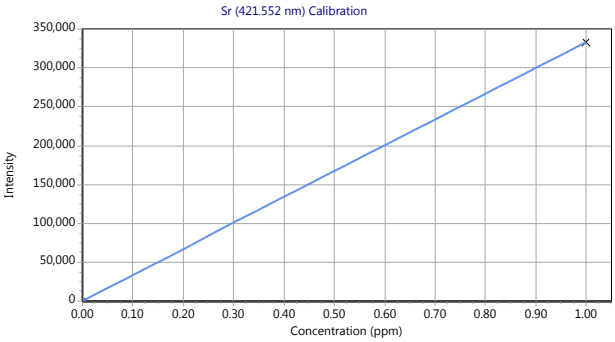

Sn (189.925 nm)
Intensity = 943 * Concentration - 2

| Standards | Intensity |
|---|---|
| IEC Blank | -2.2560 |
| STD3 | 940.4000 |



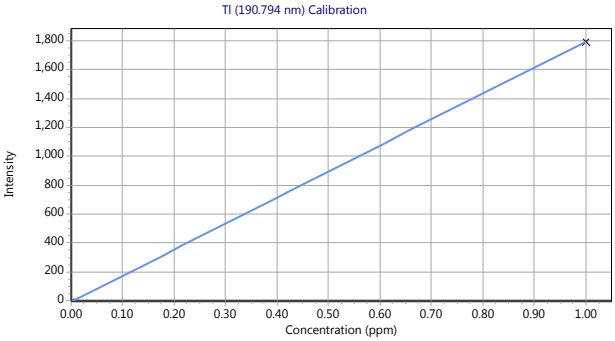

Sr (421.552 nm)
Intensity = 333367 * Concentration + 313

| Standards | Intensity |
|---|---|
| IEC Blank | 312.6000 |
| STD3 | 333700.0000 |



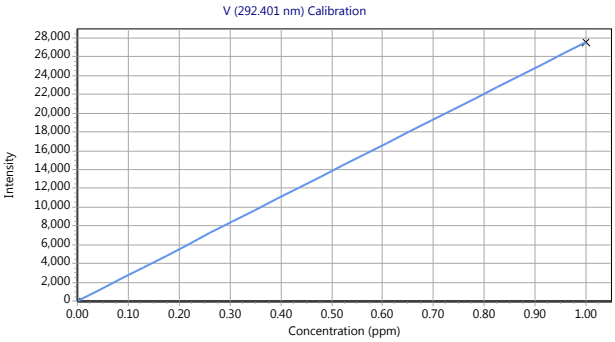

Tl (190.794 nm)
Intensity = 1801 * Concentration - 7

| Standards | Intensity |
|---|---|
| IEC Blank | -6.7290 |
| STD3 | 1794.0000 |



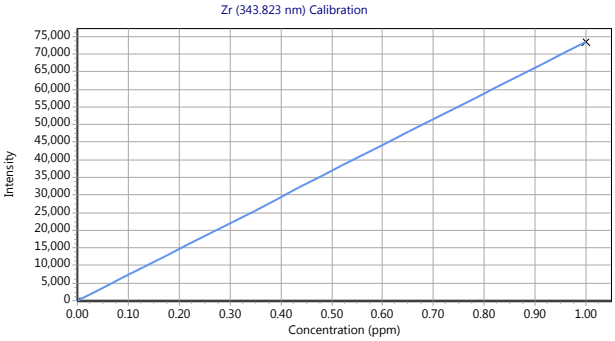

V (292.401 nm)
Intensity = 27558 * Concentration + 28

| Standards | Intensity |
|---|---|
| IEC Blank | 27.9500 |
| STD3 | 27590.0000 |



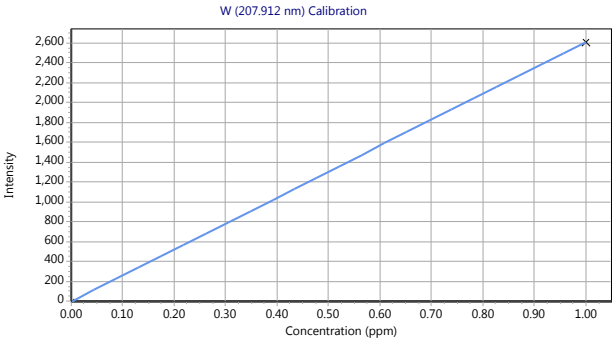

Zr (343.823 nm)
Intensity = 73556 * Concentration - 10

| Standards | Intensity |
|---|---|
| IEC Blank | -9.5530 |
| STD3 | 73550.0000 |



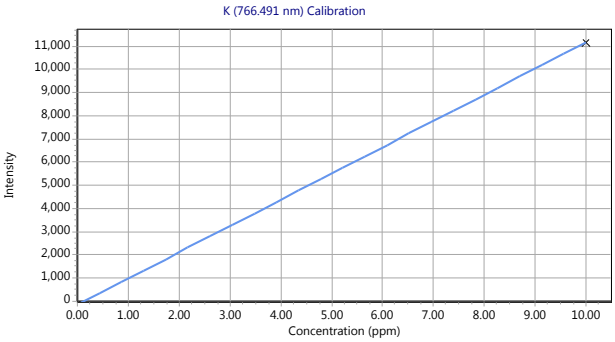

W (207.912 nm)
Intensity = 2614 * Concentration - 6

| Standards | Intensity |
|---|---|
| IEC Blank | -5.8860 |
| STD3 | 2608.0000 |



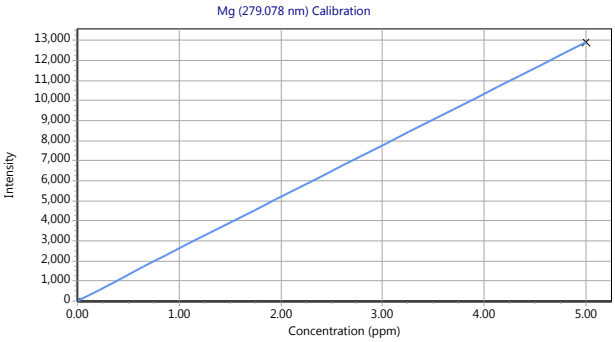

K (766.491 nm)
Intensity = 1132 * Concentration - 149

| Standards | Intensity |
|---|---|
| IEC Blank | -148.5000 |
| STD3 | 11170.0000 |



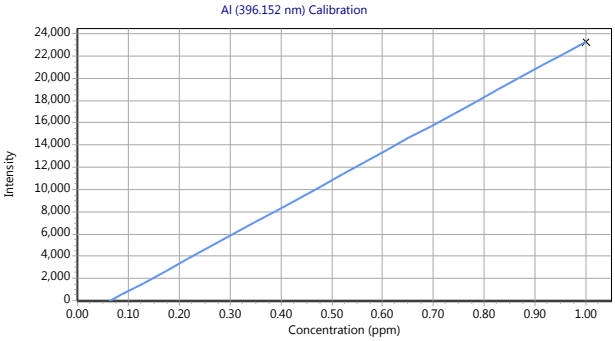

Mg (279.078 nm)
Intensity = 2581 * Concentration + 20

| Standards | Intensity |
|---|---|
| IEC Blank | 20.0500 |
| STD3 | 12930.0000 |



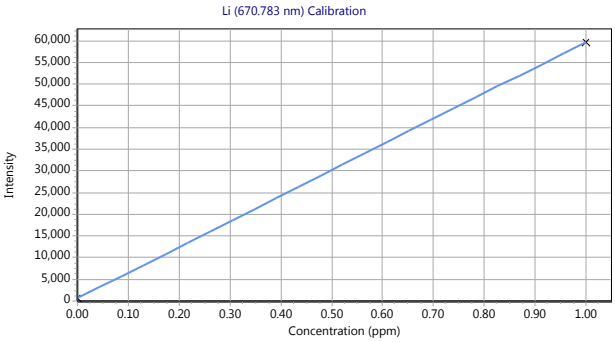

Al (396.152 nm)
Intensity = 24974 * Concentration - 1661

| Standards | Intensity |
|---|---|
| IEC Blank | -1661.0000 |
| STD3 | 23310.0000 |



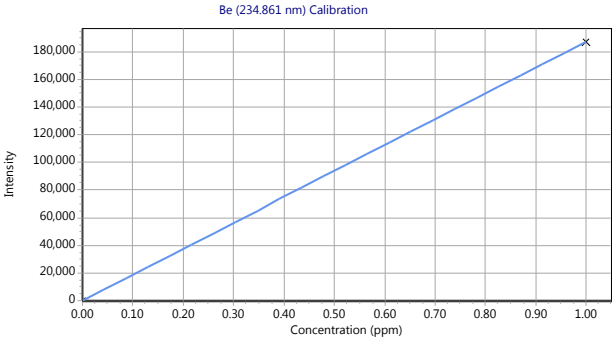

Li (670.783 nm)
Intensity = 59115 * Concentration + 604

| Standards | Intensity |
|---|---|
| IEC Blank | 604.2000 |
| STD3 | 59720.0000 |



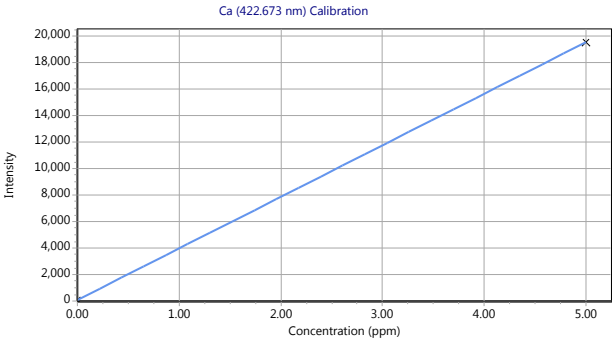

Be (234.861 nm)
Intensity = 187234 * Concentration + 1

| Standards | Intensity |
|---|---|
| IEC Blank | 0.5601 |
| STD3 | 187200.0000 |



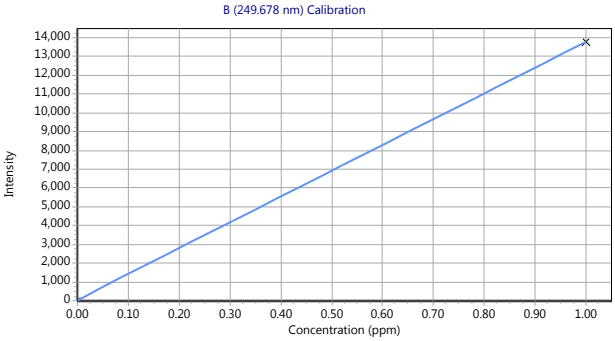

Ca (422.673 nm)
Intensity = 3899 * Concentration + 90

| Standards | Intensity |
|---|---|
| IEC Blank | 89.6400 |
| STD3 | 19590.0000 |



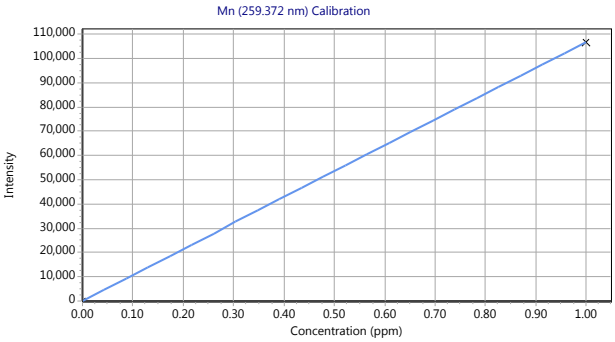

B (249.678 nm)
Intensity = 13775 * Concentration + 25

| Standards | Intensity |
|---|---|
| IEC Blank | 25.4900 |
| STD3 | 13800.0000 |



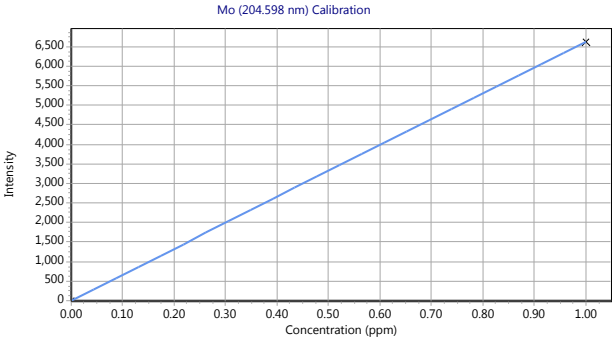

Mn (259.372 nm)
Intensity = 106786 * Concentration + 76

| Standards | Intensity |
|---|---|
| IEC Blank | 76.2600 |
| STD3 | 106900.0000 |



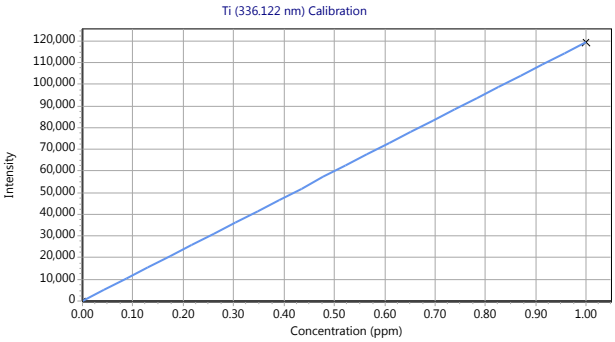

Mo (204.598 nm)
Intensity = 6623 * Concentration + 6

| Standards | Intensity |
|---|---|
| IEC Blank | 6.4530 |
| STD3 | 6629.0000 |



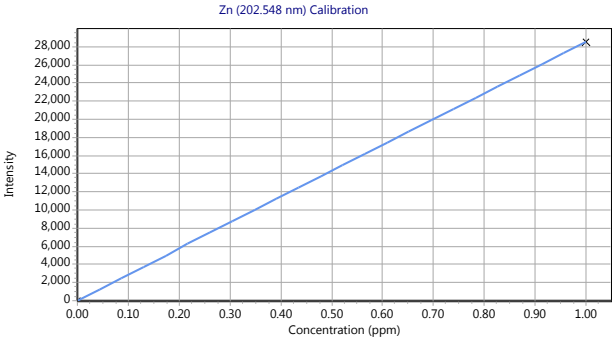

Ti (336.122 nm)
Intensity = 119615 * Concentration - 74

| Standards | Intensity |
|---|---|
| IEC Blank | -73.7000 |
| STD3 | 119500.0000 |



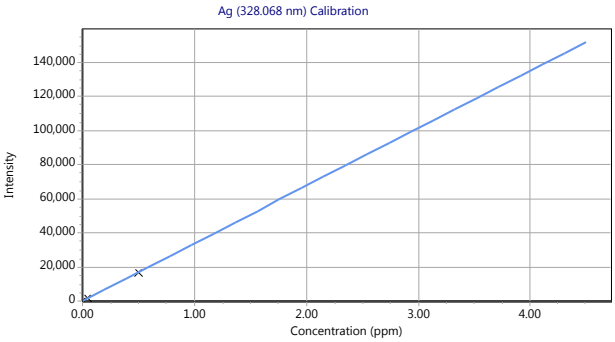

Zn (202.548 nm)
Intensity = 28533 * Concentration + 37

| Standards | Intensity |
|---|---|
| IEC Blank | 37.4200 |
| STD3 | 28570.0000 |



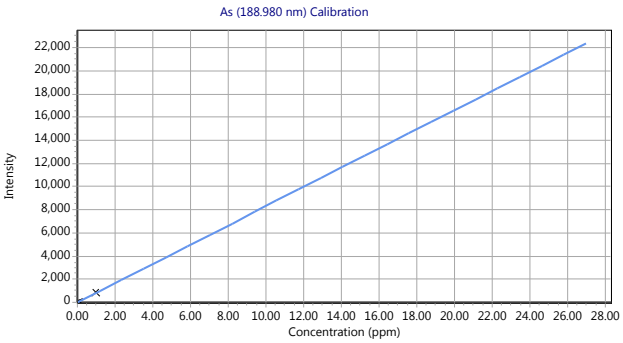

Ag (328.068 nm)
Intensity = 33753.84625509 * Concentration + 17.74138898
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | 17.7400 |
| STD1 4444440 | 94.1500 |
| STD2 4444439 | 1710.0000 |
| STD3 4444438 | 16890.0000 |



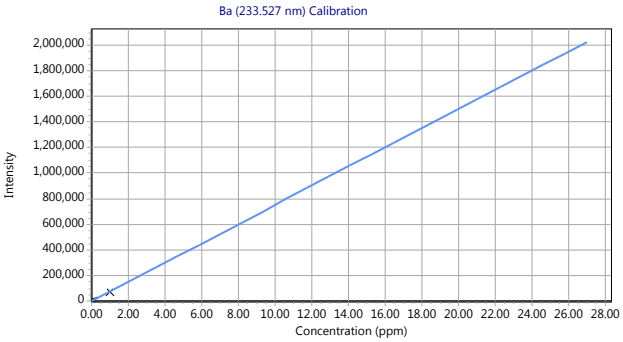

As (188.980 nm)
Intensity = 828.73413611 * Concentration + 12.18250020
Correlation coefficient: 0.99999

| Standards | Intensity |
|---|---|
| STD0 4444437 | 12.1800 |
| STD1 4444440 | 13.7900 |
| STD2 4444439 | 92.2000 |
| STD3 4444438 | 841.2000 |



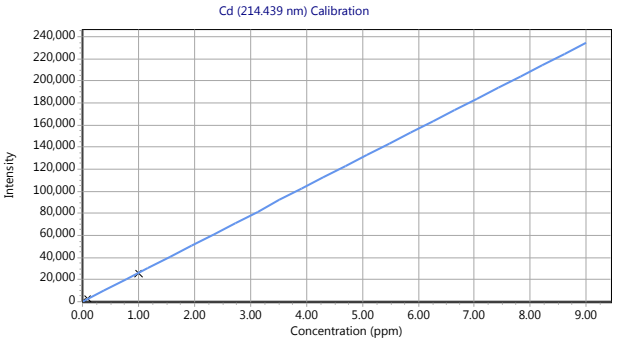

Ba (233.527 nm)
Intensity = 74971.06074021 * Concentration - 10.90430653
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | -10.9000 |
| STD1 4444440 | 375.0000 |
| STD2 4444439 | 7588.0000 |
| STD3 4444438 | 74950.0000 |



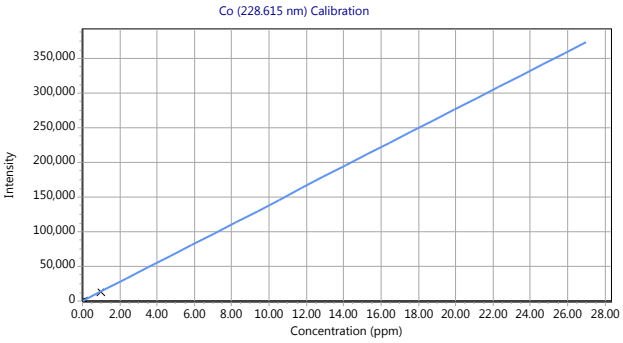

Cd (214.439 nm)
Intensity = 26071.19767380 * Concentration - 4.45483152
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | -4.4550 |
| STD1 4444440 | 129.9000 |
| STD2 4444439 | 2631.0000 |
| STD3 4444438 | 26060.0000 |



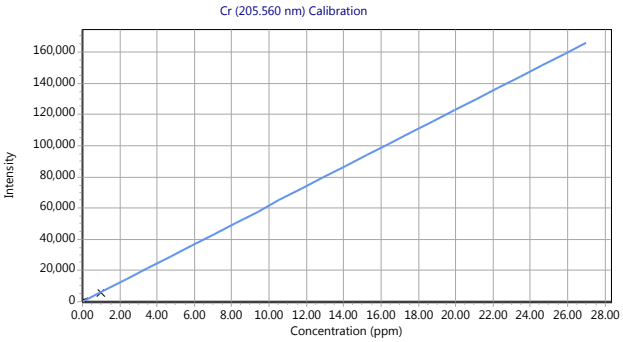

Co (228.615 nm)
Intensity = 13866.60144847 * Concentration - 26.29139319
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | -26.2900 |
| STD1 4444440 | 48.5000 |
| STD2 4444439 | 1377.0000 |
| STD3 4444438 | 13840.0000 |



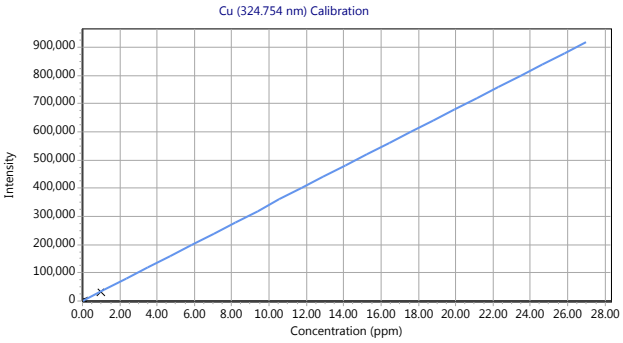

Cr (205.560 nm)
Intensity = 6151.06917210 * Concentration + 0.16361767
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | 0.1636 |
| STD1 4444440 | 34.5800 |
| STD2 4444439 | 624.0000 |
| STD3 4444438 | 6150.0000 |



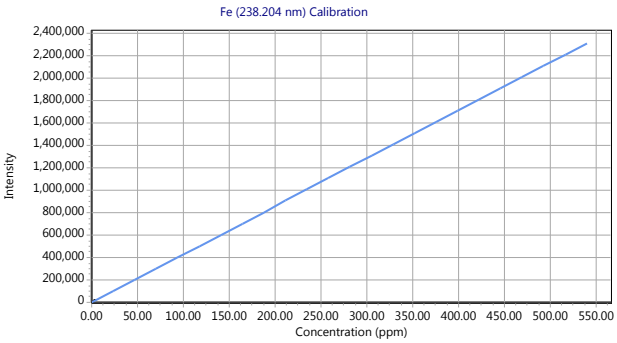

Cu (324.754 nm)
Intensity = 34063.53670493 * Concentration + 150.64835628
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | 150.6000 |
| STD1 4444440 | 313.5000 |
| STD2 4444439 | 3540.0000 |
| STD3 4444438 | 34220.0000 |



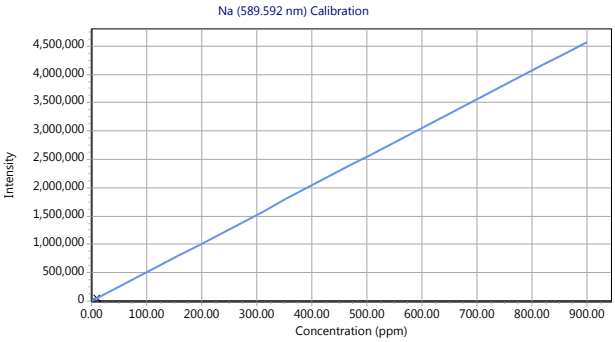

Fe (238.204 nm)
Intensity = 4276.60488053 * Concentration - 3.91324899
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | -3.9130 |
| STD2 4444439 | 422.1000 |
| STD3 4444438 | 4273.0000 |



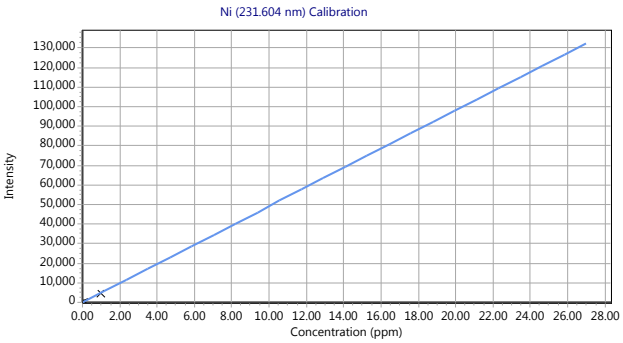

Na (589.592 nm)
Intensity = 5080.77684651 * Concentration + 594.88976439
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | 594.9000 |
| STD2 4444439 | 5713.0000 |
| STD3 4444438 | 51400.0000 |



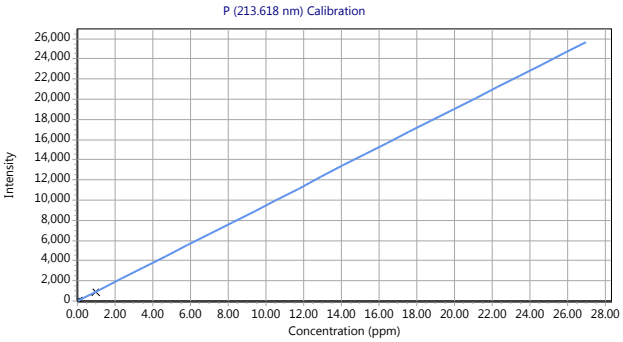

Ni (231.604 nm)
Intensity = 4906.37016691 * Concentration - 0.11635897
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | -0.1164 |
| STD1 4444440 | 26.4600 |
| STD2 4444439 | 495.7000 |
| STD3 4444438 | 4906.0000 |



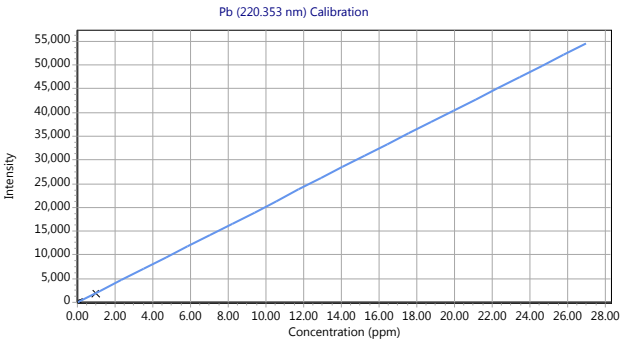

P (213.618 nm)
Intensity = 951.51873694 * Concentration - 12.19480630
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | -12.1900 |
| STD2 4444439 | 80.2800 |
| STD3 4444438 | 939.6000 |



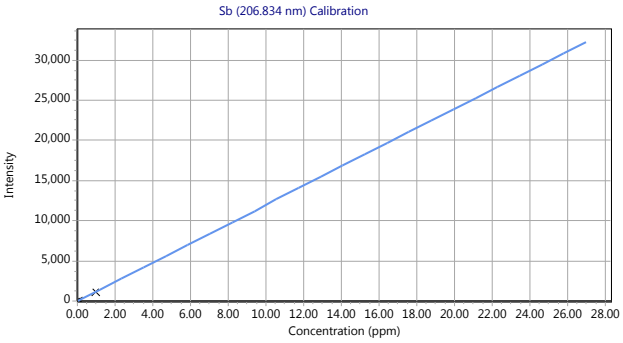

Pb (220.353 nm)
Intensity = 2021.55516282 * Concentration - 6.31233859
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | -6.3120 |
| STD1 4444440 | 0.0120 |
| STD2 4444439 | 196.3000 |
| STD3 4444438 | 2015.0000 |



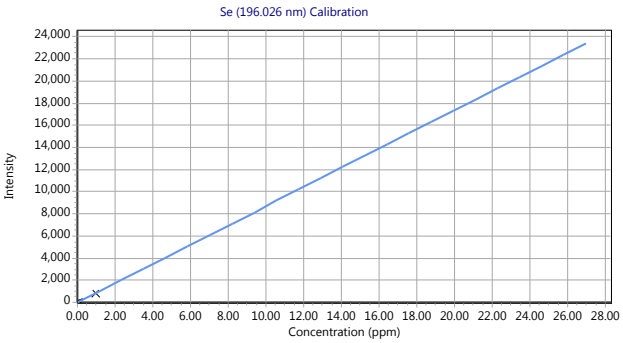

Sb (206.834 nm)
Intensity = 1195.16832287 * Concentration + 1.07426800
Correlation coefficient: 0.99998

| Standards | Intensity |
|---|---|
| STD0 4444437 | 1.0740 |
| STD1 4444440 | 6.6250 |
| STD2 4444439 | 112.5000 |
| STD3 4444438 | 1197.0000 |



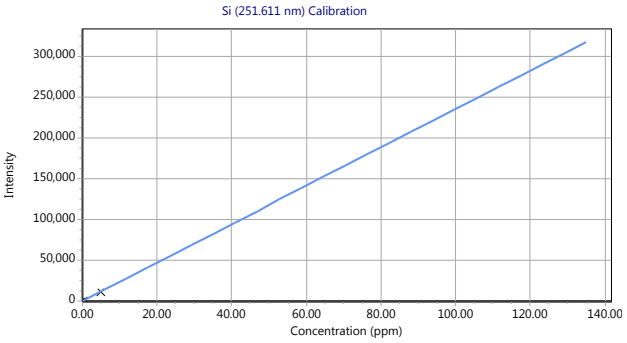

Se (196.026 nm)
Intensity = 867.38839748 * Concentration + 0.39724523
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | 0.3972 |
| STD1 4444440 | 4.5580 |
| STD2 4444439 | 87.9400 |
| STD3 4444438 | 867.7000 |



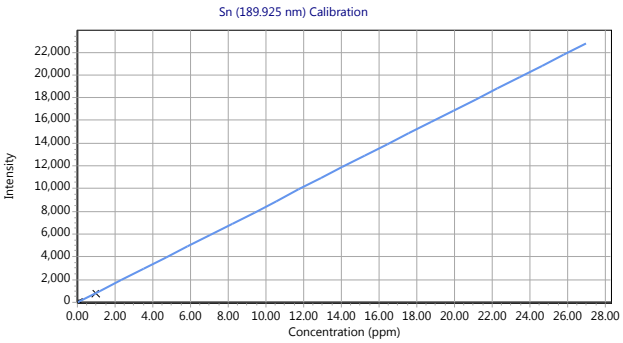

Si (251.611 nm)
Intensity = 2351.08838750 * Concentration + 33.27962872
Correlation coefficient: 0.99999

| Standards | Intensity |
|---|---|
| STD0 4444437 | 33.2800 |
| STD1 4444440 | 82.4500 |
| STD2 4444439 | 1153.0000 |
| STD3 4444438 | 11790.0000 |



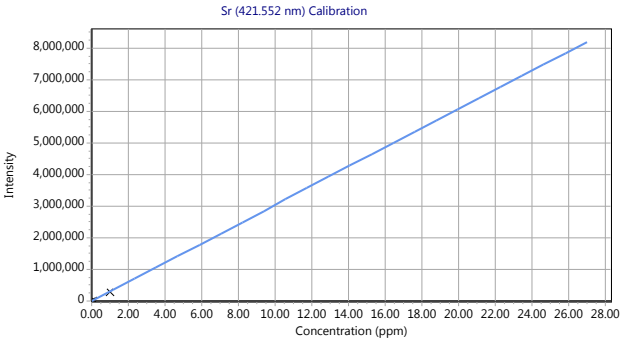

Sn (189.925 nm)
Intensity = 844.17913116 * Concentration - 1.42454042
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | -1.4250 |
| STD2 4444439 | 82.8300 |
| STD3 4444438 | 842.8000 |



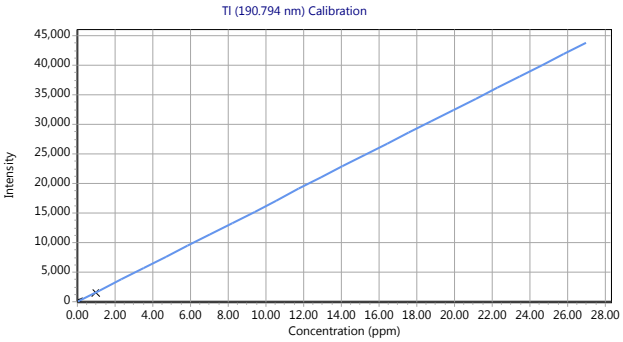

Sr (421.552 nm)
Intensity = 304410.17966373 * Concentration - 35.95531035
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | -35.9600 |
| STD1 4444440 | 1603.0000 |
| STD2 4444439 | 30700.0000 |
| STD3 4444438 | 304300.0000 |



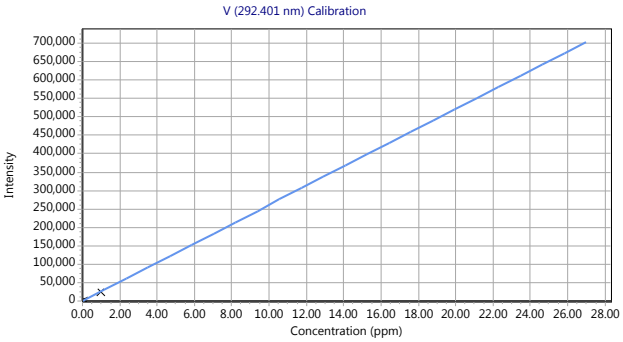

Tl (190.794 nm)
Intensity = 1625.61652476 * Concentration - 4.92637162
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | -4.9260 |
| STD1 4444440 | 0.4268 |
| STD2 4444439 | 159.7000 |
| STD3 4444438 | 1620.0000 |



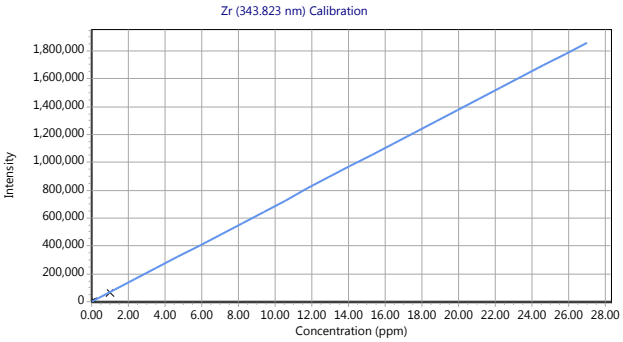

V (292.401 nm)
Intensity = 26065.54907675 * Concentration + 49.60916111
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | 49.6100 |
| STD1 4444440 | 170.1000 |
| STD2 4444439 | 2638.0000 |
| STD3 4444438 | 26120.0000 |



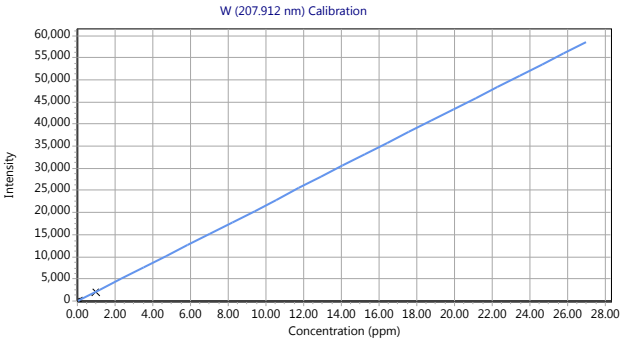

Zr (343.823 nm)
Intensity = 68869.13448292 * Concentration - 37.31155077
Correlation coefficient: 0.99998

| Standards | Intensity |
|---|---|
| STD0 4444437 | -37.3100 |
| STD1 4444440 | 106.3000 |
| STD2 4444439 | 6401.0000 |
| STD3 4444438 | 68880.0000 |



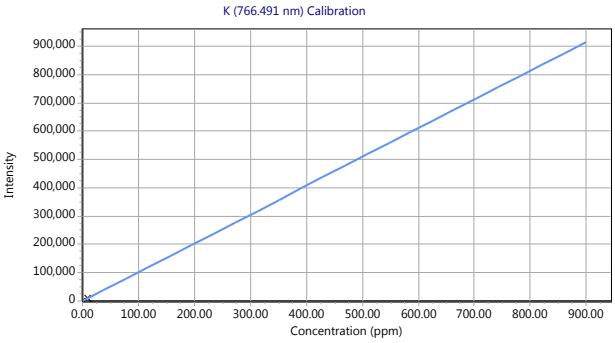

W (207.912 nm)
Intensity = 2170.38265891 * Concentration - 9.88345405
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | -9.8830 |
| STD1 4444440 | 3.8200 |
| STD2 4444439 | 210.0000 |
| STD3 4444438 | 2160.0000 |



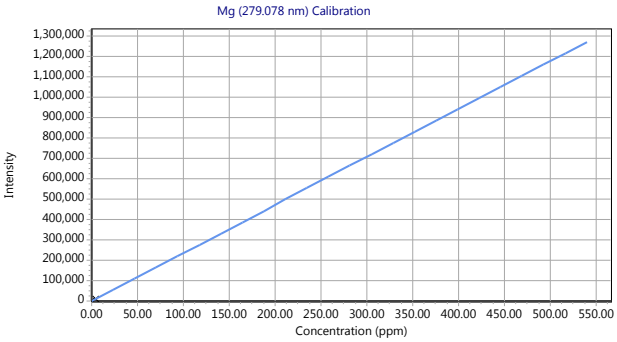

K (766.491 nm)
Intensity = 1017.48688313 * Concentration - 82.45535229
Correlation coefficient: 0.99997

| Standards | Intensity |
|---|---|
| STD0 4444437 | -82.4600 |
| STD2 4444439 | 853.4000 |
| STD3 4444438 | 10100.0000 |



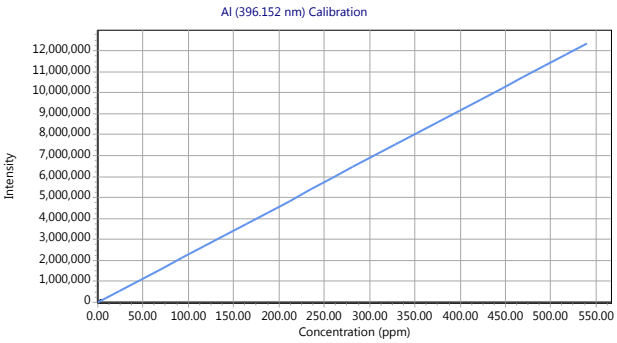

Mg (279.078 nm)
Intensity = 2355.01919202 * Concentration + 11.97992378
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | 11.9800 |
| STD1 4444440 | 71.6100 |
| STD2 4444439 | 1211.0000 |
| STD3 4444438 | 11780.0000 |



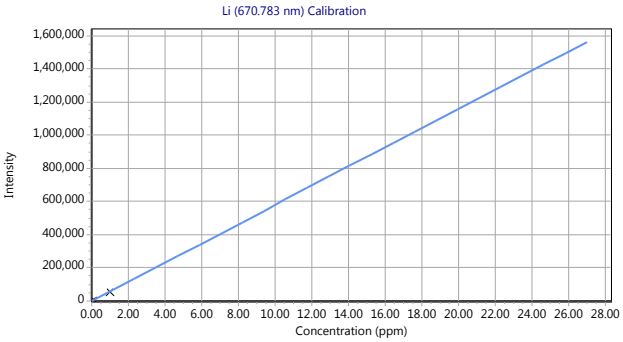

Al (396.152 nm)
Intensity = 22901.33768218 * Concentration - 1201.03690738
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | -1201.0000 |
| STD2 4444439 | 1092.0000 |
| STD3 4444438 | 21700.0000 |



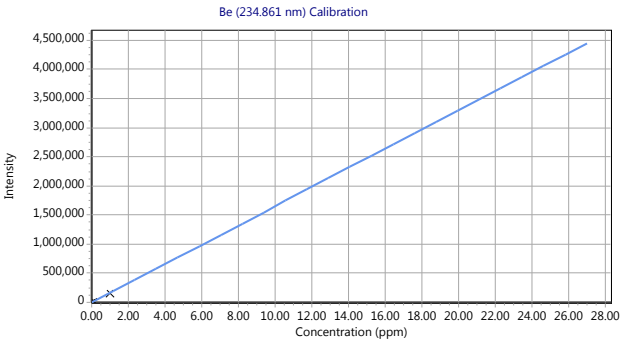

Li (670.783 nm)
Intensity = 57929.99750506 * Concentration + 24.67166467
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | 24.6700 |
| STD2 4444439 | 5928.0000 |
| STD3 4444438 | 57940.0000 |



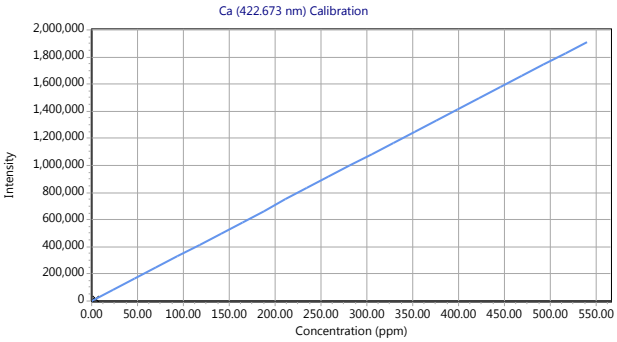

Be (234.861 nm)
Intensity = 164786.81804927 * Concentration + 4.19699336
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | 4.1970 |
| STD1 4444440 | 813.0000 |
| STD2 4444439 | 16410.0000 |
| STD3 4444438 | 164800.0000 |



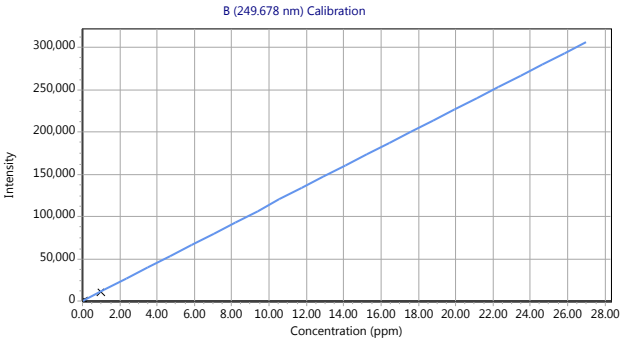

Ca (422.673 nm)
Intensity = 3541.27635698 * Concentration + 91.61542201
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | 91.6200 |
| STD1 4444440 | 172.7000 |
| STD2 4444439 | 1906.0000 |
| STD3 4444438 | 17790.0000 |



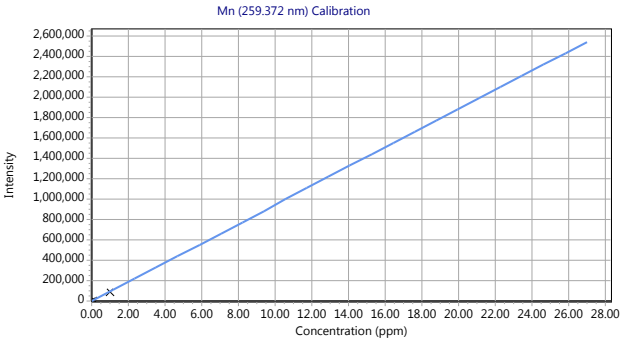

B (249.678 nm)
Intensity = 11354.42829858 * Concentration + 11.60739808
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | 11.6100 |
| STD2 4444439 | 1124.0000 |
| STD3 4444438 | 11370.0000 |



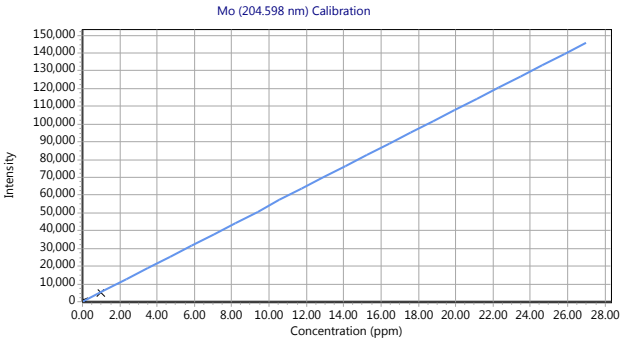

Mn (259.372 nm)
Intensity = 94216.04646667 * Concentration + 83.38683600
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | 83.3900 |
| STD1 4444440 | 563.4000 |
| STD2 4444439 | 9709.0000 |
| STD3 4444438 | 94280.0000 |



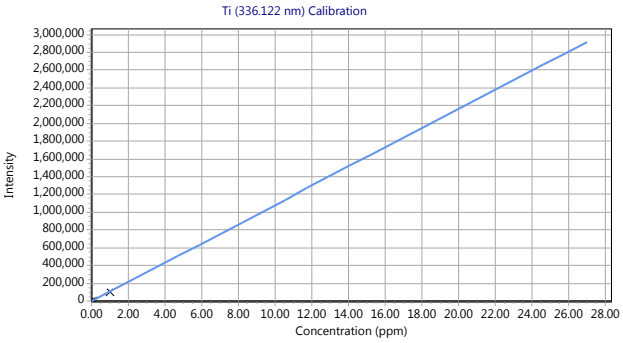

Mo (204.598 nm)
Intensity = 5402.41455679 * Concentration + 6.64781428
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | 6.6480 |
| STD1 4444440 | 31.5100 |
| STD2 4444439 | 544.6000 |
| STD3 4444438 | 5409.0000 |



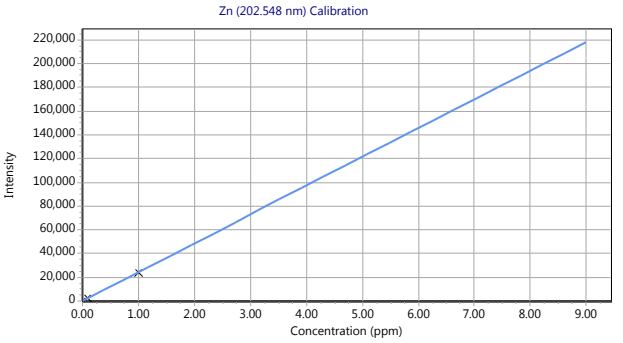

Ti (336.122 nm)
Intensity = 108067.39742401 * Concentration - 114.04021466
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | -114.0000 |
| STD1 4444440 | 415.8000 |
| STD2 4444439 | 10630.0000 |
| STD3 4444438 | 108000.0000 |




Zn (202.548 nm)
Intensity = 24249.95841043 * Concentration + 119.65337622
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | 119.7000 |
| STD2 4444439 | 2550.0000 |
| STD3 4444438 | 24370.0000 |



Sample Name: STD0 4444437

Date: 10/25/2017 8:11:27 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0000 ! | ppm | N/A | N/A | 17.7400 ! | 0.0000 ! (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0000 ! | ppm | N/A | N/A | -1201.0000 ! | 0.0000 ! (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0000 ! | ppm | N/A | N/A | 12.1800 ! | 0.0000 ! (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0000 ! | ppm | N/A | N/A | 11.6100 ! | 0.0000 ! (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0000 ! | ppm | N/A | N/A | -10.9000 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 ! | ppm | N/A | N/A | 4.1970 ! | 0.0000 ! (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0000 ! | ppm | N/A | N/A | 91.6200 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 ! | ppm | N/A | N/A | -4.4550 ! | 0.0000 ! (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0000 ! | ppm | N/A | N/A | -26.2900 ! | 0.0000 ! (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0000 ! | ppm | N/A | N/A | 0.1636 ! | 0.0000 ! (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0000 ! | ppm | N/A | N/A | 150.6000 ! | 0.0000 ! (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0000 ! | ppm | N/A | N/A | -3.9130 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0000 ! | ppm | N/A | N/A | -82.4600 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0000 ! | ppm | N/A | N/A | 24.6700 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0000 ! | ppm | N/A | N/A | 11.9800 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 ! | ppm | N/A | N/A | 83.3900 ! | 0.0000 ! (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0000 ! | ppm | N/A | N/A | 6.6480 ! | 0.0000 ! (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0000 ! | ppm | N/A | N/A | 594.9000 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0000 ! | ppm | N/A | N/A | -0.1164 ! | 0.0000 ! (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0000 ! | ppm | N/A | N/A | -12.1900 ! | 0.0000 ! (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0000 ! | ppm | N/A | N/A | -6.3120 ! | 0.0000 ! (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0000 ! | ppm | N/A | N/A | 1.0740 ! | 0.0000 ! (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0000 ! | ppm | N/A | N/A | 0.3972 ! | 0.0000 ! (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0000 ! | ppm | N/A | N/A | 33.2800 ! | 0.0000 ! (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0000 ! | ppm | N/A | N/A | -1.4250 ! | 0.0000 ! (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 ! | ppm | N/A | N/A | -35.9600 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0000 ! | ppm | N/A | N/A | -114.0000 ! | 0.0000 ! (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0000 ! | ppm | N/A | N/A | -4.9260 ! | 0.0000 ! (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0000 ! | ppm | N/A | N/A | 49.6100 ! | 0.0000 ! (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0000 ! | ppm | N/A | N/A | -9.8830 ! | 0.0000 ! (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0000 ! | ppm | N/A | N/A | 119.7000 ! | 0.0000 ! (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 ! | ppm | N/A | N/A | -37.3100 ! | 0.0000 ! (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0000 ! | 390000.0000 ! | 0.0000 | 0.00 |
| Y_R 371.029 | 1.0000 ! | 54660.0000 ! | 0.0000 | 0.00 |

Sample Name: STD1 4444440

Date: 10/25/2017 8:13:31 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0025 ! | ppm | N/A | N/A | 94.1500 ! | 0.0025 ! (ppm) | Y 371.029 |
| Al (396.152 nm) | | ppm | N/A | N/A | -1072.0000 ! | | Y 371.029 |
| As (188.980 nm) | 0.0050 ! | ppm | N/A | N/A | 13.7900 ! | 0.0050 ! (ppm) | Y 371.029 |
| B (249.678 nm) | | ppm | N/A | N/A | 62.4800 ! | | Y 371.029 |
| Ba (233.527 nm) | 0.0050 ! | ppm | N/A | N/A | 375.0000 ! | 0.0050 ! (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0050 ! | ppm | N/A | N/A | 813.0000 ! | 0.0050 ! (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0250 ! | ppm | N/A | N/A | 172.7000 ! | 0.0250 ! (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0050 ! | ppm | N/A | N/A | 129.9000 ! | 0.0050 ! (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0050 ! | ppm | N/A | N/A | 48.5000 ! | 0.0050 ! (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0050 ! | ppm | N/A | N/A | 34.5800 ! | 0.0050 ! (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0050 ! | ppm | N/A | N/A | 313.5000 ! | 0.0050 ! (ppm) | Y 371.029 |
| Fe (238.204 nm) | | ppm | N/A | N/A | 28.8200 ! | | Y_R 371.029 |
| K (766.491 nm) | | ppm | N/A | N/A | -107.3000 ! | | Y_R 371.029 |
| Li (670.783 nm) | | ppm | N/A | N/A | 292.0000 ! | | Y_R 371.029 |
| Mg (279.078 nm) | 0.0250 ! | ppm | N/A | N/A | 71.6100 ! | 0.0250 ! (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0050 ! | ppm | N/A | N/A | 563.4000 ! | 0.0050 ! (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0050 ! | ppm | N/A | N/A | 31.5100 ! | 0.0050 ! (ppm) | Y 371.029 |
| Na (589.592 nm) | | ppm | N/A | N/A | 774.2000 ! | | Y_R 371.029 |
| Ni (231.604 nm) | 0.0050 ! | ppm | N/A | N/A | 26.4600 ! | 0.0050 ! (ppm) | Y 371.029 |
| P (213.618 nm) | | ppm | N/A | N/A | -10.9800 ! | | Y 371.029 |
| Pb (220.353 nm) | 0.0050 ! | ppm | N/A | N/A | 0.0120 ! | 0.0050 ! (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0050 ! | ppm | N/A | N/A | 6.6250 ! | 0.0050 ! (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0050 ! | ppm | N/A | N/A | 4.5580 ! | 0.0050 ! (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0250 ! | ppm | N/A | N/A | 82.4500 ! | 0.0250 ! (ppm) | Y 371.029 |
| Sn (189.925 nm) | | ppm | N/A | N/A | 1.0700 ! | | Y 371.029 |
| Sr (421.552 nm) | 0.0050 ! | ppm | N/A | N/A | 1603.0000 ! | 0.0050 ! (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0050 ! | ppm | N/A | N/A | 415.8000 ! | 0.0050 ! (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0050 ! | ppm | N/A | N/A | 0.4268 ! | 0.0050 ! (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0050 ! | ppm | N/A | N/A | 170.1000 ! | 0.0050 ! (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0050 ! | ppm | N/A | N/A | 3.8200 ! | 0.0050 ! (ppm) | Y 371.029 |
| Zn (202.548 nm) | | ppm | N/A | N/A | 249.1000 ! | | Y 371.029 |
| Zr (343.823 nm) | 0.0050 ! | ppm | N/A | N/A | 106.3000 ! | 0.0050 ! (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9967 ! | 388800.0000 ! | 0.0050 | 0.50 |
| Y_R 371.029 | 1.0090 ! | 55150.0000 ! | 0.0022 | 0.22 |

Sample Name: STD2 4444439

Date: 10/25/2017 8:15:35 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0500 ! | ppm | N/A | N/A | 1710.0000 ! | 0.0500 ! (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.1000 ! | ppm | N/A | N/A | 1092.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1000 ! | ppm | N/A | N/A | 92.2000 ! | 0.1000 ! (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1000 ! | ppm | N/A | N/A | 1124.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1000 ! | ppm | N/A | N/A | 7588.0000 ! | 0.1000 ! (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.1000 ! | ppm | N/A | N/A | 16410.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.5000 ! | ppm | N/A | N/A | 1906.0000 ! | 0.5000 ! (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.1000 ! | ppm | N/A | N/A | 2631.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.1000 ! | ppm | N/A | N/A | 1377.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1000 ! | ppm | N/A | N/A | 624.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1000 ! | ppm | N/A | N/A | 3540.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.1000 ! | ppm | N/A | N/A | 422.1000 ! | 0.1000 ! (ppm) | Y_R 371.029 |
| K (766.491 nm) | 1.0000 ! | ppm | N/A | N/A | 853.4000 ! | 1.0000 ! (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1000 ! | ppm | N/A | N/A | 5928.0000 ! | 0.1000 ! (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.5000 ! | ppm | N/A | N/A | 1211.0000 ! | 0.5000 ! (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1000 ! | ppm | N/A | N/A | 9709.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.1000 ! | ppm | N/A | N/A | 544.6000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.0000 ! | ppm | N/A | N/A | 5713.0000 ! | 1.0000 ! (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1000 ! | ppm | N/A | N/A | 495.7000 ! | 0.1000 ! (ppm) | Y 371.029 |
| P (213.618 nm) | 0.1000 ! | ppm | N/A | N/A | 80.2800 ! | 0.1000 ! (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.1000 ! | ppm | N/A | N/A | 196.3000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.1000 ! | ppm | N/A | N/A | 112.5000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.1000 ! | ppm | N/A | N/A | 87.9400 ! | 0.1000 ! (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.5000 ! | ppm | N/A | N/A | 1153.0000 ! | 0.5000 ! (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.1000 ! | ppm | N/A | N/A | 82.8300 ! | 0.1000 ! (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1000 ! | ppm | N/A | N/A | 30700.0000 ! | 0.1000 ! (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.1000 ! | ppm | N/A | N/A | 10630.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.1000 ! | ppm | N/A | N/A | 159.7000 ! | 0.1000 ! (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1000 ! | ppm | N/A | N/A | 2638.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| W (207.912 nm) | 0.1000 ! | ppm | N/A | N/A | 210.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.1000 ! | ppm | N/A | N/A | 2550.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1000 ! | ppm | N/A | N/A | 6401.0000 ! | 0.1000 ! (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0020 ! | 391000.0000 ! | 0.0053 | 0.52 |
| Y_R 371.029 | 1.0130 ! | 55390.0000 ! | 0.0015 | 0.14 |

Sample Name: STD3 4444438

Date: 10/25/2017 8:17:40 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5000 ! | ppm | N/A | N/A | 16890.0000 ! | 0.5000 ! (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0000 ! | ppm | N/A | N/A | 21700.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0000 ! | ppm | N/A | N/A | 841.2000 ! | 1.0000 ! (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0000 ! | ppm | N/A | N/A | 11370.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0000 ! | ppm | N/A | N/A | 74950.0000 ! | 1.0000 ! (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0000 ! | ppm | N/A | N/A | 164800.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.0000 ! | ppm | N/A | N/A | 17790.0000 ! | 5.0000 ! (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0000 ! | ppm | N/A | N/A | 26060.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0000 ! | ppm | N/A | N/A | 13840.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0000 ! | ppm | N/A | N/A | 6150.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0000 ! | ppm | N/A | N/A | 34220.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0000 ! | ppm | N/A | N/A | 4273.0000 ! | 1.0000 ! (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.0000 ! | ppm | N/A | N/A | 10100.0000 ! | 10.0000 ! (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0000 ! | ppm | N/A | N/A | 57940.0000 ! | 1.0000 ! (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.0000 ! | ppm | N/A | N/A | 11780.0000 ! | 5.0000 ! (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0000 ! | ppm | N/A | N/A | 94280.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0000 ! | ppm | N/A | N/A | 5409.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.0000 ! | ppm | N/A | N/A | 51400.0000 ! | 10.0000 ! (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0000 ! | ppm | N/A | N/A | 4906.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0000 ! | ppm | N/A | N/A | 939.6000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0000 ! | ppm | N/A | N/A | 2015.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0000 ! | ppm | N/A | N/A | 1197.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0000 ! | ppm | N/A | N/A | 867.7000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.0000 ! | ppm | N/A | N/A | 11790.0000 ! | 5.0000 ! (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0000 ! | ppm | N/A | N/A | 842.8000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0000 ! | ppm | N/A | N/A | 304300.0000 ! | 1.0000 ! (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0000 ! | ppm | N/A | N/A | 108000.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0000 ! | ppm | N/A | N/A | 1620.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0000 ! | ppm | N/A | N/A | 26120.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0000 ! | ppm | N/A | N/A | 2160.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0000 ! | ppm | N/A | N/A | 24370.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0000 ! | ppm | N/A | N/A | 68880.0000 ! | 1.0000 ! (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9852 ! | 384300.0000 ! | 0.0065 | 0.66 |
| Y_R 371.029 | 0.9995 ! | 54640.0000 ! | 0.0040 | 0.40 |

Sample Name: ICV 4444441

Date: 10/25/2017 8:19:44 AM Rack:Tube: S1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4937 | ppm | 0.0007 | 0.15 | 16820.0000 | 0.4937 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0020 | ppm | 0.0003 | 0.03 | 22610.0000 | 1.0020 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0210 | ppm | 0.0011 | 0.11 | 848.7000 | 1.0210 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9783 | ppm | 0.0005 | 0.05 | 11010.0000 | 0.9783 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9961 | ppm | 0.0202 | 2.02 | 74650.0000 | 0.9961 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0100 | ppm | 0.0015 | 0.15 | 166400.0000 | 1.0100 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 1.0530 Q | ppm | 0.0018 | 0.17 | 3817.0000 Q | 1.0530 Q (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0040 | ppm | 0.0058 | 0.58 | 26180.0000 | 1.0040 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9922 | ppm | 0.0076 | 0.76 | 13760.0000 | 0.9922 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0120 | ppm | 0.0018 | 0.18 | 6221.0000 | 1.0120 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0500 | ppm | 0.0021 | 0.20 | 35920.0000 | 1.0500 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0100 | ppm | 0.0035 | 0.34 | 4311.0000 | 1.0100 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.9740 | ppm | 0.0542 | 0.54 | 10070.0000 | 9.9740 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0400 | ppm | 0.0090 | 0.86 | 59890.0000 | 1.0400 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 1.0080 | ppm | 0.0257 | 2.55 | 2382.0000 | 1.0080 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0290 | ppm | 0.0014 | 0.14 | 97620.0000 | 1.0290 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0110 | ppm | 0.0013 | 0.13 | 5473.0000 | 1.0110 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.1500 | ppm | 0.0740 | 0.73 | 52240.0000 | 10.1500 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0240 | ppm | 0.0035 | 0.34 | 5019.0000 | 1.0240 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0040 | ppm | 0.0001 | 0.01 | 886.3000 | 1.0040 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0070 | ppm | 0.0061 | 0.61 | 2026.0000 | 1.0070 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0040 | ppm | 0.0038 | 0.38 | 1191.0000 | 1.0040 (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0180 | ppm | 0.0002 | 0.02 | 891.0000 | 1.0180 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.7500 | ppm | 0.1227 | 2.58 | 11390.0000 | 4.7500 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0170 | ppm | 0.0048 | 0.47 | 857.5000 | 1.0170 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0240 | ppm | 0.0157 | 1.53 | 311700.0000 | 1.0240 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0090 | ppm | 0.0008 | 0.08 | 109000.0000 | 1.0090 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0110 | ppm | 0.0054 | 0.53 | 1595.0000 | 1.0110 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0030 | ppm | 0.0013 | 0.13 | 26010.0000 | 1.0030 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9813 | ppm | 0.0028 | 0.28 | 2138.0000 | 0.9813 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0130 | ppm | 0.0072 | 0.71 | 24860.0000 | 1.0130 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0010 | ppm | 0.0022 | 0.22 | 68880.0000 | 1.0010 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9826 | 383200.0000 | 0.0037 | 0.38 |
| Y_R 371.029 | 0.9998 | 54650.0000 | 0.0143 | 1.43 |

Sample Name: ICB 4444437

Date: 10/25/2017 8:23:56 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0002 u | ppm | 0.0004 | > 100.00 | 11.1300 | -0.0002 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0047 | ppm | 0.0001 | 1.25 | -1095.0000 | 0.0047 (ppm) | Y 371.029 |
| As (188.980 nm) | -0.0032 u | ppm | 0.0020 | 62.09 | 9.4960 | -0.0032 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0000 u | ppm | 0.0003 | > 100.00 | 11.5100 | 0.0000 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -11.8200 | 0.0000 u (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 56.38 | 2.0980 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0084 u | ppm | 0.0088 | > 100.00 | 61.9700 | -0.0084 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | -6.6410 | -0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0003 | ppm | 0.0002 | 74.11 | -22.6900 | 0.0003 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0005 | ppm | 0.0005 | > 100.00 | 2.9640 | 0.0005 (ppm) | Y 371.029 |
| Cu (324.754 nm) | -0.0001 u | ppm | 0.0002 | > 100.00 | 146.8000 | -0.0001 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0006 u | ppm | 0.0018 | > 100.00 | -1.4620 | 0.0006 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.0860 u | ppm | 0.0483 | 56.22 | -169.9000 | -0.0860 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0123 | ppm | 0.0012 | 9.89 | 738.8000 | 0.0123 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | -0.0003 u | ppm | 0.0012 | > 100.00 | 11.3100 | -0.0003 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0001 u | ppm | 0.0000 | 11.31 | 68.8700 | -0.0001 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0002 u | ppm | 0.0004 | > 100.00 | 7.9590 | 0.0002 u (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0225 u | ppm | 0.0061 | 27.16 | 480.7000 | -0.0225 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0002 u | ppm | 0.0005 | > 100.00 | -0.9090 | -0.0002 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0043 | ppm | 0.0058 | > 100.00 | -8.0680 | 0.0043 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0007 | ppm | 0.0005 | 63.63 | -4.8440 | 0.0007 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0018 u | ppm | 0.0033 | > 100.00 | 3.2320 | 0.0018 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0009 u | ppm | 0.0001 | 10.02 | -0.3444 | -0.0009 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0026 | ppm | 0.0001 | 3.14 | 39.7100 | 0.0026 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0022 u | ppm | 0.0017 | 77.50 | -3.2780 | -0.0022 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0001 | ppm | 0.0000 | 11.32 | -8.0150 | 0.0001 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0002 | 88.71 | -92.2400 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0021 u | ppm | 0.0007 | 34.94 | -8.3460 | -0.0021 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0002 u | ppm | 0.0000 | 23.13 | 44.3900 | -0.0002 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0023 | ppm | 0.0007 | 32.73 | -4.9110 | 0.0023 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0003 u | ppm | 0.0000 | 18.80 | 113.3000 | -0.0003 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | -32.0600 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9876 | 385200.0000 | 0.0059 | 0.59 |
| Y_R 371.029 | 1.0110 | 55270.0000 | 0.0023 | 0.23 |

Sample Name: ICSA 4444442

Date: 10/25/2017 8:26:01 AM Rack:Tube: S1:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0005 u | ppm | 0.0004 | 81.26 | -226.1000 | -0.0005 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 568.3000 o | ppm | 1.1970 | 0.21 | 13010000.0000 | 568.3000 o (ppm) | Y 371.029 |
| As (188.980 nm) | -0.0121 u | ppm | 0.0018 | 14.97 | 15.7900 | -0.0121 u (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0108 u | ppm | 0.0018 | 16.88 | -626.1000 | -0.0108 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0031 | ppm | 0.0002 | 6.29 | 315.4000 | 0.0031 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0004 u | ppm | 0.0003 | 70.90 | 11220.0000 | -0.0004 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 586.4000 o | ppm | 1.4450 | 0.25 | 2076000.0000 | 586.4000 o (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0039 | ppm | 0.0004 | 11.09 | 242.0000 | 0.0039 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0019 u | ppm | 0.0001 | 2.67 | 23.1000 | -0.0019 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0000 u | ppm | 0.0005 | > 100.00 | 28.4300 | 0.0000 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | -0.0057 u | ppm | 0.0008 | 13.15 | 34.2300 | -0.0057 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | 527.9000 | ppm | 3.2210 | 0.61 | 2258000.0000 | 527.9000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.1567 u | ppm | 0.0242 | 15.44 | 120.8000 | -0.1567 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | -0.0548 u | ppm | 0.0030 | 5.46 | 1153.0000 | -0.0548 u (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 519.9000 | ppm | 2.7970 | 0.54 | 1224000.0000 | 519.9000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0005 u | ppm | 0.0008 | > 100.00 | 69650.0000 | 0.0005 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0007 | ppm | 0.0005 | 79.76 | 108.3000 | 0.0007 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.3310 | ppm | 0.0022 | 0.66 | 2611.0000 | 0.3310 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0030 | ppm | 0.0011 | 35.39 | 14.6900 | 0.0030 (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0056 u | ppm | 0.0003 | 5.95 | -28.4900 | -0.0056 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0018 u | ppm | 0.0011 | 63.77 | -58.3000 | -0.0018 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0045 u | ppm | 0.0093 | > 100.00 | 6.7130 | -0.0045 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0015 u | ppm | 0.0045 | > 100.00 | -106.5000 | -0.0015 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0210 u | ppm | 0.0031 | 14.55 | 42.9800 | -0.0210 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0144 u | ppm | 0.0033 | 23.04 | -11.9500 | -0.0144 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0158 u | ppm | 0.0000 | 0.29 | 842.6000 | -0.0158 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0013 | ppm | 0.0000 | 0.43 | -436.3000 | 0.0013 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0034 u | ppm | 0.0051 | > 100.00 | 7.7960 | 0.0034 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0049 u | ppm | 0.0004 | 8.85 | 612.7000 | -0.0049 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0013 | ppm | 0.0006 | 47.94 | -35.1500 | 0.0013 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0183 u | ppm | 0.0001 | 0.58 | 73.9800 | -0.0183 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0019 | ppm | 0.0001 | 5.99 | 590.9000 | 0.0019 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8548 | 333400.0000 | 0.0019 | 0.22 |
| Y_R 371.029 | 0.9302 | 50850.0000 | 0.0033 | 0.35 |

Sample Name: ICSAB 4444443

Date: 10/25/2017 8:28:05 AM Rack:Tube: S1:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2667 | ppm | 0.0001 | 0.02 | 8858.0000 | 0.2667 (ppm) | Y 371.029 |
| Al (396.152 nm) | 568.4000 o | ppm | 1.0760 | 0.19 | 13020000.0000 | 568.4000 o (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4745 | ppm | 0.0007 | 0.16 | 414.6000 | 0.4745 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4785 | ppm | 0.0049 | 1.03 | 4880.0000 | 0.4785 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4443 | ppm | 0.0054 | 1.22 | 33380.0000 | 0.4443 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.5001 | ppm | 0.0013 | 0.26 | 93680.0000 | 0.5001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 587.6000 o | ppm | 3.7170 | 0.63 | 2081000.0000 | 587.6000 o (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4327 | ppm | 0.0008 | 0.18 | 11420.0000 | 0.4327 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4233 | ppm | 0.0020 | 0.47 | 5933.0000 | 0.4233 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4636 | ppm | 0.0007 | 0.16 | 2879.0000 | 0.4636 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.5197 | ppm | 0.0005 | 0.09 | 17940.0000 | 0.5197 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 529.2000 | ppm | 1.3920 | 0.26 | 2263000.0000 | 529.2000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.7400 | ppm | 0.1463 | 1.36 | 11210.0000 | 10.7400 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4780 | ppm | 0.0068 | 1.43 | 31850.0000 | 0.4780 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 525.3000 | ppm | 6.2510 | 1.19 | 1237000.0000 | 525.3000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4594 | ppm | 0.0032 | 0.71 | 113100.0000 | 0.4594 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4776 | ppm | 0.0006 | 0.12 | 2685.0000 | 0.4776 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.4000 | ppm | 0.0250 | 0.24 | 53790.0000 | 10.4000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4281 | ppm | 0.0015 | 0.34 | 2099.0000 | 0.4281 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.4649 | ppm | 0.0016 | 0.34 | 391.3000 | 0.4649 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4371 | ppm | 0.0041 | 0.94 | 827.5000 | 0.4371 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.4766 | ppm | 0.0109 | 2.29 | 576.5000 | 0.4766 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.4532 | ppm | 0.0098 | 2.17 | 291.5000 | 0.4532 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.2920 | ppm | 0.0108 | 0.47 | 5571.0000 | 2.2920 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4319 | ppm | 0.0014 | 0.32 | 365.1000 | 0.4319 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.4749 | ppm | 0.0047 | 0.99 | 150200.0000 | 0.4749 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.4982 | ppm | 0.0004 | 0.09 | 53270.0000 | 0.4982 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4319 | ppm | 0.0009 | 0.20 | 682.7000 | 0.4319 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4790 | ppm | 0.0008 | 0.16 | 13130.0000 | 0.4790 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.4632 | ppm | 0.0011 | 0.24 | 974.9000 | 0.4632 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.3973 G | ppm | 0.0010 | 0.26 | 10240.0000 G | 0.3973 G (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.4696 | ppm | 0.0004 | 0.09 | 32800.0000 | 0.4696 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8556 | 333700.0000 | 0.0019 | 0.22 |
| Y_R 371.029 | 0.9259 | 50620.0000 | 0.0103 | 1.11 |

Sample Name: ICSAB 4444443

Date: 10/25/2017 8:43:08 AM Rack:Tube: S1:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2787 | ppm | 0.0001 | 0.04 | 9253.0000 | 0.2787 (ppm) | Y 371.029 |
| Al (396.152 nm) | 590.7000 o | ppm | 0.5515 | 0.09 | 13530000.0000 | 590.7000 o (ppm) | Y 371.029 |
| As (188.980 nm) | 0.5033 | ppm | 0.0118 | 2.34 | 438.8000 | 0.5033 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.5086 | ppm | 0.0038 | 0.74 | 5197.0000 | 0.5086 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4610 | ppm | 0.0075 | 1.63 | 34640.0000 | 0.4610 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.5286 | ppm | 0.0027 | 0.51 | 98900.0000 | 0.5286 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 615.5000 o | ppm | 11.1000 | 1.80 | 2180000.0000 | 615.5000 o (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4504 | ppm | 0.0010 | 0.23 | 11890.0000 | 0.4504 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4474 | ppm | 0.0019 | 0.42 | 6272.0000 | 0.4474 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4858 | ppm | 0.0026 | 0.53 | 3017.0000 | 0.4858 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.5468 | ppm | 0.0013 | 0.23 | 18870.0000 | 0.5468 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 551.1000 o | ppm | 6.5380 | 1.19 | 2357000.0000 | 551.1000 o (ppm) | Y_R 371.029 |
| K (766.491 nm) | 11.0400 | ppm | 0.0715 | 0.65 | 11530.0000 | 11.0400 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.5039 | ppm | 0.0056 | 1.12 | 33540.0000 | 0.5039 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 549.9000 o | ppm | 7.9560 | 1.45 | 1295000.0000 | 549.9000 o (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4797 | ppm | 0.0021 | 0.44 | 118300.0000 | 0.4797 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4989 | ppm | 0.0015 | 0.29 | 2805.0000 | 0.4989 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.8700 | ppm | 0.1248 | 1.15 | 56210.0000 | 10.8700 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4499 | ppm | 0.0008 | 0.19 | 2206.0000 | 0.4499 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.4999 | ppm | 0.0100 | 1.99 | 422.7000 | 0.4999 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4536 | ppm | 0.0017 | 0.36 | 858.9000 | 0.4536 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.5105 | ppm | 0.0027 | 0.53 | 617.2000 | 0.5105 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.4820 | ppm | 0.0096 | 1.99 | 311.6000 | 0.4820 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.3960 | ppm | 0.0080 | 0.33 | 5823.0000 | 2.3960 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4532 | ppm | 0.0000 | 0.01 | 383.1000 | 0.4532 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.4946 | ppm | 0.0005 | 0.09 | 156500.0000 | 0.4946 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.5204 | ppm | 0.0009 | 0.17 | 55640.0000 | 0.5204 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4515 | ppm | 0.0047 | 1.04 | 714.1000 | 0.4515 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4981 | ppm | 0.0007 | 0.13 | 13660.0000 | 0.4981 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.4808 | ppm | 0.0045 | 0.94 | 1012.0000 | 0.4808 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4098 | ppm | 0.0012 | 0.29 | 10570.0000 | 0.4098 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.4904 | ppm | 0.0025 | 0.52 | 34260.0000 | 0.4904 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8630 | 336600.0000 | 0.0051 | 0.59 |
| Y_R 371.029 | 0.9388 | 51320.0000 | 0.0117 | 1.25 |

Sample Name: XICIS 4444446

Date: 10/25/2017 8:47:10 AM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0006 u | ppm | 0.0002 | 35.19 | -2.3260 | -0.0006 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0269 | ppm | 0.0058 | 21.52 | -583.6000 | 0.0269 (ppm) | Y 371.029 |
| As (188.980 nm) | -0.0033 u | ppm | 0.0041 | > 100.00 | 9.4220 | -0.0033 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0007 | ppm | 0.0003 | 46.50 | 19.7500 | 0.0007 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0000 | 24.11 | 4.5860 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | > 100.00 | 6.8990 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0356 | ppm | 0.0068 | 19.00 | 217.6000 | 0.0356 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0000 | 0.58 | -1.4670 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0003 | ppm | 0.0001 | 24.64 | -21.5800 | 0.0003 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0001 | 32.29 | 2.4810 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0007 | ppm | 0.0000 | 6.58 | 175.3000 | 0.0007 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0081 | ppm | 0.0019 | 23.89 | 30.6600 | 0.0081 (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.0812 u | ppm | 0.0610 | 75.10 | -165.1000 | -0.0812 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0124 | ppm | 0.0017 | 13.88 | 742.8000 | 0.0124 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0113 | ppm | 0.0034 | 29.80 | 38.5600 | 0.0113 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | 81.1600 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0004 | ppm | 0.0003 | 81.76 | 8.8540 | 0.0004 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0785 | ppm | 0.0011 | 1.43 | 993.8000 | 0.0785 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0000 u | ppm | 0.0010 | > 100.00 | 0.1198 | 0.0000 u (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0007 u | ppm | 0.0005 | 68.30 | -12.8700 | -0.0007 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0001 u | ppm | 0.0000 | 15.77 | -6.5240 | -0.0001 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0012 u | ppm | 0.0006 | 51.43 | -0.3809 | -0.0012 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0023 u | ppm | 0.0018 | 79.68 | -1.5710 | -0.0023 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0013 | ppm | 0.0013 | 99.59 | 36.3300 | 0.0013 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0020 u | ppm | 0.0010 | 52.00 | -3.0860 | -0.0020 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0008 | ppm | 0.0001 | 14.93 | 211.0000 | 0.0008 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0003 | ppm | 0.0001 | 26.71 | -81.6000 | 0.0003 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0007 u | ppm | 0.0004 | 60.48 | -6.0590 | -0.0007 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0002 | ppm | 0.0001 | 64.11 | 53.7600 | 0.0002 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0014 | ppm | 0.0012 | 83.79 | -6.7460 | 0.0014 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0009 | ppm | 0.0001 | 14.29 | 141.4000 | 0.0009 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0001 | 52.30 | -27.0400 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9980 | 389200.0000 | 0.0062 | 0.63 |
| Y_R 371.029 | 1.0260 | 56110.0000 | 0.0092 | 0.89 |

Sample Name: RINSE 4444447

Date: 10/25/2017 8:49:15 AM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0007 u | ppm | 0.0001 | 15.64 | -4.8430 | -0.0007 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0201 | ppm | 0.0010 | 5.16 | -741.1000 | 0.0201 (ppm) | Y 371.029 |
| As (188.980 nm) | -0.0024 u | ppm | 0.0017 | 74.06 | 10.2300 | -0.0024 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0007 | ppm | 0.0000 | 2.37 | 19.3200 | 0.0007 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0000 | 35.59 | -0.6342 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 1.7480 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0315 | ppm | 0.0046 | 14.65 | 203.1000 | 0.0315 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -4.1120 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0004 | ppm | 0.0000 | 8.56 | -21.4000 | 0.0004 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0005 | ppm | 0.0004 | 72.19 | 3.4100 | 0.0005 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0013 | ppm | 0.0003 | 23.18 | 193.9000 | 0.0013 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0066 | ppm | 0.0011 | 15.95 | 24.3700 | 0.0066 (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.0068 u | ppm | 0.0380 | > 100.00 | -89.3500 | -0.0068 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0127 | ppm | 0.0018 | 14.38 | 759.0000 | 0.0127 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0086 | ppm | 0.0007 | 8.64 | 32.2900 | 0.0086 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0000 | 28.06 | 90.4100 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0005 u | ppm | 0.0009 | > 100.00 | 4.0170 | -0.0005 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0778 | ppm | 0.0000 | 0.05 | 990.0000 | 0.0778 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0002 u | ppm | 0.0003 | > 100.00 | -0.9277 | -0.0002 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0004 u | ppm | 0.0056 | > 100.00 | -11.8300 | 0.0004 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0006 u | ppm | 0.0001 | 11.14 | -7.5020 | -0.0006 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0027 u | ppm | 0.0053 | > 100.00 | 4.3100 | 0.0027 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0014 | ppm | 0.0014 | 98.83 | 1.6140 | 0.0014 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0027 | ppm | 0.0001 | 4.60 | 39.6800 | 0.0027 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0008 | ppm | 0.0011 | > 100.00 | -0.7435 | 0.0008 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0007 | ppm | 0.0002 | 35.20 | 176.8000 | 0.0007 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0005 | ppm | 0.0003 | 63.90 | -64.8400 | 0.0005 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0003 | ppm | 0.0004 | > 100.00 | -4.4050 | 0.0003 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0001 u | ppm | 0.0003 | > 100.00 | 48.0000 | -0.0001 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0022 | ppm | 0.0004 | 17.05 | -5.1190 | 0.0022 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0009 | ppm | 0.0000 | 1.33 | 140.8000 | 0.0009 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 7.55 | -27.0800 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9951 | 388100.0000 | 0.0032 | 0.32 |
| Y_R 371.029 | 1.0200 | 55730.0000 | 0.0025 | 0.24 |

Sample Name: XCRI 4444444

Date: 10/25/2017 8:51:19 AM Rack:Tube: S1:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0092 | ppm | 0.0002 | 1.93 | 343.4000 | 0.0092 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0536 | ppm | 0.0009 | 1.75 | 60.8900 | 0.0536 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0037 R | ppm | 0.0012 | 32.67 | 15.2600 R | 0.0037 R (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0463 | ppm | 0.0002 | 0.35 | 525.7000 | 0.0463 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0096 | ppm | 0.0001 | 1.40 | 712.3000 | 0.0096 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0019 | ppm | 0.0000 | 1.83 | 313.3000 | 0.0019 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.1190 | ppm | 0.0079 | 6.67 | 512.8000 | 0.1190 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0049 | ppm | 0.0002 | 3.97 | 122.7000 | 0.0049 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0094 | ppm | 0.0004 | 4.46 | 104.9000 | 0.0094 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0054 | ppm | 0.0004 | 7.92 | 33.4100 | 0.0054 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0111 | ppm | 0.0000 | 0.29 | 530.6000 | 0.0111 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0396 | ppm | 0.0039 | 9.88 | 165.7000 | 0.0396 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.3028 | ppm | 0.0406 | 13.40 | 226.0000 | 0.3028 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0601 | ppm | 0.0000 | 0.06 | 3494.0000 | 0.0601 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0198 | ppm | 0.0004 | 1.99 | 58.5300 | 0.0198 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0197 | ppm | 0.0001 | 0.60 | 1955.0000 | 0.0197 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0176 | ppm | 0.0002 | 1.06 | 101.7000 | 0.0176 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.5377 | ppm | 0.0098 | 1.83 | 3330.0000 | 0.5377 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0097 | ppm | 0.0003 | 3.06 | 47.4400 | 0.0097 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0385 | ppm | 0.0050 | 12.96 | 23.6900 | 0.0385 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0044 | ppm | 0.0012 | 27.25 | 2.4880 | 0.0044 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0128 | ppm | 0.0016 | 12.50 | 15.9900 | 0.0128 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0040 R | ppm | 0.0020 | 48.92 | 4.6750 R | 0.0040 R (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0394 | ppm | 0.0019 | 4.81 | 141.0000 | 0.0394 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0917 | ppm | 0.0000 | 0.01 | 76.0800 | 0.0917 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0200 | ppm | 0.0000 | 0.03 | 6067.0000 | 0.0200 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0047 | ppm | 0.0001 | 2.16 | 400.8000 | 0.0047 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0093 | ppm | 0.0010 | 11.01 | 9.9300 | 0.0093 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0096 | ppm | 0.0002 | 1.71 | 295.9000 | 0.0096 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0943 | ppm | 0.0019 | 1.99 | 195.2000 | 0.0943 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0187 | ppm | 0.0003 | 1.56 | 575.4000 | 0.0187 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1023 | ppm | 0.0000 | 0.04 | 7010.0000 | 0.1023 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9974 | 389000.0000 | 0.0053 | 0.53 |
| Y_R 371.029 | 1.0250 | 56040.0000 | 0.0086 | 0.84 |

Sample Name: CRI 4444445

Date: 10/25/2017 8:53:23 AM Rack:Tube: S1:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0198 | ppm | 0.0002 | 1.00 | 715.3000 | 0.0198 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.1009 | ppm | 0.0001 | 0.11 | 1180.0000 | 0.1009 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0127 | ppm | 0.0025 | 19.62 | 22.7300 | 0.0127 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0943 | ppm | 0.0000 | 0.01 | 1059.0000 | 0.0943 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0190 | ppm | 0.0003 | 1.47 | 1411.0000 | 0.0190 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0039 | ppm | 0.0000 | 1.05 | 642.7000 | 0.0039 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.2072 | ppm | 0.0093 | 4.48 | 824.7000 | 0.2072 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0098 | ppm | 0.0000 | 0.23 | 250.3000 | 0.0098 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0193 | ppm | 0.0006 | 3.31 | 241.2000 | 0.0193 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0102 | ppm | 0.0000 | 0.21 | 63.3000 | 0.0102 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0209 | ppm | 0.0002 | 0.89 | 861.7000 | 0.0209 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0785 | ppm | 0.0024 | 3.05 | 331.9000 | 0.0785 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.8790 | ppm | 0.0274 | 3.12 | 812.7000 | 0.8790 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1113 | ppm | 0.0009 | 0.85 | 6443.0000 | 0.1113 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0361 | ppm | 0.0018 | 5.07 | 96.6100 | 0.0361 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0400 | ppm | 0.0002 | 0.52 | 3883.0000 | 0.0400 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0387 | ppm | 0.0007 | 1.68 | 215.9000 | 0.0387 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.0080 | ppm | 0.0102 | 1.01 | 5723.0000 | 1.0080 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0198 | ppm | 0.0012 | 6.12 | 96.8300 | 0.0198 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0753 | ppm | 0.0024 | 3.20 | 57.8500 | 0.0753 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0108 | ppm | 0.0021 | 19.30 | 15.4200 | 0.0108 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0203 | ppm | 0.0043 | 20.92 | 24.5400 | 0.0203 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0191 | ppm | 0.0014 | 7.60 | 18.5100 | 0.0191 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0830 | ppm | 0.0072 | 8.69 | 258.6000 | 0.0830 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.1878 | ppm | 0.0014 | 0.73 | 157.2000 | 0.1878 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0400 | ppm | 0.0000 | 0.04 | 12140.0000 | 0.0400 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0097 | ppm | 0.0000 | 0.16 | 948.5000 | 0.0097 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0193 | ppm | 0.0014 | 7.27 | 25.9200 | 0.0193 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0194 | ppm | 0.0001 | 0.41 | 547.2000 | 0.0194 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.1910 | ppm | 0.0014 | 0.76 | 405.4000 | 0.1910 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0374 | ppm | 0.0000 | 0.08 | 1031.0000 | 0.0374 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1971 | ppm | 0.0009 | 0.48 | 13540.0000 | 0.1971 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9958 | 388400.0000 | 0.0033 | 0.34 |
| Y_R 371.029 | 1.0360 | 56640.0000 | 0.0056 | 0.54 |

Sample Name: MB 440-437059/1-A@5

Date: 10/25/2017 9:03:33 AM Rack:Tube: 1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0004 u | ppm | 0.0003 | 71.64 | 2.7820 | -0.0004 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0188 | ppm | 0.0001 | 0.28 | -771.8000 | 0.0188 (ppm) | Y 371.029 |
| As (188.980 nm) | -0.0035 u | ppm | 0.0014 | 39.75 | 9.3130 | -0.0035 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0007 | ppm | 0.0000 | 6.65 | 19.5200 | 0.0007 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0003 | ppm | 0.0001 | 29.13 | 13.3700 | 0.0003 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 30.34 | -7.6610 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0421 | ppm | 0.0063 | 14.91 | 240.8000 | 0.0421 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 | ppm | 0.0000 | 0.92 | -3.8460 | 0.0000 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0005 | ppm | 0.0004 | 73.83 | -19.2000 | 0.0005 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0010 | ppm | 0.0002 | 21.32 | 6.0830 | 0.0010 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0033 | ppm | 0.0001 | 2.54 | 262.7000 | 0.0033 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0325 | ppm | 0.0012 | 3.69 | 135.1000 | 0.0325 (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.1940 u | ppm | 0.0054 | 2.77 | -279.8000 | -0.1940 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0143 | ppm | 0.0008 | 5.73 | 853.5000 | 0.0143 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0064 | ppm | 0.0010 | 15.28 | 27.0700 | 0.0064 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0006 | ppm | 0.0000 | 5.53 | 139.3000 | 0.0006 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0006 u | ppm | 0.0004 | 63.55 | 3.3970 | -0.0006 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0819 | ppm | 0.0065 | 8.00 | 1011.0000 | 0.0819 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0012 | ppm | 0.0001 | 8.29 | 5.9890 | 0.0012 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0031 | ppm | 0.0015 | 49.36 | -9.2700 | 0.0031 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0004 u | ppm | 0.0013 | > 100.00 | -7.0360 | -0.0004 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0014 u | ppm | 0.0078 | > 100.00 | -0.5676 | -0.0014 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0024 u | ppm | 0.0022 | 88.22 | -1.7150 | -0.0024 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0159 | ppm | 0.0014 | 8.71 | 70.7900 | 0.0159 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0035 | ppm | 0.0017 | 48.09 | 1.5660 | 0.0035 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0004 | ppm | 0.0001 | 25.64 | 92.9200 | 0.0004 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0000 | 28.55 | -103.1000 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0028 u | ppm | 0.0018 | 64.55 | -9.5050 | -0.0028 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0004 u | ppm | 0.0002 | 38.41 | 39.4800 | -0.0004 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0019 | ppm | 0.0026 | > 100.00 | -5.7190 | 0.0019 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | 121.3000 | 0.0001 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0006 | ppm | 0.0001 | 12.02 | 7.0850 | 0.0006 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0070 | 392700.0000 | 0.0009 | 0.09 |
| Y_R 371.029 | 1.0330 | 56450.0000 | 0.0076 | 0.74 |

Sample Name: LCS 440-437059/2-A@5

Date: 10/25/2017 9:05:38 AM Rack:Tube: 1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1870 | ppm | 0.0001 | 0.03 | 6331.0000 | 0.1870 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.3843 | ppm | 0.0010 | 0.27 | 7831.0000 | 0.3843 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.3683 | ppm | 0.0004 | 0.12 | 313.5000 | 0.3683 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.3636 | ppm | 0.0006 | 0.16 | 4144.0000 | 0.3636 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.3569 | ppm | 0.0016 | 0.46 | 26730.0000 | 0.3569 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3666 | ppm | 0.0001 | 0.02 | 60420.0000 | 0.3666 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.4220 | ppm | 0.0022 | 0.52 | 1586.0000 | 0.4220 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3605 | ppm | 0.0008 | 0.22 | 9393.0000 | 0.3605 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.3643 | ppm | 0.0019 | 0.52 | 5034.0000 | 0.3643 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.3707 | ppm | 0.0005 | 0.14 | 2278.0000 | 0.3707 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.3991 | ppm | 0.0001 | 0.01 | 13750.0000 | 0.3991 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.4067 | ppm | 0.0060 | 1.48 | 1734.0000 | 0.4067 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 3.6180 | ppm | 0.0359 | 0.99 | 3601.0000 | 3.6180 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3973 | ppm | 0.0033 | 0.83 | 22920.0000 | 0.3973 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.3642 | ppm | 0.0022 | 0.60 | 868.7000 | 0.3642 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.3813 | ppm | 0.0001 | 0.02 | 36230.0000 | 0.3813 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.3688 | ppm | 0.0002 | 0.05 | 1999.0000 | 0.3688 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.8770 | ppm | 0.0069 | 0.18 | 20300.0000 | 3.8770 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.3732 | ppm | 0.0005 | 0.13 | 1830.0000 | 0.3732 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.3678 | ppm | 0.0040 | 1.10 | 316.7000 | 0.3678 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.3690 | ppm | 0.0003 | 0.09 | 738.5000 | 0.3690 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.3641 | ppm | 0.0057 | 1.56 | 432.5000 | 0.3641 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3546 | ppm | 0.0012 | 0.35 | 307.6000 | 0.3546 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.6210 | ppm | 0.0019 | 0.30 | 1510.0000 | 0.6210 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.3666 | ppm | 0.0014 | 0.39 | 308.1000 | 0.3666 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.3783 | ppm | 0.0051 | 1.36 | 115100.0000 | 0.3783 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.3729 | ppm | 0.0001 | 0.04 | 40160.0000 | 0.3729 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3636 | ppm | 0.0013 | 0.36 | 570.1000 | 0.3636 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3627 | ppm | 0.0005 | 0.15 | 9432.0000 | 0.3627 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0012 | ppm | 0.0009 | 71.87 | -0.6831 | 0.0012 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.3595 | ppm | 0.0002 | 0.05 | 8897.0000 | 0.3595 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0090 | ppm | 0.0009 | 9.71 | 581.0000 | 0.0090 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9973 | 389000.0000 | 0.0013 | 0.13 |
| Y_R 371.029 | 1.0400 | 56840.0000 | 0.0058 | 0.55 |

Sample Name: 440-194816-A-1-A@50

Date: 10/25/2017 9:07:42 AM Rack:Tube: 1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0043 | ppm | 0.0002 | 4.73 | 146.2000 | 0.0043 (ppm) | Y 371.029 |
| Al (396.152 nm) | 5.6340 | ppm | 0.0150 | 0.27 | 128500.0000 | 5.6340 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0007 u | ppm | 0.0042 | > 100.00 | -33.8000 | 0.0007 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0670 | ppm | 0.0012 | 1.84 | 754.9000 | 0.0670 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0619 | ppm | 0.0005 | 0.86 | 4612.0000 | 0.0619 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0002 | ppm | 0.0000 | 20.32 | 1233.0000 | 0.0002 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 12.4200 | ppm | 0.1166 | 0.94 | 44060.0000 | 12.4200 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0003 | ppm | 0.0002 | 57.23 | 19.4100 | 0.0003 (ppm) | Y 371.029 |
| Co (228.615 nm) | 2.5810 | ppm | 0.0074 | 0.29 | 35820.0000 | 2.5810 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 4.6390 | ppm | 0.0088 | 0.19 | 28500.0000 | 4.6390 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.3772 | ppm | 0.0009 | 0.24 | 13060.0000 | 0.3772 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 58.2000 | ppm | 0.4415 | 0.76 | 248900.0000 | 58.2000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 1.3290 | ppm | 0.0981 | 7.38 | 1315.0000 | 1.3290 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0321 | ppm | 0.0001 | 0.29 | 1467.0000 | 0.0321 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 2.4540 | ppm | 0.0266 | 1.08 | 5753.0000 | 2.4540 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.6194 | ppm | 0.0015 | 0.24 | 66440.0000 | 0.6194 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.1370 | ppm | 0.0011 | 0.09 | 6158.0000 | 1.1370 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.5426 | ppm | 0.0161 | 2.97 | 3428.0000 | 0.5426 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 15.0700 | ppm | 0.0139 | 0.09 | 73940.0000 | 15.0700 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.2573 | ppm | 0.0022 | 0.86 | 198.1000 | 0.2573 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0056 | ppm | 0.0005 | 9.34 | -2.5180 | 0.0056 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0188 | ppm | 0.0010 | 5.12 | 54.1100 | 0.0188 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0062 | ppm | 0.0004 | 6.21 | -9.3120 | 0.0062 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0825 | ppm | 0.0011 | 1.29 | 277.3000 | 0.0825 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0045 | ppm | 0.0009 | 20.33 | 3.1080 | 0.0045 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0402 | ppm | 0.0005 | 1.23 | 12360.0000 | 0.0402 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9293 | ppm | 0.0013 | 0.14 | 100200.0000 | 0.9293 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0030 u | ppm | 0.0030 | 98.10 | -9.7850 | -0.0030 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0669 | ppm | 0.0001 | 0.13 | 1595.0000 | 0.0669 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0462 | ppm | 0.0007 | 1.60 | 91.4100 | 0.0462 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.1617 | ppm | 0.0001 | 0.06 | 3913.0000 | 0.1617 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0133 | ppm | 0.0012 | 8.84 | 902.2000 | 0.0133 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9951 | 388100.0000 | 0.0019 | 0.19 |
| Y_R 371.029 | 1.0410 | 56880.0000 | 0.0105 | 1.01 |

Sample Name: 440-194816-A-1-B MS@50

Date: 10/25/2017 9:11:25 AM Rack:Tube: 1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0225 | ppm | 0.0004 | 1.57 | 760.6000 | 0.0225 (ppm) | Y 371.029 |
| Al (396.152 nm) | 8.2650 | ppm | 0.0319 | 0.39 | 188800.0000 | 8.2650 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0315 | ppm | 0.0047 | 14.93 | -5.5920 | 0.0315 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1211 | ppm | 0.0005 | 0.44 | 1361.0000 | 0.1211 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0928 | ppm | 0.0005 | 0.56 | 6926.0000 | 0.0928 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0338 | ppm | 0.0007 | 1.93 | 6925.0000 | 0.0338 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 11.4000 | ppm | 0.0371 | 0.33 | 40420.0000 | 11.4000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0331 | ppm | 0.0004 | 1.36 | 877.1000 | 0.0331 (ppm) | Y 371.029 |
| Co (228.615 nm) | 2.6840 | ppm | 0.0071 | 0.27 | 37260.0000 | 2.6840 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 4.3920 | ppm | 0.0131 | 0.30 | 26990.0000 | 4.3920 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.6340 | ppm | 0.0002 | 0.03 | 21820.0000 | 0.6340 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 65.7400 | ppm | 0.1458 | 0.22 | 281100.0000 | 65.7400 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 1.6000 | ppm | 0.1062 | 6.64 | 1592.0000 | 1.6000 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0671 | ppm | 0.0016 | 2.36 | 3479.0000 | 0.0671 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 2.3840 | ppm | 0.0210 | 0.88 | 5586.0000 | 2.3840 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.6636 | ppm | 0.0024 | 0.36 | 71590.0000 | 0.6636 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.1870 | ppm | 0.0034 | 0.28 | 6432.0000 | 1.1870 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.9057 | ppm | 0.0049 | 0.54 | 5275.0000 | 0.9057 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 14.8600 | ppm | 0.0438 | 0.29 | 72900.0000 | 14.8600 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.2978 | ppm | 0.0097 | 3.27 | 226.7000 | 0.2978 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0406 | ppm | 0.0013 | 3.24 | 67.3700 | 0.0406 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0387 | ppm | 0.0016 | 4.16 | 73.9100 | 0.0387 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0383 | ppm | 0.0005 | 1.35 | 17.1700 | 0.0383 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.1182 | ppm | 0.0013 | 1.07 | 364.7000 | 0.1182 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0335 | ppm | 0.0032 | 9.53 | 27.5900 | 0.0335 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0768 | ppm | 0.0001 | 0.10 | 23470.0000 | 0.0768 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0640 | ppm | 0.0036 | 0.33 | 114700.0000 | 1.0640 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0292 | ppm | 0.0016 | 5.36 | 39.5000 | 0.0292 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1114 | ppm | 0.0001 | 0.06 | 2745.0000 | 0.1114 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0548 | ppm | 0.0017 | 3.04 | 111.0000 | 0.0548 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2246 | ppm | 0.0008 | 0.36 | 5496.0000 | 0.2246 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0378 | ppm | 0.0002 | 0.65 | 2589.0000 | 0.0378 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9976 | 389100.0000 | 0.0050 | 0.50 |
| Y_R 371.029 | 1.0330 | 56480.0000 | 0.0109 | 1.06 |

Sample Name: 440-194816-A-1-C MSD@50

Date: 10/25/2017 9:13:29 AM Rack:Tube: 1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0306 | ppm | 0.0000 | 0.12 | 1030.0000 | 0.0306 (ppm) | Y 371.029 |
| Al (396.152 nm) | 5.6850 | ppm | 0.0244 | 0.43 | 129600.0000 | 5.6850 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0314 | ppm | 0.0029 | 9.22 | -2.3790 | 0.0314 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1128 | ppm | 0.0045 | 4.00 | 1244.0000 | 0.1128 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0817 | ppm | 0.0002 | 0.20 | 6099.0000 | 0.0817 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0324 | ppm | 0.0000 | 0.12 | 7138.0000 | 0.0324 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 9.7210 | ppm | 0.0109 | 0.11 | 34490.0000 | 9.7210 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0320 | ppm | 0.0002 | 0.49 | 855.4000 | 0.0320 (ppm) | Y 371.029 |
| Co (228.615 nm) | 2.4400 | ppm | 0.0100 | 0.41 | 33870.0000 | 2.4400 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 4.0880 | ppm | 0.0072 | 0.18 | 25120.0000 | 4.0880 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.7814 | ppm | 0.0024 | 0.31 | 26850.0000 | 0.7814 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 86.7200 | ppm | 0.2976 | 0.34 | 370900.0000 | 86.7200 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 1.4170 | ppm | 0.1460 | 10.30 | 1407.0000 | 1.4170 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0620 | ppm | 0.0032 | 5.15 | 3201.0000 | 0.0620 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 2.1080 | ppm | 0.0083 | 0.39 | 4927.0000 | 2.1080 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.6913 | ppm | 0.0028 | 0.41 | 76830.0000 | 0.6913 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0880 | ppm | 0.0077 | 0.71 | 5893.0000 | 1.0880 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.8178 | ppm | 0.0048 | 0.59 | 4824.0000 | 0.8178 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 13.4100 | ppm | 0.0559 | 0.42 | 65780.0000 | 13.4100 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.2712 | ppm | 0.0003 | 0.11 | 197.9000 | 0.2712 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0359 | ppm | 0.0005 | 1.42 | 58.0500 | 0.0359 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0380 | ppm | 0.0020 | 5.14 | 71.8500 | 0.0380 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0336 | ppm | 0.0032 | 9.43 | 9.5440 | 0.0336 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0992 | ppm | 0.0010 | 1.02 | 311.5000 | 0.0992 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0383 | ppm | 0.0010 | 2.64 | 31.6300 | 0.0383 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0680 | ppm | 0.0002 | 0.31 | 20780.0000 | 0.0680 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9801 | ppm | 0.0038 | 0.39 | 105700.0000 | 0.9801 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0253 | ppm | 0.0027 | 10.85 | 33.6100 | 0.0253 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1082 | ppm | 0.0005 | 0.44 | 2678.0000 | 0.1082 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0374 | ppm | 0.0007 | 1.85 | 72.6300 | 0.0374 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.1855 | ppm | 0.0011 | 0.59 | 4584.0000 | 0.1855 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0387 | ppm | 0.0007 | 1.93 | 2670.0000 | 0.0387 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9931 | 387300.0000 | 0.0021 | 0.21 |
| Y_R 371.029 | 1.0380 | 56770.0000 | 0.0041 | 0.40 |

Sample Name: 440-194816-A-1-A pds@50

Date: 10/25/2017 9:15:33 AM Rack:Tube: 1:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0233 | ppm | 0.0005 | 2.30 | 792.5000 | 0.0233 (ppm) | Y 371.029 |
| Al (396.152 nm) | 5.5260 | ppm | 0.0091 | 0.16 | 126000.0000 | 5.5260 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0360 | ppm | 0.0046 | 12.76 | -3.7170 | 0.0360 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1023 | ppm | 0.0006 | 0.54 | 1153.0000 | 0.1023 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0961 | ppm | 0.0004 | 0.38 | 7175.0000 | 0.0961 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0369 | ppm | 0.0002 | 0.67 | 7248.0000 | 0.0369 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 12.3000 | ppm | 0.1367 | 1.11 | 43640.0000 | 12.3000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0360 | ppm | 0.0000 | 0.13 | 949.3000 | 0.0360 (ppm) | Y 371.029 |
| Co (228.615 nm) | 2.5480 | ppm | 0.0037 | 0.15 | 35370.0000 | 2.5480 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 4.5610 | ppm | 0.0195 | 0.43 | 28020.0000 | 4.5610 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4057 | ppm | 0.0002 | 0.06 | 14030.0000 | 0.4057 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 56.9600 | ppm | 0.5706 | 1.00 | 243600.0000 | 56.9600 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 1.6840 | ppm | 0.0839 | 4.98 | 1675.0000 | 1.6840 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0677 | ppm | 0.0018 | 2.68 | 3528.0000 | 0.0677 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 2.5760 | ppm | 0.0122 | 0.47 | 6042.0000 | 2.5760 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.6400 | ppm | 0.0011 | 0.17 | 68210.0000 | 0.6400 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.1470 | ppm | 0.0065 | 0.57 | 6217.0000 | 1.1470 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.8925 | ppm | 0.0201 | 2.26 | 5206.0000 | 0.8925 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 14.7100 | ppm | 0.0354 | 0.24 | 72170.0000 | 14.7100 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.2802 | ppm | 0.0000 | 0.00 | 218.7000 | 0.2802 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0409 | ppm | 0.0022 | 5.45 | 68.8300 | 0.0409 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0583 | ppm | 0.0011 | 1.84 | 100.1000 | 0.0583 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0433 | ppm | 0.0030 | 6.86 | 23.4900 | 0.0433 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.2475 | ppm | 0.0011 | 0.43 | 671.3000 | 0.2475 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0400 | ppm | 0.0036 | 8.97 | 33.0700 | 0.0400 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0764 | ppm | 0.0013 | 1.65 | 23350.0000 | 0.0764 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9424 | ppm | 0.0016 | 0.17 | 101600.0000 | 0.9424 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0325 | ppm | 0.0017 | 5.37 | 46.2700 | 0.0325 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1016 | ppm | 0.0001 | 0.07 | 2497.0000 | 0.1016 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0823 | ppm | 0.0015 | 1.79 | 170.4000 | 0.0823 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.1956 | ppm | 0.0002 | 0.09 | 4744.0000 | 0.1956 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0606 | ppm | 0.0008 | 1.38 | 4159.0000 | 0.0606 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9948 | 388000.0000 | 0.0025 | 0.25 |
| Y_R 371.029 | 1.0330 | 56480.0000 | 0.0047 | 0.45 |

Sample Name: 440-194816-A-1-A sd@250

Date: 10/25/2017 9:17:38 AM Rack:Tube: 1:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0008 | ppm | 0.0001 | 10.54 | 39.7900 | 0.0008 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0840 | ppm | 0.0022 | 0.20 | 23750.0000 | 1.0840 (ppm) | Y 371.029 |
| As (188.980 nm) | -0.0008 u | ppm | 0.0002 | 22.26 | 2.3820 | -0.0008 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0135 | ppm | 0.0006 | 4.19 | 161.0000 | 0.0135 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0124 | ppm | 0.0002 | 1.27 | 913.1000 | 0.0124 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 238.2000 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 2.4080 | ppm | 0.0185 | 0.77 | 8614.0000 | 2.4080 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 | ppm | 0.0000 | 64.53 | -0.2250 | 0.0000 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.5061 | ppm | 0.0014 | 0.28 | 7005.0000 | 0.5061 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9138 | ppm | 0.0026 | 0.28 | 5615.0000 | 0.9138 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0744 | ppm | 0.0002 | 0.31 | 2699.0000 | 0.0744 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 11.4200 | ppm | 0.1386 | 1.21 | 48850.0000 | 11.4200 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0240 u | ppm | 0.0504 | > 100.00 | -49.1400 | 0.0240 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0165 | ppm | 0.0002 | 1.50 | 899.1000 | 0.0165 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.4878 | ppm | 0.0019 | 0.40 | 1153.0000 | 0.4878 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1215 | ppm | 0.0003 | 0.24 | 13100.0000 | 0.1215 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.2241 | ppm | 0.0007 | 0.32 | 1219.0000 | 0.2241 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.1073 | ppm | 0.0102 | 9.51 | 1155.0000 | 0.1073 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 2.9740 | ppm | 0.0109 | 0.37 | 14590.0000 | 2.9740 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0501 | ppm | 0.0071 | 14.16 | 28.7000 | 0.0501 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0013 | ppm | 0.0004 | 34.60 | -5.2770 | 0.0013 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0073 | ppm | 0.0007 | 8.97 | 15.7700 | 0.0073 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0002 u | ppm | 0.0015 | > 100.00 | -2.7550 | -0.0002 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0239 | ppm | 0.0005 | 2.13 | 99.2100 | 0.0239 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0009 | ppm | 0.0005 | 53.53 | -0.5538 | 0.0009 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0080 | ppm | 0.0002 | 2.50 | 2437.0000 | 0.0080 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.1823 | ppm | 0.0003 | 0.18 | 19560.0000 | 0.1823 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0003 u | ppm | 0.0010 | > 100.00 | -5.4430 | -0.0003 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0128 | ppm | 0.0001 | 0.40 | 343.2000 | 0.0128 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0106 | ppm | 0.0004 | 3.99 | 13.3000 | 0.0106 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0288 | ppm | 0.0001 | 0.51 | 792.9000 | 0.0288 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0025 | ppm | 0.0001 | 3.76 | 141.9000 | 0.0025 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9988 | 389600.0000 | 0.0007 | 0.07 |
| Y_R 371.029 | 1.0370 | 56700.0000 | 0.0061 | 0.58 |

Sample Name: 440-194814-A-1-E@5

Date: 10/25/2017 9:19:43 AM Rack:Tube: 1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0015 u | ppm | 0.0000 | 2.22 | -79.4200 | -0.0015 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 98.8700 | ppm | 0.3514 | 0.36 | 2263000.0000 | 98.8700 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0524 | ppm | 0.0012 | 2.31 | 57.4200 | 0.0524 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0147 | ppm | 0.0008 | 5.26 | 9.1730 | 0.0147 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9765 | ppm | 0.0079 | 0.81 | 73210.0000 | 0.9765 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0053 | ppm | 0.0003 | 4.91 | 4470.0000 | 0.0053 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 21.9900 | ppm | 0.0607 | 0.28 | 77930.0000 | 21.9900 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0032 | ppm | 0.0000 | 1.14 | 126.9000 | 0.0032 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0565 | ppm | 0.0001 | 0.19 | 836.7000 | 0.0565 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1243 | ppm | 0.0009 | 0.75 | 771.1000 | 0.1243 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1553 | ppm | 0.0006 | 0.40 | 5579.0000 | 0.1553 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 168.6000 | ppm | 1.0860 | 0.64 | 721200.0000 | 168.6000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 14.5400 | ppm | 0.0580 | 0.40 | 14770.0000 | 14.5400 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1130 | ppm | 0.0015 | 1.29 | 6913.0000 | 0.1130 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 29.3400 | ppm | 0.2783 | 0.95 | 69020.0000 | 29.3400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.6760 | ppm | 0.0153 | 0.57 | 273900.0000 | 2.6760 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0099 | ppm | 0.0006 | 6.22 | 79.9700 | 0.0099 (ppm) | Y 371.029 |
| Na (589.592 nm) | 2.2450 | ppm | 0.0068 | 0.30 | 12050.0000 | 2.2450 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1180 | ppm | 0.0008 | 0.68 | 581.4000 | 0.1180 (ppm) | Y 371.029 |
| P (213.618 nm) | 2.3440 | ppm | 0.0071 | 0.30 | 2210.0000 | 2.3440 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0613 | ppm | 0.0000 | 0.04 | 104.0000 | 0.0613 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0017 u | ppm | 0.0026 | > 100.00 | 3.0880 | -0.0017 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0028 | ppm | 0.0036 | > 100.00 | -28.2300 | 0.0028 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.7736 | ppm | 0.0082 | 1.06 | 1873.0000 | 0.7736 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0061 | ppm | 0.0012 | 19.01 | 3.8150 | 0.0061 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1877 | ppm | 0.0006 | 0.31 | 57350.0000 | 0.1877 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 2.7930 | ppm | 0.0141 | 0.51 | 301700.0000 | 2.7930 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0014 u | ppm | 0.0013 | 92.99 | -53.2100 | -0.0014 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3036 | ppm | 0.0017 | 0.57 | 8057.0000 | 0.3036 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0013 u | ppm | 0.0021 | > 100.00 | -7.9960 | -0.0013 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4792 | ppm | 0.0029 | 0.60 | 11790.0000 | 0.4792 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0179 | ppm | 0.0001 | 0.68 | 1329.0000 | 0.0179 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9786 | 381700.0000 | 0.0052 | 0.53 |
| Y_R 371.029 | 1.0310 | 56380.0000 | 0.0010 | 0.10 |

Sample Name: 440-194814-a-2-c@5

Date: 10/25/2017 9:21:47 AM Rack:Tube: 1:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0014 u | ppm | 0.0001 | 8.44 | -74.8900 | -0.0014 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 92.3700 | ppm | 0.8749 | 0.95 | 2114000.0000 | 92.3700 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0487 | ppm | 0.0040 | 8.27 | 54.3000 | 0.0487 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0144 | ppm | 0.0005 | 3.74 | 8.7280 | 0.0144 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.8884 | ppm | 0.0058 | 0.66 | 66610.0000 | 0.8884 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0048 | ppm | 0.0004 | 8.65 | 4316.0000 | 0.0048 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 19.7300 | ppm | 0.3551 | 1.80 | 69920.0000 | 19.7300 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0031 | ppm | 0.0001 | 3.60 | 122.0000 | 0.0031 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0553 | ppm | 0.0006 | 1.07 | 820.5000 | 0.0553 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1206 | ppm | 0.0004 | 0.32 | 747.9000 | 0.1206 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1511 | ppm | 0.0016 | 1.09 | 5436.0000 | 0.1511 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 165.2000 | ppm | 0.5997 | 0.36 | 706500.0000 | 165.2000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 14.2000 | ppm | 0.1777 | 1.25 | 14430.0000 | 14.2000 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1155 | ppm | 0.0024 | 2.04 | 7045.0000 | 0.1155 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 30.9000 | ppm | 0.1761 | 0.57 | 72690.0000 | 30.9000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.5760 | ppm | 0.0241 | 0.94 | 264100.0000 | 2.5760 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0078 | ppm | 0.0008 | 10.12 | 67.3000 | 0.0078 (ppm) | Y 371.029 |
| Na (589.592 nm) | 2.5050 | ppm | 0.0016 | 0.06 | 13370.0000 | 2.5050 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1073 | ppm | 0.0022 | 2.08 | 529.0000 | 0.1073 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.2580 | ppm | 0.0287 | 0.88 | 3081.0000 | 3.2580 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0572 | ppm | 0.0010 | 1.71 | 96.2900 | 0.0572 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0058 | ppm | 0.0052 | 88.52 | 11.9700 | 0.0058 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0056 | ppm | 0.0024 | 42.87 | -25.2300 | 0.0056 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.7828 | ppm | 0.0170 | 2.18 | 1895.0000 | 0.7828 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0102 | ppm | 0.0017 | 16.23 | 7.2760 | 0.0102 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1647 | ppm | 0.0011 | 0.67 | 50350.0000 | 0.1647 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 2.8210 | ppm | 0.0231 | 0.82 | 304700.0000 | 2.8210 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0050 u | ppm | 0.0006 | 12.36 | -59.6400 | -0.0050 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3027 | ppm | 0.0029 | 0.96 | 8032.0000 | 0.3027 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0024 | ppm | 0.0008 | 33.19 | -0.3751 | 0.0024 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4469 | ppm | 0.0038 | 0.84 | 11000.0000 | 0.4469 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0182 | ppm | 0.0002 | 0.88 | 1346.0000 | 0.0182 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9784 | 381600.0000 | 0.0036 | 0.37 |
| Y_R 371.029 | 1.0270 | 56140.0000 | 0.0072 | 0.70 |

Sample Name: 440-194814-A-3-C@5

Date: 10/25/2017 9:23:52 AM Rack:Tube: 1:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0005 u | ppm | 0.0004 | 81.13 | -56.0400 | -0.0005 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 158.6000 | ppm | 2.2010 | 1.39 | 3631000.0000 | 158.6000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0608 | ppm | 0.0001 | 0.10 | 61.5100 | 0.0608 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0165 | ppm | 0.0004 | 2.14 | -30.8300 | 0.0165 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0130 | ppm | 0.0123 | 1.22 | 75930.0000 | 1.0130 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0099 | ppm | 0.0007 | 6.76 | 6381.0000 | 0.0099 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 27.2800 | ppm | 0.1764 | 0.65 | 96660.0000 | 27.2800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0037 | ppm | 0.0002 | 6.13 | 152.6000 | 0.0037 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.1361 | ppm | 0.0015 | 1.12 | 1954.0000 | 0.1361 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.5381 | ppm | 0.0053 | 0.98 | 3319.0000 | 0.5381 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 4.9330 | ppm | 0.0611 | 1.24 | 168400.0000 | 4.9330 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 222.5000 | ppm | 1.0870 | 0.49 | 951400.0000 | 222.5000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 17.2200 | ppm | 0.0927 | 0.54 | 17520.0000 | 17.2200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1702 | ppm | 0.0036 | 2.14 | 10050.0000 | 0.1702 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 37.5100 | ppm | 0.5640 | 1.50 | 88240.0000 | 37.5100 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.5700 | ppm | 0.0502 | 1.41 | 365200.0000 | 3.5700 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.1554 | ppm | 0.0020 | 1.26 | 877.2000 | 0.1554 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.8660 | ppm | 0.0234 | 0.61 | 20320.0000 | 3.8660 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4554 | ppm | 0.0052 | 1.14 | 2237.0000 | 0.4554 (ppm) | Y 371.029 |
| P (213.618 nm) | 2.7030 | ppm | 0.0534 | 1.98 | 2384.0000 | 2.7030 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.1515 | ppm | 0.0035 | 2.31 | 279.9000 | 0.1515 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0114 | ppm | 0.0020 | 17.28 | 21.8600 | 0.0114 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0002 u | ppm | 0.0007 | > 100.00 | -40.6300 | 0.0002 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.9123 | ppm | 0.0158 | 1.73 | 2219.0000 | 0.9123 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0383 | ppm | 0.0025 | 6.65 | 31.2100 | 0.0383 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.2206 | ppm | 0.0014 | 0.64 | 67450.0000 | 0.2206 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 3.0150 | ppm | 0.0381 | 1.26 | 325600.0000 | 3.0150 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0009 u | ppm | 0.0009 | > 100.00 | -55.6700 | -0.0009 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3911 | ppm | 0.0052 | 1.34 | 10330.0000 | 0.3911 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0510 | ppm | 0.0003 | 0.52 | 128.8000 | 0.0510 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.8590 | ppm | 0.0233 | 1.25 | 46110.0000 | 1.8590 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0222 | ppm | 0.0001 | 0.54 | 1666.0000 | 0.0222 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9672 | 377200.0000 | 0.0005 | 0.05 |
| Y_R 371.029 | 1.0290 | 56250.0000 | 0.0023 | 0.23 |

Sample Name: CCV 4444438

Date: 10/25/2017 9:25:56 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4963 | ppm | 0.0029 | 0.59 | 16910.0000 | 0.4963 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0180 | ppm | 0.0133 | 1.30 | 22980.0000 | 1.0180 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9859 | ppm | 0.0064 | 0.65 | 819.8000 | 0.9859 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9984 | ppm | 0.0031 | 0.31 | 11240.0000 | 0.9984 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9586 | ppm | 0.0058 | 0.61 | 71840.0000 | 0.9586 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9931 | ppm | 0.0029 | 0.29 | 163700.0000 | 0.9931 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.9800 | ppm | 0.0087 | 0.17 | 17730.0000 | 4.9800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9657 | ppm | 0.0021 | 0.22 | 25170.0000 | 0.9657 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9745 | ppm | 0.0069 | 0.71 | 13510.0000 | 0.9745 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9822 | ppm | 0.0005 | 0.05 | 6040.0000 | 0.9822 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0050 | ppm | 0.0008 | 0.08 | 34400.0000 | 1.0050 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0240 | ppm | 0.0019 | 0.19 | 4374.0000 | 1.0240 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.8390 | ppm | 0.0925 | 0.94 | 9939.0000 | 9.8390 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0040 | ppm | 0.0026 | 0.26 | 57860.0000 | 1.0040 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.7140 | ppm | 0.0275 | 0.58 | 11110.0000 | 4.7140 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9909 | ppm | 0.0025 | 0.26 | 94050.0000 | 0.9909 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9905 | ppm | 0.0022 | 0.22 | 5360.0000 | 0.9905 (ppm) | Y 371.029 |
| Na (589.592 nm) | 9.9670 | ppm | 0.0052 | 0.05 | 51300.0000 | 9.9670 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9791 | ppm | 0.0026 | 0.26 | 4800.0000 | 0.9791 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9869 | ppm | 0.0035 | 0.35 | 872.1000 | 0.9869 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9701 | ppm | 0.0038 | 0.40 | 1951.0000 | 0.9701 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9734 | ppm | 0.0039 | 0.40 | 1154.0000 | 0.9734 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9733 | ppm | 0.0053 | 0.55 | 851.9000 | 0.9733 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.9040 | ppm | 0.1889 | 3.85 | 11750.0000 | 4.9040 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9698 | ppm | 0.0067 | 0.69 | 818.0000 | 0.9698 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0100 | ppm | 0.0058 | 0.58 | 307400.0000 | 1.0100 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0050 | ppm | 0.0024 | 0.24 | 108500.0000 | 1.0050 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9727 | ppm | 0.0000 | 0.00 | 1533.0000 | 0.9727 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9955 | ppm | 0.0010 | 0.10 | 25810.0000 | 0.9955 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9824 | ppm | 0.0054 | 0.55 | 2140.0000 | 0.9824 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9603 | ppm | 0.0018 | 0.19 | 23570.0000 | 0.9603 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0080 | ppm | 0.0026 | 0.26 | 69380.0000 | 1.0080 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9899 | 386100.0000 | 0.0037 | 0.37 |
| Y_R 371.029 | 1.0350 | 56580.0000 | 0.0044 | 0.43 |

Sample Name: CCB 4444437

Date: 10/25/2017 9:28:00 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0016 | ppm | 0.0004 | 25.52 | 72.8700 | 0.0016 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0043 | ppm | 0.0001 | 1.36 | -1102.0000 | 0.0043 (ppm) | Y 371.029 |
| As (188.980 nm) | -0.0025 u | ppm | 0.0013 | 53.00 | 10.0800 | -0.0025 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0004 | ppm | 0.0001 | 12.77 | 15.8700 | 0.0004 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0000 | 24.85 | -0.1440 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 15.6400 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0026 u | ppm | 0.0130 | > 100.00 | 82.2500 | -0.0026 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | -2.6410 | 0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0000 u | ppm | 0.0003 | > 100.00 | -26.5300 | 0.0000 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0007 | ppm | 0.0002 | 23.42 | 4.2550 | 0.0007 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0018 | ppm | 0.0001 | 6.93 | 212.1000 | 0.0018 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0023 | ppm | 0.0014 | 60.05 | 6.0070 | 0.0023 (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.0753 u | ppm | 0.0717 | 95.26 | -159.1000 | -0.0753 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0145 | ppm | 0.0001 | 0.41 | 866.4000 | 0.0145 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0015 | ppm | 0.0017 | > 100.00 | 15.4100 | 0.0015 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 80.2000 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0027 | ppm | 0.0019 | 69.33 | 21.3400 | 0.0027 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0036 | ppm | 0.0012 | 32.76 | 613.5000 | 0.0036 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0002 | ppm | 0.0000 | 7.52 | 1.0700 | 0.0002 (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0020 u | ppm | 0.0022 | > 100.00 | -14.0800 | -0.0020 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0007 | ppm | 0.0003 | 44.75 | -4.8640 | 0.0007 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0032 u | ppm | 0.0010 | 31.11 | -2.7330 | -0.0032 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0008 u | ppm | 0.0004 | 51.49 | -0.2506 | -0.0008 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0054 | ppm | 0.0016 | 30.06 | 46.2500 | 0.0054 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | -1.2300 | 0.0002 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0003 | ppm | 0.0001 | 40.93 | 58.0600 | 0.0003 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0011 | ppm | 0.0003 | 28.69 | 10.1600 | 0.0011 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0011 u | ppm | 0.0019 | > 100.00 | -6.6740 | -0.0011 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0001 u | ppm | 0.0002 | > 100.00 | 47.4600 | -0.0001 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0044 | ppm | 0.0016 | 36.58 | -0.3192 | 0.0044 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0001 u | ppm | 0.0001 | 65.46 | 116.8000 | -0.0001 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0002 | 57.88 | -15.4300 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0020 | 390900.0000 | 0.0055 | 0.55 |
| Y_R 371.029 | 1.0310 | 56380.0000 | 0.0054 | 0.53 |

Sample Name: 440-194758-A-1-C@5

Date: 10/25/2017 9:33:47 AM Rack:Tube: 1:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0176 | ppm | 0.0002 | 1.18 | 583.8000 | 0.0176 (ppm) | Y 371.029 |
| Al (396.152 nm) | 192.2000 | ppm | 6.1090 | 3.18 | 4400000.0000 | 192.2000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0116 | ppm | 0.0065 | 55.99 | 10.2900 | 0.0116 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0166 | ppm | 0.0004 | 2.64 | 18.1100 | 0.0166 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1127 | ppm | 0.0041 | 3.66 | 8443.0000 | 0.1127 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0194 | ppm | 0.0011 | 5.88 | 6186.0000 | 0.0194 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 32.3700 | ppm | 0.2726 | 0.84 | 114700.0000 | 32.3700 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0035 | ppm | 0.0001 | 3.32 | 121.5000 | 0.0035 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4282 | ppm | 0.0120 | 2.81 | 5943.0000 | 0.4282 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.5130 | ppm | 0.0495 | 3.27 | 9312.0000 | 1.5130 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 20.3700 | ppm | 0.6619 | 3.25 | 694200.0000 | 20.3700 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 140.1000 | ppm | 1.4820 | 1.06 | 599000.0000 | 140.1000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 1.4070 | ppm | 0.1175 | 8.35 | 1389.0000 | 1.4070 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0829 | ppm | 0.0035 | 4.22 | 3808.0000 | 0.0829 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 6.6220 | ppm | 0.2334 | 3.53 | 15530.0000 | 6.6220 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.4530 | ppm | 0.0794 | 3.24 | 249400.0000 | 2.4530 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.6309 | ppm | 0.0181 | 2.86 | 3451.0000 | 0.6309 (ppm) | Y 371.029 |
| Na (589.592 nm) | 2.5160 | ppm | 0.0247 | 0.98 | 13500.0000 | 2.5160 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.4110 | ppm | 0.0393 | 2.78 | 6921.0000 | 1.4110 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.7277 | ppm | 0.0403 | 5.54 | -35.4800 | 0.7277 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 309.0000 o | ppm | 8.8720 | 2.87 | 624600.0000 | 309.0000 o (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0236 | ppm | 0.0018 | 7.62 | 38.3800 | 0.0236 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0051 | ppm | 0.0023 | 45.42 | -20.8700 | 0.0051 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.3550 | ppm | 0.0423 | 3.12 | 3320.0000 | 1.3550 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.1361 | ppm | 0.0012 | 0.86 | 114.6000 | 0.1361 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0808 | ppm | 0.0005 | 0.57 | 24920.0000 | 0.0808 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.3268 | ppm | 0.0101 | 3.08 | 35190.0000 | 0.3268 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0050 u | ppm | 0.0013 | 26.68 | -16.1700 | -0.0050 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1914 | ppm | 0.0063 | 3.28 | 4980.0000 | 0.1914 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.3206 | ppm | 0.0137 | 4.28 | 809.8000 | 0.3206 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 7.1300 | ppm | 0.2169 | 3.04 | 176700.0000 | 7.1300 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0507 | ppm | 0.0014 | 2.71 | 3572.0000 | 0.0507 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9725 | 379300.0000 | 0.0030 | 0.30 |
| Y_R 371.029 | 1.0320 | 56410.0000 | 0.0081 | 0.78 |

Sample Name: 440-194797-A-1-B@5

Date: 10/25/2017 9:35:52 AM Rack:Tube: 1:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0006 u | ppm | 0.0000 | 7.55 | -76.0900 | -0.0006 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 182.3000 | ppm | 6.1860 | 3.39 | 4173000.0000 | 182.3000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0355 | ppm | 0.0025 | 6.91 | 39.9300 | 0.0355 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0525 | ppm | 0.0003 | 0.66 | 396.2000 | 0.0525 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.8577 | ppm | 0.0208 | 2.42 | 64310.0000 | 0.8577 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0111 | ppm | 0.0011 | 9.66 | 6082.0000 | 0.0111 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 26.5600 | ppm | 0.1183 | 0.45 | 94110.0000 | 26.5600 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0025 | ppm | 0.0001 | 2.78 | 114.5000 | 0.0025 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.1505 | ppm | 0.0048 | 3.20 | 2321.0000 | 0.1505 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.5562 | ppm | 0.0176 | 3.17 | 3431.0000 | 0.5562 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 5.7020 | ppm | 0.1592 | 2.79 | 194600.0000 | 5.7020 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 199.4000 | ppm | 0.3410 | 0.17 | 852800.0000 | 199.4000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 22.9500 | ppm | 0.0446 | 0.19 | 23360.0000 | 22.9500 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1052 | ppm | 0.0001 | 0.07 | 6449.0000 | 0.1052 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 39.9300 | ppm | 1.0950 | 2.74 | 93940.0000 | 39.9300 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 4.6900 | ppm | 0.1517 | 3.23 | 467800.0000 | 4.6900 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.1634 | ppm | 0.0063 | 3.87 | 925.2000 | 0.1634 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.5250 | ppm | 0.0008 | 0.02 | 18600.0000 | 3.5250 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4435 | ppm | 0.0145 | 3.27 | 2178.0000 | 0.4435 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.7720 | ppm | 0.1508 | 4.00 | 3376.0000 | 3.7720 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.1760 | ppm | 0.0259 | 14.72 | 322.6000 | 0.1760 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0124 | ppm | 0.0031 | 24.82 | 24.8200 | 0.0124 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0012 u | ppm | 0.0021 | > 100.00 | -35.3900 | 0.0012 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.2050 | ppm | 0.0364 | 3.02 | 2980.0000 | 1.2050 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0384 | ppm | 0.0030 | 7.84 | 30.7600 | 0.0384 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.2736 | ppm | 0.0006 | 0.21 | 83560.0000 | 0.2736 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 10.8000 | ppm | 0.3623 | 3.35 | 1167000.0000 | 10.8000 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0109 u | ppm | 0.0048 | 43.98 | -193.4000 | -0.0109 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4009 | ppm | 0.0128 | 3.20 | 10750.0000 | 0.4009 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0623 | ppm | 0.0031 | 5.04 | 153.6000 | 0.0623 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.8900 | ppm | 0.0590 | 3.12 | 47020.0000 | 1.8900 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0202 | ppm | 0.0015 | 7.25 | 1497.0000 | 0.0202 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9672 | 377200.0000 | 0.0008 | 0.08 |
| Y_R 371.029 | 1.0110 | 55240.0000 | 0.0050 | 0.50 |

Sample Name: 440-194797-A-2-B@5

Date: 10/25/2017 9:37:57 AM Rack:Tube: 1:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0018 u | ppm | 0.0001 | 7.70 | -105.4000 | -0.0018 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 121.6000 | ppm | 2.6100 | 2.15 | 2782000.0000 | 121.6000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0321 | ppm | 0.0009 | 2.88 | 40.0100 | 0.0321 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0226 | ppm | 0.0001 | 0.31 | 98.7800 | 0.0226 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.7604 | ppm | 0.0174 | 2.29 | 57010.0000 | 0.7604 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0046 | ppm | 0.0004 | 7.86 | 4324.0000 | 0.0046 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 23.1200 | ppm | 0.1147 | 0.50 | 81930.0000 | 23.1200 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0013 | ppm | 0.0000 | 3.70 | 75.9000 | 0.0013 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0685 | ppm | 0.0009 | 1.27 | 1137.0000 | 0.0685 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1783 | ppm | 0.0029 | 1.61 | 1105.0000 | 0.1783 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1667 | ppm | 0.0048 | 2.90 | 6005.0000 | 0.1667 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 166.7000 | ppm | 0.3865 | 0.23 | 712800.0000 | 166.7000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 28.8400 | ppm | 0.1163 | 0.40 | 29330.0000 | 28.8400 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0963 | ppm | 0.0006 | 0.65 | 6154.0000 | 0.0963 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 38.3200 | ppm | 0.9091 | 2.37 | 90180.0000 | 38.3200 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.3630 | ppm | 0.0733 | 2.18 | 338400.0000 | 3.3630 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0024 | ppm | 0.0002 | 6.68 | 44.1600 | 0.0024 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.7480 | ppm | 0.0059 | 0.16 | 19700.0000 | 3.7480 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1255 | ppm | 0.0023 | 1.85 | 618.3000 | 0.1255 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.8170 | ppm | 0.0400 | 0.83 | 4564.0000 | 4.8170 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0601 | ppm | 0.0010 | 1.69 | 95.4000 | 0.0601 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0010 | ppm | 0.0011 | > 100.00 | 8.6250 | 0.0010 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0045 | ppm | 0.0043 | 95.18 | -26.5300 | 0.0045 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.2760 | ppm | 0.0371 | 2.90 | 3110.0000 | 1.2760 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0076 | ppm | 0.0001 | 1.88 | 4.5700 | 0.0076 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.2394 | ppm | 0.0011 | 0.47 | 73110.0000 | 0.2394 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 8.9150 | ppm | 0.1871 | 2.10 | 963300.0000 | 8.9150 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0039 u | ppm | 0.0054 | > 100.00 | -153.2000 | -0.0039 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3317 | ppm | 0.0075 | 2.25 | 8924.0000 | 0.3317 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0044 | ppm | 0.0011 | 24.19 | 1.3750 | 0.0044 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.3466 | ppm | 0.0072 | 2.09 | 8587.0000 | 0.3466 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0119 | ppm | 0.0004 | 3.44 | 901.8000 | 0.0119 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9702 | 378400.0000 | 0.0012 | 0.12 |
| Y_R 371.029 | 1.0130 | 55400.0000 | 0.0042 | 0.41 |

Sample Name: 440-194797-A-3-B@5

Date: 10/25/2017 9:40:01 AM Rack:Tube: 1:14

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0015 u | ppm | 0.0002 | 13.85 | -85.6500 | -0.0015 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 96.6200 | ppm | 1.9120 | 1.98 | 2211000.0000 | 96.6200 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0229 | ppm | 0.0028 | 12.28 | 32.0000 | 0.0229 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1171 | ppm | 0.0018 | 1.51 | 1208.0000 | 0.1171 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.6414 | ppm | 0.0160 | 2.50 | 48090.0000 | 0.6414 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0037 | ppm | 0.0000 | 0.87 | 3394.0000 | 0.0037 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 21.6600 | ppm | 0.1908 | 0.88 | 76780.0000 | 21.6600 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0014 | ppm | 0.0003 | 23.70 | 67.5300 | 0.0014 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0542 | ppm | 0.0011 | 1.97 | 920.8000 | 0.0542 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1449 | ppm | 0.0030 | 2.05 | 897.6000 | 0.1449 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1095 | ppm | 0.0022 | 1.99 | 4023.0000 | 0.1095 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 129.4000 | ppm | 0.1749 | 0.14 | 553500.0000 | 129.4000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 18.5000 | ppm | 0.1075 | 0.58 | 18800.0000 | 18.5000 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0779 | ppm | 0.0000 | 0.01 | 4996.0000 | 0.0779 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 30.3200 | ppm | 0.7393 | 2.44 | 71360.0000 | 30.3200 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.0260 | ppm | 0.0627 | 2.07 | 302000.0000 | 3.0260 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0020 | ppm | 0.0008 | 41.29 | 37.4600 | 0.0020 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.9670 | ppm | 0.0240 | 0.61 | 20800.0000 | 3.9670 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0921 | ppm | 0.0021 | 2.29 | 453.5000 | 0.0921 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.2620 | ppm | 0.0616 | 1.89 | 3087.0000 | 3.2620 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0645 | ppm | 0.0022 | 3.41 | 107.8000 | 0.0645 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0002 u | ppm | 0.0047 | > 100.00 | 6.5580 | 0.0002 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0030 u | ppm | 0.0057 | > 100.00 | -20.9600 | 0.0030 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.9530 | ppm | 0.0210 | 2.20 | 2345.0000 | 0.9530 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0041 | ppm | 0.0003 | 7.59 | 1.6180 | 0.0041 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.2162 | ppm | 0.0027 | 1.24 | 66020.0000 | 0.2162 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 8.2800 | ppm | 0.1564 | 1.89 | 894700.0000 | 8.2800 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0059 u | ppm | 0.0005 | 8.53 | -145.2000 | -0.0059 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2641 | ppm | 0.0050 | 1.89 | 7142.0000 | 0.2641 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0020 u | ppm | 0.0033 | > 100.00 | -3.9850 | 0.0020 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2911 | ppm | 0.0052 | 1.78 | 7226.0000 | 0.2911 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0128 | ppm | 0.0003 | 2.41 | 935.6000 | 0.0128 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9759 | 380600.0000 | 0.0016 | 0.17 |
| Y_R 371.029 | 1.0210 | 55820.0000 | 0.0046 | 0.45 |

Sample Name: 440-194797-A-4-B@5

Date: 10/25/2017 9:42:06 AM Rack:Tube: 1:15

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0007 u | ppm | 0.0004 | 56.92 | -55.1000 | -0.0007 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 96.9300 | ppm | 2.6440 | 2.73 | 2219000.0000 | 96.9300 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0238 | ppm | 0.0038 | 16.07 | 32.6400 | 0.0238 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0292 | ppm | 0.0009 | 2.91 | 205.3000 | 0.0292 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.8582 | ppm | 0.0252 | 2.93 | 64340.0000 | 0.8582 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0041 | ppm | 0.0004 | 10.11 | 3517.0000 | 0.0041 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 22.7800 | ppm | 0.1980 | 0.87 | 80720.0000 | 22.7800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0029 | ppm | 0.0004 | 12.96 | 107.5000 | 0.0029 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0635 | ppm | 0.0024 | 3.71 | 1047.0000 | 0.0635 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1492 | ppm | 0.0031 | 2.07 | 924.4000 | 0.1492 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1224 | ppm | 0.0034 | 2.79 | 4465.0000 | 0.1224 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 132.5000 | ppm | 1.1440 | 0.86 | 566400.0000 | 132.5000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 22.2100 | ppm | 0.1090 | 0.49 | 22570.0000 | 22.2100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0814 | ppm | 0.0004 | 0.45 | 5124.0000 | 0.0814 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 29.4300 | ppm | 0.8190 | 2.78 | 69260.0000 | 29.4300 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 4.1100 | ppm | 0.1104 | 2.69 | 404500.0000 | 4.1100 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0050 | ppm | 0.0003 | 6.02 | 54.1500 | 0.0050 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.8010 | ppm | 0.0224 | 1.25 | 9798.0000 | 1.8010 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1048 | ppm | 0.0011 | 1.05 | 515.9000 | 0.1048 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.7380 | ppm | 0.0870 | 2.33 | 3539.0000 | 3.7380 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.1992 | ppm | 0.0035 | 1.74 | 380.4000 | 0.1992 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0026 u | ppm | 0.0055 | > 100.00 | 9.4380 | 0.0026 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0012 u | ppm | 0.0013 | > 100.00 | -24.6500 | -0.0012 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.8805 | ppm | 0.0342 | 3.89 | 2177.0000 | 0.8805 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0104 | ppm | 0.0030 | 28.32 | 7.0480 | 0.0104 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1992 | ppm | 0.0020 | 1.00 | 60860.0000 | 0.1992 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 8.1690 | ppm | 0.2087 | 2.55 | 882600.0000 | 8.1690 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0053 u | ppm | 0.0010 | 18.44 | -140.1000 | -0.0053 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2693 | ppm | 0.0074 | 2.75 | 7277.0000 | 0.2693 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0031 | ppm | 0.0035 | > 100.00 | 11.6100 | 0.0031 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0280 | ppm | 0.0251 | 2.45 | 25090.0000 | 1.0280 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0116 | ppm | 0.0003 | 2.60 | 853.5000 | 0.0116 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9773 | 381200.0000 | 0.0031 | 0.31 |
| Y_R 371.029 | 1.0170 | 55570.0000 | 0.0012 | 0.12 |

Sample Name: 440-194573-G-3-A@5

Date: 10/25/2017 9:44:11 AM Rack:Tube: 1:16

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0011 u | ppm | 0.0001 | 4.47 | -58.9600 | -0.0011 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 46.1300 | ppm | 1.0060 | 2.18 | 1055000.0000 | 46.1300 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0061 | ppm | 0.0034 | 55.34 | 17.8700 | 0.0061 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0057 | ppm | 0.0006 | 10.02 | -15.9300 | 0.0057 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4334 | ppm | 0.0153 | 3.53 | 32490.0000 | 0.4334 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0014 | ppm | 0.0003 | 20.71 | 2185.0000 | 0.0014 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 26.1600 | ppm | 0.5758 | 2.20 | 92730.0000 | 26.1600 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0004 | ppm | 0.0003 | 66.81 | 31.4900 | 0.0004 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0372 | ppm | 0.0013 | 3.45 | 607.3000 | 0.0372 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0791 | ppm | 0.0021 | 2.72 | 490.6000 | 0.0791 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0855 | ppm | 0.0015 | 1.79 | 3149.0000 | 0.0855 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 90.5200 | ppm | 1.7680 | 1.95 | 387100.0000 | 90.5200 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 13.3700 | ppm | 0.3061 | 2.29 | 13560.0000 | 13.3700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0665 | ppm | 0.0031 | 4.59 | 4168.0000 | 0.0665 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 28.7800 | ppm | 0.9972 | 3.46 | 67750.0000 | 28.7800 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.4050 | ppm | 0.0281 | 2.00 | 144300.0000 | 1.4050 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0011 | ppm | 0.0012 | > 100.00 | 22.8500 | 0.0011 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.9923 | ppm | 0.0135 | 1.36 | 5671.0000 | 0.9923 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0599 | ppm | 0.0010 | 1.75 | 294.9000 | 0.0599 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.1640 | ppm | 0.0720 | 2.27 | 2994.0000 | 3.1640 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0473 | ppm | 0.0004 | 0.86 | 80.3000 | 0.0473 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0051 | ppm | 0.0042 | 82.18 | 10.2600 | 0.0051 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0009 | ppm | 0.0008 | 89.89 | -15.8200 | 0.0009 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.7975 | ppm | 0.0208 | 2.61 | 1951.0000 | 0.7975 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0044 | ppm | 0.0001 | 3.20 | 2.0320 | 0.0044 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1579 | ppm | 0.0020 | 1.28 | 48320.0000 | 0.1579 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.9410 | ppm | 0.0963 | 1.95 | 533800.0000 | 4.9410 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0061 u | ppm | 0.0001 | 2.00 | -94.0500 | -0.0061 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1702 | ppm | 0.0038 | 2.21 | 4623.0000 | 0.1702 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0013 | ppm | 0.0016 | > 100.00 | -5.2390 | 0.0013 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2297 | ppm | 0.0048 | 2.09 | 5728.0000 | 0.2297 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0032 | ppm | 0.0001 | 3.06 | 252.0000 | 0.0032 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194573-H-5-C@5

Date: 10/25/2017 9:46:15 AM Rack:Tube: 1:17

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194573-H-9-C@5

Date: 10/25/2017 9:48:19 AM Rack:Tube: 1:18

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194758-A-1-C@125

Date: 10/25/2017 9:58:06 AM Rack:Tube: 1:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4444438

Date: 10/25/2017 10:00:11 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 10:02:15 AM
Rack:Tube: S1:1
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: mb 440-437213/1-a

Date: 10/25/2017 10:18:41 AM Rack:Tube: 1:19

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: lcs 440-437213/2-a

Date: 10/25/2017 10:20:46 AM Rack:Tube: 1:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194847-c-2-a

Date: 10/25/2017 10:22:51 AM Rack:Tube: 1:21

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194847-c-2-b ms

Date: 10/25/2017 10:24:55 AM Rack:Tube: 1:22

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194847-c-2-c msd

Date: 10/25/2017 10:27:00 AM Rack:Tube: 1:23

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194847-c-2-d pds

Date: 10/25/2017 10:29:04 AM Rack:Tube: 1:24

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194847-c-2-a sd@5

Date: 10/25/2017 10:31:09 AM Rack:Tube: 1:25

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194784-d-8-a

Date: 10/25/2017 10:33:13 AM
Rack:Tube: 1:26
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194653-h-4-b

Date: 10/25/2017 10:35:17 AM
Rack:Tube: 1:27
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4444438

Date: 10/25/2017 10:37:21 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 10:39:25 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: mb 440-437022/1-b

Date: 10/25/2017 10:49:02 AM Rack:Tube: 1:28

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: lcs 440-437022/2-b

Date: 10/25/2017 10:51:07 AM Rack:Tube: 1:29

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194799-c-1-f

Date: 10/25/2017 10:53:11 AM Rack:Tube: 1:30

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194799-c-1-g ms

Date: 10/25/2017 10:55:15 AM Rack:Tube: 1:31

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194799-c-1-h msd

Date: 10/25/2017 10:57:19 AM Rack:Tube: 1:32

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194799-c-1-fPDS

Date: 10/25/2017 10:59:24 AM Rack:Tube: 1:33

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194799-c-1-fSD@5

Date: 10/25/2017 11:01:28 AM Rack:Tube: 1:34

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-192743-a-18-g

Date: 10/25/2017 11:03:33 AM Rack:Tube: 1:35

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-192743-a-19-e

Date: 10/25/2017 11:05:38 AM Rack:Tube: 1:36

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-192743-a-24-g

Date: 10/25/2017 11:07:43 AM
Rack:Tube: 1:37
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4444438

Date: 10/25/2017 11:09:47 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 11:11:51 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-192979-a-7-g

Date: 10/25/2017 11:14:22 AM
Rack:Tube: 1:38
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-192979-a-13-f

Date: 10/25/2017 11:16:27 AM Rack:Tube: 1:39

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-192979-a-17-h

Date: 10/25/2017 11:18:31 AM Rack:Tube: 1:40

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-192850-a-4-f

Date: 10/25/2017 11:20:36 AM Rack:Tube: 1:41

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-192850-a-10-f

Date: 10/25/2017 11:22:40 AM Rack:Tube: 1:42

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-192850-a-11-d

Date: 10/25/2017 11:24:44 AM Rack:Tube: 1:43

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194758-a-1-d

Date: 10/25/2017 11:26:48 AM Rack:Tube: 1:44

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194847-c-2-a

Date: 10/25/2017 11:28:53 AM Rack:Tube: 1:21

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194653-h-4-b

Date: 10/25/2017 11:30:57 AM Rack:Tube: 1:27

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4444438

Date: 10/25/2017 11:33:02 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 11:35:05 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 11:41:24 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: mb 440-436965/1-a@5

Date: 10/25/2017 11:48:56 AM Rack:Tube: 1:45

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: lcs 440-436965/2-a@5

Date: 10/25/2017 11:51:01 AM Rack:Tube: 1:46

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: X440-194781-a-1-a@5

Date: 10/25/2017 11:53:05 AM Rack:Tube: 1:47

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: X440-194781-a-1-b ms@5

Date: 10/25/2017 11:55:10 AM Rack:Tube: 1:48

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: X440-194781-a-1-c msd@5

Date: 10/25/2017 11:57:14 AM Rack:Tube: 1:49

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: X440-194781-a-1-aPDS@5

Date: 10/25/2017 11:59:19 AM Rack:Tube: 1:50

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: X440-194781-a-1-aSD@25

Date: 10/25/2017 12:01:23 PM Rack:Tube: 1:51

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: X440-194781-a-2-a@5

Date: 10/25/2017 12:03:27 PM Rack:Tube: 1:52

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: X440-194781-a-3-a@5

Date: 10/25/2017 12:05:31 PM Rack:Tube: 1:53

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194758-a-1-d@100

Date: 10/25/2017 12:07:36 PM Rack:Tube: 1:44

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4444438

Date: 10/25/2017 12:09:40 PM
Rack:Tube: S1:4
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 12:11:44 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194781-a-1-a@10

Date: 10/25/2017 12:23:02 PM Rack:Tube: 1:47

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194781-a-1-b ms@10

Date: 10/25/2017 12:25:07 PM Rack:Tube: 1:48

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194781-a-1-c msd@10

Date: 10/25/2017 12:27:11 PM Rack:Tube: 1:49

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194781-a-1-aPDS@10

Date: 10/25/2017 12:29:15 PM Rack:Tube: 1:50

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194781-a-1-aSD@50

Date: 10/25/2017 12:31:20 PM Rack:Tube: 1:51

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194781-a-2-a@10

Date: 10/25/2017 12:33:25 PM Rack:Tube: 1:52

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194781-a-3-a@10

Date: 10/25/2017 12:35:29 PM Rack:Tube: 1:53

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194781-a-4-a@10

Date: 10/25/2017 12:37:33 PM Rack:Tube: 1:54

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194782-a-1-a@10

Date: 10/25/2017 12:39:37 PM Rack:Tube: 1:55

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194782-a-2-a@10

Date: 10/25/2017 12:41:41 PM Rack:Tube: 1:56

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4444438

Date: 10/25/2017 12:43:46 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 12:45:50 PM
Rack:Tube: S1:1
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194782-a-3-a@10

Date: 10/25/2017 12:47:55 PM Rack:Tube: 1:57

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194782-a-4-a@10

Date: 10/25/2017 12:49:59 PM Rack:Tube: 1:58

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194782-a-5-a@10

Date: 10/25/2017 12:52:04 PM Rack:Tube: 1:59

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194782-a-6-a@10

Date: 10/25/2017 12:54:09 PM Rack:Tube: 1:60

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194782-a-7-a@10

Date: 10/25/2017 12:56:13 PM Rack:Tube: 2:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194782-a-8-a@10

Date: 10/25/2017 12:58:17 PM Rack:Tube: 2:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194782-a-9-a@10

Date: 10/25/2017 1:00:22 PM Rack:Tube: 2:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194782-a-10-a@10

Date: 10/25/2017 1:02:26 PM Rack:Tube: 2:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194782-a-11-a@10

Date: 10/25/2017 1:04:31 PM Rack:Tube: 2:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194782-a-12-a@10

Date: 10/25/2017 1:06:36 PM Rack:Tube: 2:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4444438

Date: 10/25/2017 1:08:41 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 1:10:46 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: mb 440-436943/1-a

Date: 10/25/2017 1:12:51 PM Rack:Tube: 2:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: lcs 440-436943/2-a

Date: 10/25/2017 1:14:57 PM Rack:Tube: 2:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194613-a-1-b

Date: 10/25/2017 1:17:01 PM Rack:Tube: 2:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194613-a-1-c ms

Date: 10/25/2017 1:19:07 PM Rack:Tube: 2:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194613-a-1-d msd

Date: 10/25/2017 1:21:12 PM Rack:Tube: 2:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194617-a-1-b

Date: 10/25/2017 1:23:17 PM Rack:Tube: 2:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194713-j-6-a

Date: 10/25/2017 1:25:23 PM Rack:Tube: 2:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194713-j-5-a

Date: 10/25/2017 1:27:28 PM Rack:Tube: 2:14

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194713-j-4-a

Date: 10/25/2017 1:29:32 PM Rack:Tube: 2:15

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194713-j-3-a

Date: 10/25/2017 1:31:36 PM Rack:Tube: 2:16

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4444438

Date: 10/25/2017 1:33:41 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 1:35:45 PM
Rack:Tube: S1:1
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: lcs 440-436965/2-a@5

Date: 10/25/2017 1:46:56 PM Rack:Tube: 1:46

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194713-j-1-a

Date: 10/25/2017 1:49:00 PM Rack:Tube: 2:17

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194600-s-1-b

Date: 10/25/2017 1:51:06 PM Rack:Tube: 2:18

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194600-s-2-b

Date: 10/25/2017 1:53:10 PM Rack:Tube: 2:19

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194600-s-2-b@10

Date: 10/25/2017 2:02:03 PM Rack:Tube: 2:19

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: mb 440-436944/1-a

Date: 10/25/2017 2:06:30 PM Rack:Tube: 2:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: lcs 440-436944/2-a

Date: 10/25/2017 2:08:36 PM Rack:Tube: 2:21

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194642-c-2-a

Date: 10/25/2017 2:10:40 PM Rack:Tube: 2:22

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194642-c-2-b ms

Date: 10/25/2017 2:12:46 PM Rack:Tube: 2:23

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194642-c-2-c msd

Date: 10/25/2017 2:14:51 PM Rack:Tube: 2:24

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4444438

Date: 10/25/2017 2:16:55 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 2:19:00 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4444438

Date: 10/25/2017 2:26:59 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 2:29:04 PM
Rack:Tube: S1:1
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194625-m-1-a

Date: 10/25/2017 2:31:08 PM Rack:Tube: 2:25

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194625-m-2-a

Date: 10/25/2017 2:33:13 PM Rack:Tube: 2:26

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194564-g-4-a

Date: 10/25/2017 2:35:18 PM Rack:Tube: 2:27

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194014-c-3-a

Date: 10/25/2017 2:37:23 PM Rack:Tube: 2:28

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194014-c-4-a

Date: 10/25/2017 2:39:28 PM Rack:Tube: 2:29

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194028-c-1-a

Date: 10/25/2017 2:41:33 PM Rack:Tube: 2:30

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194028-c-2-a

Date: 10/25/2017 2:43:37 PM Rack:Tube: 2:31

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194616-b-1-a

Date: 10/25/2017 2:45:41 PM Rack:Tube: 2:32

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194616-b-2-a

Date: 10/25/2017 2:47:47 PM Rack:Tube: 2:33

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194642-c-1-a

Date: 10/25/2017 2:49:52 PM Rack:Tube: 2:34

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4444438

Date: 10/25/2017 2:58:22 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 3:00:26 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4444438

Date: 10/25/2017 3:14:32 PM
Rack:Tube: S1:4
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 3:16:37 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: RINSE 4444447

Date: 10/25/2017 3:26:16 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4444438

Date: 10/25/2017 3:28:21 PM
Rack:Tube: S1:4
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 3:30:26 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194642-c-1-b ms

Date: 10/25/2017 3:32:31 PM Rack:Tube: 2:35

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194642-c-1-c msd

Date: 10/25/2017 3:34:36 PM Rack:Tube: 2:36

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194642-c-3-a

Date: 10/25/2017 3:36:41 PM Rack:Tube: 2:37

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194647-i-1-a

Date: 10/25/2017 3:38:46 PM Rack:Tube: 2:38

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194647-i-2-a

Date: 10/25/2017 3:40:50 PM Rack:Tube: 2:39

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194647-i-3-a

Date: 10/25/2017 3:42:55 PM Rack:Tube: 2:40

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194647-i-4-a

Date: 10/25/2017 3:44:59 PM Rack:Tube: 2:41

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194647-i-5-a

Date: 10/25/2017 3:47:04 PM Rack:Tube: 2:42

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194647-i-6-a

Date: 10/25/2017 3:49:09 PM
Rack:Tube: 2:43
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194647-i-7-a

Date: 10/25/2017 3:51:13 PM Rack:Tube: 2:44

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4444438

Date: 10/25/2017 3:53:17 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 3:55:21 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194656-f-1-a

Date: 10/25/2017 3:59:33 PM Rack:Tube: 2:45

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194014-c-4-a@20

Date: 10/25/2017 4:01:37 PM Rack:Tube: 2:29

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194028-c-1-a@10

Date: 10/25/2017 4:03:41 PM Rack:Tube: 2:30

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194028-c-2-a@20

Date: 10/25/2017 4:05:46 PM Rack:Tube: 2:31

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194647-i-2-a@5

Date: 10/25/2017 4:07:50 PM Rack:Tube: 2:39

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194647-i-3-a@5

Date: 10/25/2017 4:09:54 PM Rack:Tube: 2:40

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194647-i-5-a@5

Date: 10/25/2017 4:11:59 PM Rack:Tube: 2:42

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194647-i-6-a@5

Date: 10/25/2017 4:14:03 PM Rack:Tube: 2:43

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194647-i-7-a@5

Date: 10/25/2017 4:16:07 PM Rack:Tube: 2:44

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4444438

Date: 10/25/2017 4:18:12 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 4:20:16 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4444438

Date: 10/25/2017 4:26:22 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 4:28:27 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: mb 440-437212/1-a@5

Date: 10/25/2017 4:30:31 PM Rack:Tube: 2:46

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: lcs 440-437212/2-a@5

Date: 10/25/2017 4:32:35 PM Rack:Tube: 2:47

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194754-a-6-d@5

Date: 10/25/2017 4:34:40 PM Rack:Tube: 2:48

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194754-a-6-e ms@5

Date: 10/25/2017 4:36:44 PM Rack:Tube: 2:49

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194754-a-6-f msd@5

Date: 10/25/2017 4:38:48 PM Rack:Tube: 2:50

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194754-a-6-dPDS@5

Date: 10/25/2017 4:40:52 PM Rack:Tube: 2:51

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194754-a-6-dSD@25

Date: 10/25/2017 4:42:56 PM Rack:Tube: 2:52

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194754-a-2-b@5

Date: 10/25/2017 4:45:00 PM Rack:Tube: 2:53

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194754-a-3-b@5

Date: 10/25/2017 4:47:05 PM Rack:Tube: 2:54

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194754-a-4-b@5

Date: 10/25/2017 4:49:09 PM Rack:Tube: 2:55

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4444438

Date: 10/25/2017 4:51:13 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 4:53:17 PM
Rack:Tube: S1:1
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194754-a-5-b@5

Date: 10/25/2017 4:55:21 PM Rack:Tube: 2:56

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194754-a-7-b@5

Date: 10/25/2017 4:57:26 PM Rack:Tube: 2:57

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194754-a-8-b@5

Date: 10/25/2017 4:59:31 PM Rack:Tube: 2:58

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194754-a-10-b@5

Date: 10/25/2017 5:01:35 PM Rack:Tube: 2:59

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194754-a-11-b@5

Date: 10/25/2017 5:03:39 PM Rack:Tube: 2:60

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194754-a-12-b@5

Date: 10/25/2017 5:05:45 PM Rack:Tube: 3:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194754-a-13-b@5

Date: 10/25/2017 5:07:49 PM Rack:Tube: 3:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194754-a-15-b@5

Date: 10/25/2017 5:09:55 PM Rack:Tube: 3:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194754-a-16-b@5

Date: 10/25/2017 5:12:00 PM Rack:Tube: 3:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194754-a-17-b@5

Date: 10/25/2017 5:14:05 PM Rack:Tube: 3:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4444438

Date: 10/25/2017 5:16:10 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 5:18:14 PM
Rack:Tube: S1:1
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 5:31:02 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194754-a-18-b@5

Date: 10/25/2017 5:33:07 PM Rack:Tube: 3:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194641-a-1-e@5

Date: 10/25/2017 5:35:11 PM Rack:Tube: 3:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194623-a-14-b@5

Date: 10/25/2017 5:37:16 PM Rack:Tube: 3:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194876-a-1-a@5

Date: 10/25/2017 5:39:21 PM Rack:Tube: 3:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4444438

Date: 10/25/2017 5:41:25 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 5:43:29 PM
Rack:Tube: S1:1
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: mb 440-437352/1-a

Date: 10/25/2017 5:46:50 PM Rack:Tube: 3:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: lcs 440-437352/2-a

Date: 10/25/2017 5:48:55 PM Rack:Tube: 3:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194768-a-1-a

Date: 10/25/2017 5:51:00 PM Rack:Tube: 3:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194768-a-1-b ms

Date: 10/25/2017 5:53:06 PM Rack:Tube: 3:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194768-a-1-c msd

Date: 10/25/2017 5:55:11 PM Rack:Tube: 3:14

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194768-a-2-a

Date: 10/25/2017 5:57:16 PM Rack:Tube: 3:15

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194768-a-3-a

Date: 10/25/2017 5:59:21 PM
Rack:Tube: 3:16
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4444438

Date: 10/25/2017 6:01:27 PM
Rack:Tube: S1:4
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 6:03:31 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: mb 440-437356/1-a

Date: 10/25/2017 6:05:36 PM Rack:Tube: 3:17

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: lcs 440-437356/2-a

Date: 10/25/2017 6:07:41 PM Rack:Tube: 3:18

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194756-g-2-a@5

Date: 10/25/2017 6:09:46 PM Rack:Tube: 3:19

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194756-g-2-b ms@5

Date: 10/25/2017 6:11:51 PM Rack:Tube: 3:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194756-g-2-c msd@5

Date: 10/25/2017 6:13:56 PM Rack:Tube: 3:21

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194829-c-2-a

Date: 10/25/2017 6:16:01 PM
Rack:Tube: 3:22
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194829-c-1-a

Date: 10/25/2017 6:18:06 PM Rack:Tube: 3:23

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194825-g-4-a

Date: 10/25/2017 6:20:11 PM Rack:Tube: 3:24

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4444438

Date: 10/25/2017 6:22:16 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 6:24:20 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: mb 440-437401/1-a@5

Date: 10/25/2017 6:26:25 PM Rack:Tube: 3:25

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: lcs 440-437401/2-a@5

Date: 10/25/2017 6:28:31 PM Rack:Tube: 3:26

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194907-a-2-a@5

Date: 10/25/2017 6:30:36 PM Rack:Tube: 3:27

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194907-a-2-b ms@5

Date: 10/25/2017 6:32:41 PM Rack:Tube: 3:28

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194907-a-2-c msd@5

Date: 10/25/2017 6:34:47 PM Rack:Tube: 3:29

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194907-a-2-aPDS@5

Date: 10/25/2017 6:36:52 PM Rack:Tube: 3:30

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194907-a-2-aSD@25

Date: 10/25/2017 6:38:57 PM Rack:Tube: 3:31

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-194907-a-1-a@5

Date: 10/25/2017 6:41:02 PM Rack:Tube: 3:32

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-191869-b-1-d@5

Date: 10/25/2017 6:43:06 PM Rack:Tube: 3:33

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: 440-191869-b-1-e@5

Date: 10/25/2017 6:45:12 PM Rack:Tube: 3:34

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCV 4444438

Date: 10/25/2017 6:47:16 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CCB 4444437

Date: 10/25/2017 6:49:20 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: CRI 4444445

Date: 10/25/2017 6:51:25 PM
Rack:Tube: S1:10
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: ICSA 4444442

Date: 10/25/2017 6:53:29 PM Rack:Tube: S1:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Si (251.611 nm) | -0.0239 u | ppm | 0.0020 | 8.26 | 44.8800 | -0.0239 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: ICSAB 4444443

Date: 10/25/2017 6:55:33 PM Rack:Tube: S1:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: RINSE 4444447

Date: 10/25/2017 6:57:38 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: RINSE 4444447

Date: 10/25/2017 6:59:42 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: RINSE 4444447

Date: 10/25/2017 7:01:46 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: RINSE 4444447

Date: 10/25/2017 7:03:50 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: RINSE 4444447

Date: 10/25/2017 7:05:55 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Date created: 10/25/2017 10:16:35 AM

Sequence table:

| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| S1:5 | ICV 4444441 | 1.0 | 1.0 | 1.0 |
| S1:5 | IPC 4444441 | 1.0 | 1.0 | 1.0 |
| S1:1 | ICB 4444437 | 1.0 | 1.0 | 1.0 |
| S1:6 | ICSA 4444442 | 1.0 | 1.0 | 1.0 |
| S1:7 | ICSAB 4444443 | 1.0 | 1.0 | 1.0 |
| S1:8 | XICIS 4444446 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4444447 | 1.0 | 1.0 | 1.0 |
| S1:9 | XCRI 4444444 | 1.0 | 1.0 | 1.0 |
| S1:10 | CRI 4444445 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 1:1 | MB 440-437119/1-A | 1.0 | 1.0 | 1.0 |
| 1:2 | LCS 440-437119/2-A | 1.0 | 1.0 | 1.0 |
| 1:3 | 440-194183-AC-1-B | 1.0 | 1.0 | 1.0 |
| 1:4 | 440-194183-AC-1-C MS | 1.0 | 1.0 | 1.0 |
| 1:5 | 440-194183-AC-1-D MSD | 1.0 | 1.0 | 1.0 |
| 1:6 | 440-194183-AC-1-E PDS | 1.0 | 1.0 | 1.0 |
| 1:7 | 440-194183-AC-1-Bsd@5 | 1.0 | 1.0 | 1.0 |
| 1:8 | 440-194183-AC-2-B | 1.0 | 1.0 | 1.0 |
| 1:9 | 440-194183-AC-3-B | 1.0 | 1.0 | 1.0 |
| 1:10 | 440-194183-AC-4-B | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 1:11 | 440-194188-AC-2-B | 1.0 | 1.0 | 1.0 |
| 1:12 | 440-194188-AC-3-B | 1.0 | 1.0 | 1.0 |
| 1:13 | 440-194188-AC-4-B | 1.0 | 1.0 | 1.0 |
| 1:14 | 440-194188-AC-5-B | 1.0 | 1.0 | 1.0 |
| 1:15 | 440-194188-AC-6-B | 1.0 | 1.0 | 1.0 |
| 1:16 | 440-194188-AC-7-B | 1.0 | 1.0 | 1.0 |
| 1:17 | 440-194188-AC-8-B | 1.0 | 1.0 | 1.0 |
| 1:18 | 440-194188-AC-9-B | 1.0 | 1.0 | 1.0 |
| 1:19 | 440-194188-AC-10-B | 1.0 | 1.0 | 1.0 |
| 1:20 | 440-194188-AC-11-B | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 1:21 | MB 440-437120/1-A | 1.0 | 1.0 | 1.0 |

| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| 1:22 | LCS 440-437120/2-A | 1.0 | 1.0 | 1.0 |
| 1:23 | 440-194525-D-1-B | 1.0 | 1.0 | 1.0 |
| 1:24 | 440-194525-D-1-C MS | 1.0 | 1.0 | 1.0 |
| 1:25 | 440-194525-D-1-D MSD | 1.0 | 1.0 | 1.0 |
| 1:26 | 440-194525-D-1-E PDS | 1.0 | 1.0 | 1.0 |
| 1:27 | 440-194525-D-1-Bsd@5 | 1.0 | 1.0 | 1.0 |
| 1:28 | 440-194659-D-2-B | 1.0 | 1.0 | 1.0 |
| 1:29 | 440-194659-D-1-B | 1.0 | 1.0 | 1.0 |
| 1:30 | 440-194754-G-9-A@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 1:31 | 440-194573-H-12-B | 1.0 | 1.0 | 1.0 |
| 1:32 | 440-194725-A-1-A | 1.0 | 1.0 | 1.0 |
| 1:33 | 440-194725-A-2-A | 1.0 | 1.0 | 1.0 |
| 1:34 | 440-194725-A-3-A | 1.0 | 1.0 | 1.0 |
| 1:35 | 440-194725-A-4-A | 1.0 | 1.0 | 1.0 |
| 1:36 | 440-194725-A-5-A | 1.0 | 1.0 | 1.0 |
| 1:37 | 440-194727-A-1-A | 1.0 | 1.0 | 1.0 |
| 1:38 | 440-194727-A-2-A | 1.0 | 1.0 | 1.0 |
| 1:39 | 440-194727-A-3-A | 1.0 | 1.0 | 1.0 |
| 1:40 | 440-194728-A-1-A | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 1:41 | 440-194730-A-1-A | 1.0 | 1.0 | 1.0 |
| 1:42 | 440-194474-g-4-a@5 | 1.0 | 1.0 | 1.0 |
| 1:43 | 440-194474-g-4-b ms@5 | 1.0 | 1.0 | 1.0 |
| 1:44 | 440-194474-g-4-c msd@5 | 1.0 | 1.0 | 1.0 |
| 1:45 | 440-194472-g-2-a | 1.0 | 1.0 | 1.0 |
| 1:46 | 440-194472-g-1-a | 1.0 | 1.0 | 1.0 |
| 1:47 | 440-194470-g-1-a | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 1:48 | mb 440-437208/1-a@5 | 1.0 | 1.0 | 1.0 |
| 1:49 | lcs 440-437208/2-a@5 | 1.0 | 1.0 | 1.0 |
| 1:50 | 440-194329-a-1-f@25 | 1.0 | 1.0 | 1.0 |
| 1:51 | 440-194329-a-1-g ms@25 | 1.0 | 1.0 | 1.0 |
| 1:52 | 440-194329-a-1-h msd@25 | 1.0 | 1.0 | 1.0 |
| 1:53 | 440-194329-a-1-fPDS@25 | 1.0 | 1.0 | 1.0 |
| 1:54 | 440-194329-a-1-fSD@125 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 1:55 | mb 440-437309/1-a@5 | 1.0 | 1.0 | 1.0 |
| 1:56 | lcs 440-437309/2-a@5 | 1.0 | 1.0 | 1.0 |

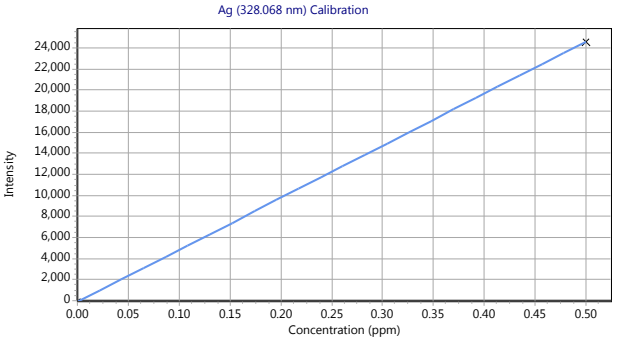
| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| 1:57 | 440-194910-a-5-a@5 | 1.0 | 1.0 | 1.0 |
| 1:58 | 440-194910-a-5-b ms@5 | 1.0 | 1.0 | 1.0 |
| 1:59 | 440-194910-a-5-c msd@5 | 1.0 | 1.0 | 1.0 |
| 1:60 | 440-194910-a-5-aPDS@5 | 1.0 | 1.0 | 1.0 |
| 2:1 | 440-194910-a-5-aSD@25 | 1.0 | 1.0 | 1.0 |
| 2:2 | 440-194910-d-6-a@5 | 1.0 | 1.0 | 1.0 |
| 2:3 | 440-194910-d-7-a@5 | 1.0 | 1.0 | 1.0 |
| 2:4 | 440-194851-a-1-d@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 2:5 | 440-194851-a-2-b@5 | 1.0 | 1.0 | 1.0 |
| 2:6 | 440-194851-a-3-b@5 | 1.0 | 1.0 | 1.0 |
| 2:7 | 440-194851-a-4-b@5 | 1.0 | 1.0 | 1.0 |
| 2:8 | 440-194825-e-2-b@5 | 1.0 | 1.0 | 1.0 |
| 2:9 | 440-194825-e-3-b@5 | 1.0 | 1.0 | 1.0 |
| 2:10 | 440-194890-a-1-d@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 2:11 | mb 440-437381/1-a@5 | 1.0 | 1.0 | 1.0 |
| 2:12 | lcs 440-437381/2-a@5 | 1.0 | 1.0 | 1.0 |
| 2:13 | 440-194833-b-1-a@5 | 1.0 | 1.0 | 1.0 |
| 2:14 | 440-194833-b-1-b ms@5 | 1.0 | 1.0 | 1.0 |
| 2:15 | 440-194833-b-1-c msd@5 | 1.0 | 1.0 | 1.0 |
| 2:16 | 440-194833-b-1-aPDS@5 | 1.0 | 1.0 | 1.0 |
| 2:17 | 440-194833-b-1-aSD@25 | 1.0 | 1.0 | 1.0 |
| 2:18 | 440-194899-e-1-a@5 | 1.0 | 1.0 | 1.0 |
| 2:19 | 320-32587-a-1-a@5 | 1.0 | 1.0 | 1.0 |
| 2:20 | 440-194863-a-1-c@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4444447 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4444447 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4444447 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4444447 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4444447 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| 2:21 | mb 440-437359/1-a | 1.0 | 1.0 | 1.0 |
| 2:22 | lcs 440-437359/2-a | 1.0 | 1.0 | 1.0 |
| 2:23 | 440-194578-d-2-a | 1.0 | 1.0 | 1.0 |
| 2:24 | 440-194578-d-2-b ms | 1.0 | 1.0 | 1.0 |
| 2:25 | 440-194578-d-2-c msd | 1.0 | 1.0 | 1.0 |
| 2:26 | 440-194578-d-2-d pds | 1.0 | 1.0 | 1.0 |
| 2:27 | 440-194578-d-2-aSD@5 | 1.0 | 1.0 | 1.0 |
| 2:28 | 440-194578-d-3-a | 1.0 | 1.0 | 1.0 |

| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| S1:4 | CCV 4444438 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4444437 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4444447 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4444447 | 1.0 | 1.0 | 1.0 |

Calibration Curves:

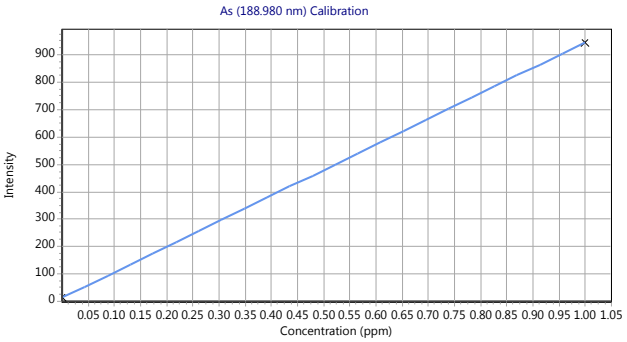
Ag (328.068 nm)
Intensity = 49512 * Concentration - 139

| Standards | Intensity |
|---|---|
| IEC Blank | -139.1000 |
| STD3 | 24620.0000 |



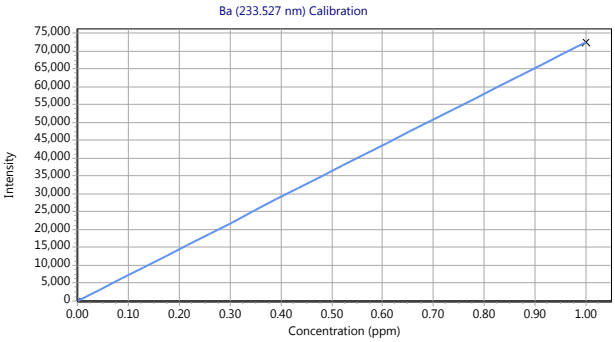

As (188.980 nm)
Intensity = 934 * Concentration + 13

| Standards | Intensity |
|---|---|
| IEC Blank | 13.1000 |
| STD3 | 947.3000 |



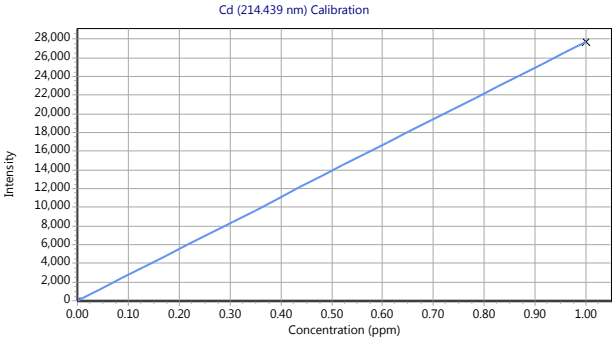

Ba (233.527 nm)
Intensity = 72581 * Concentration + 28

| Standards | Intensity |
|---|---|
| IEC Blank | 28.0100 |
| STD3 | 72610.0000 |



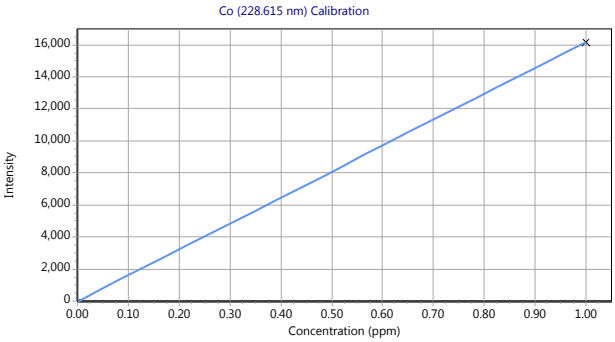

Cd (214.439 nm)
Intensity = 27752 * Concentration - 1

| Standards | Intensity |
|---|---|
| IEC Blank | -1.3440 |
| STD3 | 27750.0000 |



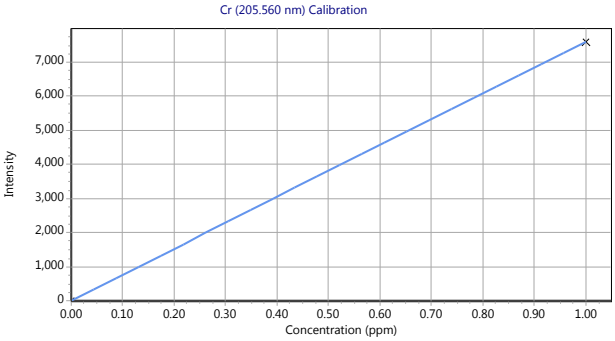

Co (228.615 nm)
Intensity = 16219 * Concentration - 33

| Standards | Intensity |
|---|---|
| IEC Blank | -32.8400 |
| STD3 | 16190.0000 |



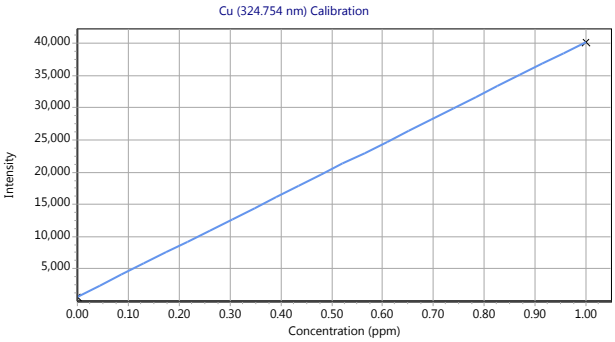

Cr (205.560 nm)
Intensity = 7602 * Concentration + 7

| Standards | Intensity |
|---|---|
| IEC Blank | 6.7530 |
| STD3 | 7609.0000 |



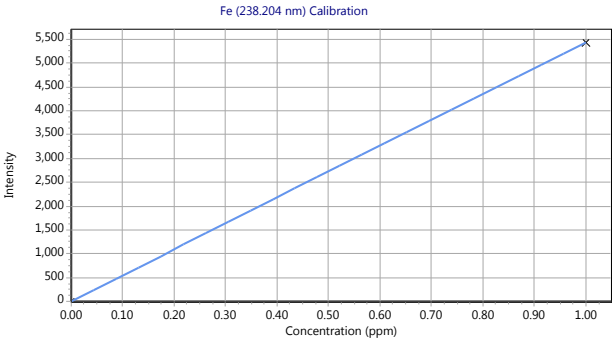

Cu (324.754 nm)
Intensity = 39600 * Concentration + 642

| Standards | Intensity |
|---|---|
| IEC Blank | 641.5000 |
| STD3 | 40240.0000 |



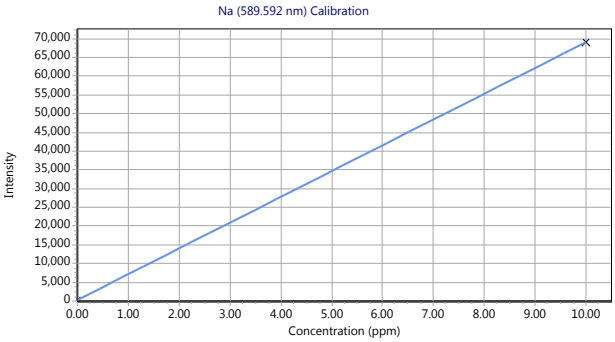

Fe (238.204 nm)
Intensity = 5434 * Concentration + 7

| Standards | Intensity |
|---|---|
| IEC Blank | 6.7790 |
| STD3 | 5441.0000 |



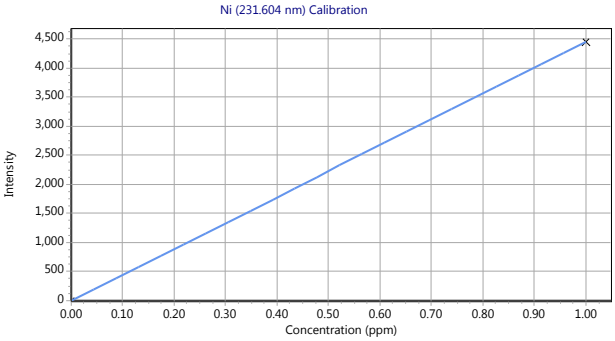

Na (589.592 nm)
Intensity = 6885 * Concentration + 301

| Standards | Intensity |
|---|---|
| IEC Blank | 301.3000 |
| STD3 | 69150.0000 |



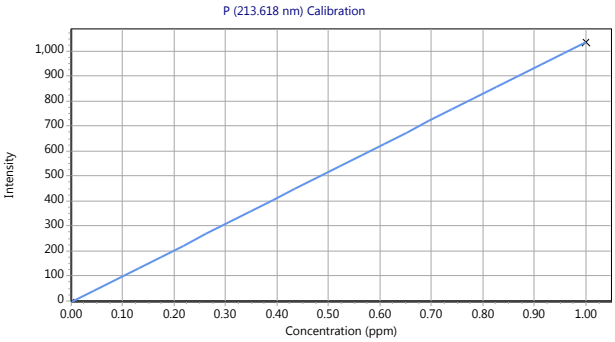

Ni (231.604 nm)
Intensity = 4463 * Concentration - 5

| Standards | Intensity |
|---|---|
| IEC Blank | -5.4400 |
| STD3 | 4457.0000 |



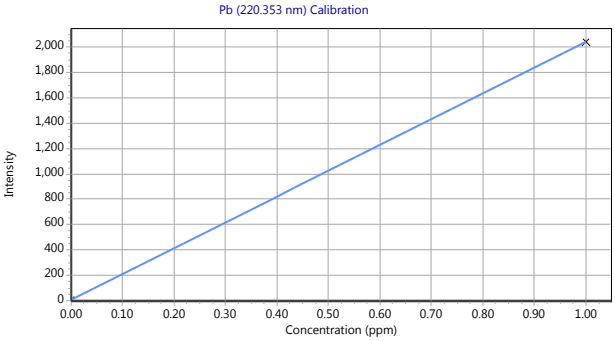

P (213.618 nm)
Intensity = 1041 * Concentration - 4

| Standards | Intensity |
|---|---|
| IEC Blank | -4.2990 |
| STD3 | 1037.0000 |



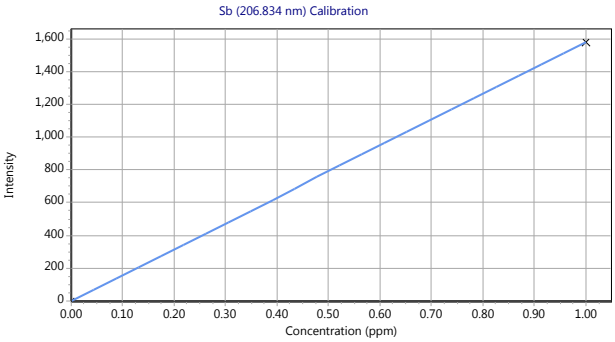

Pb (220.353 nm)
Intensity = 2036 * Concentration + 8

| Standards | Intensity |
|---|---|
| IEC Blank | 7.5330 |
| STD3 | 2043.0000 |



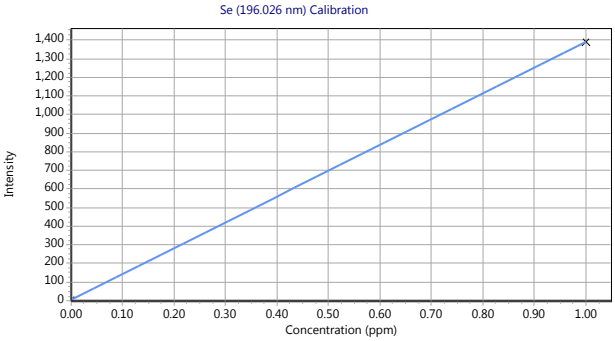

Sb (206.834 nm)
Intensity = 1582 * Concentration - 1

| Standards | Intensity |
|---|---|
| IEC Blank | -1.1350 |
| STD3 | 1581.0000 |



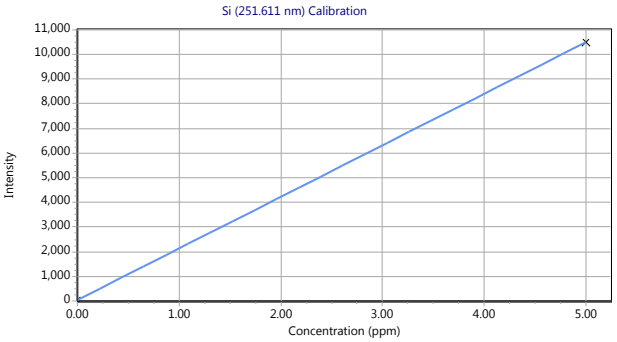

Se (196.026 nm)
Intensity = 1386 * Concentration + 7

| Standards | Intensity |
|---|---|
| IEC Blank | 7.1280 |
| STD3 | 1393.0000 |



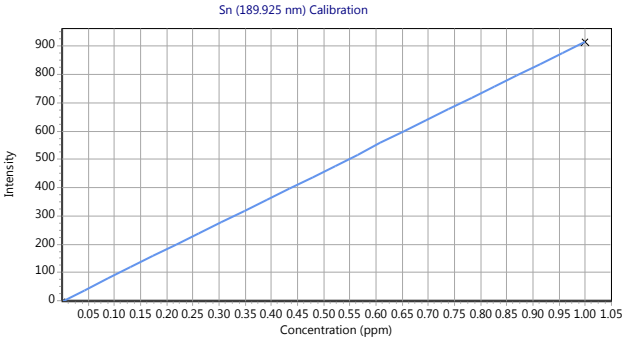

Si (251.611 nm)
Intensity = 2090 * Concentration + 53

| Standards | Intensity |
|---|---|
| IEC Blank | 53.1300 |
| STD3 | 10510.0000 |



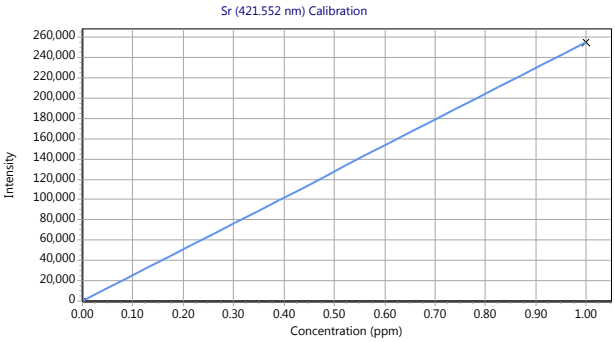

Sn (189.925 nm)
Intensity = 919 * Concentration - 2

| Standards | Intensity |
|---|---|
| IEC Blank | -2.3110 |
| STD3 | 917.1000 |



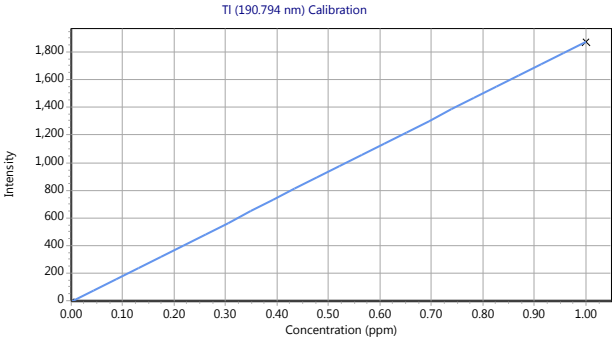

Sr (421.552 nm)
Intensity = 255713 * Concentration - 232

| Standards | Intensity |
|---|---|
| IEC Blank | -231.6000 |
| STD3 | 255500.0000 |



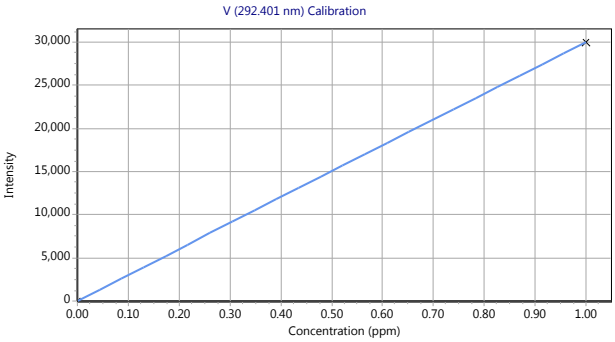

Tl (190.794 nm)
Intensity = 1887 * Concentration - 10

| Standards | Intensity |
|---|---|
| IEC Blank | -10.4200 |
| STD3 | 1877.0000 |



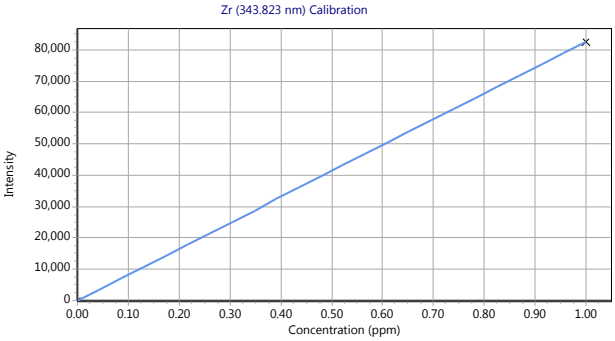

V (292.401 nm)
Intensity = 30007 * Concentration + 28

| Standards | Intensity |
|---|---|
| IEC Blank | 27.8100 |
| STD3 | 30030.0000 |



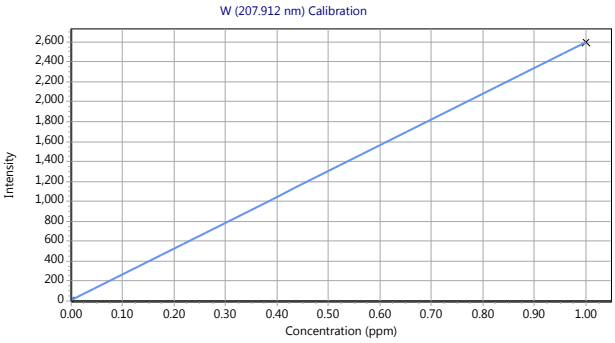

Zr (343.823 nm)
Intensity = 82587 * Concentration + 19

| Standards | Intensity |
|---|---|
| IEC Blank | 18.5200 |
| STD3 | 82610.0000 |



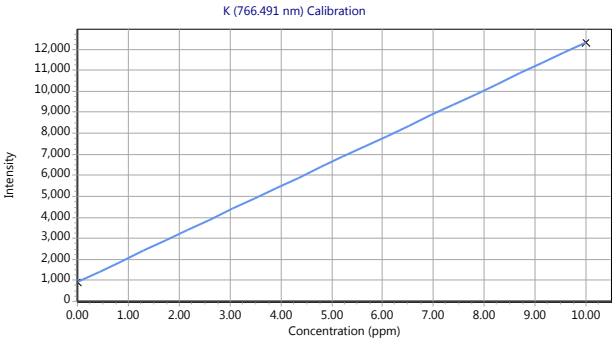

W (207.912 nm)
Intensity = 2594 * Concentration + 8

| Standards | Intensity |
|---|---|
| IEC Blank | 7.5290 |
| STD3 | 2601.0000 |



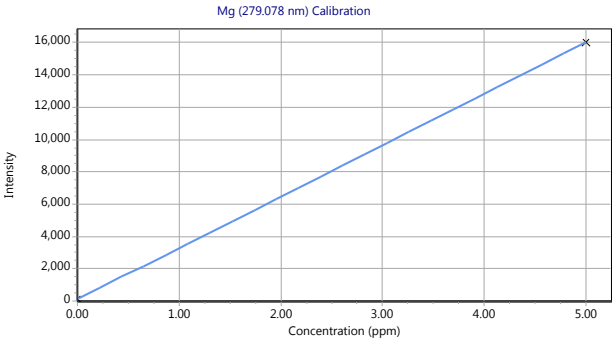

K (766.491 nm)
Intensity = 1142 * Concentration + 920

| Standards | Intensity |
|---|---|
| IEC Blank | 920.4000 |
| STD3 | 12340.0000 |



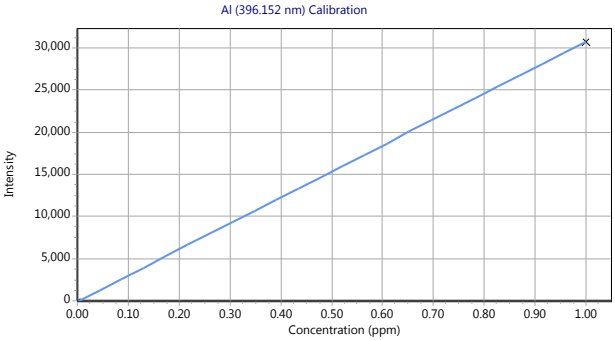

Mg (279.078 nm)
Intensity = 3190 * Concentration + 96

| Standards | Intensity |
|---|---|
| IEC Blank | 96.3800 |
| STD3 | 16050.0000 |



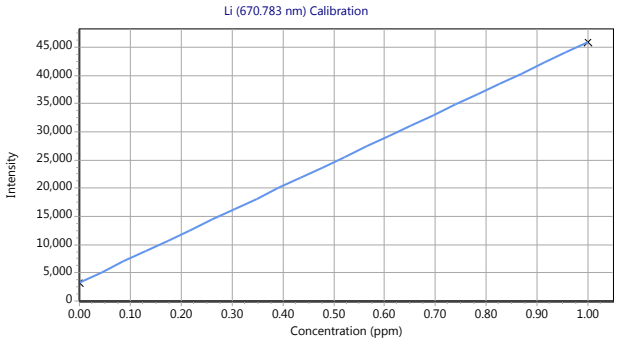

Al (396.152 nm)
Intensity = 30860 * Concentration - 100

| Standards | Intensity |
|---|---|
| IEC Blank | -100.0000 |
| STD3 | 30760.0000 |



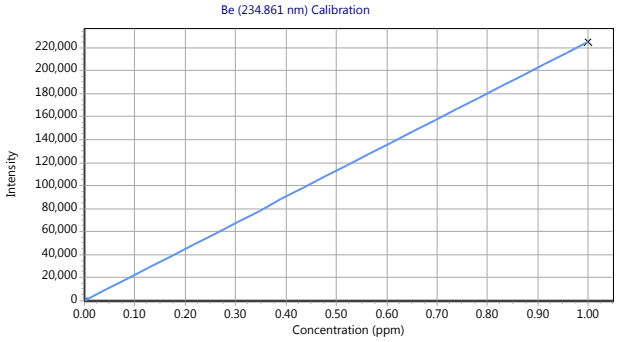

Li (670.783 nm)
Intensity = 42676 * Concentration + 3265

| Standards | Intensity |
|---|---|
| IEC Blank | 3265.0000 |
| STD3 | 45940.0000 |



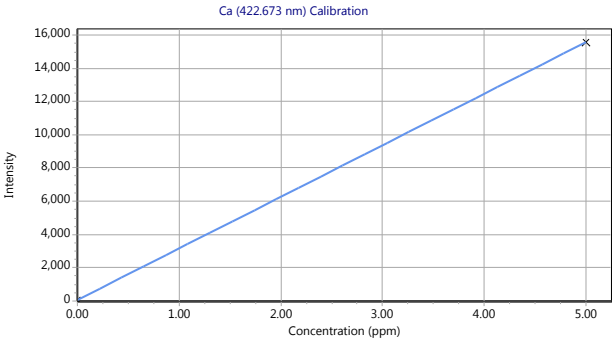

Be (234.861 nm)
Intensity = 225304 * Concentration + 12

| Standards | Intensity |
|---|---|
| IEC Blank | 11.5500 |
| STD3 | 225300.0000 |



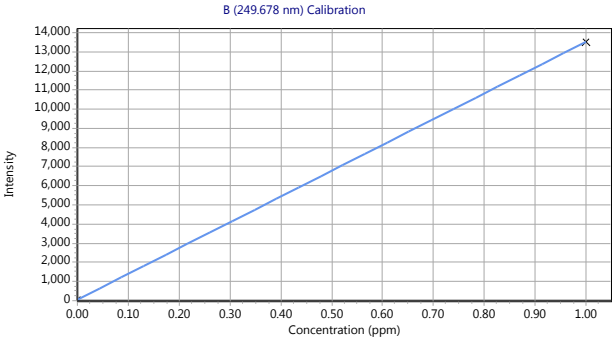

Ca (422.673 nm)
Intensity = 3101 * Concentration + 85

| Standards | Intensity |
|---|---|
| IEC Blank | 85.1200 |
| STD3 | 15590.0000 |



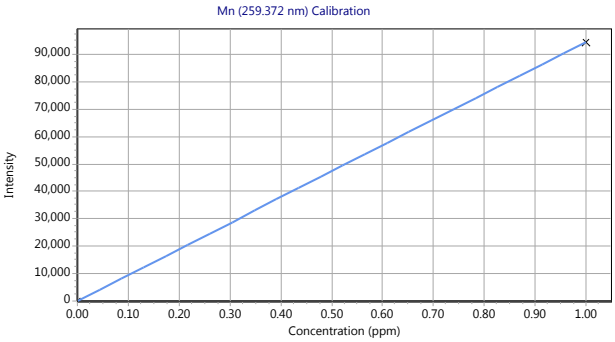

B (249.678 nm)
Intensity = 13479 * Concentration + 55

| Standards | Intensity |
|---|---|
| IEC Blank | 54.8100 |
| STD3 | 13530.0000 |



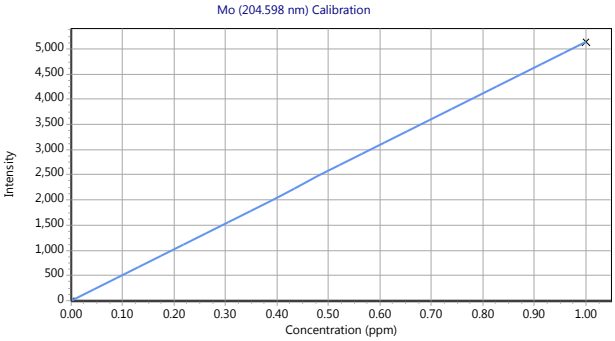

Mn (259.372 nm)
Intensity = 94567 * Concentration + 50

| Standards | Intensity |
|---|---|
| IEC Blank | 49.7600 |
| STD3 | 94620.0000 |



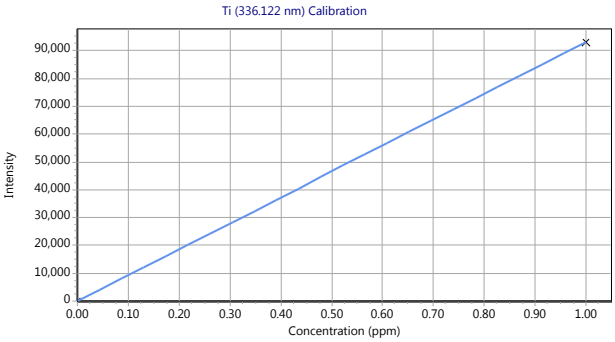

Mo (204.598 nm)
Intensity = 5150 * Concentration - 2

| Standards | Intensity |
|---|---|
| IEC Blank | -2.3670 |
| STD3 | 5147.0000 |



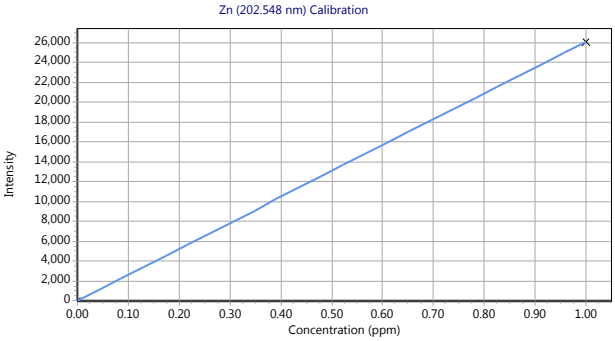

Ti (336.122 nm)
Intensity = 93244 * Concentration - 52

| Standards | Intensity |
|---|---|
| IEC Blank | -51.5300 |
| STD3 | 93190.0000 |



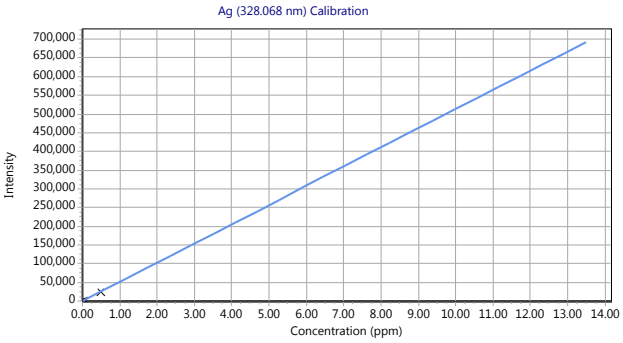

Zn (202.548 nm)
Intensity = 26128 * Concentration + 8

| Standards | Intensity |
|---|---|
| IEC Blank | 7.8630 |
| STD3 | 26140.0000 |



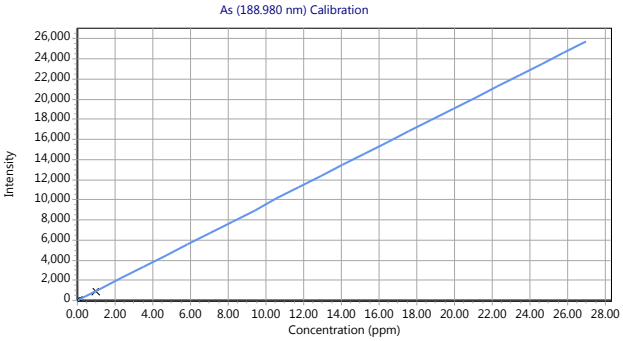

Ag (328.068 nm)
Intensity = 51330.96238682 * Concentration - 20.96768118
Correlation coefficient: 0.99999

| Standards | Intensity |
|---|---|
| STD0 4444437 | -20.9700 |
| STD1 4444440 | -17.2100 |
| STD2 4444439 | 2543.0000 |
| STD3 4444438 | 25650.0000 |



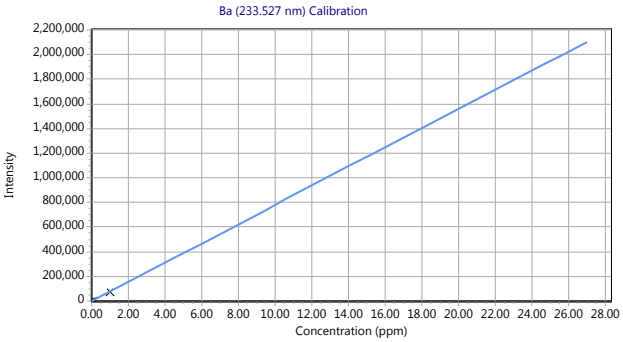

As (188.980 nm)
Intensity = 954.23800830 * Concentration + 5.43605990
Correlation coefficient: 0.99996

| Standards | Intensity |
|---|---|
| STD0 4444437 | 5.4360 |
| STD1 4444440 | 14.4600 |
| STD2 4444439 | 110.1000 |
| STD3 4444438 | 958.7000 |



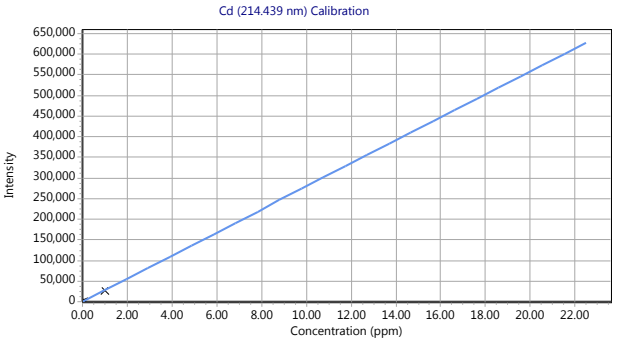

Ba (233.527 nm)
Intensity = 77906.86122550 * Concentration + 37.51508477
Correlation coefficient: 0.99997

| Standards | Intensity |
|---|---|
| STD0 4444437 | 37.5200 |
| STD1 4444440 | 414.5000 |
| STD2 4444439 | 8449.0000 |
| STD3 4444438 | 77880.0000 |



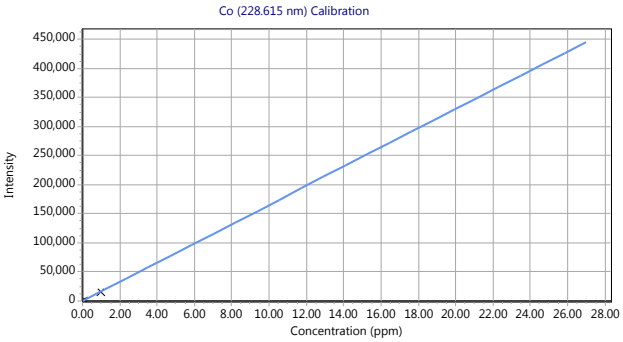

Cd (214.439 nm)
Intensity = 27932.82770221 * Concentration - 1.83094996
Correlation coefficient: 0.99999

| Standards | Intensity |
|---|---|
| STD0 4444437 | -1.8310 |
| STD1 4444440 | 133.7000 |
| STD2 4444439 | 2929.0000 |
| STD3 4444438 | 27920.0000 |



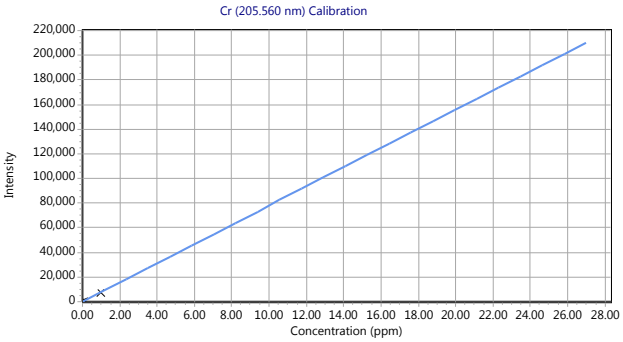

Co (228.615 nm)
Intensity = 16518.19737497 * Concentration - 34.38385465
Correlation coefficient: 0.99998

| Standards | Intensity |
|---|---|
| STD0 4444437 | -34.3800 |
| STD1 4444440 | 50.9800 |
| STD2 4444439 | 1719.0000 |
| STD3 4444438 | 16470.0000 |



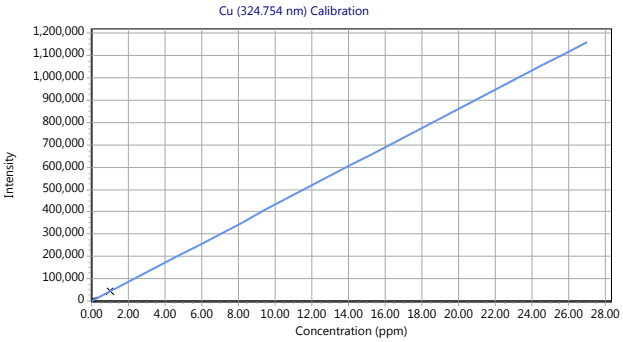

Cr (205.560 nm)
Intensity = 7789.38852714 * Concentration + 3.85709751
Correlation coefficient: 0.99998

| Standards | Intensity |
|---|---|
| STD0 4444437 | 3.8570 |
| STD1 4444440 | 41.7100 |
| STD2 4444439 | 833.6000 |
| STD3 4444438 | 7788.0000 |



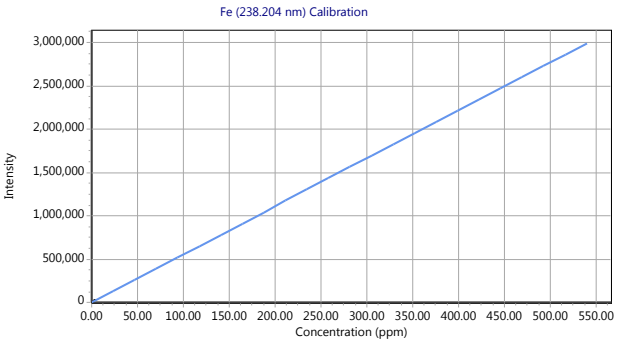

Cu (324.754 nm)
Intensity = 42994.59270466 * Concentration + 608.91313214
Correlation coefficient: 0.99999

| Standards | Intensity |
|---|---|
| STD0 4444437 | 608.9000 |
| STD1 4444440 | 819.9000 |
| STD2 4444439 | 5098.0000 |
| STD3 4444438 | 43580.0000 |



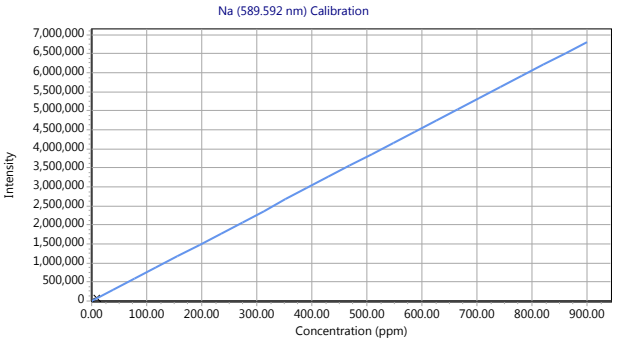

Fe (238.204 nm)
Intensity = 5550.15431914 * Concentration - 16.33444958
Correlation coefficient: 0.99997

| Standards | Intensity |
|---|---|
| STD0 4444437 | -16.3300 |
| STD2 4444439 | 581.1000 |
| STD3 4444438 | 5530.0000 |



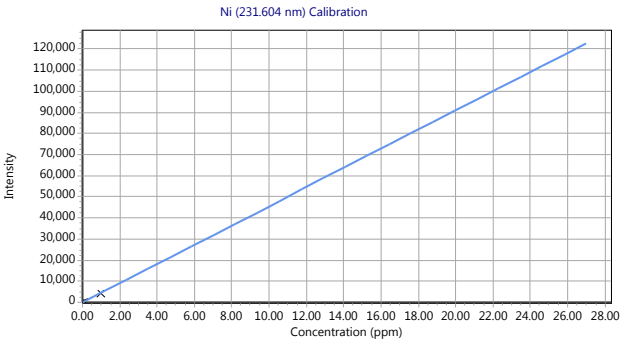

Na (589.592 nm)
Intensity = 7571.29591727 * Concentration + 100.38341142
Correlation coefficient: 0.99998

| Standards | Intensity |
|---|---|
| STD0 4444437 | 100.4000 |
| STD2 4444439 | 8199.0000 |
| STD3 4444438 | 75760.0000 |



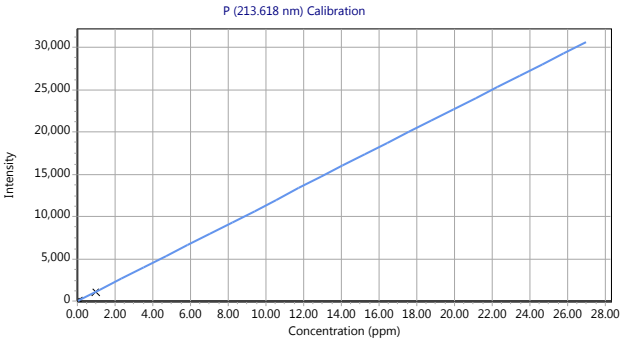

Ni (231.604 nm)
Intensity = 4547.33340130 * Concentration - 6.52687853
Correlation coefficient: 0.99998

| Standards | Intensity |
|---|---|
| STD0 4444437 | -6.5270 |
| STD1 4444440 | 16.4400 |
| STD2 4444439 | 474.7000 |
| STD3 4444438 | 4538.0000 |



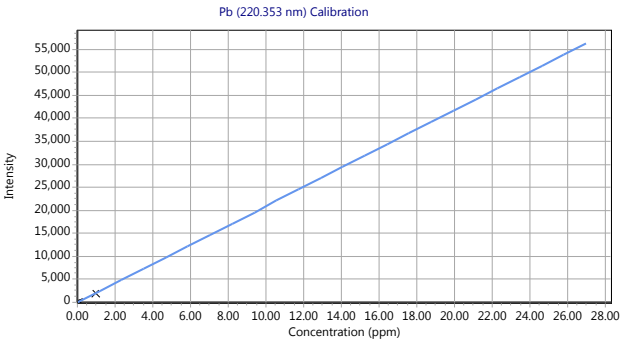

P (213.618 nm)
Intensity = 1136.40774269 * Concentration - 3.68219021
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | -3.6820 |
| STD2 4444439 | 111.6000 |
| STD3 4444438 | 1133.0000 |



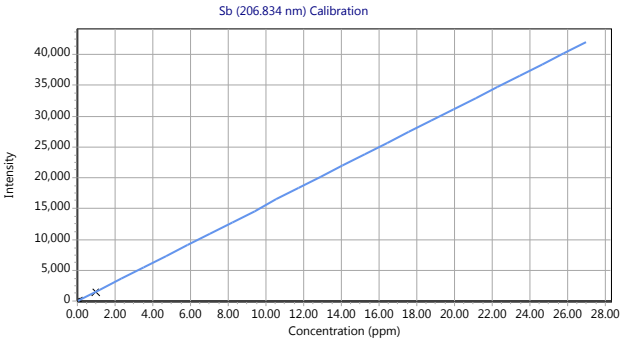

Pb (220.353 nm)
Intensity = 2085.48249042 * Concentration + 7.82024478
Correlation coefficient: 0.99997

| Standards | Intensity |
|---|---|
| STD0 4444437 | 7.8200 |
| STD1 4444440 | 22.1100 |
| STD2 4444439 | 232.3000 |
| STD3 4444438 | 2092.0000 |



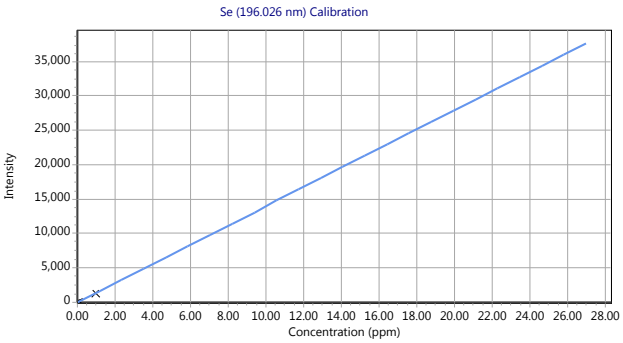

Sb (206.834 nm)
Intensity = 1556.80017296 * Concentration + 1.42806544
Correlation coefficient: 0.99998

| Standards | Intensity |
|---|---|
| STD0 4444437 | 1.4280 |
| STD1 4444440 | 6.7740 |
| STD2 4444439 | 164.3000 |
| STD3 4444438 | 1558.0000 |



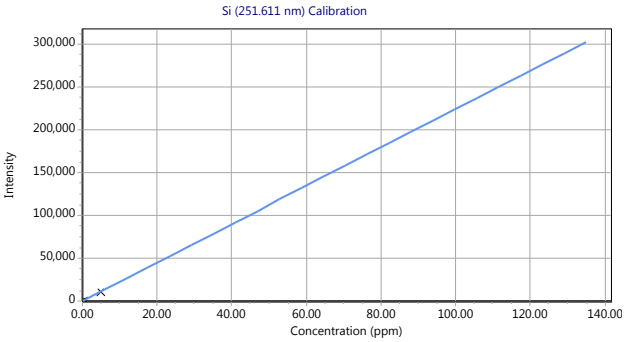

Se (196.026 nm)
Intensity = 1393.84146477 * Concentration + 8.37291395
Correlation coefficient: 0.99999

| Standards | Intensity |
|---|---|
| STD0 4444437 | 8.3730 |
| STD1 4444440 | 9.6890 |
| STD2 4444439 | 144.7000 |
| STD3 4444438 | 1403.0000 |



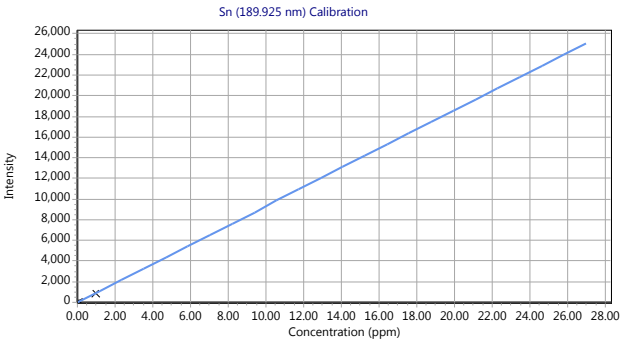

Si (251.611 nm)
Intensity = 2243.56059957 * Concentration + 57.70116231
Correlation coefficient: 0.99999

| Standards | Intensity |
|---|---|
| STD0 4444437 | 57.7000 |
| STD1 4444440 | 111.6000 |
| STD2 4444439 | 1229.0000 |
| STD3 4444438 | 11270.0000 |



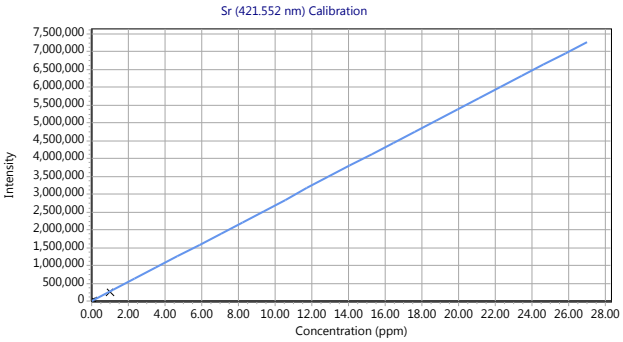

Sn (189.925 nm)
Intensity = 929.07717349 * Concentration - 0.38203594
Correlation coefficient: 0.99997

| Standards | Intensity |
|---|---|
| STD0 4444437 | -0.3820 |
| STD2 4444439 | 99.8100 |
| STD3 4444438 | 928.0000 |



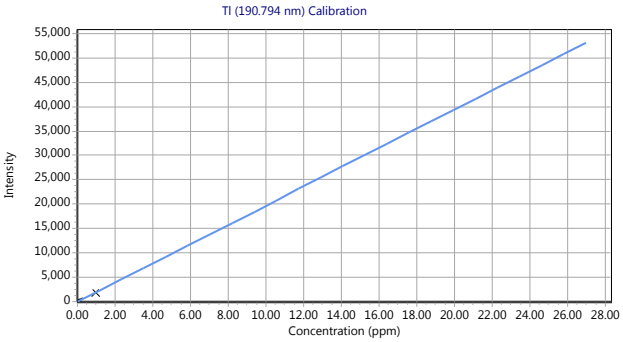

Sr (421.552 nm)
Intensity = 269468.84276406 * Concentration - 196.35876342
Correlation coefficient: 0.99998

| Standards | Intensity |
|---|---|
| STD0 4444437 | -196.4000 |
| STD1 4444440 | 1094.0000 |
| STD2 4444439 | 28510.0000 |
| STD3 4444438 | 269100.0000 |



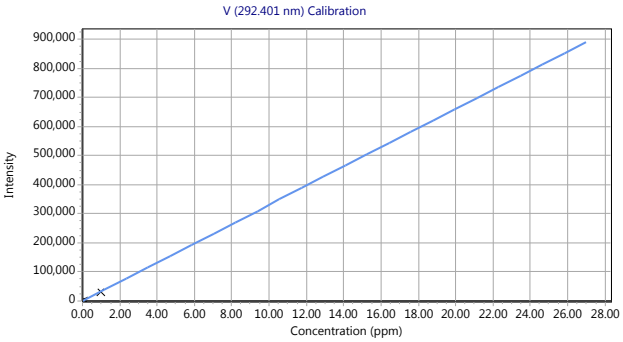

Tl (190.794 nm)
Intensity = 1968.83991869 * Concentration - 8.50567571
Correlation coefficient: 0.99998

| Standards | Intensity |
|---|---|
| STD0 4444437 | -8.5060 |
| STD1 4444440 | -4.9400 |
| STD2 4444439 | 195.6000 |
| STD3 4444438 | 1960.0000 |



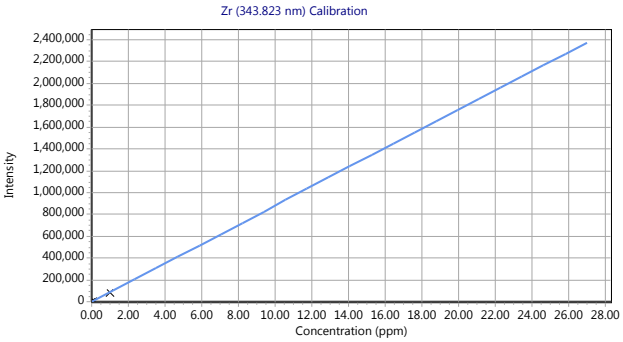

V (292.401 nm)
Intensity = 33043.33725377 * Concentration + 22.35796883
Correlation coefficient: 0.99999

| Standards | Intensity |
|---|---|
| STD0 4444437 | 22.3600 |
| STD1 4444440 | 189.0000 |
| STD2 4444439 | 3492.0000 |
| STD3 4444438 | 33050.0000 |



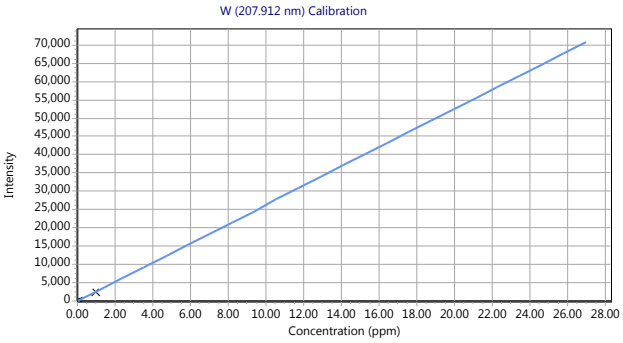

Zr (343.823 nm)
Intensity = 87971.18583516 * Concentration + 3.27101585
Correlation coefficient: 0.99998

| Standards | Intensity |
|---|---|
| STD0 4444437 | 3.2710 |
| STD1 4444440 | 330.2000 |
| STD2 4444439 | 9296.0000 |
| STD3 4444438 | 87930.0000 |



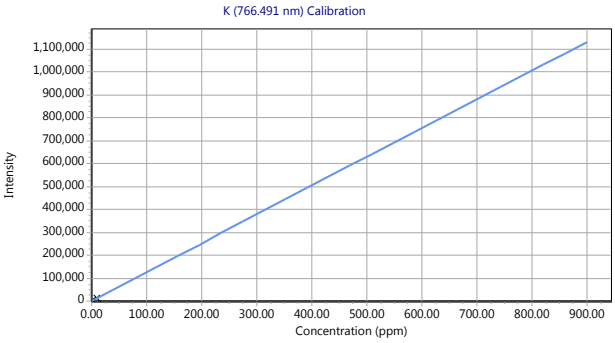

W (207.912 nm)
Intensity = 2623.50774990 * Concentration + 6.54466785
Correlation coefficient: 0.99998

| Standards | Intensity |
|---|---|
| STD0 4444437 | 6.5450 |
| STD1 4444440 | 19.3400 |
| STD2 4444439 | 285.5000 |
| STD3 4444438 | 2628.0000 |



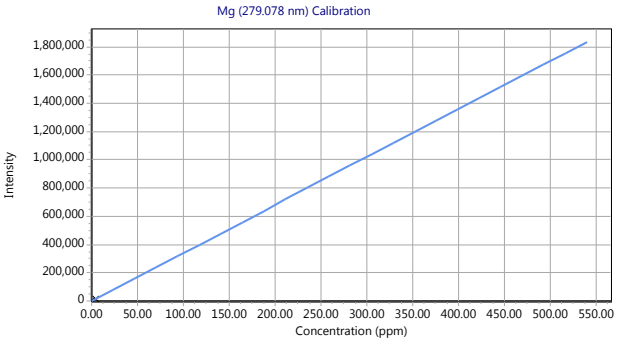

K (766.491 nm)
Intensity = 1256.91858637 * Concentration + 1053.56120122
Correlation coefficient: 0.99993

| Standards | Intensity |
|---|---|
| STD0 4444437 | 1054.0000 |
| STD2 4444439 | 2459.0000 |
| STD3 4444438 | 13610.0000 |



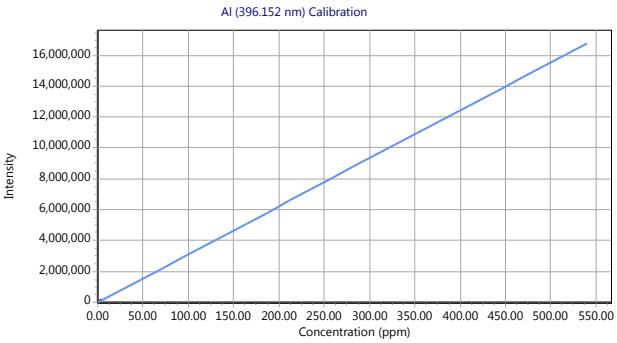

Mg (279.078 nm)
Intensity = 3399.03813195 * Concentration + 85.23498864
Correlation coefficient: 0.99997

| Standards | Intensity |
|---|---|
| STD0 4444437 | 85.2300 |
| STD1 4444440 | 169.4000 |
| STD2 4444439 | 1912.0000 |
| STD3 4444438 | 17070.0000 |



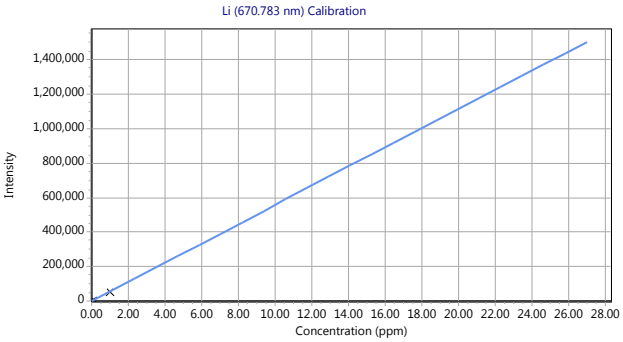

Al (396.152 nm)
Intensity = 31074.94120021 * Concentration - 243.85571205
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | -243.9000 |
| STD2 4444439 | 2846.0000 |
| STD3 4444438 | 30830.0000 |



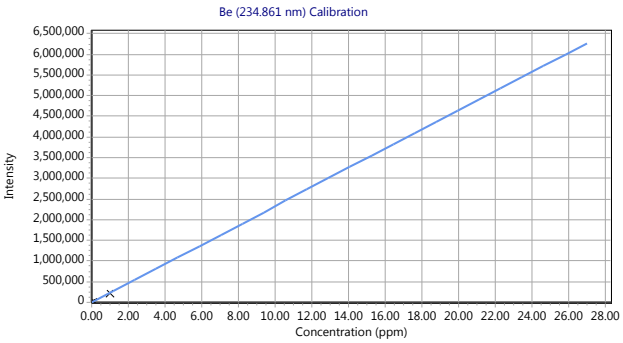

Li (670.783 nm)
Intensity = 55687.14950227 * Concentration + 24.97885355
Correlation coefficient: 0.99999

| Standards | Intensity |
|---|---|
| STD0 4444437 | 24.9800 |
| STD2 4444439 | 5857.0000 |
| STD3 4444438 | 55690.0000 |



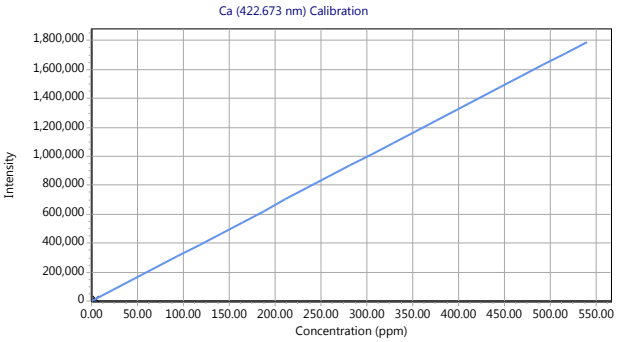

Be (234.861 nm)
Intensity = 232073.89490084 * Concentration + 8.36112587
Correlation coefficient: 0.99999

| Standards | Intensity |
|---|---|
| STD0 4444437 | 8.3610 |
| STD1 4444440 | 1138.0000 |
| STD2 4444439 | 24150.0000 |
| STD3 4444438 | 232000.0000 |



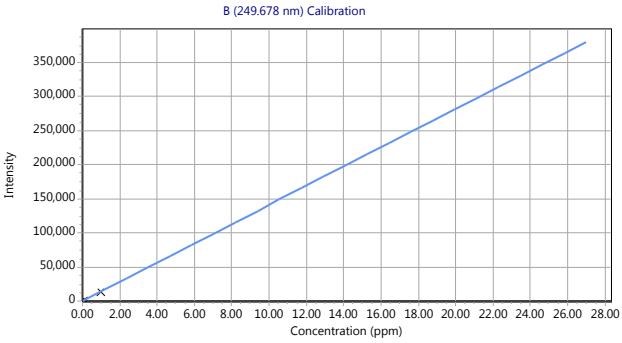

Ca (422.673 nm)
Intensity = 3314.10754481 * Concentration + 99.81653667
Correlation coefficient: 0.99997

| Standards | Intensity |
|---|---|
| STD0 4444437 | 99.8200 |
| STD1 4444440 | 224.9000 |
| STD2 4444439 | 1905.0000 |
| STD3 4444438 | 16660.0000 |



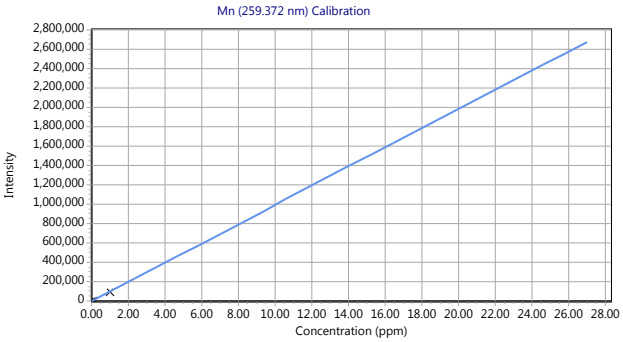

B (249.678 nm)
Intensity = 14057.73153690 * Concentration + 51.87927488
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4444437 | 51.8800 |
| STD2 4444439 | 1499.0000 |
| STD3 4444438 | 14110.0000 |



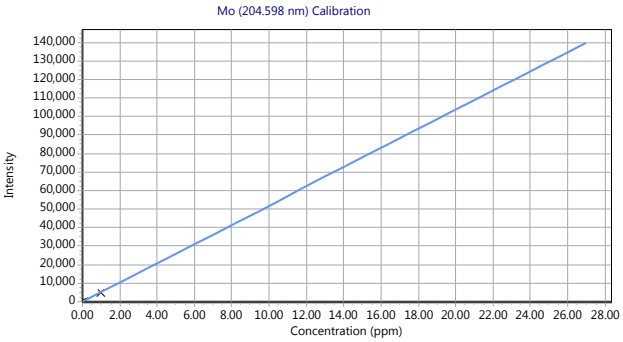

Mn (259.372 nm)
Intensity = 99049.19258839 * Concentration + 37.14091797
Correlation coefficient: 0.99998

| Standards | Intensity |
|---|---|
| STD0 4444437 | 37.1400 |
| STD1 4444440 | 533.9000 |
| STD2 4444439 | 10600.0000 |
| STD3 4444438 | 99020.0000 |



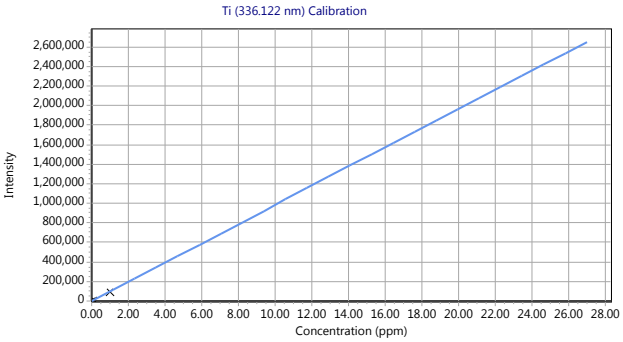

Mo (204.598 nm)
Intensity = 5181.85495855 * Concentration - 2.95783774
Correlation coefficient: 0.99999

| Standards | Intensity |
|---|---|
| STD0 4444437 | -2.9580 |
| STD1 4444440 | 16.3800 |
| STD2 4444439 | 537.0000 |
| STD3 4444438 | 5177.0000 |



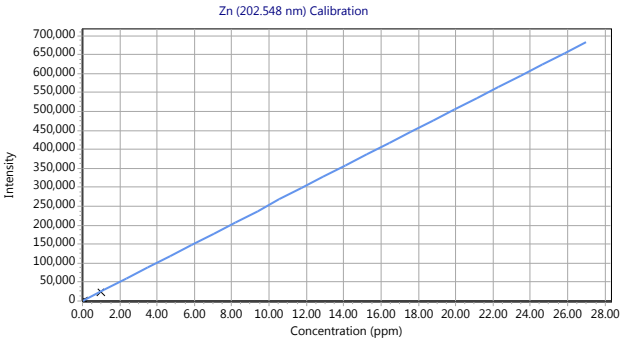

Ti (336.122 nm)
Intensity = 98270.90996616 * Concentration - 52.97229383
Correlation coefficient: 0.99999

| Standards | Intensity |
|---|---|
| STD0 4444437 | -52.9700 |
| STD1 4444440 | 411.8000 |
| STD2 4444439 | 10290.0000 |
| STD3 4444438 | 98170.0000 |




Zn (202.548 nm)
Intensity = 25313.53971337 * Concentration + 165.87515696
Correlation coefficient: 0.99999

| Standards | Intensity |
|---|---|
| STD0 4444437 | 165.9000 |
| STD2 4444439 | 2780.0000 |
| STD3 4444438 | 25470.0000 |



Sample Name: STD0 4444437

Date: 10/25/2017 11:07:43 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0000 ! | ppm | N/A | N/A | -20.9700 ! | 0.0000 ! (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0000 ! | ppm | N/A | N/A | -243.9000 ! | 0.0000 ! (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0000 ! | ppm | N/A | N/A | 5.4360 ! | 0.0000 ! (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0000 ! | ppm | N/A | N/A | 51.8800 ! | 0.0000 ! (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0000 ! | ppm | N/A | N/A | 37.5200 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 ! | ppm | N/A | N/A | 8.3610 ! | 0.0000 ! (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0000 ! | ppm | N/A | N/A | 99.8200 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 ! | ppm | N/A | N/A | -1.8310 ! | 0.0000 ! (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0000 ! | ppm | N/A | N/A | -34.3800 ! | 0.0000 ! (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0000 ! | ppm | N/A | N/A | 3.8570 ! | 0.0000 ! (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0000 ! | ppm | N/A | N/A | 608.9000 ! | 0.0000 ! (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0000 ! | ppm | N/A | N/A | -16.3300 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0000 ! | ppm | N/A | N/A | 1054.0000 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0000 ! | ppm | N/A | N/A | 24.9800 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0000 ! | ppm | N/A | N/A | 85.2300 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 ! | ppm | N/A | N/A | 37.1400 ! | 0.0000 ! (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0000 ! | ppm | N/A | N/A | -2.9580 ! | 0.0000 ! (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0000 ! | ppm | N/A | N/A | 100.4000 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0000 ! | ppm | N/A | N/A | -6.5270 ! | 0.0000 ! (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0000 ! | ppm | N/A | N/A | -3.6820 ! | 0.0000 ! (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0000 ! | ppm | N/A | N/A | 7.8200 ! | 0.0000 ! (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0000 ! | ppm | N/A | N/A | 1.4280 ! | 0.0000 ! (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0000 ! | ppm | N/A | N/A | 8.3730 ! | 0.0000 ! (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0000 ! | ppm | N/A | N/A | 57.7000 ! | 0.0000 ! (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0000 ! | ppm | N/A | N/A | -0.3820 ! | 0.0000 ! (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 ! | ppm | N/A | N/A | -196.4000 ! | 0.0000 ! (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0000 ! | ppm | N/A | N/A | -52.9700 ! | 0.0000 ! (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0000 ! | ppm | N/A | N/A | -8.5060 ! | 0.0000 ! (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0000 ! | ppm | N/A | N/A | 22.3600 ! | 0.0000 ! (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0000 ! | ppm | N/A | N/A | 6.5450 ! | 0.0000 ! (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0000 ! | ppm | N/A | N/A | 165.9000 ! | 0.0000 ! (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 ! | ppm | N/A | N/A | 3.2710 ! | 0.0000 ! (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0000 ! | 605800.0000 ! | 0.0000 | 0.00 |
| Y_R 371.029 | 1.0000 ! | 105500.0000 ! | 0.0000 | 0.00 |

Sample Name: STD1 4444440

Date: 10/25/2017 11:09:47 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0025 ! | ppm | N/A | N/A | -17.2100 ! | 0.0025 ! (ppm) | Y 371.029 |
| Al (396.152 nm) | | ppm | N/A | N/A | -104.8000 ! | | Y 371.029 |
| As (188.980 nm) | 0.0050 ! | ppm | N/A | N/A | 14.4600 ! | 0.0050 ! (ppm) | Y 371.029 |
| B (249.678 nm) | | ppm | N/A | N/A | 111.4000 ! | | Y 371.029 |
| Ba (233.527 nm) | 0.0050 ! | ppm | N/A | N/A | 414.5000 ! | 0.0050 ! (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0050 ! | ppm | N/A | N/A | 1138.0000 ! | 0.0050 ! (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0250 ! | ppm | N/A | N/A | 224.9000 ! | 0.0250 ! (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0050 ! | ppm | N/A | N/A | 133.7000 ! | 0.0050 ! (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0050 ! | ppm | N/A | N/A | 50.9800 ! | 0.0050 ! (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0050 ! | ppm | N/A | N/A | 41.7100 ! | 0.0050 ! (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0050 ! | ppm | N/A | N/A | 819.9000 ! | 0.0050 ! (ppm) | Y 371.029 |
| Fe (238.204 nm) | | ppm | N/A | N/A | 16.4900 ! | | Y_R 371.029 |
| K (766.491 nm) | | ppm | N/A | N/A | 1030.0000 ! | | Y_R 371.029 |
| Li (670.783 nm) | | ppm | N/A | N/A | 235.3000 ! | | Y_R 371.029 |
| Mg (279.078 nm) | 0.0250 ! | ppm | N/A | N/A | 169.4000 ! | 0.0250 ! (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0050 ! | ppm | N/A | N/A | 533.9000 ! | 0.0050 ! (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0050 ! | ppm | N/A | N/A | 16.3800 ! | 0.0050 ! (ppm) | Y 371.029 |
| Na (589.592 nm) | | ppm | N/A | N/A | 440.3000 ! | | Y_R 371.029 |
| Ni (231.604 nm) | 0.0050 ! | ppm | N/A | N/A | 16.4400 ! | 0.0050 ! (ppm) | Y 371.029 |
| P (213.618 nm) | | ppm | N/A | N/A | -1.6500 ! | | Y 371.029 |
| Pb (220.353 nm) | 0.0050 ! | ppm | N/A | N/A | 22.1100 ! | 0.0050 ! (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0050 ! | ppm | N/A | N/A | 6.7740 ! | 0.0050 ! (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0050 ! | ppm | N/A | N/A | 9.6890 ! | 0.0050 ! (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0250 ! | ppm | N/A | N/A | 111.6000 ! | 0.0250 ! (ppm) | Y 371.029 |
| Sn (189.925 nm) | | ppm | N/A | N/A | 4.1640 ! | | Y 371.029 |
| Sr (421.552 nm) | 0.0050 ! | ppm | N/A | N/A | 1094.0000 ! | 0.0050 ! (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0050 ! | ppm | N/A | N/A | 411.8000 ! | 0.0050 ! (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0050 ! | ppm | N/A | N/A | -4.9400 ! | 0.0050 ! (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0050 ! | ppm | N/A | N/A | 189.0000 ! | 0.0050 ! (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0050 ! | ppm | N/A | N/A | 19.3400 ! | 0.0050 ! (ppm) | Y 371.029 |
| Zn (202.548 nm) | | ppm | N/A | N/A | 249.9000 ! | | Y 371.029 |
| Zr (343.823 nm) | 0.0050 ! | ppm | N/A | N/A | 330.2000 ! | 0.0050 ! (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0170 ! | 616100.0000 ! | 0.0076 | 0.74 |
| Y_R 371.029 | 1.0070 ! | 106200.0000 ! | 0.0051 | 0.51 |

Sample Name: STD2 4444439

Date: 10/25/2017 11:11:51 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0500 ! | ppm | N/A | N/A | 2543.0000 ! | 0.0500 ! (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.1000 ! | ppm | N/A | N/A | 2846.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1000 ! | ppm | N/A | N/A | 110.1000 ! | 0.1000 ! (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1000 ! | ppm | N/A | N/A | 1499.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1000 ! | ppm | N/A | N/A | 8449.0000 ! | 0.1000 ! (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.1000 ! | ppm | N/A | N/A | 24150.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.5000 ! | ppm | N/A | N/A | 1905.0000 ! | 0.5000 ! (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.1000 ! | ppm | N/A | N/A | 2929.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.1000 ! | ppm | N/A | N/A | 1719.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1000 ! | ppm | N/A | N/A | 833.6000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1000 ! | ppm | N/A | N/A | 5098.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.1000 ! | ppm | N/A | N/A | 581.1000 ! | 0.1000 ! (ppm) | Y_R 371.029 |
| K (766.491 nm) | 1.0000 ! | ppm | N/A | N/A | 2459.0000 ! | 1.0000 ! (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1000 ! | ppm | N/A | N/A | 5857.0000 ! | 0.1000 ! (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.5000 ! | ppm | N/A | N/A | 1912.0000 ! | 0.5000 ! (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1000 ! | ppm | N/A | N/A | 10600.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.1000 ! | ppm | N/A | N/A | 537.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.0000 ! | ppm | N/A | N/A | 8199.0000 ! | 1.0000 ! (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1000 ! | ppm | N/A | N/A | 474.7000 ! | 0.1000 ! (ppm) | Y 371.029 |
| P (213.618 nm) | 0.1000 ! | ppm | N/A | N/A | 111.6000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.1000 ! | ppm | N/A | N/A | 232.3000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.1000 ! | ppm | N/A | N/A | 164.3000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.1000 ! | ppm | N/A | N/A | 144.7000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.5000 ! | ppm | N/A | N/A | 1229.0000 ! | 0.5000 ! (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.1000 ! | ppm | N/A | N/A | 99.8100 ! | 0.1000 ! (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1000 ! | ppm | N/A | N/A | 28510.0000 ! | 0.1000 ! (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.1000 ! | ppm | N/A | N/A | 10290.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.1000 ! | ppm | N/A | N/A | 195.6000 ! | 0.1000 ! (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1000 ! | ppm | N/A | N/A | 3492.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| W (207.912 nm) | 0.1000 ! | ppm | N/A | N/A | 285.5000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.1000 ! | ppm | N/A | N/A | 2780.0000 ! | 0.1000 ! (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1000 ! | ppm | N/A | N/A | 9296.0000 ! | 0.1000 ! (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9655 ! | 584800.0000 ! | 0.0031 | 0.32 |
| Y_R 371.029 | 0.9474 ! | 99910.0000 ! | 0.0137 | 1.45 |

Sample Name: STD3 4444438

Date: 10/25/2017 11:13:56 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5000 ! | ppm | N/A | N/A | 25650.0000 ! | 0.5000 ! (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0000 ! | ppm | N/A | N/A | 30830.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0000 ! | ppm | N/A | N/A | 958.7000 ! | 1.0000 ! (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0000 ! | ppm | N/A | N/A | 14110.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0000 ! | ppm | N/A | N/A | 77880.0000 ! | 1.0000 ! (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0000 ! | ppm | N/A | N/A | 232000.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.0000 ! | ppm | N/A | N/A | 16660.0000 ! | 5.0000 ! (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0000 ! | ppm | N/A | N/A | 27920.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0000 ! | ppm | N/A | N/A | 16470.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0000 ! | ppm | N/A | N/A | 7788.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0000 ! | ppm | N/A | N/A | 43580.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0000 ! | ppm | N/A | N/A | 5530.0000 ! | 1.0000 ! (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.0000 ! | ppm | N/A | N/A | 13610.0000 ! | 10.0000 ! (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0000 ! | ppm | N/A | N/A | 55690.0000 ! | 1.0000 ! (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.0000 ! | ppm | N/A | N/A | 17070.0000 ! | 5.0000 ! (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0000 ! | ppm | N/A | N/A | 99020.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0000 ! | ppm | N/A | N/A | 5177.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.0000 ! | ppm | N/A | N/A | 75760.0000 ! | 10.0000 ! (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0000 ! | ppm | N/A | N/A | 4538.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0000 ! | ppm | N/A | N/A | 1133.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0000 ! | ppm | N/A | N/A | 2092.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0000 ! | ppm | N/A | N/A | 1558.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0000 ! | ppm | N/A | N/A | 1403.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.0000 ! | ppm | N/A | N/A | 11270.0000 ! | 5.0000 ! (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0000 ! | ppm | N/A | N/A | 928.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0000 ! | ppm | N/A | N/A | 269100.0000 ! | 1.0000 ! (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0000 ! | ppm | N/A | N/A | 98170.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0000 ! | ppm | N/A | N/A | 1960.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0000 ! | ppm | N/A | N/A | 33050.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0000 ! | ppm | N/A | N/A | 2628.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0000 ! | ppm | N/A | N/A | 25470.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0000 ! | ppm | N/A | N/A | 87930.0000 ! | 1.0000 ! (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0080 ! | 610400.0000 ! | 0.0109 | 1.08 |
| Y_R 371.029 | 1.0080 ! | 106300.0000 ! | 0.0130 | 1.29 |

Sample Name: ICV 4444441

Date: 10/25/2017 11:16:01 AM Rack:Tube: S1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4770 ! | ppm | 0.0001 | 0.02 | 24690.0000 ! | 0.4770 ! (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0110 ! | ppm | 0.0006 | 0.06 | 32550.0000 ! | 1.0110 ! (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0150 ! | ppm | 0.0009 | 0.09 | 961.6000 ! | 1.0150 ! (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9928 ! | ppm | 0.0009 | 0.09 | 13870.0000 ! | 0.9928 ! (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0120 ! | ppm | 0.0058 | 0.58 | 78890.0000 ! | 1.0120 ! (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0090 ! | ppm | 0.0006 | 0.06 | 234100.0000 ! | 1.0090 ! (ppm) | Y 371.029 |
| Ca (422.673 nm) | 1.0900 Q! | ppm | 0.0028 | 0.26 | 3715.0000 Q! | 1.0900 Q! (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0190 ! | ppm | 0.0007 | 0.07 | 28470.0000 ! | 1.0190 ! (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0080 ! | ppm | 0.0001 | 0.01 | 16660.0000 ! | 1.0080 ! (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0280 ! | ppm | 0.0044 | 0.42 | 8007.0000 ! | 1.0280 ! (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0400 ! | ppm | 0.0011 | 0.11 | 45340.0000 ! | 1.0400 ! (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0340 ! | ppm | 0.0042 | 0.40 | 5720.0000 ! | 1.0340 ! (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.1700 ! | ppm | 0.0348 | 0.34 | 13780.0000 ! | 10.1700 ! (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0520 Q! | ppm | 0.0037 | 0.35 | 56490.0000 Q! | 1.0520 Q! (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 1.0330 ! | ppm | 0.0039 | 0.38 | 3590.0000 ! | 1.0330 ! (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0370 ! | ppm | 0.0013 | 0.13 | 103500.0000 ! | 1.0370 ! (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0220 ! | ppm | 0.0003 | 0.03 | 5292.0000 ! | 1.0220 ! (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.3200 ! | ppm | 0.0083 | 0.08 | 78280.0000 ! | 10.3200 ! (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0300 ! | ppm | 0.0019 | 0.19 | 4671.0000 ! | 1.0300 ! (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0120 ! | ppm | 0.0024 | 0.23 | 1054.0000 ! | 1.0120 ! (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0250 ! | ppm | 0.0017 | 0.17 | 2139.0000 ! | 1.0250 ! (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0270 ! | ppm | 0.0053 | 0.52 | 1591.0000 ! | 1.0270 ! (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9795 ! | ppm | 0.0013 | 0.13 | 1386.0000 ! | 0.9795 ! (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.6700 Q! | ppm | 0.0398 | 0.85 | 10770.0000 Q! | 4.6700 Q! (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0480 ! | ppm | 0.0003 | 0.03 | 975.3000 ! | 1.0480 ! (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0320 ! | ppm | 0.0074 | 0.71 | 277800.0000 ! | 1.0320 ! (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0140 ! | ppm | 0.0002 | 0.02 | 99580.0000 ! | 1.0140 ! (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0280 ! | ppm | 0.0012 | 0.11 | 1950.0000 ! | 1.0280 ! (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0150 ! | ppm | 0.0012 | 0.12 | 33250.0000 ! | 1.0150 ! (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0000 ! | ppm | 0.0047 | 0.47 | 2658.0000 ! | 1.0000 ! (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0290 ! | ppm | 0.0012 | 0.11 | 26420.0000 ! | 1.0290 ! (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0100 ! | ppm | 0.0009 | 0.09 | 88820.0000 ! | 1.0100 ! (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0060 ! | 609700.0000 ! | 0.0043 | 0.42 |
| Y_R 371.029 | 1.0030 ! | 105800.0000 ! | 0.0024 | 0.24 |

Sample Name: IPC 4444441

Date: 10/25/2017 11:19:32 AM Rack:Tube: S1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4698 Q | ppm | 0.0011 | 0.23 | 24310.0000 Q | 0.4698 Q (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.9886 | ppm | 0.0000 | 0.00 | 31810.0000 | 0.9886 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9987 | ppm | 0.0008 | 0.08 | 946.0000 | 0.9987 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9699 | ppm | 0.0000 | 0.00 | 13550.0000 | 0.9699 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9793 | ppm | 0.0060 | 0.61 | 76310.0000 | 0.9793 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9871 | ppm | 0.0024 | 0.24 | 229100.0000 | 0.9871 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 1.0320 | ppm | 0.0023 | 0.23 | 3524.0000 | 1.0320 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9974 | ppm | 0.0019 | 0.19 | 27850.0000 | 0.9974 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9892 | ppm | 0.0099 | 1.00 | 16350.0000 | 0.9892 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0060 | ppm | 0.0018 | 0.18 | 7838.0000 | 1.0060 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0190 | ppm | 0.0025 | 0.25 | 44400.0000 | 1.0190 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0050 | ppm | 0.0005 | 0.05 | 5557.0000 | 1.0050 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.8170 | ppm | 0.0633 | 0.64 | 13350.0000 | 9.8170 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0200 | ppm | 0.0007 | 0.07 | 54810.0000 | 1.0200 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.9988 | ppm | 0.0043 | 0.43 | 3475.0000 | 0.9988 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0140 | ppm | 0.0021 | 0.21 | 101200.0000 | 1.0140 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9995 | ppm | 0.0019 | 0.19 | 5175.0000 | 0.9995 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.0400 | ppm | 0.0177 | 0.18 | 76140.0000 | 10.0400 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0100 | ppm | 0.0007 | 0.07 | 4580.0000 | 1.0100 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9905 | ppm | 0.0009 | 0.09 | 1032.0000 | 0.9905 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0030 | ppm | 0.0020 | 0.20 | 2093.0000 | 1.0030 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9971 | ppm | 0.0052 | 0.53 | 1545.0000 | 0.9971 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9593 | ppm | 0.0057 | 0.59 | 1357.0000 | 0.9593 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.5090 Q | ppm | 0.0341 | 0.76 | 10400.0000 Q | 4.5090 Q (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0230 | ppm | 0.0031 | 0.30 | 951.3000 | 1.0230 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9949 | ppm | 0.0006 | 0.06 | 267900.0000 | 0.9949 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9911 | ppm | 0.0018 | 0.18 | 97360.0000 | 0.9911 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0060 | ppm | 0.0040 | 0.40 | 1908.0000 | 1.0060 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9929 | ppm | 0.0024 | 0.25 | 32530.0000 | 0.9929 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9733 | ppm | 0.0038 | 0.39 | 2587.0000 | 0.9733 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0070 | ppm | 0.0018 | 0.18 | 25850.0000 | 1.0070 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9879 | ppm | 0.0015 | 0.15 | 86910.0000 | 0.9879 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0310 | 624300.0000 | 0.0026 | 0.25 |
| Y_R 371.029 | 1.0380 | 109500.0000 | 0.0116 | 1.11 |

Sample Name: ICB 4444437

Date: 10/25/2017 11:21:37 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0007 | ppm | 0.0007 | 94.40 | 17.3100 | 0.0007 (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0003 u | ppm | 0.0006 | > 100.00 | -255.2000 | -0.0003 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0045 | ppm | 0.0021 | 45.50 | 9.7410 | 0.0045 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0023 | ppm | 0.0015 | 65.20 | 84.0300 | 0.0023 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0000 | 10.85 | 51.8600 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0002 | ppm | 0.0000 | 3.83 | 46.0200 | 0.0002 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0107 u | ppm | 0.0096 | 90.16 | 64.5200 | -0.0107 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0003 | ppm | 0.0000 | 2.35 | 6.2900 | 0.0003 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0004 | ppm | 0.0004 | 83.72 | -26.9700 | 0.0004 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0002 | 46.68 | 7.0060 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0004 u | ppm | 0.0007 | > 100.00 | 627.8000 | 0.0004 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0013 | ppm | 0.0007 | 52.70 | -9.1720 | 0.0013 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0163 u | ppm | 0.0261 | > 100.00 | 1074.0000 | 0.0163 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0011 | ppm | 0.0013 | > 100.00 | 87.7000 | 0.0011 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | -0.0010 u | ppm | 0.0001 | 10.98 | 81.7600 | -0.0010 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0001 | 48.70 | 50.1500 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0009 | ppm | 0.0011 | > 100.00 | 1.7050 | 0.0009 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0104 | ppm | 0.0031 | 29.37 | 179.1000 | 0.0104 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0005 u | ppm | 0.0008 | > 100.00 | -4.2240 | 0.0005 u (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0026 u | ppm | 0.0012 | 46.59 | -6.5130 | -0.0026 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0010 | ppm | 0.0009 | 94.76 | 9.8860 | 0.0010 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0013 u | ppm | 0.0022 | > 100.00 | 3.5030 | 0.0013 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0028 u | ppm | 0.0011 | 39.20 | 4.4450 | -0.0028 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0075 | ppm | 0.0003 | 4.40 | 74.5800 | 0.0075 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0003 | ppm | 0.0002 | 49.52 | -0.0890 | 0.0003 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0000 | 31.28 | -225.2000 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0003 | ppm | 0.0001 | 47.11 | -23.9300 | 0.0003 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0003 u | ppm | 0.0005 | > 100.00 | -7.9620 | 0.0003 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0002 | ppm | 0.0001 | 37.76 | 29.7300 | 0.0002 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0017 | ppm | 0.0009 | 52.96 | 11.1100 | 0.0017 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0002 | ppm | 0.0000 | 5.97 | 169.6000 | 0.0002 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0001 | 65.77 | 22.2400 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0070 | 610100.0000 | 0.0098 | 0.97 |
| Y_R 371.029 | 0.9932 | 104700.0000 | 0.0001 | 0.01 |

Sample Name: ICSA 4444442

Date: 10/25/2017 11:23:42 AM Rack:Tube: S1:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0030 u | ppm | 0.0004 | 13.72 | -404.8000 | -0.0030 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 558.5000 o | ppm | 1.4310 | 0.26 | 17350000.0000 | 558.5000 o (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0096 | ppm | 0.0011 | 11.25 | 20.9400 | 0.0096 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0193 | ppm | 0.0020 | 10.52 | -400.1000 | 0.0193 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0029 | ppm | 0.0000 | 0.26 | 434.0000 | 0.0029 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 75.87 | 15230.0000 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 565.7000 o | ppm | 1.7520 | 0.31 | 1875000.0000 | 565.7000 o (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0012 | ppm | 0.0001 | 7.55 | 171.6000 | 0.0012 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0037 | ppm | 0.0012 | 33.50 | 12.6000 | 0.0037 (ppm) | Y 371.029 |
| Cr (205.560 nm) | -0.0003 u | ppm | 0.0003 | > 100.00 | 26.5000 | -0.0003 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 141.0000 | 0.0000 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | 493.0000 | ppm | 3.9580 | 0.80 | 2737000.0000 | 493.0000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.3258 | ppm | 0.0158 | 4.84 | 1250.0000 | 0.3258 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0107 | ppm | 0.0041 | 37.97 | 1939.0000 | 0.0107 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 525.3000 | ppm | 0.3237 | 0.06 | 1785000.0000 | 525.3000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0012 u | ppm | 0.0027 | > 100.00 | 66560.0000 | 0.0012 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0013 | ppm | 0.0003 | 25.78 | 54.2700 | 0.0013 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.2669 | ppm | 0.0052 | 1.96 | 2241.0000 | 0.2669 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0019 | ppm | 0.0016 | 85.72 | 31.6300 | 0.0019 (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0238 u | ppm | 0.0052 | 21.65 | -28.7400 | -0.0238 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0021 | ppm | 0.0017 | 83.77 | -43.1600 | 0.0021 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0099 u | ppm | 0.0103 | > 100.00 | -51.5300 | -0.0099 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0028 u | ppm | 0.0053 | > 100.00 | -157.4000 | 0.0028 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0286 u | ppm | 0.0023 | 7.98 | 67.2700 | -0.0286 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0049 u | ppm | 0.0078 | > 100.00 | -1.3180 | -0.0049 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0174 u | ppm | 0.0001 | 0.81 | 566.6000 | -0.0174 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0016 | ppm | 0.0001 | 3.40 | -394.9000 | 0.0016 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0080 u | ppm | 0.0006 | 7.35 | 11.4700 | -0.0080 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0015 u | ppm | 0.0005 | 34.84 | 713.9000 | -0.0015 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0046 | ppm | 0.0019 | 40.98 | 10.8000 | 0.0046 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0000 u | ppm | 0.0003 | > 100.00 | -151.0000 | 0.0000 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0005 u | ppm | 0.0000 | 0.86 | 583.5000 | -0.0005 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9465 | 573400.0000 | 0.0010 | 0.11 |
| Y_R 371.029 | 1.0050 | 106000.0000 | 0.0019 | 0.19 |

Sample Name: ICSAB 4444443

Date: 10/25/2017 11:25:46 AM Rack:Tube: S1:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2571 | ppm | 0.0004 | 0.16 | 13040.0000 | 0.2571 (ppm) | Y 371.029 |
| Al (396.152 nm) | 576.0000 o | ppm | 2.6920 | 0.47 | 17900000.0000 | 576.0000 o (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4872 | ppm | 0.0029 | 0.59 | 471.2000 | 0.4872 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.5078 | ppm | 0.0041 | 0.80 | 6379.0000 | 0.5078 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4392 | ppm | 0.0084 | 1.92 | 34420.0000 | 0.4392 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.4935 | ppm | 0.0037 | 0.75 | 130200.0000 | 0.4935 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 591.1000 o | ppm | 0.5111 | 0.09 | 1959000.0000 | 591.1000 o (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4294 | ppm | 0.0020 | 0.46 | 12140.0000 | 0.4294 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4332 | ppm | 0.0039 | 0.90 | 7131.0000 | 0.4332 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4633 | ppm | 0.0039 | 0.85 | 3636.0000 | 0.4633 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.5114 | ppm | 0.0001 | 0.02 | 22100.0000 | 0.5114 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 511.1000 | ppm | 3.3510 | 0.66 | 2837000.0000 | 511.1000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.6000 | ppm | 0.0476 | 0.45 | 14130.0000 | 10.6000 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.5172 | ppm | 0.0056 | 1.08 | 29250.0000 | 0.5172 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 544.7000 o | ppm | 9.5100 | 1.75 | 1851000.0000 | 544.7000 o (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4531 | ppm | 0.0053 | 1.17 | 113800.0000 | 0.4531 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4701 | ppm | 0.0010 | 0.21 | 2485.0000 | 0.4701 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.1400 | ppm | 0.0387 | 0.38 | 77030.0000 | 10.1400 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4247 | ppm | 0.0024 | 0.57 | 1952.0000 | 0.4247 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.4647 | ppm | 0.0047 | 1.00 | 481.7000 | 0.4647 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4453 | ppm | 0.0005 | 0.11 | 876.7000 | 0.4453 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.5029 | ppm | 0.0036 | 0.72 | 740.8000 | 0.5029 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.4426 | ppm | 0.0010 | 0.23 | 455.8000 | 0.4426 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.3700 | ppm | 0.0026 | 0.11 | 5560.0000 | 2.3700 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4467 | ppm | 0.0015 | 0.34 | 419.1000 | 0.4467 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.4649 | ppm | 0.0025 | 0.54 | 130700.0000 | 0.4649 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.4841 | ppm | 0.0024 | 0.49 | 47000.0000 | 0.4841 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4272 | ppm | 0.0001 | 0.02 | 837.9000 | 0.4272 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4720 | ppm | 0.0018 | 0.39 | 16240.0000 | 0.4720 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.4695 | ppm | 0.0027 | 0.58 | 1241.0000 | 0.4695 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4130 | ppm | 0.0013 | 0.31 | 10400.0000 | 0.4130 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.4726 | ppm | 0.0019 | 0.40 | 42220.0000 | 0.4726 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9416 | 570400.0000 | 0.0118 | 1.25 |
| Y_R 371.029 | 1.0040 | 105900.0000 | 0.0110 | 1.09 |

Sample Name: XICIS 4444446

Date: 10/25/2017 11:31:43 AM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0026 u | ppm | 0.0003 | 9.80 | -154.0000 | -0.0026 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0143 | ppm | 0.0094 | 65.99 | 196.4000 | 0.0143 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0039 | ppm | 0.0007 | 16.68 | 9.1970 | 0.0039 (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0010 u | ppm | 0.0005 | 51.34 | 37.8200 | -0.0010 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 37.8700 | 0.0000 u (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | 45.66 | 13.0100 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0153 | ppm | 0.0128 | 83.34 | 150.6000 | 0.0153 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | -0.0001 u | ppm | 0.0000 | 88.67 | -3.3640 | -0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0001 u | ppm | 0.0001 | 67.18 | -36.6700 | -0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0001 u | ppm | 0.0005 | > 100.00 | 4.2800 | 0.0001 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0005 | ppm | 0.0002 | 44.93 | 631.4000 | 0.0005 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0067 | ppm | 0.0006 | 8.95 | 20.9400 | 0.0067 (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.0500 u | ppm | 0.0170 | 33.96 | 990.8000 | -0.0500 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0097 | ppm | 0.0002 | 1.92 | 563.2000 | 0.0097 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0140 | ppm | 0.0113 | 80.89 | 132.9000 | 0.0140 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0000 | 4.48 | 41.0900 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0005 u | ppm | 0.0018 | > 100.00 | -5.7510 | -0.0005 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0005 u | ppm | 0.0056 | > 100.00 | 104.3000 | 0.0005 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0004 u | ppm | 0.0013 | > 100.00 | -8.5300 | -0.0004 u (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0059 u | ppm | 0.0081 | > 100.00 | -10.2800 | -0.0059 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0006 u | ppm | 0.0009 | > 100.00 | 9.1390 | 0.0006 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0016 u | ppm | 0.0015 | 89.81 | -1.0170 | -0.0016 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0013 u | ppm | 0.0022 | > 100.00 | 6.6120 | -0.0013 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0014 | ppm | 0.0007 | 50.39 | 60.6300 | 0.0014 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0019 | ppm | 0.0020 | > 100.00 | 1.4260 | 0.0019 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0000 | 26.91 | -214.8000 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0000 | 0.23 | -42.2100 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0000 u | ppm | 0.0015 | > 100.00 | -8.5260 | 0.0000 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0001 u | ppm | 0.0002 | > 100.00 | 18.9000 | -0.0001 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0013 | ppm | 0.0004 | 34.04 | 10.0900 | 0.0013 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0024 u | ppm | 0.0000 | 0.58 | 104.0000 | -0.0024 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 5.37 | 10.7000 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0210 | 618600.0000 | 0.0036 | 0.35 |
| Y_R 371.029 | 0.9940 | 104800.0000 | 0.0110 | 1.11 |

Sample Name: RINSE 4444447

Date: 10/25/2017 11:33:47 AM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0026 u | ppm | 0.0000 | 1.44 | -154.5000 | -0.0026 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0012 | ppm | 0.0000 | 0.45 | -207.3000 | 0.0012 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0056 | ppm | 0.0003 | 5.54 | 10.7400 | 0.0056 (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0010 u | ppm | 0.0002 | 18.47 | 37.6400 | -0.0010 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | 43.9300 | 0.0001 u (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | > 100.00 | 16.3900 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0103 | ppm | 0.0040 | 38.49 | 134.0000 | 0.0103 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | -0.0001 u | ppm | 0.0000 | 19.68 | -4.7420 | -0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0002 | ppm | 0.0000 | 15.59 | -30.5300 | 0.0002 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0003 | ppm | 0.0001 | 50.63 | 6.1320 | 0.0003 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0007 | ppm | 0.0000 | 2.00 | 639.6000 | 0.0007 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0043 u | ppm | 0.0065 | > 100.00 | 7.6260 | 0.0043 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.1022 u | ppm | 0.0168 | 16.45 | 925.1000 | -0.1022 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0079 | ppm | 0.0029 | 36.88 | 465.2000 | 0.0079 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0009 | ppm | 0.0011 | > 100.00 | 88.2000 | 0.0009 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 38.8800 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0005 | ppm | 0.0002 | 39.89 | -0.4454 | 0.0005 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0007 u | ppm | 0.0021 | > 100.00 | 105.5000 | 0.0007 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0009 | ppm | 0.0003 | 35.33 | -2.5880 | 0.0009 (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0031 u | ppm | 0.0076 | > 100.00 | -7.1920 | -0.0031 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0003 | ppm | 0.0002 | 68.06 | 8.4590 | 0.0003 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0031 u | ppm | 0.0018 | 57.44 | -3.4180 | -0.0031 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0001 u | ppm | 0.0022 | > 100.00 | 8.2010 | -0.0001 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0012 u | ppm | 0.0005 | 37.89 | 54.4900 | -0.0012 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0004 | ppm | 0.0002 | 60.58 | -0.0138 | 0.0004 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | -227.0000 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0000 | 2.60 | -44.5400 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0021 u | ppm | 0.0001 | 2.91 | -12.6000 | -0.0021 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0006 | ppm | 0.0000 | 1.62 | 41.2600 | 0.0006 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0007 u | ppm | 0.0007 | > 100.00 | 4.8330 | -0.0007 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0026 u | ppm | 0.0001 | 3.88 | 100.7000 | -0.0026 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0000 | 53.70 | 1.1660 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0240 | 620100.0000 | 0.0005 | 0.05 |
| Y_R 371.029 | 1.0140 | 107000.0000 | 0.0156 | 1.54 |

Sample Name: XCRI 4444444

Date: 10/25/2017 11:35:52 AM Rack:Tube: S1:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0072 | ppm | 0.0002 | 3.09 | 371.2000 | 0.0072 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0490 | ppm | 0.0004 | 0.87 | 1330.0000 | 0.0490 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0163 R | ppm | 0.0020 | 12.43 | 21.0000 R | 0.0163 R (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0468 | ppm | 0.0007 | 1.58 | 695.4000 | 0.0468 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0100 | ppm | 0.0000 | 0.39 | 817.2000 | 0.0100 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0020 | ppm | 0.0000 | 0.16 | 462.8000 | 0.0020 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.1144 | ppm | 0.0154 | 13.46 | 478.7000 | 0.1144 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0052 | ppm | 0.0002 | 2.97 | 141.7000 | 0.0052 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0096 | ppm | 0.0005 | 4.82 | 125.0000 | 0.0096 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0054 | ppm | 0.0005 | 9.15 | 46.0300 | 0.0054 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0106 | ppm | 0.0002 | 1.71 | 1066.0000 | 0.0106 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0418 | ppm | 0.0008 | 1.87 | 215.9000 | 0.0418 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.4419 | ppm | 0.0387 | 8.75 | 1607.0000 | 0.4419 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0433 | ppm | 0.0022 | 4.97 | 2360.0000 | 0.0433 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0222 | ppm | 0.0004 | 2.01 | 160.4000 | 0.0222 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0204 | ppm | 0.0001 | 0.31 | 2070.0000 | 0.0204 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0205 | ppm | 0.0003 | 1.25 | 103.0000 | 0.0205 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.5043 | ppm | 0.0026 | 0.51 | 3921.0000 | 0.5043 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0107 | ppm | 0.0005 | 4.55 | 42.1300 | 0.0107 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0374 | ppm | 0.0007 | 1.94 | 37.6300 | 0.0374 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0043 | ppm | 0.0021 | 49.87 | 16.4400 | 0.0043 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0097 | ppm | 0.0029 | 29.78 | 16.1200 | 0.0097 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0072 | ppm | 0.0038 | 52.59 | 19.6800 | 0.0072 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0384 | ppm | 0.0018 | 4.74 | 162.5000 | 0.0384 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0998 | ppm | 0.0002 | 0.15 | 92.4600 | 0.0998 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0200 | ppm | 0.0000 | 0.23 | 5199.0000 | 0.0200 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0047 | ppm | 0.0000 | 0.62 | 418.4000 | 0.0047 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0070 | ppm | 0.0004 | 5.27 | 4.9690 | 0.0070 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0102 | ppm | 0.0001 | 0.64 | 353.4000 | 0.0102 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0999 | ppm | 0.0013 | 1.34 | 269.3000 | 0.0999 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0186 | ppm | 0.0002 | 0.99 | 640.2000 | 0.0186 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0993 | ppm | 0.0004 | 0.41 | 8739.0000 | 0.0993 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9959 | 603300.0000 | 0.0000 | 0.00 |
| Y_R 371.029 | 0.9996 | 105400.0000 | 0.0027 | 0.27 |

Sample Name: CRI 4444445

Date: 10/25/2017 11:37:56 AM Rack:Tube: S1:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0169 | ppm | 0.0005 | 3.14 | 885.5000 | 0.0169 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0942 | ppm | 0.0008 | 0.86 | 2788.0000 | 0.0942 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0195 | ppm | 0.0052 | 26.88 | 24.0600 | 0.0195 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0947 | ppm | 0.0011 | 1.19 | 1354.0000 | 0.0947 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0199 | ppm | 0.0000 | 0.13 | 1587.0000 | 0.0199 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0038 | ppm | 0.0001 | 1.58 | 900.2000 | 0.0038 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.2198 | ppm | 0.0020 | 0.91 | 827.9000 | 0.2198 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0098 | ppm | 0.0000 | 0.11 | 270.6000 | 0.0098 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0197 | ppm | 0.0005 | 2.72 | 291.4000 | 0.0197 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0101 | ppm | 0.0003 | 3.21 | 83.2300 | 0.0101 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0199 | ppm | 0.0002 | 1.03 | 1462.0000 | 0.0199 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0816 | ppm | 0.0018 | 2.22 | 436.9000 | 0.0816 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.9707 | ppm | 0.0179 | 1.84 | 2270.0000 | 0.9707 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0849 | ppm | 0.0004 | 0.50 | 4598.0000 | 0.0849 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0410 | ppm | 0.0012 | 3.05 | 223.9000 | 0.0410 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0401 | ppm | 0.0004 | 0.93 | 4039.0000 | 0.0401 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0387 | ppm | 0.0015 | 3.82 | 197.5000 | 0.0387 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.0040 | ppm | 0.0094 | 0.93 | 7706.0000 | 1.0040 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0195 | ppm | 0.0003 | 1.32 | 81.9400 | 0.0195 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0758 | ppm | 0.0001 | 0.14 | 80.2100 | 0.0758 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0087 | ppm | 0.0006 | 7.22 | 25.3100 | 0.0087 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0158 | ppm | 0.0007 | 4.65 | 25.0300 | 0.0158 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0177 | ppm | 0.0011 | 6.00 | 35.4200 | 0.0177 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0758 | ppm | 0.0037 | 4.85 | 264.6000 | 0.0758 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.1966 | ppm | 0.0002 | 0.12 | 182.4000 | 0.1966 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0400 | ppm | 0.0004 | 1.03 | 10590.0000 | 0.0400 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0095 | ppm | 0.0001 | 1.27 | 888.3000 | 0.0095 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0185 | ppm | 0.0007 | 3.75 | 27.1600 | 0.0185 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0200 | ppm | 0.0004 | 1.87 | 670.4000 | 0.0200 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.1964 | ppm | 0.0003 | 0.18 | 523.1000 | 0.1964 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0373 | ppm | 0.0004 | 1.10 | 1116.0000 | 0.0373 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1958 | ppm | 0.0021 | 1.06 | 17230.0000 | 0.1958 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0210 | 618500.0000 | 0.0121 | 1.18 |
| Y_R 371.029 | 0.9982 | 105300.0000 | 0.0093 | 0.93 |

Sample Name: CCV 4444438

Date: 10/25/2017 11:41:50 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4957 | ppm | 0.0028 | 0.57 | 25640.0000 | 0.4957 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.9878 | ppm | 0.0058 | 0.58 | 31760.0000 | 0.9878 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9992 | ppm | 0.0024 | 0.24 | 946.8000 | 0.9992 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9991 | ppm | 0.0090 | 0.91 | 13960.0000 | 0.9991 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9901 | ppm | 0.0091 | 0.92 | 77150.0000 | 0.9901 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9968 | ppm | 0.0057 | 0.57 | 231300.0000 | 0.9968 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.9730 | ppm | 0.0553 | 1.11 | 16590.0000 | 4.9730 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9950 | ppm | 0.0054 | 0.54 | 27790.0000 | 0.9950 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9930 | ppm | 0.0097 | 0.97 | 16420.0000 | 0.9930 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9925 | ppm | 0.0063 | 0.64 | 7731.0000 | 0.9925 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9897 | ppm | 0.0052 | 0.53 | 43150.0000 | 0.9897 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9954 | ppm | 0.0031 | 0.31 | 5506.0000 | 0.9954 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.9000 | ppm | 0.1117 | 1.13 | 13450.0000 | 9.9000 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9848 | ppm | 0.0071 | 0.72 | 52900.0000 | 0.9848 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.9840 | ppm | 0.0444 | 0.89 | 17020.0000 | 4.9840 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9914 | ppm | 0.0059 | 0.59 | 98930.0000 | 0.9914 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9919 | ppm | 0.0042 | 0.42 | 5136.0000 | 0.9919 (ppm) | Y 371.029 |
| Na (589.592 nm) | 9.9720 | ppm | 0.0804 | 0.81 | 75620.0000 | 9.9720 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9965 | ppm | 0.0035 | 0.35 | 4519.0000 | 0.9965 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9991 | ppm | 0.0035 | 0.35 | 1044.0000 | 0.9991 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9952 | ppm | 0.0063 | 0.63 | 2077.0000 | 0.9952 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9916 | ppm | 0.0137 | 1.38 | 1536.0000 | 0.9916 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9965 | ppm | 0.0037 | 0.37 | 1409.0000 | 0.9965 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.9270 | ppm | 0.0254 | 0.51 | 11340.0000 | 4.9270 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9974 | ppm | 0.0030 | 0.30 | 927.9000 | 0.9974 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9842 | ppm | 0.0069 | 0.70 | 265100.0000 | 0.9842 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9897 | ppm | 0.0064 | 0.64 | 97220.0000 | 0.9897 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9959 | ppm | 0.0012 | 0.12 | 1888.0000 | 0.9959 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9926 | ppm | 0.0043 | 0.44 | 32530.0000 | 0.9926 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9938 | ppm | 0.0008 | 0.08 | 2641.0000 | 0.9938 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9981 | ppm | 0.0055 | 0.55 | 25620.0000 | 0.9981 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9892 | ppm | 0.0072 | 0.73 | 87030.0000 | 0.9892 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0330 | 625500.0000 | 0.0094 | 0.91 |
| Y_R 371.029 | 1.0320 | 108900.0000 | 0.0050 | 0.48 |

Sample Name: CCB 4444437

Date: 10/25/2017 11:43:54 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0026 u | ppm | 0.0001 | 3.01 | -152.0000 | -0.0026 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0001 u | ppm | 0.0005 | > 100.00 | -242.5000 | 0.0001 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0037 | ppm | 0.0036 | 97.15 | 8.9390 | 0.0037 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0016 | ppm | 0.0021 | > 100.00 | 73.9400 | 0.0016 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0001 | 33.88 | 51.9800 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0002 | ppm | 0.0001 | 39.66 | 43.3400 | 0.0002 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0097 | ppm | 0.0006 | 6.05 | 132.0000 | 0.0097 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 80.70 | 3.3220 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0006 | ppm | 0.0000 | 4.15 | -23.8600 | 0.0006 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 | ppm | 0.0001 | 63.04 | 5.5670 | 0.0002 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0002 | 30.20 | 643.5000 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0013 u | ppm | 0.0030 | > 100.00 | -9.0990 | 0.0013 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.0586 u | ppm | 0.0390 | 66.55 | 979.9000 | -0.0586 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0175 | ppm | 0.0008 | 4.37 | 996.3000 | 0.0175 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | -0.0006 u | ppm | 0.0011 | > 100.00 | 83.2300 | -0.0006 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0001 | 72.18 | 51.7800 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0007 | ppm | 0.0000 | 5.18 | 0.4702 | 0.0007 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0138 | ppm | 0.0095 | 68.68 | 205.1000 | 0.0138 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0004 | ppm | 0.0002 | 42.06 | -4.5680 | 0.0004 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0048 u | ppm | 0.0069 | > 100.00 | 1.7680 | 0.0048 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0007 u | ppm | 0.0019 | > 100.00 | 9.2910 | 0.0007 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0021 u | ppm | 0.0019 | 88.10 | -1.8220 | -0.0021 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0031 u | ppm | 0.0002 | 5.49 | 4.0790 | -0.0031 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0047 | ppm | 0.0027 | 58.05 | 68.0900 | 0.0047 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0005 u | ppm | 0.0011 | > 100.00 | 0.0819 | 0.0005 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0002 u | ppm | 0.0001 | 60.57 | -248.1000 | -0.0002 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0003 | ppm | 0.0000 | 8.96 | -23.0400 | 0.0003 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0011 | ppm | 0.0009 | 87.61 | -6.4300 | 0.0011 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0003 | ppm | 0.0002 | 54.27 | 32.3600 | 0.0003 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0002 u | ppm | 0.0011 | > 100.00 | 7.3250 | 0.0002 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 164.8000 | 0.0000 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0000 | 3.19 | 25.4700 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0280 | 622700.0000 | 0.0056 | 0.54 |
| Y_R 371.029 | 1.0130 | 106800.0000 | 0.0070 | 0.69 |

Sample Name: MB 440-437119/1-A

Date: 10/25/2017 11:51:08 AM Rack:Tube: 1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0027 u | ppm | 0.0001 | 4.42 | -158.2000 | -0.0027 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0149 | ppm | 0.0005 | 3.20 | 216.0000 | 0.0149 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0017 | ppm | 0.0012 | 70.89 | 7.0790 | 0.0017 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0005 | ppm | 0.0000 | 1.43 | 59.1800 | 0.0005 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0004 | ppm | 0.0000 | 11.29 | 69.6300 | 0.0004 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 47.66 | 0.8134 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0321 | ppm | 0.0017 | 5.42 | 206.1000 | 0.0321 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 0.8977 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | -35.5300 | -0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0012 | ppm | 0.0001 | 4.85 | 13.0100 | 0.0012 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0011 | ppm | 0.0002 | 14.46 | 657.0000 | 0.0011 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0217 | ppm | 0.0002 | 0.94 | 103.8000 | 0.0217 (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.0143 u | ppm | 0.0224 | > 100.00 | 1035.0000 | -0.0143 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0170 | ppm | 0.0043 | 25.24 | 968.8000 | 0.0170 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0056 | ppm | 0.0008 | 13.50 | 104.2000 | 0.0056 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0006 | ppm | 0.0000 | 7.83 | 97.7700 | 0.0006 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0016 u | ppm | 0.0015 | 91.80 | -11.3700 | -0.0016 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0303 | ppm | 0.0012 | 3.86 | 329.5000 | 0.0303 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0006 | ppm | 0.0003 | 41.07 | -3.7450 | 0.0006 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0014 | ppm | 0.0015 | > 100.00 | -2.0610 | 0.0014 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0002 u | ppm | 0.0007 | > 100.00 | 7.4370 | -0.0002 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0005 u | ppm | 0.0008 | > 100.00 | 2.3510 | 0.0005 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0016 u | ppm | 0.0007 | 47.22 | 6.1640 | -0.0016 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0080 | ppm | 0.0007 | 9.31 | 75.8400 | 0.0080 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0000 u | ppm | 0.0012 | > 100.00 | -0.3593 | 0.0000 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 | ppm | 0.0000 | 30.45 | -191.9000 | 0.0000 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0000 | 13.46 | -34.0600 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0036 u | ppm | 0.0011 | 31.31 | -15.5300 | -0.0036 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0003 | ppm | 0.0001 | 32.05 | 33.5700 | 0.0003 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0027 | ppm | 0.0002 | 6.74 | 14.1900 | 0.0027 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0188 | ppm | 0.0005 | 2.48 | 641.1000 | 0.0188 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 14.79 | 11.6500 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0050 | 608600.0000 | 0.0116 | 1.15 |
| Y_R 371.029 | 1.0090 | 106400.0000 | 0.0184 | 1.82 |

Sample Name: LCS 440-437119/2-A

Date: 10/25/2017 11:53:13 AM Rack:Tube: 1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4913 | ppm | 0.0054 | 1.10 | 25410.0000 | 0.4913 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0040 | ppm | 0.0123 | 1.22 | 32260.0000 | 1.0040 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9814 | ppm | 0.0069 | 0.70 | 929.9000 | 0.9814 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9741 | ppm | 0.0139 | 1.43 | 13610.0000 | 0.9741 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9822 | ppm | 0.0093 | 0.94 | 76540.0000 | 0.9822 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9805 | ppm | 0.0118 | 1.20 | 227500.0000 | 0.9805 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.0570 | ppm | 0.0074 | 0.15 | 16860.0000 | 5.0570 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9816 | ppm | 0.0121 | 1.23 | 27410.0000 | 0.9816 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9915 | ppm | 0.0159 | 1.61 | 16390.0000 | 0.9915 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9896 | ppm | 0.0077 | 0.78 | 7708.0000 | 0.9896 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9985 | ppm | 0.0118 | 1.18 | 43530.0000 | 0.9985 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0380 | ppm | 0.0045 | 0.43 | 5739.0000 | 1.0380 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.9840 | ppm | 0.0742 | 0.74 | 13560.0000 | 9.9840 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9985 | ppm | 0.0010 | 0.10 | 53680.0000 | 0.9985 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.9460 | ppm | 0.0469 | 0.95 | 16890.0000 | 4.9460 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9888 | ppm | 0.0134 | 1.36 | 98680.0000 | 0.9888 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9894 | ppm | 0.0113 | 1.14 | 5123.0000 | 0.9894 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.0900 | ppm | 0.0458 | 0.45 | 76540.0000 | 10.0900 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9872 | ppm | 0.0118 | 1.19 | 4477.0000 | 0.9872 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9794 | ppm | 0.0124 | 1.26 | 1021.0000 | 0.9794 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9865 | ppm | 0.0115 | 1.16 | 2059.0000 | 0.9865 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0240 | ppm | 0.0182 | 1.78 | 1587.0000 | 1.0240 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9366 | ppm | 0.0132 | 1.40 | 1325.0000 | 0.9366 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.5210 | ppm | 0.0551 | 1.22 | 10430.0000 | 4.5210 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9742 | ppm | 0.0135 | 1.39 | 906.4000 | 0.9742 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0110 | ppm | 0.0162 | 1.60 | 272300.0000 | 1.0110 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9899 | ppm | 0.0132 | 1.33 | 97230.0000 | 0.9899 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9809 | ppm | 0.0123 | 1.25 | 1859.0000 | 0.9809 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9886 | ppm | 0.0120 | 1.21 | 32400.0000 | 0.9886 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9879 | ppm | 0.0103 | 1.04 | 2625.0000 | 0.9879 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9873 | ppm | 0.0123 | 1.24 | 25350.0000 | 0.9873 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9882 | ppm | 0.0131 | 1.33 | 86940.0000 | 0.9882 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9894 | 599300.0000 | 0.0057 | 0.57 |
| Y_R 371.029 | 0.9928 | 104700.0000 | 0.0034 | 0.34 |

Sample Name: 440-194183-AC-1-B

Date: 10/25/2017 11:55:17 AM Rack:Tube: 1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0036 u | ppm | 0.0001 | 1.67 | -235.8000 | -0.0036 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0260 u | ppm | 0.0007 | 2.76 | -1831.0000 | -0.0260 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0099 | ppm | 0.0023 | 22.71 | 16.1800 | 0.0099 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0660 | ppm | 0.0052 | 0.49 | 15030.0000 | 1.0660 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0341 | ppm | 0.0001 | 0.38 | 2714.0000 | 0.0341 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 91.7800 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 250.2000 | ppm | 2.7060 | 1.08 | 829200.0000 | 250.2000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 54.15 | 5.5270 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0002 u | ppm | 0.0008 | > 100.00 | -20.7900 | 0.0002 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0017 | ppm | 0.0000 | 2.55 | 20.5000 | 0.0017 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0138 | ppm | 0.0004 | 3.13 | 795.4000 | 0.0138 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 2.2200 | ppm | 0.0257 | 1.16 | 12330.0000 | 2.2200 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 16.2100 | ppm | 0.1928 | 1.19 | 21370.0000 | 16.2100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3517 | ppm | 0.0021 | 0.61 | 20020.0000 | 0.3517 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 95.8400 | ppm | 0.0502 | 0.05 | 325800.0000 | 95.8400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.5529 | ppm | 0.0034 | 0.61 | 55470.0000 | 0.5529 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0039 | ppm | 0.0005 | 11.81 | 12.5500 | 0.0039 (ppm) | Y 371.029 |
| Na (589.592 nm) | 610.4000 | ppm | 8.6060 | 1.41 | 4621000.0000 | 610.4000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0246 | ppm | 0.0010 | 3.98 | 40.4000 | 0.0246 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0457 | ppm | 0.0006 | 1.24 | 46.8900 | 0.0457 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0030 u | ppm | 0.0024 | 78.64 | 3.0960 | -0.0030 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0038 | ppm | 0.0020 | 54.10 | -11.0600 | 0.0038 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0001 u | ppm | 0.0026 | > 100.00 | 8.8070 | -0.0001 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 17.6500 | ppm | 0.0543 | 0.31 | 39680.0000 | 17.6500 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0005 u | ppm | 0.0018 | > 100.00 | 0.0592 | -0.0005 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 3.0400 | ppm | 0.0305 | 1.00 | 821300.0000 | 3.0400 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0008 | ppm | 0.0004 | 46.96 | -206.2000 | 0.0008 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0008 u | ppm | 0.0001 | 12.83 | -4.0830 | -0.0008 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0008 | ppm | 0.0001 | 11.89 | 92.9700 | 0.0008 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0015 | ppm | 0.0003 | 23.14 | 5.3380 | 0.0015 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0008 u | ppm | 0.0005 | 61.69 | 187.6000 | -0.0008 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0004 | ppm | 0.0001 | 33.52 | 78.8900 | 0.0004 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9448 | 572300.0000 | 0.0091 | 0.96 |
| Y_R 371.029 | 0.9441 | 99560.0000 | 0.0038 | 0.41 |

Sample Name: 440-194183-AC-1-C MS

Date: 10/25/2017 11:57:21 AM Rack:Tube: 1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5076 | ppm | 0.0044 | 0.87 | 26230.0000 | 0.5076 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0480 | ppm | 0.0108 | 1.03 | 32860.0000 | 1.0480 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0230 | ppm | 0.0065 | 0.63 | 970.9000 | 1.0230 (ppm) | Y 371.029 |
| B (249.678 nm) | 2.1500 | ppm | 0.0230 | 1.07 | 30120.0000 | 2.1500 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9531 | ppm | 0.0109 | 1.14 | 74290.0000 | 0.9531 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0010 | ppm | 0.0078 | 0.78 | 232300.0000 | 1.0010 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 261.0000 | ppm | 3.6230 | 1.39 | 865000.0000 | 261.0000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9225 | ppm | 0.0092 | 0.99 | 25760.0000 | 0.9225 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9286 | ppm | 0.0125 | 1.35 | 15360.0000 | 0.9286 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9621 | ppm | 0.0134 | 1.40 | 7498.0000 | 0.9621 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0330 | ppm | 0.0108 | 1.04 | 44580.0000 | 1.0330 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 3.2450 | ppm | 0.0370 | 1.14 | 18020.0000 | 3.2450 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 27.0000 | ppm | 0.3050 | 1.13 | 34880.0000 | 27.0000 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.3740 | ppm | 0.0097 | 0.71 | 75030.0000 | 1.3740 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 103.6000 | ppm | 1.4200 | 1.37 | 352100.0000 | 103.6000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.5380 | ppm | 0.0135 | 0.88 | 153800.0000 | 1.5380 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0310 | ppm | 0.0086 | 0.84 | 5333.0000 | 1.0310 (ppm) | Y 371.029 |
| Na (589.592 nm) | 636.6000 | ppm | 9.7770 | 1.54 | 4820000.0000 | 636.6000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9487 | ppm | 0.0102 | 1.07 | 4236.0000 | 0.9487 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0900 | ppm | 0.0123 | 1.12 | 1143.0000 | 1.0900 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9310 | ppm | 0.0085 | 0.92 | 1945.0000 | 0.9310 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0860 | ppm | 0.0152 | 1.40 | 1663.0000 | 1.0860 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9450 | ppm | 0.0155 | 1.63 | 1338.0000 | 0.9450 (ppm) | Y 371.029 |
| Si (251.611 nm) | 22.9100 | ppm | 0.1816 | 0.79 | 51730.0000 | 22.9100 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0120 | ppm | 0.0066 | 0.65 | 942.2000 | 1.0120 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 4.0810 | ppm | 0.0550 | 1.35 | 1102000.0000 | 4.0810 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0230 | ppm | 0.0092 | 0.89 | 100300.0000 | 1.0230 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9078 | ppm | 0.0112 | 1.23 | 1719.0000 | 0.9078 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9916 | ppm | 0.0105 | 1.06 | 32530.0000 | 0.9916 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0270 | ppm | 0.0089 | 0.87 | 2720.0000 | 1.0270 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9062 | ppm | 0.0089 | 0.98 | 23350.0000 | 0.9062 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0140 | ppm | 0.0086 | 0.84 | 89220.0000 | 1.0140 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9287 | 562600.0000 | 0.0041 | 0.44 |
| Y_R 371.029 | 0.9582 | 101100.0000 | 0.0078 | 0.81 |

Sample Name: 440-194183-AC-1-D MSD

Date: 10/25/2017 11:59:25 AM Rack:Tube: 1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5283 | ppm | 0.0243 | 4.60 | 27290.0000 | 0.5283 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0860 | ppm | 0.0552 | 5.08 | 34170.0000 | 1.0860 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0700 | ppm | 0.0527 | 4.92 | 1016.0000 | 1.0700 (ppm) | Y 371.029 |
| B (249.678 nm) | 2.1650 | ppm | 0.0995 | 4.60 | 30340.0000 | 2.1650 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9134 | ppm | 0.0019 | 0.21 | 71190.0000 | 0.9134 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0420 | ppm | 0.0515 | 4.94 | 241900.0000 | 1.0420 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 231.0000 | ppm | 2.4990 | 1.08 | 765800.0000 | 231.0000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9618 | ppm | 0.0442 | 4.59 | 26860.0000 | 0.9618 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9740 | ppm | 0.0492 | 5.05 | 16110.0000 | 0.9740 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0090 | ppm | 0.0464 | 4.60 | 7860.0000 | 1.0090 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0730 | ppm | 0.0530 | 4.93 | 46380.0000 | 1.0730 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 2.9310 | ppm | 0.0283 | 0.97 | 16270.0000 | 2.9310 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 24.8000 | ppm | 0.3516 | 1.42 | 32120.0000 | 24.8000 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.2780 | ppm | 0.0113 | 0.88 | 69570.0000 | 1.2780 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 93.4800 | ppm | 0.2354 | 0.25 | 317800.0000 | 93.4800 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.5670 | ppm | 0.0788 | 5.03 | 156600.0000 | 1.5670 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0450 | ppm | 0.0498 | 4.76 | 5406.0000 | 1.0450 (ppm) | Y 371.029 |
| Na (589.592 nm) | 564.8000 | ppm | 5.9910 | 1.06 | 4277000.0000 | 564.8000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9844 | ppm | 0.0452 | 4.59 | 4406.0000 | 0.9844 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.1280 | ppm | 0.0521 | 4.62 | 1182.0000 | 1.1280 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9687 | ppm | 0.0445 | 4.59 | 2023.0000 | 0.9687 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0950 | ppm | 0.0488 | 4.45 | 1680.0000 | 1.0950 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9852 | ppm | 0.0447 | 4.54 | 1394.0000 | 0.9852 (ppm) | Y 371.029 |
| Si (251.611 nm) | 22.5900 | ppm | 1.0370 | 4.59 | 51000.0000 | 22.5900 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0200 | ppm | 0.0516 | 5.06 | 949.6000 | 1.0200 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 3.6670 | ppm | 0.0423 | 1.15 | 990000.0000 | 3.6670 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0370 | ppm | 0.0498 | 4.80 | 101700.0000 | 1.0370 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9453 | ppm | 0.0402 | 4.25 | 1790.0000 | 0.9453 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0340 | ppm | 0.0489 | 4.73 | 33910.0000 | 1.0340 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0420 | ppm | 0.0465 | 4.46 | 2760.0000 | 1.0420 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9527 | ppm | 0.0448 | 4.70 | 24530.0000 | 0.9527 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0280 | ppm | 0.0495 | 4.82 | 90460.0000 | 1.0280 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9329 | 565100.0000 | 0.0353 | 3.79 |
| Y_R 371.029 | 1.0430 | 110000.0000 | 0.0090 | 0.87 |

Sample Name: 440-194183-AC-1-E PDS

Date: 10/25/2017 12:01:30 PM Rack:Tube: 1:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4889 | ppm | 0.0084 | 1.71 | 25250.0000 | 0.4889 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.9957 | ppm | 0.0199 | 2.00 | 31260.0000 | 0.9957 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9893 | ppm | 0.0089 | 0.90 | 939.3000 | 0.9893 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.9900 | ppm | 0.0343 | 1.72 | 27900.0000 | 1.9900 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.8627 | ppm | 0.0091 | 1.05 | 67240.0000 | 0.8627 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9606 | ppm | 0.0174 | 1.81 | 223000.0000 | 0.9606 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 216.5000 | ppm | 0.2787 | 0.13 | 717700.0000 | 216.5000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.8898 | ppm | 0.0164 | 1.84 | 24850.0000 | 0.8898 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9008 | ppm | 0.0200 | 2.22 | 14900.0000 | 0.9008 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9324 | ppm | 0.0186 | 1.99 | 7266.0000 | 0.9324 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9896 | ppm | 0.0173 | 1.75 | 42800.0000 | 0.9896 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 2.7900 | ppm | 0.0116 | 0.42 | 15490.0000 | 2.7900 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 23.6300 | ppm | 0.0452 | 0.19 | 30660.0000 | 23.6300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.2090 | ppm | 0.0015 | 0.12 | 65920.0000 | 1.2090 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 86.8100 | ppm | 1.0030 | 1.16 | 295100.0000 | 86.8100 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.4350 | ppm | 0.0270 | 1.88 | 143400.0000 | 1.4350 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9330 | ppm | 0.0137 | 1.46 | 4827.0000 | 0.9330 (ppm) | Y 371.029 |
| Na (589.592 nm) | 534.2000 | ppm | 0.3905 | 0.07 | 4045000.0000 | 534.2000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9140 | ppm | 0.0139 | 1.52 | 4090.0000 | 0.9140 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0470 | ppm | 0.0181 | 1.73 | 1099.0000 | 1.0470 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.8957 | ppm | 0.0164 | 1.84 | 1872.0000 | 0.8957 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9600 | ppm | 0.0108 | 1.12 | 1472.0000 | 0.9600 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9131 | ppm | 0.0180 | 1.97 | 1292.0000 | 0.9131 (ppm) | Y 371.029 |
| Si (251.611 nm) | 20.5000 | ppm | 0.2933 | 1.43 | 46290.0000 | 20.5000 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9108 | ppm | 0.0172 | 1.88 | 848.1000 | 0.9108 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 3.4530 | ppm | 0.0022 | 0.06 | 932400.0000 | 3.4530 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9246 | ppm | 0.0171 | 1.84 | 90620.0000 | 0.9246 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.8796 | ppm | 0.0194 | 2.20 | 1667.0000 | 0.8796 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9544 | ppm | 0.0176 | 1.84 | 31330.0000 | 0.9544 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9338 | ppm | 0.0165 | 1.77 | 2476.0000 | 0.9338 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.8874 | ppm | 0.0174 | 1.96 | 22860.0000 | 0.8874 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9185 | ppm | 0.0159 | 1.73 | 80840.0000 | 0.9185 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9983 | 604800.0000 | 0.0197 | 1.98 |
| Y_R 371.029 | 1.0910 | 115100.0000 | 0.0128 | 1.17 |

Sample Name: 440-194183-AC-1-Bsd@5

Date: 10/25/2017 12:03:34 PM Rack:Tube: 1:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0031 u | ppm | 0.0001 | 2.08 | -183.1000 | -0.0031 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0176 u | ppm | 0.0008 | 4.59 | -938.9000 | -0.0176 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0079 | ppm | 0.0033 | 41.40 | 13.2000 | 0.0079 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.2144 | ppm | 0.0049 | 2.30 | 3064.0000 | 0.2144 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0070 | ppm | 0.0000 | 0.11 | 585.7000 | 0.0070 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0002 | ppm | 0.0001 | 38.43 | 63.7800 | 0.0002 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 46.9400 | ppm | 0.3879 | 0.83 | 155700.0000 | 46.9400 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 67.71 | 1.9810 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0005 | ppm | 0.0006 | > 100.00 | -24.2200 | 0.0005 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0002 | 49.05 | 7.5700 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0035 | ppm | 0.0003 | 7.73 | 684.8000 | 0.0035 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.4355 | ppm | 0.0032 | 0.73 | 2406.0000 | 0.4355 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 3.2900 | ppm | 0.0347 | 1.05 | 5178.0000 | 3.2900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0467 | ppm | 0.0029 | 6.23 | 2716.0000 | 0.0467 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 18.7800 | ppm | 0.0363 | 0.19 | 63920.0000 | 18.7800 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1131 | ppm | 0.0023 | 2.04 | 11370.0000 | 0.1131 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0001 u | ppm | 0.0014 | > 100.00 | -3.0980 | 0.0001 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 117.2000 | ppm | 1.1600 | 0.99 | 887600.0000 | 117.2000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0060 | ppm | 0.0002 | 3.95 | 8.5420 | 0.0060 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0082 | ppm | 0.0006 | 6.98 | 5.4440 | 0.0082 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0003 u | ppm | 0.0007 | > 100.00 | 8.7000 | 0.0003 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0012 u | ppm | 0.0050 | > 100.00 | -0.0736 | 0.0012 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0019 u | ppm | 0.0007 | 38.29 | 5.7740 | -0.0019 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 3.5070 | ppm | 0.0651 | 1.86 | 7932.0000 | 3.5070 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0020 u | ppm | 0.0021 | > 100.00 | -2.0340 | -0.0020 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5736 | ppm | 0.0043 | 0.76 | 154800.0000 | 0.5736 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0004 | ppm | 0.0001 | 18.05 | -55.7000 | 0.0004 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0004 u | ppm | 0.0024 | > 100.00 | -8.1100 | -0.0004 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0008 | ppm | 0.0002 | 23.52 | 58.0700 | 0.0008 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0005 u | ppm | 0.0003 | 50.96 | 4.4310 | -0.0005 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0027 | ppm | 0.0003 | 11.73 | 241.3000 | 0.0027 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0005 | ppm | 0.0001 | 17.97 | 55.9200 | 0.0005 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0050 | 608700.0000 | 0.0134 | 1.34 |
| Y_R 371.029 | 1.0280 | 108400.0000 | 0.0038 | 0.37 |

Sample Name: 440-194183-AC-2-B

Date: 10/25/2017 12:05:39 PM Rack:Tube: 1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0036 u | ppm | 0.0001 | 3.17 | -229.8000 | -0.0036 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0437 u | ppm | 0.0021 | 4.85 | -2310.0000 | -0.0437 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0082 | ppm | 0.0022 | 26.68 | 14.3900 | 0.0082 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0680 | ppm | 0.0355 | 3.33 | 15050.0000 | 1.0680 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0312 | ppm | 0.0002 | 0.75 | 2481.0000 | 0.0312 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | 6.03 | 78.8300 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 228.3000 | ppm | 0.5762 | 0.25 | 756800.0000 | 228.3000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 0.3004 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0002 u | ppm | 0.0005 | > 100.00 | -28.0600 | -0.0002 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0006 | ppm | 0.0000 | 3.07 | 11.7500 | 0.0006 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0017 | ppm | 0.0006 | 35.33 | 309.2000 | 0.0017 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 2.0250 | ppm | 0.0138 | 0.68 | 11240.0000 | 2.0250 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 15.4100 | ppm | 0.1102 | 0.72 | 20360.0000 | 15.4100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3191 | ppm | 0.0020 | 0.61 | 18180.0000 | 0.3191 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 88.1200 | ppm | 0.5766 | 0.65 | 299600.0000 | 88.1200 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.5536 | ppm | 0.0212 | 3.83 | 55480.0000 | 0.5536 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0038 | ppm | 0.0001 | 3.83 | 12.4400 | 0.0038 (ppm) | Y 371.029 |
| Na (589.592 nm) | 561.5000 | ppm | 6.5000 | 1.16 | 4252000.0000 | 561.5000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0228 | ppm | 0.0008 | 3.59 | 37.7000 | 0.0228 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0453 | ppm | 0.0005 | 1.16 | 47.2100 | 0.0453 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0025 u | ppm | 0.0022 | 87.01 | 4.1560 | -0.0025 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0035 | ppm | 0.0010 | 27.72 | -9.8280 | 0.0035 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0001 u | ppm | 0.0027 | > 100.00 | 9.0120 | 0.0001 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 17.7000 | ppm | 0.6823 | 3.86 | 39790.0000 | 17.7000 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0007 u | ppm | 0.0028 | > 100.00 | -0.2458 | -0.0007 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 2.7730 | ppm | 0.0034 | 0.12 | 749200.0000 | 2.7730 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0004 | ppm | 0.0000 | 7.07 | -225.5000 | 0.0004 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0011 | ppm | 0.0006 | 52.69 | -0.7891 | 0.0011 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0009 | ppm | 0.0001 | 6.55 | 94.1300 | 0.0009 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0010 | ppm | 0.0005 | 51.19 | 4.4800 | 0.0010 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0021 | ppm | 0.0004 | 19.86 | 255.2000 | 0.0021 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 32.23 | 52.7700 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9390 | 568800.0000 | 0.0310 | 3.30 |
| Y_R 371.029 | 1.0210 | 107700.0000 | 0.0121 | 1.18 |

Sample Name: 440-194183-AC-3-B

Date: 10/25/2017 12:07:43 PM Rack:Tube: 1:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0037 u | ppm | 0.0001 | 2.43 | -240.2000 | -0.0037 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0430 u | ppm | 0.0002 | 0.38 | -2373.0000 | -0.0430 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0092 | ppm | 0.0029 | 30.85 | 15.5800 | 0.0092 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.1180 | ppm | 0.0103 | 0.92 | 15770.0000 | 1.1180 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0271 | ppm | 0.0001 | 0.50 | 2167.0000 | 0.0271 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | 7.44 | 52.3700 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 258.0000 | ppm | 1.7450 | 0.68 | 855100.0000 | 258.0000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0000 | 50.16 | -1.1400 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0004 | ppm | 0.0002 | 68.33 | -19.6800 | 0.0004 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0006 | ppm | 0.0006 | > 100.00 | 12.2900 | 0.0006 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0036 | ppm | 0.0001 | 2.56 | 342.7000 | 0.0036 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.2920 | ppm | 0.0040 | 0.31 | 7178.0000 | 1.2920 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 15.9200 | ppm | 0.0382 | 0.24 | 21000.0000 | 15.9200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3498 | ppm | 0.0016 | 0.46 | 19990.0000 | 0.3498 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 102.5000 | ppm | 0.7037 | 0.69 | 348300.0000 | 102.5000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.6648 | ppm | 0.0040 | 0.60 | 66460.0000 | 0.6648 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0028 | ppm | 0.0001 | 3.94 | 6.7900 | 0.0028 (ppm) | Y 371.029 |
| Na (589.592 nm) | 570.8000 | ppm | 2.1200 | 0.37 | 4322000.0000 | 570.8000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0176 | ppm | 0.0013 | 7.24 | 6.0700 | 0.0176 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0306 | ppm | 0.0036 | 11.88 | 30.3600 | 0.0306 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0028 u | ppm | 0.0029 | > 100.00 | 3.6720 | -0.0028 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0012 | ppm | 0.0000 | 3.76 | -15.5800 | 0.0012 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0004 | ppm | 0.0004 | > 100.00 | 9.8490 | 0.0004 (ppm) | Y 371.029 |
| Si (251.611 nm) | 16.9000 | ppm | 0.0459 | 0.27 | 38010.0000 | 16.9000 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0043 u | ppm | 0.0017 | 38.75 | -3.4310 | -0.0043 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 3.3230 | ppm | 0.0291 | 0.88 | 897600.0000 | 3.3230 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0004 | ppm | 0.0001 | 22.90 | -253.9000 | 0.0004 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0018 u | ppm | 0.0005 | 28.05 | -5.6710 | -0.0018 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0009 | ppm | 0.0003 | 32.53 | 99.1500 | 0.0009 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0002 u | ppm | 0.0011 | > 100.00 | 1.9360 | 0.0002 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0085 | ppm | 0.0001 | 1.00 | 424.3000 | 0.0085 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0001 | 55.68 | 55.7800 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9306 | 563700.0000 | 0.0017 | 0.18 |
| Y_R 371.029 | 0.9689 | 102200.0000 | 0.0005 | 0.05 |

Sample Name: 440-194183-AC-4-B

Date: 10/25/2017 12:09:48 PM Rack:Tube: 1:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0049 u | ppm | 0.0002 | 4.45 | -295.8000 | -0.0049 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0508 u | ppm | 0.0008 | 1.59 | -2432.0000 | -0.0508 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0102 | ppm | 0.0010 | 9.47 | 16.2200 | 0.0102 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.2720 | ppm | 0.0061 | 0.48 | 17930.0000 | 1.2720 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0358 | ppm | 0.0003 | 0.74 | 2840.0000 | 0.0358 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 8.9320 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 207.6000 | ppm | 1.5080 | 0.73 | 688100.0000 | 207.6000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -0.7124 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0009 | ppm | 0.0000 | 4.22 | -13.6300 | 0.0009 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0052 | ppm | 0.0001 | 1.86 | 47.0900 | 0.0052 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0047 | ppm | 0.0004 | 7.83 | 474.2000 | 0.0047 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0765 | ppm | 0.0025 | 3.25 | 429.6000 | 0.0765 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 17.7900 | ppm | 0.2061 | 1.16 | 23370.0000 | 17.7900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4043 | ppm | 0.0018 | 0.44 | 23040.0000 | 0.4043 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 87.6500 | ppm | 0.5467 | 0.62 | 298000.0000 | 87.6500 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4112 | ppm | 0.0016 | 0.39 | 41130.0000 | 0.4112 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0206 | ppm | 0.0002 | 1.13 | 99.8300 | 0.0206 (ppm) | Y 371.029 |
| Na (589.592 nm) | 644.4000 | ppm | 5.2460 | 0.81 | 4879000.0000 | 644.4000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1241 | ppm | 0.0003 | 0.25 | 503.5000 | 0.1241 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0023 u | ppm | 0.0059 | > 100.00 | -2.1790 | 0.0023 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0014 u | ppm | 0.0002 | 13.15 | 6.2600 | -0.0014 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0001 u | ppm | 0.0020 | > 100.00 | -14.1900 | 0.0001 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0004 u | ppm | 0.0018 | > 100.00 | 8.7460 | -0.0004 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 19.3600 | ppm | 0.0980 | 0.51 | 43520.0000 | 19.3600 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0049 u | ppm | 0.0012 | 24.65 | -4.2000 | -0.0049 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 2.9200 | ppm | 0.0172 | 0.59 | 788600.0000 | 2.9200 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0007 | ppm | 0.0000 | 2.88 | -178.4000 | 0.0007 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0012 u | ppm | 0.0011 | 85.76 | -6.1220 | -0.0012 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0012 | ppm | 0.0002 | 20.82 | 91.8500 | 0.0012 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0007 u | ppm | 0.0021 | > 100.00 | 4.0370 | 0.0007 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0014 | ppm | 0.0000 | 2.09 | 238.3000 | 0.0014 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 31.21 | 50.0200 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8094 | 490300.0000 | 0.0000 | 0.00 |
| Y_R 371.029 | 0.8253 | 87040.0000 | 0.0074 | 0.90 |

Sample Name: CCV 4444438

Date: 10/25/2017 12:11:52 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5438 | ppm | 0.0008 | 0.15 | 28130.0000 | 0.5438 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0930 | ppm | 0.0031 | 0.28 | 35150.0000 | 1.0930 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.1170 Q | ppm | 0.0080 | 0.71 | 1058.0000 Q | 1.1170 Q (ppm) | Y 371.029 |
| B (249.678 nm) | 1.1040 Q | ppm | 0.0054 | 0.49 | 15430.0000 Q | 1.1040 Q (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0870 | ppm | 0.0061 | 0.56 | 84730.0000 | 1.0870 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.1010 Q | ppm | 0.0034 | 0.31 | 255600.0000 Q | 1.1010 Q (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.5640 Q | ppm | 0.0357 | 0.64 | 18540.0000 Q | 5.5640 Q (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.1010 Q | ppm | 0.0040 | 0.36 | 30740.0000 Q | 1.1010 Q (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.1030 Q | ppm | 0.0015 | 0.14 | 18240.0000 Q | 1.1030 Q (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.1000 Q | ppm | 0.0047 | 0.43 | 8569.0000 Q | 1.1000 Q (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0930 | ppm | 0.0013 | 0.12 | 47570.0000 | 1.0930 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.1140 Q | ppm | 0.0011 | 0.09 | 6166.0000 Q | 1.1140 Q (ppm) | Y_R 371.029 |
| K (766.491 nm) | 11.5100 Q | ppm | 0.1491 | 1.30 | 15460.0000 Q | 11.5100 Q (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0780 | ppm | 0.0062 | 0.57 | 57870.0000 | 1.0780 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.5380 Q | ppm | 0.0388 | 0.70 | 18900.0000 Q | 5.5380 Q (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0950 | ppm | 0.0039 | 0.36 | 109300.0000 | 1.0950 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0960 | ppm | 0.0041 | 0.37 | 5673.0000 | 1.0960 (ppm) | Y 371.029 |
| Na (589.592 nm) | 12.6100 Q | ppm | 0.0188 | 0.15 | 95590.0000 Q | 12.6100 Q (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.1050 Q | ppm | 0.0049 | 0.44 | 5012.0000 Q | 1.1050 Q (ppm) | Y 371.029 |
| P (213.618 nm) | 1.1070 Q | ppm | 0.0095 | 0.86 | 1158.0000 Q | 1.1070 Q (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.1000 | ppm | 0.0009 | 0.09 | 2295.0000 | 1.1000 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0870 | ppm | 0.0079 | 0.72 | 1684.0000 | 1.0870 (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.1080 Q | ppm | 0.0004 | 0.04 | 1566.0000 Q | 1.1080 Q (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.4390 | ppm | 0.0162 | 0.30 | 12510.0000 | 5.4390 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.1050 Q | ppm | 0.0021 | 0.19 | 1028.0000 Q | 1.1050 Q (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.1140 Q | ppm | 0.0006 | 0.05 | 299900.0000 Q | 1.1140 Q (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0920 | ppm | 0.0027 | 0.25 | 107300.0000 | 1.0920 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0930 | ppm | 0.0036 | 0.33 | 2073.0000 | 1.0930 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0970 | ppm | 0.0018 | 0.16 | 35950.0000 | 1.0970 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0940 | ppm | 0.0142 | 1.29 | 2906.0000 | 1.0940 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.1110 Q | ppm | 0.0023 | 0.20 | 28490.0000 Q | 1.1110 Q (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0910 | ppm | 0.0033 | 0.30 | 95970.0000 | 1.0910 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9333 | 565400.0000 | 0.0088 | 0.95 |
| Y_R 371.029 | 0.9359 | 98700.0000 | 0.0007 | 0.07 |

Sample Name: CCB 4444437

Date: 10/25/2017 12:13:56 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0028 u | ppm | 0.0000 | 1.58 | -164.6000 | -0.0028 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0010 u | ppm | 0.0000 | 1.08 | -273.8000 | -0.0010 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0036 | ppm | 0.0021 | 58.69 | 8.8890 | 0.0036 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0038 | ppm | 0.0014 | 37.26 | 105.3000 | 0.0038 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0001 | 44.43 | 49.0400 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 40.52 | 40.9300 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0167 | ppm | 0.0018 | 10.88 | 155.3000 | 0.0167 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 78.44 | 2.9070 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0006 | ppm | 0.0001 | 20.65 | -24.6100 | 0.0006 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0000 u | ppm | 0.0004 | > 100.00 | 3.4740 | 0.0000 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0022 | ppm | 0.0006 | 29.06 | 704.8000 | 0.0022 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0037 | ppm | 0.0014 | 38.61 | 4.3060 | 0.0037 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.3904 | ppm | 0.0183 | 4.67 | 1544.0000 | 0.3904 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0268 | ppm | 0.0017 | 6.27 | 1515.0000 | 0.0268 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0063 | ppm | 0.0017 | 27.42 | 106.5000 | 0.0063 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0000 | 7.05 | 57.8300 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0001 u | ppm | 0.0004 | > 100.00 | -3.5950 | -0.0001 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.1050 Z | ppm | 0.0042 | 0.38 | 8468.0000 Z | 1.1050 Z (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0001 u | ppm | 0.0006 | > 100.00 | -5.9960 | 0.0001 u (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0067 u | ppm | 0.0085 | > 100.00 | -11.3700 | -0.0067 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0021 | ppm | 0.0008 | 37.89 | 12.1700 | 0.0021 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0039 u | ppm | 0.0006 | 14.57 | -4.6060 | -0.0039 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0028 u | ppm | 0.0034 | > 100.00 | 4.4940 | -0.0028 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0093 | ppm | 0.0052 | 55.40 | 78.4800 | 0.0093 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0001 u | ppm | 0.0012 | > 100.00 | -0.5075 | -0.0001 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -198.2000 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0000 | 1.68 | -33.2400 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0016 u | ppm | 0.0012 | 73.86 | -11.6800 | -0.0016 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0002 | ppm | 0.0001 | 52.45 | 30.2800 | 0.0002 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0007 | ppm | 0.0000 | 2.52 | 8.5390 | 0.0007 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0006 | ppm | 0.0001 | 18.14 | 180.9000 | 0.0006 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | 11.4000 | 0.0001 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9367 | 567400.0000 | 0.0117 | 1.25 |
| Y_R 371.029 | 0.9305 | 98130.0000 | 0.0065 | 0.70 |

Sample Name: CCV 4444438

Date: 10/25/2017 12:20:42 PM
Rack:Tube: S1:4
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5005 | ppm | 0.0030 | 0.60 | 25890.0000 | 0.5005 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0000 | ppm | 0.0048 | 0.48 | 32150.0000 | 1.0000 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0190 | ppm | 0.0041 | 0.40 | 965.3000 | 1.0190 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0120 | ppm | 0.0024 | 0.24 | 14140.0000 | 1.0120 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9869 | ppm | 0.0018 | 0.18 | 76910.0000 | 0.9869 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0070 | ppm | 0.0066 | 0.65 | 233800.0000 | 1.0070 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.0860 | ppm | 0.0342 | 0.67 | 16960.0000 | 5.0860 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0080 | ppm | 0.0064 | 0.63 | 28140.0000 | 1.0080 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0070 | ppm | 0.0090 | 0.90 | 16650.0000 | 1.0070 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0010 | ppm | 0.0067 | 0.67 | 7795.0000 | 1.0010 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9971 | ppm | 0.0071 | 0.72 | 43470.0000 | 0.9971 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0300 | ppm | 0.0023 | 0.22 | 5699.0000 | 1.0300 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.4100 | ppm | 0.0020 | 0.02 | 14090.0000 | 10.4100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9918 | ppm | 0.0052 | 0.52 | 53280.0000 | 0.9918 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.0120 | ppm | 0.0058 | 0.12 | 17120.0000 | 5.0120 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0010 | ppm | 0.0061 | 0.61 | 99880.0000 | 1.0010 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0040 | ppm | 0.0062 | 0.62 | 5199.0000 | 1.0040 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.8100 | ppm | 0.0533 | 0.49 | 81950.0000 | 10.8100 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0110 | ppm | 0.0067 | 0.66 | 4584.0000 | 1.0110 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0160 | ppm | 0.0085 | 0.83 | 1063.0000 | 1.0160 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0060 | ppm | 0.0072 | 0.72 | 2100.0000 | 1.0060 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9980 | ppm | 0.0067 | 0.67 | 1546.0000 | 0.9980 (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0180 | ppm | 0.0062 | 0.61 | 1438.0000 | 1.0180 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.9710 | ppm | 0.0252 | 0.51 | 11440.0000 | 4.9710 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0080 | ppm | 0.0053 | 0.53 | 938.0000 | 1.0080 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0160 | ppm | 0.0029 | 0.29 | 273700.0000 | 1.0160 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9995 | ppm | 0.0049 | 0.49 | 98180.0000 | 0.9995 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0060 | ppm | 0.0074 | 0.73 | 1908.0000 | 1.0060 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0030 | ppm | 0.0055 | 0.55 | 32880.0000 | 1.0030 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0100 | ppm | 0.0032 | 0.32 | 2683.0000 | 1.0100 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0150 | ppm | 0.0066 | 0.65 | 26050.0000 | 1.0150 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9985 | ppm | 0.0043 | 0.43 | 87850.0000 | 0.9985 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0110 | 612200.0000 | 0.0021 | 0.21 |
| Y_R 371.029 | 1.0200 | 107600.0000 | 0.0067 | 0.65 |

Sample Name: CCB 4444437

Date: 10/25/2017 12:22:46 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0027 u | ppm | 0.0000 | 0.11 | -161.7000 | -0.0027 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0005 u | ppm | 0.0003 | 62.25 | -262.6000 | -0.0005 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0051 | ppm | 0.0011 | 22.33 | 10.2800 | 0.0051 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0022 | ppm | 0.0018 | 84.33 | 82.5700 | 0.0022 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0000 | 26.77 | 48.1700 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0000 | 23.14 | 36.7000 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0060 | ppm | 0.0008 | 12.65 | 119.7000 | 0.0060 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0000 | 2.00 | 0.3535 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0002 u | ppm | 0.0004 | > 100.00 | -37.3200 | -0.0002 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 | ppm | 0.0000 | 3.89 | 5.5600 | 0.0002 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0013 | ppm | 0.0001 | 8.07 | 666.5000 | 0.0013 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0015 | ppm | 0.0001 | 4.45 | -8.1220 | 0.0015 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1613 | ppm | 0.0058 | 3.63 | 1256.0000 | 0.1613 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0314 | ppm | 0.0012 | 3.72 | 1775.0000 | 0.0314 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0010 u | ppm | 0.0027 | > 100.00 | 88.6700 | 0.0010 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0000 | 18.32 | 53.3400 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0006 u | ppm | 0.0004 | 55.18 | -6.2610 | -0.0006 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.5621 Z | ppm | 0.0186 | 3.30 | 4356.0000 Z | 0.5621 Z (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0000 u | ppm | 0.0008 | > 100.00 | -6.7200 | 0.0000 u (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0015 u | ppm | 0.0078 | > 100.00 | -5.3150 | -0.0015 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0005 u | ppm | 0.0001 | 18.38 | 6.8380 | -0.0005 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0025 u | ppm | 0.0012 | 47.62 | -2.4440 | -0.0025 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0005 u | ppm | 0.0023 | > 100.00 | 7.5830 | -0.0005 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0049 | ppm | 0.0061 | > 100.00 | 68.1400 | 0.0049 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0016 u | ppm | 0.0019 | > 100.00 | -1.8870 | -0.0016 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0000 | 12.44 | -231.8000 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0002 | 70.34 | -29.0000 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0003 u | ppm | 0.0026 | > 100.00 | -7.8440 | 0.0003 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | 28.8500 | 0.0002 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0007 u | ppm | 0.0012 | > 100.00 | 8.6600 | 0.0007 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0003 | ppm | 0.0001 | 38.44 | 174.4000 | 0.0003 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 13.92 | 16.7500 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9915 | 600600.0000 | 0.0111 | 1.12 |
| Y_R 371.029 | 1.0050 | 105900.0000 | 0.0274 | 2.72 |

Sample Name: 440-194188-AC-2-B

Date: 10/25/2017 12:26:19 PM Rack:Tube: 1:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0040 u | ppm | 0.0002 | 5.95 | -260.1000 | -0.0040 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0145 u | ppm | 0.0007 | 4.55 | -1171.0000 | -0.0145 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0180 | ppm | 0.0001 | 0.39 | 24.3300 | 0.0180 (ppm) | Y 371.029 |
| B (249.678 nm) | 6.5880 | ppm | 0.1160 | 1.76 | 92650.0000 | 6.5880 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0335 | ppm | 0.0004 | 1.06 | 2686.0000 | 0.0335 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 75.53 | 96.0400 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 242.6000 | ppm | 0.4886 | 0.20 | 804100.0000 | 242.6000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | -0.0002 u | ppm | 0.0000 | 14.09 | -6.0750 | -0.0002 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0001 u | ppm | 0.0005 | > 100.00 | -18.4200 | 0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 | ppm | 0.0001 | 34.31 | 10.7800 | 0.0002 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0025 | ppm | 0.0003 | 13.68 | 340.8000 | 0.0025 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 2.7420 | ppm | 0.0009 | 0.03 | 15260.0000 | 2.7420 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 27.4100 | ppm | 0.2412 | 0.88 | 35520.0000 | 27.4100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.8230 | ppm | 0.0009 | 0.05 | 105000.0000 | 1.8230 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 240.3000 | ppm | 2.9560 | 1.23 | 816900.0000 | 240.3000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1018 | ppm | 0.0026 | 2.59 | 11400.0000 | 0.1018 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0011 | ppm | 0.0014 | > 100.00 | -3.9700 | 0.0011 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1689.0000 o | ppm | 9.0040 | 0.53 | 12790000.0000 | 1689.0000 o (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0408 | ppm | 0.0002 | 0.41 | 118.9000 | 0.0408 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.3983 | ppm | 0.0094 | 2.35 | 448.8000 | 0.3983 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0037 u | ppm | 0.0016 | 43.39 | 3.1640 | -0.0037 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0042 | ppm | 0.0013 | 32.19 | -11.6800 | 0.0042 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0016 u | ppm | 0.0000 | 0.05 | 6.7990 | -0.0016 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 16.3100 | ppm | 0.3829 | 2.35 | 36700.0000 | 16.3100 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0053 u | ppm | 0.0019 | 35.68 | -3.6560 | -0.0053 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 8.0340 | ppm | 0.0216 | 0.27 | 2167000.0000 | 8.0340 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0004 | ppm | 0.0001 | 40.90 | -233.6000 | 0.0004 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0004 u | ppm | 0.0004 | 87.62 | -3.3690 | -0.0004 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0013 | ppm | 0.0002 | 16.34 | 123.3000 | 0.0013 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0007 u | ppm | 0.0028 | > 100.00 | 2.6680 | 0.0007 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0049 u | ppm | 0.0004 | 8.18 | 111.4000 | -0.0049 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0006 | ppm | 0.0000 | 4.90 | 97.9100 | 0.0006 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8942 | 541700.0000 | 0.0219 | 2.44 |
| Y_R 371.029 | 0.9736 | 102700.0000 | 0.0093 | 0.96 |

Sample Name: 440-194188-AC-3-B

Date: 10/25/2017 12:28:23 PM Rack:Tube: 1:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0040 u | ppm | 0.0000 | 0.92 | -249.9000 | -0.0040 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0506 u | ppm | 0.0000 | 0.03 | -2455.0000 | -0.0506 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0073 | ppm | 0.0037 | 51.46 | 13.5200 | 0.0073 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.1800 | ppm | 0.0024 | 0.20 | 16630.0000 | 1.1800 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0320 | ppm | 0.0000 | 0.03 | 2543.0000 | 0.0320 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 17.2500 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 216.0000 | ppm | 2.7110 | 1.25 | 716100.0000 | 216.0000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 71.84 | 1.2400 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | -24.2000 | 0.0002 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0014 | ppm | 0.0002 | 12.30 | 18.0900 | 0.0014 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0086 | ppm | 0.0000 | 0.09 | 628.7000 | 0.0086 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.3404 | ppm | 0.0029 | 0.84 | 1897.0000 | 0.3404 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 15.4300 | ppm | 0.1440 | 0.93 | 20400.0000 | 15.4300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3607 | ppm | 0.0091 | 2.52 | 20780.0000 | 0.3607 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 98.0200 | ppm | 0.0129 | 0.01 | 333300.0000 | 98.0200 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4602 | ppm | 0.0024 | 0.51 | 46050.0000 | 0.4602 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0032 | ppm | 0.0007 | 22.08 | 9.5930 | 0.0032 (ppm) | Y 371.029 |
| Na (589.592 nm) | 548.3000 | ppm | 8.7080 | 1.59 | 4152000.0000 | 548.3000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0157 | ppm | 0.0011 | 6.73 | 8.5530 | 0.0157 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0195 | ppm | 0.0021 | 10.53 | 17.5400 | 0.0195 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0013 u | ppm | 0.0000 | 0.46 | 6.5450 | -0.0013 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0002 u | ppm | 0.0040 | > 100.00 | -14.2500 | 0.0002 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0014 u | ppm | 0.0001 | 3.78 | 7.3900 | -0.0014 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 18.3700 | ppm | 0.0971 | 0.53 | 41300.0000 | 18.3700 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0031 u | ppm | 0.0022 | 70.95 | -2.4330 | -0.0031 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 3.1350 | ppm | 0.0420 | 1.34 | 846700.0000 | 3.1350 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0008 | ppm | 0.0006 | 77.31 | -174.4000 | 0.0008 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0019 u | ppm | 0.0045 | > 100.00 | -7.0700 | -0.0019 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0012 | ppm | 0.0001 | 11.37 | 99.7500 | 0.0012 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0001 | ppm | 0.0002 | > 100.00 | 2.4000 | 0.0001 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0003 u | ppm | 0.0001 | 34.52 | 198.3000 | -0.0003 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0001 | 25.32 | 63.6500 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9199 | 557300.0000 | 0.0008 | 0.09 |
| Y_R 371.029 | 0.9689 | 102200.0000 | 0.0060 | 0.62 |

Sample Name: 440-194188-AC-4-B

Date: 10/25/2017 12:30:27 PM Rack:Tube: 1:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0033 u | ppm | 0.0002 | 6.53 | -208.6000 | -0.0033 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0219 u | ppm | 0.0002 | 1.03 | -1258.0000 | -0.0219 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0104 | ppm | 0.0060 | 57.76 | 16.0400 | 0.0104 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0880 | ppm | 0.0116 | 1.07 | 15340.0000 | 1.0880 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0273 | ppm | 0.0003 | 1.09 | 2177.0000 | 0.0273 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | 31.66 | 26.9600 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 129.9000 | ppm | 1.1660 | 0.90 | 430500.0000 | 129.9000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | -0.0001 u | ppm | 0.0001 | 80.75 | -3.2070 | -0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0008 | ppm | 0.0002 | 20.14 | -15.4100 | 0.0008 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0047 | ppm | 0.0001 | 1.97 | 42.0000 | 0.0047 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0016 | ppm | 0.0001 | 3.23 | 470.9000 | 0.0016 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.4300 | ppm | 0.0022 | 0.52 | 2388.0000 | 0.4300 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 12.4900 | ppm | 0.0986 | 0.79 | 16730.0000 | 12.4900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3691 | ppm | 0.0007 | 0.19 | 21290.0000 | 0.3691 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 75.5300 | ppm | 0.6563 | 0.87 | 256800.0000 | 75.5300 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.2154 | ppm | 0.0023 | 1.08 | 21730.0000 | 0.2154 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0221 | ppm | 0.0001 | 0.57 | 108.6000 | 0.0221 (ppm) | Y 371.029 |
| Na (589.592 nm) | 517.1000 | ppm | 0.6581 | 0.13 | 3915000.0000 | 517.1000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.2148 | ppm | 0.0019 | 0.90 | 936.9000 | 0.2148 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0101 | ppm | 0.0058 | 57.56 | 7.0550 | 0.0101 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0033 u | ppm | 0.0011 | 32.90 | 1.9670 | -0.0033 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0002 u | ppm | 0.0008 | > 100.00 | -9.0840 | -0.0002 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0026 u | ppm | 0.0028 | > 100.00 | 5.3010 | -0.0026 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 13.0600 | ppm | 0.1398 | 1.07 | 29380.0000 | 13.0600 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0007 u | ppm | 0.0027 | > 100.00 | -0.4648 | -0.0007 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 2.3920 | ppm | 0.0028 | 0.12 | 645500.0000 | 2.3920 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0004 | ppm | 0.0000 | 1.70 | -132.6000 | 0.0004 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0010 u | ppm | 0.0020 | > 100.00 | -7.3460 | -0.0010 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0008 | ppm | 0.0001 | 13.03 | 67.2700 | 0.0008 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0001 u | ppm | 0.0002 | > 100.00 | 4.2400 | -0.0001 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0236 | ppm | 0.0004 | 1.79 | 790.7000 | 0.0236 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0001 | 49.66 | 39.2800 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0030 | 607800.0000 | 0.0082 | 0.81 |
| Y_R 371.029 | 1.0190 | 107500.0000 | 0.0120 | 1.18 |

Sample Name: 440-194188-AC-5-B

Date: 10/25/2017 12:32:31 PM Rack:Tube: 1:14

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0037 u | ppm | 0.0001 | 2.14 | -238.0000 | -0.0037 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0535 u | ppm | 0.0015 | 2.74 | -2586.0000 | -0.0535 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0077 | ppm | 0.0010 | 13.33 | 13.8600 | 0.0077 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9971 | ppm | 0.0301 | 3.02 | 14060.0000 | 0.9971 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0274 | ppm | 0.0002 | 0.69 | 2188.0000 | 0.0274 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | > 100.00 | 14.6900 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 222.7000 | ppm | 2.8590 | 1.28 | 738300.0000 | 222.7000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | -0.8017 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0033 | ppm | 0.0001 | 2.11 | 27.0900 | 0.0033 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0020 | ppm | 0.0003 | 16.29 | 21.7600 | 0.0020 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0034 | ppm | 0.0003 | 9.34 | 391.5000 | 0.0034 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0690 | ppm | 0.0013 | 1.91 | 388.4000 | 0.0690 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 15.0200 | ppm | 0.0970 | 0.65 | 19880.0000 | 15.0200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2860 | ppm | 0.0055 | 1.93 | 16350.0000 | 0.2860 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 88.8900 | ppm | 0.7951 | 0.89 | 302200.0000 | 88.8900 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.6773 | ppm | 0.0205 | 3.02 | 67480.0000 | 0.6773 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0019 | ppm | 0.0002 | 11.37 | 2.6350 | 0.0019 (ppm) | Y 371.029 |
| Na (589.592 nm) | 545.3000 | ppm | 6.7490 | 1.24 | 4129000.0000 | 545.3000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.2504 | ppm | 0.0061 | 2.44 | 1074.0000 | 0.2504 (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0048 u | ppm | 0.0030 | 62.11 | -9.7260 | -0.0048 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0020 u | ppm | 0.0029 | > 100.00 | 5.0740 | -0.0020 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0023 | ppm | 0.0003 | 14.44 | -11.1400 | 0.0023 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0001 u | ppm | 0.0056 | > 100.00 | 9.4650 | -0.0001 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 15.7000 | ppm | 0.3817 | 2.43 | 35320.0000 | 15.7000 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0035 u | ppm | 0.0023 | 66.00 | -2.8170 | -0.0035 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 2.7720 | ppm | 0.0379 | 1.37 | 749000.0000 | 2.7720 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0001 | 89.12 | -248.6000 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0000 u | ppm | 0.0019 | > 100.00 | -2.6730 | 0.0000 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0009 | ppm | 0.0001 | 12.33 | 90.9200 | 0.0009 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0013 | ppm | 0.0006 | 45.47 | 5.2820 | 0.0013 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0019 u | ppm | 0.0001 | 6.87 | 156.8000 | -0.0019 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 | ppm | 0.0000 | 53.63 | 40.4900 | 0.0000 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9833 | 595700.0000 | 0.0266 | 2.70 |
| Y_R 371.029 | 1.0590 | 111700.0000 | 0.0061 | 0.58 |

Sample Name: 440-194188-AC-6-B

Date: 10/25/2017 12:34:35 PM Rack:Tube: 1:15

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0033 u | ppm | 0.0001 | 3.72 | -218.1000 | -0.0033 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0433 u | ppm | 0.0009 | 2.08 | -2355.0000 | -0.0433 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0072 | ppm | 0.0026 | 35.89 | 13.7000 | 0.0072 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.2370 | ppm | 0.0055 | 0.44 | 17440.0000 | 1.2370 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0332 | ppm | 0.0003 | 1.00 | 2643.0000 | 0.0332 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 58.5800 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 256.2000 | ppm | 5.8050 | 2.27 | 849300.0000 | 256.2000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -1.0250 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0006 u | ppm | 0.0009 | > 100.00 | -14.9500 | 0.0006 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | 8.2250 | 0.0001 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0036 | ppm | 0.0000 | 1.33 | 349.2000 | 0.0036 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.7550 | ppm | 0.0370 | 2.11 | 9751.0000 | 1.7550 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 17.3200 | ppm | 0.1958 | 1.13 | 22770.0000 | 17.3200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3905 | ppm | 0.0080 | 2.05 | 22480.0000 | 0.3905 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 112.6000 | ppm | 1.2390 | 1.10 | 382900.0000 | 112.6000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.5926 | ppm | 0.0035 | 0.58 | 59400.0000 | 0.5926 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0024 | ppm | 0.0002 | 7.47 | 4.8130 | 0.0024 (ppm) | Y 371.029 |
| Na (589.592 nm) | 586.4000 | ppm | 13.2600 | 2.26 | 4440000.0000 | 586.4000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0165 | ppm | 0.0003 | 1.73 | 2.4680 | 0.0165 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0456 | ppm | 0.0027 | 5.98 | 47.5000 | 0.0456 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0002 u | ppm | 0.0012 | > 100.00 | 9.1830 | -0.0002 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0021 u | ppm | 0.0065 | > 100.00 | -14.1900 | 0.0021 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0010 u | ppm | 0.0024 | > 100.00 | 7.8470 | -0.0010 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 18.7100 | ppm | 0.0983 | 0.53 | 42060.0000 | 18.7100 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0024 u | ppm | 0.0044 | > 100.00 | -1.6270 | -0.0024 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 3.5810 | ppm | 0.0884 | 2.47 | 967100.0000 | 3.5810 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0005 | ppm | 0.0000 | 8.70 | -237.3000 | 0.0005 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0010 u | ppm | 0.0035 | > 100.00 | -4.1440 | -0.0010 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0007 | ppm | 0.0000 | 2.43 | 93.6800 | 0.0007 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0014 | ppm | 0.0003 | 22.05 | 4.8940 | 0.0014 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0018 u | ppm | 0.0000 | 2.08 | 165.0000 | -0.0018 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 25.66 | 60.3100 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9854 | 596900.0000 | 0.0049 | 0.49 |
| Y_R 371.029 | 0.9699 | 102300.0000 | 0.0110 | 1.13 |

Sample Name: 440-194188-AC-7-B

Date: 10/25/2017 12:36:41 PM Rack:Tube: 1:16

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0037 u | ppm | 0.0003 | 8.85 | -238.3000 | -0.0037 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0414 u | ppm | 0.0000 | 0.03 | -2309.0000 | -0.0414 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0076 | ppm | 0.0016 | 21.65 | 13.9600 | 0.0076 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.6500 | ppm | 0.0026 | 0.16 | 23230.0000 | 1.6500 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0246 | ppm | 0.0001 | 0.31 | 1969.0000 | 0.0246 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 75.70 | 84.3100 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 253.9000 | ppm | 1.4390 | 0.57 | 841700.0000 | 253.9000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -0.1552 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0001 u | ppm | 0.0007 | > 100.00 | -26.5900 | -0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0011 | ppm | 0.0001 | 11.61 | 16.4400 | 0.0011 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0020 | ppm | 0.0004 | 19.90 | 285.4000 | 0.0020 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.8260 | ppm | 0.0056 | 0.31 | 10140.0000 | 1.8260 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 16.1900 | ppm | 0.2332 | 1.44 | 21340.0000 | 16.1900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4765 | ppm | 0.0063 | 1.32 | 27060.0000 | 0.4765 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 101.8000 | ppm | 0.3048 | 0.30 | 346000.0000 | 101.8000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.5604 | ppm | 0.0006 | 0.11 | 56180.0000 | 0.5604 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0008 u | ppm | 0.0019 | > 100.00 | -3.6770 | 0.0008 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 599.8000 | ppm | 1.8220 | 0.30 | 4541000.0000 | 599.8000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0153 | ppm | 0.0021 | 13.79 | -2.7710 | 0.0153 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0562 | ppm | 0.0020 | 3.62 | 59.7000 | 0.0562 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0021 u | ppm | 0.0004 | 18.78 | 5.0910 | -0.0021 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0045 | ppm | 0.0001 | 1.78 | -9.9830 | 0.0045 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0016 u | ppm | 0.0002 | 15.58 | 6.8120 | -0.0016 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 17.0800 | ppm | 0.0466 | 0.27 | 38410.0000 | 17.0800 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0050 u | ppm | 0.0013 | 26.45 | -4.1300 | -0.0050 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 3.3500 | ppm | 0.0223 | 0.67 | 904800.0000 | 3.3500 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0005 | ppm | 0.0001 | 28.07 | -237.6000 | 0.0005 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0010 u | ppm | 0.0003 | 31.13 | -4.4500 | -0.0010 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0011 | ppm | 0.0003 | 26.21 | 105.4000 | 0.0011 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0006 | ppm | 0.0004 | 74.33 | 3.2370 | 0.0006 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0141 | ppm | 0.0001 | 0.89 | 563.8000 | 0.0141 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0001 | 52.04 | 62.2200 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9606 | 581900.0000 | 0.0011 | 0.12 |
| Y_R 371.029 | 1.0090 | 106400.0000 | 0.0031 | 0.30 |

Sample Name: 440-194188-AC-8-B

Date: 10/25/2017 12:38:45 PM Rack:Tube: 1:17

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0036 u | ppm | 0.0002 | 5.22 | -231.0000 | -0.0036 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0450 u | ppm | 0.0008 | 1.81 | -2372.0000 | -0.0450 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0128 | ppm | 0.0024 | 18.96 | 18.7900 | 0.0128 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.6330 | ppm | 0.0110 | 0.68 | 23010.0000 | 1.6330 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0222 | ppm | 0.0002 | 0.79 | 1787.0000 | 0.0222 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 15.53 | 55.8300 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 239.0000 | ppm | 0.8976 | 0.38 | 792300.0000 | 239.0000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | -1.5080 | -0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0092 | ppm | 0.0007 | 7.28 | 127.7000 | 0.0092 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0021 | ppm | 0.0000 | 1.97 | 23.0300 | 0.0021 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0015 | ppm | 0.0003 | 17.42 | 285.0000 | 0.0015 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 2.0500 | ppm | 0.0031 | 0.15 | 11380.0000 | 2.0500 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 15.6200 | ppm | 0.0939 | 0.60 | 20630.0000 | 15.6200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4119 | ppm | 0.0047 | 1.15 | 23400.0000 | 0.4119 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 95.8700 | ppm | 0.2514 | 0.26 | 326000.0000 | 95.8700 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.5946 | ppm | 0.0025 | 0.42 | 59570.0000 | 0.5946 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0026 | ppm | 0.0000 | 1.04 | 6.0200 | 0.0026 (ppm) | Y 371.029 |
| Na (589.592 nm) | 591.8000 | ppm | 1.5090 | 0.25 | 4481000.0000 | 591.8000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.3273 | ppm | 0.0031 | 0.95 | 1420.0000 | 0.3273 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0054 | ppm | 0.0033 | 60.38 | 1.9850 | 0.0054 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0018 u | ppm | 0.0016 | 89.34 | 5.7820 | -0.0018 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0011 u | ppm | 0.0030 | > 100.00 | -14.3300 | 0.0011 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0008 u | ppm | 0.0034 | > 100.00 | 9.9660 | 0.0008 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 16.6900 | ppm | 0.1100 | 0.66 | 37530.0000 | 16.6900 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0033 u | ppm | 0.0025 | 73.37 | -2.6140 | -0.0033 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 3.5450 | ppm | 0.0157 | 0.44 | 957200.0000 | 3.5450 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0006 | ppm | 0.0001 | 13.69 | -216.2000 | 0.0006 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0036 u | ppm | 0.0023 | 63.63 | -9.5650 | -0.0036 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0011 | ppm | 0.0001 | 9.83 | 102.8000 | 0.0011 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0005 u | ppm | 0.0020 | > 100.00 | 0.3863 | -0.0005 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0024 | ppm | 0.0001 | 4.90 | 265.6000 | 0.0024 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | 46.5100 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9669 | 585700.0000 | 0.0006 | 0.06 |
| Y_R 371.029 | 1.0160 | 107200.0000 | 0.0006 | 0.06 |

Sample Name: 440-194188-AC-9-B

Date: 10/25/2017 12:40:49 PM Rack:Tube: 1:18

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0025 u | ppm | 0.0002 | 7.40 | -149.3000 | -0.0025 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0132 | ppm | 0.0003 | 2.50 | 161.9000 | 0.0132 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0052 | ppm | 0.0011 | 22.25 | 10.3400 | 0.0052 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0052 | ppm | 0.0019 | 36.29 | 124.6000 | 0.0052 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | 51.5300 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 39.19 | -6.1870 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0546 | ppm | 0.0103 | 18.78 | 280.7000 | 0.0546 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -0.7694 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0004 | ppm | 0.0002 | 62.77 | -28.4100 | 0.0004 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0013 | ppm | 0.0002 | 14.51 | 14.2000 | 0.0013 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0006 | ppm | 0.0004 | 70.72 | 634.9000 | 0.0006 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0229 | ppm | 0.0007 | 3.26 | 111.0000 | 0.0229 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.4421 | ppm | 0.0506 | 11.45 | 1609.0000 | 0.4421 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0306 | ppm | 0.0034 | 11.17 | 1730.0000 | 0.0306 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0231 | ppm | 0.0060 | 25.85 | 163.6000 | 0.0231 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0006 | ppm | 0.0000 | 8.34 | 92.1600 | 0.0006 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0022 u | ppm | 0.0002 | 9.49 | -14.3900 | -0.0022 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 2.3900 | ppm | 0.0348 | 1.46 | 18190.0000 | 2.3900 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0005 u | ppm | 0.0009 | > 100.00 | -4.1210 | 0.0005 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0014 | ppm | 0.0012 | 87.67 | -1.9720 | 0.0014 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0016 | ppm | 0.0008 | 50.60 | 11.2000 | 0.0016 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0030 u | ppm | 0.0040 | > 100.00 | -3.1020 | -0.0030 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0018 u | ppm | 0.0013 | 70.39 | 5.8120 | -0.0018 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0161 | ppm | 0.0004 | 2.70 | 93.6200 | 0.0161 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0015 u | ppm | 0.0026 | > 100.00 | -1.8050 | -0.0015 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0005 | ppm | 0.0000 | 0.43 | -62.0500 | 0.0005 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0004 | ppm | 0.0000 | 5.36 | -9.5700 | 0.0004 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0023 u | ppm | 0.0000 | 0.22 | -12.9600 | -0.0023 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | 27.9000 | 0.0001 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0009 | ppm | 0.0006 | 61.62 | 9.2000 | 0.0009 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0046 | ppm | 0.0003 | 6.06 | 282.2000 | 0.0046 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 10.67 | 8.6940 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0550 | 639200.0000 | 0.0141 | 1.34 |
| Y_R 371.029 | 1.0660 | 112400.0000 | 0.0039 | 0.36 |

Sample Name: 440-194188-AC-10-B

Date: 10/25/2017 12:42:53 PM Rack:Tube: 1:19

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0040 u | ppm | 0.0001 | 1.55 | -250.7000 | -0.0040 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0552 u | ppm | 0.0003 | 0.57 | -2659.0000 | -0.0552 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0091 | ppm | 0.0022 | 24.72 | 15.1900 | 0.0091 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.1760 | ppm | 0.0100 | 0.85 | 16570.0000 | 1.1760 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0263 | ppm | 0.0005 | 2.05 | 2101.0000 | 0.0263 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 22.12 | 44.2300 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 231.3000 | ppm | 1.2530 | 0.54 | 766800.0000 | 231.3000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0000 | 51.97 | -0.7409 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0017 | ppm | 0.0001 | 5.27 | 3.3620 | 0.0017 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0064 | ppm | 0.0002 | 2.62 | 56.3800 | 0.0064 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0030 | ppm | 0.0001 | 2.72 | 363.6000 | 0.0030 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.7290 | ppm | 0.0066 | 0.38 | 9601.0000 | 1.7290 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 15.7900 | ppm | 0.0733 | 0.46 | 20840.0000 | 15.7900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3077 | ppm | 0.0045 | 1.46 | 17630.0000 | 0.3077 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 95.3500 | ppm | 1.4290 | 1.50 | 324200.0000 | 95.3500 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.6169 | ppm | 0.0050 | 0.80 | 61730.0000 | 0.6169 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0031 | ppm | 0.0001 | 3.24 | 8.5890 | 0.0031 (ppm) | Y 371.029 |
| Na (589.592 nm) | 573.2000 | ppm | 0.4451 | 0.08 | 4340000.0000 | 573.2000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.2612 | ppm | 0.0006 | 0.22 | 1121.0000 | 0.2612 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0191 | ppm | 0.0001 | 0.41 | 17.3700 | 0.0191 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0032 u | ppm | 0.0034 | > 100.00 | 2.7320 | -0.0032 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0014 u | ppm | 0.0001 | 3.69 | -17.4800 | -0.0014 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0007 u | ppm | 0.0003 | 37.26 | 8.0300 | -0.0007 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 16.9500 | ppm | 0.1351 | 0.80 | 38120.0000 | 16.9500 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0030 u | ppm | 0.0003 | 11.57 | -2.3060 | -0.0030 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 3.2640 | ppm | 0.0243 | 0.74 | 881600.0000 | 3.2640 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0004 | ppm | 0.0001 | 24.54 | -226.9000 | 0.0004 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0006 u | ppm | 0.0012 | > 100.00 | -3.7450 | -0.0006 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0013 | ppm | 0.0001 | 6.36 | 106.9000 | 0.0013 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0001 | ppm | 0.0001 | 86.37 | 2.1010 | 0.0001 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0029 u | ppm | 0.0002 | 7.26 | 130.5000 | -0.0029 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 45.4400 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9284 | 562400.0000 | 0.0012 | 0.13 |
| Y_R 371.029 | 0.9859 | 104000.0000 | 0.0080 | 0.81 |

Sample Name: 440-194188-AC-11-B

Date: 10/25/2017 12:44:58 PM Rack:Tube: 1:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0033 u | ppm | 0.0000 | 0.12 | -217.0000 | -0.0033 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0504 u | ppm | 0.0005 | 0.93 | -2486.0000 | -0.0504 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0080 | ppm | 0.0026 | 32.73 | 14.2000 | 0.0080 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0840 | ppm | 0.0004 | 0.04 | 15280.0000 | 1.0840 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0252 | ppm | 0.0001 | 0.38 | 2018.0000 | 0.0252 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | 38.56 | 80.7000 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 222.2000 | ppm | 0.7803 | 0.35 | 736300.0000 | 222.2000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | -0.0001 u | ppm | 0.0002 | > 100.00 | -2.2830 | -0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0031 | ppm | 0.0004 | 14.35 | 25.4600 | 0.0031 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0011 | ppm | 0.0001 | 12.42 | 15.3900 | 0.0011 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0013 | ppm | 0.0002 | 16.93 | 304.5000 | 0.0013 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 2.0940 | ppm | 0.0027 | 0.13 | 11630.0000 | 2.0940 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 14.9500 | ppm | 0.0066 | 0.04 | 19790.0000 | 14.9500 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3254 | ppm | 0.0006 | 0.18 | 18580.0000 | 0.3254 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 90.0200 | ppm | 0.2539 | 0.28 | 306100.0000 | 90.0200 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.5312 | ppm | 0.0011 | 0.21 | 53270.0000 | 0.5312 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0029 | ppm | 0.0008 | 27.51 | 7.7520 | 0.0029 (ppm) | Y 371.029 |
| Na (589.592 nm) | 536.9000 | ppm | 0.5796 | 0.11 | 4066000.0000 | 536.9000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1864 | ppm | 0.0001 | 0.05 | 783.8000 | 0.1864 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0149 | ppm | 0.0026 | 17.68 | 12.8200 | 0.0149 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0043 u | ppm | 0.0023 | 54.79 | 0.4948 | -0.0043 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0012 u | ppm | 0.0032 | > 100.00 | -12.8800 | 0.0012 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0023 u | ppm | 0.0008 | 36.62 | 5.6270 | -0.0023 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 16.3700 | ppm | 0.0866 | 0.53 | 36820.0000 | 16.3700 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0039 u | ppm | 0.0034 | 87.74 | -3.2160 | -0.0039 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 3.1690 | ppm | 0.0136 | 0.43 | 855800.0000 | 3.1690 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0005 | ppm | 0.0000 | 4.50 | -213.6000 | 0.0005 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0004 u | ppm | 0.0009 | > 100.00 | -2.3440 | 0.0004 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0009 | ppm | 0.0001 | 7.71 | 93.8100 | 0.0009 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0017 | ppm | 0.0004 | 25.68 | 6.3860 | 0.0017 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0026 u | ppm | 0.0000 | 0.91 | 136.1000 | -0.0026 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 | ppm | 0.0000 | 12.81 | 42.8400 | 0.0000 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0040 | 607900.0000 | 0.0002 | 0.02 |
| Y_R 371.029 | 1.0250 | 108100.0000 | 0.0007 | 0.07 |

Sample Name: CCV 4444438

Date: 10/25/2017 12:50:43 PM
Rack:Tube: S1:4
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5101 | ppm | 0.0016 | 0.31 | 26380.0000 | 0.5101 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0210 | ppm | 0.0010 | 0.10 | 32810.0000 | 1.0210 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0380 | ppm | 0.0031 | 0.30 | 983.8000 | 1.0380 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0300 | ppm | 0.0016 | 0.16 | 14400.0000 | 1.0300 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0110 | ppm | 0.0044 | 0.43 | 78760.0000 | 1.0110 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0270 | ppm | 0.0031 | 0.30 | 238400.0000 | 1.0270 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.1840 | ppm | 0.0138 | 0.27 | 17280.0000 | 5.1840 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0290 | ppm | 0.0021 | 0.20 | 28720.0000 | 1.0290 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0300 | ppm | 0.0016 | 0.16 | 17030.0000 | 1.0300 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0200 | ppm | 0.0040 | 0.39 | 7941.0000 | 1.0200 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0170 | ppm | 0.0038 | 0.37 | 44340.0000 | 1.0170 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0460 | ppm | 0.0041 | 0.39 | 5788.0000 | 1.0460 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.6900 | ppm | 0.0577 | 0.54 | 14440.0000 | 10.6900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9940 | ppm | 0.0047 | 0.47 | 53380.0000 | 0.9940 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.1480 | ppm | 0.0183 | 0.36 | 17580.0000 | 5.1480 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0210 | ppm | 0.0025 | 0.24 | 101800.0000 | 1.0210 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0260 | ppm | 0.0030 | 0.30 | 5310.0000 | 1.0260 (ppm) | Y 371.029 |
| Na (589.592 nm) | 11.9000 Q | ppm | 0.0695 | 0.58 | 90220.0000 Q | 11.9000 Q (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0290 | ppm | 0.0034 | 0.33 | 4668.0000 | 1.0290 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0340 | ppm | 0.0046 | 0.45 | 1081.0000 | 1.0340 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0280 | ppm | 0.0037 | 0.36 | 2145.0000 | 1.0280 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0100 | ppm | 0.0043 | 0.43 | 1564.0000 | 1.0100 (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0420 | ppm | 0.0025 | 0.24 | 1472.0000 | 1.0420 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.0470 | ppm | 0.0238 | 0.47 | 11610.0000 | 5.0470 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0310 | ppm | 0.0023 | 0.22 | 958.7000 | 1.0310 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0360 | ppm | 0.0084 | 0.81 | 279100.0000 | 1.0360 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0200 | ppm | 0.0016 | 0.16 | 100200.0000 | 1.0200 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0220 | ppm | 0.0015 | 0.14 | 1937.0000 | 1.0220 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0230 | ppm | 0.0024 | 0.24 | 33530.0000 | 1.0230 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0290 | ppm | 0.0022 | 0.22 | 2734.0000 | 1.0290 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0370 | ppm | 0.0032 | 0.31 | 26610.0000 | 1.0370 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0180 | ppm | 0.0017 | 0.16 | 89600.0000 | 1.0180 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9954 | 603000.0000 | 0.0036 | 0.36 |
| Y_R 371.029 | 1.0000 | 105500.0000 | 0.0021 | 0.21 |

Sample Name: CCB 4444437

Date: 10/25/2017 12:52:47 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0029 u | ppm | 0.0003 | 8.73 | -169.4000 | -0.0029 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0002 u | ppm | 0.0002 | > 100.00 | -250.3000 | -0.0002 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0007 | ppm | 0.0000 | 7.26 | 6.0870 | 0.0007 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0025 | ppm | 0.0014 | 53.22 | 87.6500 | 0.0025 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0000 | 6.53 | 50.8800 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0000 | 10.95 | 43.0100 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0028 u | ppm | 0.0106 | > 100.00 | 108.9000 | 0.0028 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0000 | 1.63 | 0.3447 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0001 u | ppm | 0.0003 | > 100.00 | -35.7800 | -0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 | ppm | 0.0001 | 72.74 | 5.3760 | 0.0002 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0014 | ppm | 0.0002 | 12.15 | 668.6000 | 0.0014 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0019 | ppm | 0.0012 | 64.00 | -5.6370 | 0.0019 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.2703 | ppm | 0.0095 | 3.53 | 1393.0000 | 0.2703 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0407 | ppm | 0.0013 | 3.23 | 2288.0000 | 0.0407 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0017 u | ppm | 0.0025 | > 100.00 | 90.9800 | 0.0017 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0000 | 19.87 | 59.3300 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0004 u | ppm | 0.0008 | > 100.00 | -0.6880 | 0.0004 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.3260 Z | ppm | 0.0195 | 1.47 | 10140.0000 Z | 1.3260 Z (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0006 u | ppm | 0.0006 | > 100.00 | -9.1160 | -0.0006 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0028 | ppm | 0.0037 | > 100.00 | -0.5723 | 0.0028 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0021 | ppm | 0.0012 | 56.91 | 12.2800 | 0.0021 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0000 u | ppm | 0.0027 | > 100.00 | 1.3770 | 0.0000 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0028 u | ppm | 0.0009 | 33.68 | 4.4550 | -0.0028 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0031 u | ppm | 0.0084 | > 100.00 | 64.6700 | 0.0031 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0019 | ppm | 0.0015 | 76.94 | 1.4140 | 0.0019 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -201.7000 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0004 | ppm | 0.0001 | 28.90 | -17.1900 | 0.0004 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0004 u | ppm | 0.0002 | 50.14 | -9.3380 | -0.0004 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0007 | ppm | 0.0002 | 37.79 | 44.1900 | 0.0007 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | 7.0320 | 0.0001 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0004 | ppm | 0.0002 | 41.49 | 175.6000 | 0.0004 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0001 | 65.10 | 20.6600 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9905 | 600000.0000 | 0.0071 | 0.71 |
| Y_R 371.029 | 0.9937 | 104800.0000 | 0.0096 | 0.96 |

Sample Name: CCV 4444438

Date: 10/25/2017 1:10:07 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5020 | ppm | 0.0028 | 0.56 | 25960.0000 | 0.5020 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0060 | ppm | 0.0065 | 0.64 | 32300.0000 | 1.0060 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0300 | ppm | 0.0057 | 0.55 | 975.9000 | 1.0300 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0160 | ppm | 0.0052 | 0.51 | 14200.0000 | 1.0160 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9919 | ppm | 0.0082 | 0.83 | 77290.0000 | 0.9919 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0090 | ppm | 0.0083 | 0.82 | 234200.0000 | 1.0090 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.0240 | ppm | 0.0201 | 0.40 | 16750.0000 | 5.0240 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0100 | ppm | 0.0073 | 0.73 | 28210.0000 | 1.0100 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0120 | ppm | 0.0086 | 0.85 | 16730.0000 | 1.0120 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0030 | ppm | 0.0146 | 1.46 | 7810.0000 | 1.0030 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9980 | ppm | 0.0074 | 0.74 | 43510.0000 | 0.9980 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0140 | ppm | 0.0116 | 1.14 | 5609.0000 | 1.0140 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.2700 | ppm | 0.1373 | 1.34 | 13920.0000 | 10.2700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9607 | ppm | 0.0063 | 0.66 | 51570.0000 | 0.9607 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.0550 | ppm | 0.0409 | 0.81 | 17260.0000 | 5.0550 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0030 | ppm | 0.0080 | 0.80 | 100000.0000 | 1.0030 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0080 | ppm | 0.0084 | 0.83 | 5219.0000 | 1.0080 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.8800 | ppm | 0.0933 | 0.86 | 82500.0000 | 10.8800 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0140 | ppm | 0.0089 | 0.88 | 4599.0000 | 1.0140 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0130 | ppm | 0.0063 | 0.63 | 1059.0000 | 1.0130 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0090 | ppm | 0.0085 | 0.84 | 2106.0000 | 1.0090 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0020 | ppm | 0.0054 | 0.54 | 1552.0000 | 1.0020 (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0270 | ppm | 0.0093 | 0.90 | 1451.0000 | 1.0270 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.9620 | ppm | 0.0369 | 0.74 | 11420.0000 | 4.9620 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0110 | ppm | 0.0095 | 0.94 | 940.8000 | 1.0110 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0090 | ppm | 0.0065 | 0.65 | 271700.0000 | 1.0090 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0020 | ppm | 0.0072 | 0.72 | 98380.0000 | 1.0020 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0060 | ppm | 0.0076 | 0.76 | 1907.0000 | 1.0060 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0050 | ppm | 0.0067 | 0.67 | 32940.0000 | 1.0050 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0140 | ppm | 0.0034 | 0.33 | 2694.0000 | 1.0140 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0180 | ppm | 0.0077 | 0.76 | 26140.0000 | 1.0180 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0010 | ppm | 0.0074 | 0.74 | 88070.0000 | 1.0010 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0070 | 609900.0000 | 0.0018 | 0.18 |
| Y_R 371.029 | 1.0110 | 106700.0000 | 0.0027 | 0.26 |

Sample Name: CCB 4444437

Date: 10/25/2017 1:12:12 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0028 u | ppm | 0.0002 | 7.34 | -163.4000 | -0.0028 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0000 u | ppm | 0.0003 | > 100.00 | -243.4000 | 0.0000 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0067 | ppm | 0.0019 | 28.21 | 11.8100 | 0.0067 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0017 | ppm | 0.0011 | 65.62 | 76.3900 | 0.0017 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 45.2300 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 48.07 | 37.5600 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0020 u | ppm | 0.0033 | > 100.00 | 106.4000 | 0.0020 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 34.67 | 2.3840 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0006 | ppm | 0.0001 | 17.50 | -24.2300 | 0.0006 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | 5.2010 | 0.0002 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0013 | ppm | 0.0001 | 10.56 | 663.2000 | 0.0013 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0008 u | ppm | 0.0001 | 14.99 | -20.5900 | -0.0008 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1927 | ppm | 0.1120 | 58.12 | 1296.0000 | 0.1927 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0431 | ppm | 0.0039 | 9.03 | 2425.0000 | 0.0431 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0020 | ppm | 0.0014 | 66.87 | 92.1200 | 0.0020 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0001 | 41.75 | 53.5100 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0005 | ppm | 0.0005 | > 100.00 | -0.5109 | 0.0005 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.7567 Z | ppm | 0.0156 | 2.06 | 5830.0000 Z | 0.7567 Z (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0004 u | ppm | 0.0013 | > 100.00 | -4.8680 | 0.0004 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0011 | ppm | 0.0002 | 15.20 | -2.4020 | 0.0011 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0008 u | ppm | 0.0007 | 96.20 | 6.2490 | -0.0008 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0004 u | ppm | 0.0001 | 27.72 | 0.7491 | -0.0004 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0014 u | ppm | 0.0006 | 42.51 | 6.3580 | -0.0014 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0026 | ppm | 0.0020 | 78.66 | 63.4300 | 0.0026 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0009 u | ppm | 0.0019 | > 100.00 | -1.1960 | -0.0009 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0000 | 39.37 | -222.9000 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0003 | ppm | 0.0002 | 56.20 | -24.3400 | 0.0003 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0004 u | ppm | 0.0033 | > 100.00 | -7.7910 | 0.0004 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0007 | ppm | 0.0001 | 16.21 | 45.5000 | 0.0007 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0016 | ppm | 0.0001 | 6.96 | 10.9200 | 0.0016 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0001 | ppm | 0.0001 | 50.23 | 169.0000 | 0.0001 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 5.36 | 17.4900 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9950 | 602700.0000 | 0.0083 | 0.83 |
| Y_R 371.029 | 1.0070 | 106200.0000 | 0.0049 | 0.48 |

Sample Name: MB 440-437120/1-A

Date: 10/25/2017 1:16:56 PM Rack:Tube: 1:21

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0026 u | ppm | 0.0004 | 14.74 | -155.7000 | -0.0026 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0131 | ppm | 0.0001 | 0.74 | 160.2000 | 0.0131 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0023 | ppm | 0.0016 | 69.68 | 7.5920 | 0.0023 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0004 u | ppm | 0.0007 | > 100.00 | 57.7400 | 0.0004 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0001 | 37.60 | 51.9500 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 42.37 | 5.8560 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0182 | ppm | 0.0144 | 79.44 | 160.0000 | 0.0182 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -2.1150 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0002 | ppm | 0.0002 | 84.83 | -31.2300 | 0.0002 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 | ppm | 0.0001 | 35.66 | 5.5970 | 0.0002 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0094 | ppm | 0.0001 | 0.57 | 1012.0000 | 0.0094 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0156 | ppm | 0.0010 | 6.33 | 69.9900 | 0.0156 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1539 | ppm | 0.0904 | 58.75 | 1247.0000 | 0.1539 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0377 | ppm | 0.0032 | 8.54 | 2124.0000 | 0.0377 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0047 | ppm | 0.0019 | 40.21 | 101.2000 | 0.0047 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0004 | ppm | 0.0001 | 14.83 | 77.1000 | 0.0004 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0006 u | ppm | 0.0019 | > 100.00 | 0.2704 | 0.0006 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.7704 | ppm | 0.0111 | 1.45 | 5933.0000 | 0.7704 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0005 u | ppm | 0.0019 | > 100.00 | -4.3360 | 0.0005 u (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0103 u | ppm | 0.0095 | 92.21 | -15.8500 | -0.0103 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0004 u | ppm | 0.0007 | > 100.00 | 7.0010 | -0.0004 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0018 | ppm | 0.0015 | 83.75 | 4.2340 | 0.0018 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0016 u | ppm | 0.0021 | > 100.00 | 6.1570 | -0.0016 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0062 | ppm | 0.0018 | 28.69 | 71.8400 | 0.0062 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0018 | ppm | 0.0010 | 55.03 | 1.2680 | 0.0018 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0001 | ppm | 0.0000 | 9.65 | -160.1000 | 0.0001 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0004 | ppm | 0.0001 | 22.74 | -9.3280 | 0.0004 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0024 u | ppm | 0.0012 | 50.49 | -13.3100 | -0.0024 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | 27.6700 | 0.0001 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0008 | ppm | 0.0007 | 82.07 | 8.9540 | 0.0008 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0033 | ppm | 0.0001 | 3.45 | 252.0000 | 0.0033 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 | ppm | 0.0000 | 97.11 | 7.5120 | 0.0000 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0300 | 623900.0000 | 0.0012 | 0.12 |
| Y_R 371.029 | 1.0330 | 109000.0000 | 0.0316 | 3.06 |

Sample Name: LCS 440-437120/2-A

Date: 10/25/2017 1:19:00 PM Rack:Tube: 1:22

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4900 | ppm | 0.0047 | 0.97 | 25340.0000 | 0.4900 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0030 | ppm | 0.0107 | 1.07 | 32190.0000 | 1.0030 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9930 | ppm | 0.0077 | 0.78 | 941.2000 | 0.9930 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9710 | ppm | 0.0075 | 0.77 | 13570.0000 | 0.9710 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9533 | ppm | 0.0225 | 2.36 | 74290.0000 | 0.9533 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9776 | ppm | 0.0123 | 1.25 | 226800.0000 | 0.9776 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.9060 | ppm | 0.1353 | 2.76 | 16360.0000 | 4.9060 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9784 | ppm | 0.0098 | 1.01 | 27320.0000 | 0.9784 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9942 | ppm | 0.0030 | 0.31 | 16440.0000 | 0.9942 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9857 | ppm | 0.0094 | 0.95 | 7678.0000 | 0.9857 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9896 | ppm | 0.0103 | 1.04 | 43150.0000 | 0.9896 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0000 | ppm | 0.0267 | 2.67 | 5534.0000 | 1.0000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.8710 | ppm | 0.2099 | 2.13 | 13410.0000 | 9.8710 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9335 | ppm | 0.0271 | 2.91 | 50090.0000 | 0.9335 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.8440 | ppm | 0.1210 | 2.50 | 16550.0000 | 4.8440 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9821 | ppm | 0.0110 | 1.12 | 97990.0000 | 0.9821 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9841 | ppm | 0.0132 | 1.34 | 5095.0000 | 0.9841 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.4600 | ppm | 0.2726 | 2.61 | 79320.0000 | 10.4600 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9894 | ppm | 0.0098 | 0.99 | 4487.0000 | 0.9894 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9774 | ppm | 0.0071 | 0.73 | 1020.0000 | 0.9774 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9826 | ppm | 0.0148 | 1.50 | 2051.0000 | 0.9826 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0230 | ppm | 0.0132 | 1.29 | 1586.0000 | 1.0230 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9481 | ppm | 0.0064 | 0.68 | 1341.0000 | 0.9481 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.4330 | ppm | 0.0413 | 0.93 | 10220.0000 | 4.4330 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9738 | ppm | 0.0163 | 1.67 | 906.0000 | 0.9738 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9753 | ppm | 0.0119 | 1.22 | 262600.0000 | 0.9753 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9813 | ppm | 0.0104 | 1.06 | 96390.0000 | 0.9813 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9786 | ppm | 0.0078 | 0.79 | 1854.0000 | 0.9786 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9848 | ppm | 0.0106 | 1.07 | 32290.0000 | 0.9848 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9818 | ppm | 0.0108 | 1.09 | 2609.0000 | 0.9818 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9878 | ppm | 0.0112 | 1.13 | 25360.0000 | 0.9878 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9810 | ppm | 0.0106 | 1.08 | 86310.0000 | 0.9810 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0050 | 608800.0000 | 0.0099 | 0.99 |
| Y_R 371.029 | 1.0300 | 108600.0000 | 0.0275 | 2.67 |

Sample Name: 440-194525-D-1-B

Date: 10/25/2017 1:21:04 PM Rack:Tube: 1:23

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0036 u | ppm | 0.0002 | 6.75 | -219.4000 | -0.0036 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0101 u | ppm | 0.0000 | 0.31 | -910.0000 | -0.0101 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0076 | ppm | 0.0050 | 65.33 | 13.2800 | 0.0076 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.3028 | ppm | 0.0001 | 0.02 | 4304.0000 | 0.3028 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1321 | ppm | 0.0005 | 0.38 | 10340.0000 | 0.1321 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0000 | 33.72 | 64.7400 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 114.7000 | ppm | 0.4816 | 0.42 | 380100.0000 | 114.7000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0000 | 9.41 | 3.6990 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0001 u | ppm | 0.0000 | 53.22 | -31.1400 | -0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0003 | ppm | 0.0004 | > 100.00 | 7.6450 | 0.0003 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0013 | ppm | 0.0000 | 2.41 | 479.8000 | 0.0013 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9960 | ppm | 0.0005 | 0.05 | 5522.0000 | 0.9960 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 4.3270 | ppm | 0.0118 | 0.27 | 6461.0000 | 4.3270 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0196 | ppm | 0.0039 | 19.86 | 1188.0000 | 0.0196 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 40.0300 | ppm | 0.2227 | 0.56 | 136200.0000 | 40.0300 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4414 | ppm | 0.0007 | 0.17 | 44040.0000 | 0.4414 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0125 | ppm | 0.0004 | 3.09 | 59.7900 | 0.0125 (ppm) | Y 371.029 |
| Na (589.592 nm) | 224.6000 | ppm | 1.3710 | 0.61 | 1701000.0000 | 224.6000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0090 | ppm | 0.0002 | 2.11 | 4.5610 | 0.0090 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.1619 | ppm | 0.0045 | 2.78 | 179.8000 | 0.1619 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0012 u | ppm | 0.0029 | > 100.00 | 6.0450 | -0.0012 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0014 u | ppm | 0.0065 | > 100.00 | -9.3040 | -0.0014 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0011 u | ppm | 0.0013 | > 100.00 | 7.1760 | -0.0011 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 12.1700 | ppm | 0.0430 | 0.35 | 27380.0000 | 12.1700 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0029 u | ppm | 0.0020 | 71.38 | -2.6550 | -0.0029 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.7630 | ppm | 0.0034 | 0.45 | 206500.0000 | 0.7630 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0019 | ppm | 0.0000 | 1.54 | 29.6800 | 0.0019 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0021 | ppm | 0.0001 | 6.75 | -1.2640 | 0.0021 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0008 | ppm | 0.0001 | 8.71 | 65.4000 | 0.0008 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0017 | ppm | 0.0006 | 37.63 | 9.7020 | 0.0017 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0324 | ppm | 0.0001 | 0.22 | 1004.0000 | 0.0324 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0007 | ppm | 0.0001 | 20.09 | 86.8100 | 0.0007 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9701 | 587600.0000 | 0.0037 | 0.38 |
| Y_R 371.029 | 1.0050 | 106000.0000 | 0.0078 | 0.78 |

Sample Name: 440-194525-D-1-C MS

Date: 10/25/2017 1:23:09 PM Rack:Tube: 1:24

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4937 | ppm | 0.0003 | 0.07 | 25520.0000 | 0.4937 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0570 | ppm | 0.0004 | 0.04 | 33520.0000 | 1.0570 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0170 | ppm | 0.0015 | 0.15 | 964.6000 | 1.0170 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.3050 | ppm | 0.0022 | 0.17 | 18260.0000 | 1.3050 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0870 | ppm | 0.0060 | 0.55 | 84680.0000 | 1.0870 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9886 | ppm | 0.0015 | 0.15 | 229400.0000 | 0.9886 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 125.5000 | ppm | 0.5796 | 0.46 | 416000.0000 | 125.5000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9382 | ppm | 0.0001 | 0.01 | 26200.0000 | 0.9382 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9516 | ppm | 0.0014 | 0.15 | 15740.0000 | 0.9516 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9687 | ppm | 0.0029 | 0.30 | 7547.0000 | 0.9687 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0040 | ppm | 0.0013 | 0.13 | 43580.0000 | 1.0040 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 2.0510 | ppm | 0.0129 | 0.63 | 11370.0000 | 2.0510 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 14.8000 | ppm | 0.0302 | 0.20 | 19580.0000 | 14.8000 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9685 | ppm | 0.0016 | 0.17 | 52140.0000 | 0.9685 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 47.3700 | ppm | 0.1926 | 0.41 | 161100.0000 | 47.3700 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.4060 | ppm | 0.0037 | 0.26 | 140300.0000 | 1.4060 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0100 | ppm | 0.0038 | 0.38 | 5226.0000 | 1.0100 (ppm) | Y 371.029 |
| Na (589.592 nm) | 244.1000 | ppm | 0.2982 | 0.12 | 1848000.0000 | 244.1000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9437 | ppm | 0.0012 | 0.13 | 4248.0000 | 0.9437 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.1850 | ppm | 0.0023 | 0.20 | 1253.0000 | 1.1850 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9425 | ppm | 0.0058 | 0.62 | 1968.0000 | 0.9425 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0510 | ppm | 0.0002 | 0.02 | 1619.0000 | 1.0510 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9522 | ppm | 0.0010 | 0.10 | 1347.0000 | 0.9522 (ppm) | Y 371.029 |
| Si (251.611 nm) | 16.5200 | ppm | 0.0351 | 0.21 | 37360.0000 | 16.5200 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9892 | ppm | 0.0004 | 0.04 | 920.7000 | 0.9892 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.8100 | ppm | 0.0087 | 0.48 | 488800.0000 | 1.8100 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9902 | ppm | 0.0005 | 0.05 | 97150.0000 | 0.9902 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9335 | ppm | 0.0022 | 0.24 | 1768.0000 | 0.9335 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9924 | ppm | 0.0001 | 0.01 | 32550.0000 | 0.9924 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9952 | ppm | 0.0011 | 0.11 | 2641.0000 | 0.9952 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9714 | ppm | 0.0008 | 0.08 | 24970.0000 | 0.9714 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9812 | ppm | 0.0005 | 0.06 | 86340.0000 | 0.9812 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9743 | 590200.0000 | 0.0029 | 0.30 |
| Y_R 371.029 | 0.9776 | 103100.0000 | 0.0036 | 0.37 |

Sample Name: 440-194525-D-1-D MSD

Date: 10/25/2017 1:25:13 PM Rack:Tube: 1:25

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5244 | ppm | 0.0002 | 0.03 | 27100.0000 | 0.5244 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.1250 | ppm | 0.0002 | 0.01 | 35680.0000 | 1.1250 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0800 | ppm | 0.0007 | 0.07 | 1025.0000 | 1.0800 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.3970 | ppm | 0.0006 | 0.04 | 19550.0000 | 1.3970 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.1330 | ppm | 0.0159 | 1.40 | 88280.0000 | 1.1330 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0450 | ppm | 0.0008 | 0.07 | 242600.0000 | 1.0450 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 133.5000 | ppm | 2.2080 | 1.65 | 442500.0000 | 133.5000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9923 | ppm | 0.0007 | 0.07 | 27710.0000 | 0.9923 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0020 | ppm | 0.0005 | 0.05 | 16570.0000 | 1.0020 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0200 | ppm | 0.0030 | 0.29 | 7947.0000 | 1.0200 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0670 | ppm | 0.0005 | 0.05 | 46250.0000 | 1.0670 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 2.1560 | ppm | 0.0295 | 1.37 | 11960.0000 | 2.1560 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 15.4400 | ppm | 0.0192 | 0.12 | 20370.0000 | 15.4400 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0210 | ppm | 0.0116 | 1.14 | 54930.0000 | 1.0210 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 50.1700 | ppm | 0.7170 | 1.43 | 170600.0000 | 50.1700 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.4960 | ppm | 0.0016 | 0.10 | 149300.0000 | 1.4960 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0740 | ppm | 0.0008 | 0.07 | 5561.0000 | 1.0740 (ppm) | Y 371.029 |
| Na (589.592 nm) | 260.0000 | ppm | 2.9420 | 1.13 | 1969000.0000 | 260.0000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0010 | ppm | 0.0031 | 0.31 | 4508.0000 | 1.0010 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.2550 | ppm | 0.0053 | 0.43 | 1328.0000 | 1.2550 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9960 | ppm | 0.0004 | 0.04 | 2080.0000 | 0.9960 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.1110 | ppm | 0.0031 | 0.28 | 1711.0000 | 1.1110 (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0040 | ppm | 0.0081 | 0.80 | 1420.0000 | 1.0040 (ppm) | Y 371.029 |
| Si (251.611 nm) | 17.7300 | ppm | 0.0403 | 0.23 | 40090.0000 | 17.7300 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0460 | ppm | 0.0042 | 0.40 | 973.2000 | 1.0460 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.9090 | ppm | 0.0226 | 1.19 | 515400.0000 | 1.9090 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0530 | ppm | 0.0004 | 0.04 | 103300.0000 | 1.0530 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9867 | ppm | 0.0000 | 0.00 | 1869.0000 | 0.9867 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0490 | ppm | 0.0005 | 0.05 | 34400.0000 | 1.0490 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0590 | ppm | 0.0010 | 0.09 | 2811.0000 | 1.0590 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0220 | ppm | 0.0016 | 0.16 | 26270.0000 | 1.0220 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0460 | ppm | 0.0001 | 0.01 | 92000.0000 | 1.0460 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9658 | 585100.0000 | 0.0008 | 0.08 |
| Y_R 371.029 | 0.9856 | 103900.0000 | 0.0147 | 1.49 |

Sample Name: 440-194525-D-1-E PDS

Date: 10/25/2017 1:27:17 PM Rack:Tube: 1:26

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5118 | ppm | 0.0026 | 0.52 | 26450.0000 | 0.5118 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0950 | ppm | 0.0057 | 0.52 | 34720.0000 | 1.0950 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0610 | ppm | 0.0058 | 0.54 | 1006.0000 | 1.0610 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.3500 | ppm | 0.0034 | 0.25 | 18900.0000 | 1.3500 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0830 | ppm | 0.0153 | 1.41 | 84400.0000 | 1.0830 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0240 | ppm | 0.0050 | 0.49 | 237500.0000 | 1.0240 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 119.0000 | ppm | 0.7038 | 0.59 | 394600.0000 | 119.0000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9729 | ppm | 0.0047 | 0.49 | 27170.0000 | 0.9729 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9818 | ppm | 0.0058 | 0.59 | 16240.0000 | 0.9818 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0060 | ppm | 0.0004 | 0.04 | 7840.0000 | 1.0060 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0440 | ppm | 0.0048 | 0.46 | 45310.0000 | 1.0440 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.9800 | ppm | 0.0082 | 0.41 | 10980.0000 | 1.9800 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 14.5700 | ppm | 0.0491 | 0.34 | 19290.0000 | 14.5700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9667 | ppm | 0.0057 | 0.59 | 52000.0000 | 0.9667 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 45.5100 | ppm | 0.6098 | 1.34 | 154800.0000 | 45.5100 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.4380 | ppm | 0.0072 | 0.50 | 143500.0000 | 1.4380 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0200 | ppm | 0.0059 | 0.58 | 5279.0000 | 1.0200 (ppm) | Y 371.029 |
| Na (589.592 nm) | 234.0000 | ppm | 1.0670 | 0.46 | 1772000.0000 | 234.0000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9815 | ppm | 0.0028 | 0.28 | 4422.0000 | 0.9815 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.2160 | ppm | 0.0052 | 0.43 | 1286.0000 | 1.2160 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9763 | ppm | 0.0033 | 0.33 | 2039.0000 | 0.9763 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0570 | ppm | 0.0002 | 0.02 | 1630.0000 | 1.0570 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9900 | ppm | 0.0015 | 0.16 | 1400.0000 | 0.9900 (ppm) | Y 371.029 |
| Si (251.611 nm) | 16.5600 | ppm | 0.0071 | 0.04 | 37440.0000 | 16.5600 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9884 | ppm | 0.0017 | 0.18 | 920.0000 | 0.9884 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.7600 | ppm | 0.0104 | 0.59 | 475300.0000 | 1.7600 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0010 | ppm | 0.0049 | 0.49 | 98220.0000 | 1.0010 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9709 | ppm | 0.0024 | 0.25 | 1840.0000 | 0.9709 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0280 | ppm | 0.0047 | 0.45 | 33710.0000 | 1.0280 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0150 | ppm | 0.0031 | 0.31 | 2694.0000 | 1.0150 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0010 | ppm | 0.0042 | 0.42 | 25720.0000 | 1.0010 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9930 | ppm | 0.0040 | 0.40 | 87380.0000 | 0.9930 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9556 | 578900.0000 | 0.0006 | 0.06 |
| Y_R 371.029 | 0.9922 | 104600.0000 | 0.0080 | 0.80 |

Sample Name: 440-194525-D-1-Bsd@5

Date: 10/25/2017 1:29:22 PM Rack:Tube: 1:27

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0030 u | ppm | 0.0001 | 1.93 | -176.5000 | -0.0030 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0070 u | ppm | 0.0001 | 0.72 | -531.1000 | -0.0070 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0050 | ppm | 0.0052 | > 100.00 | 10.3200 | 0.0050 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0651 | ppm | 0.0027 | 4.10 | 966.0000 | 0.0651 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0289 | ppm | 0.0004 | 1.50 | 2290.0000 | 0.0289 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0002 | ppm | 0.0001 | 30.41 | 67.7800 | 0.0002 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 23.1800 | ppm | 0.3547 | 1.53 | 76940.0000 | 23.1800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0000 | 5.75 | 0.6251 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0000 | ppm | 0.0000 | 52.75 | -32.6400 | 0.0000 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0000 u | ppm | 0.0003 | > 100.00 | 4.5090 | 0.0000 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0021 | ppm | 0.0000 | 1.25 | 663.7000 | 0.0021 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.2126 | ppm | 0.0028 | 1.31 | 1166.0000 | 0.2126 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 1.0980 | ppm | 0.0476 | 4.33 | 2427.0000 | 1.0980 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0420 | ppm | 0.0010 | 2.27 | 2387.0000 | 0.0420 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 8.5370 | ppm | 0.1241 | 1.45 | 29100.0000 | 8.5370 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0931 | ppm | 0.0015 | 1.59 | 9322.0000 | 0.0931 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0023 | ppm | 0.0011 | 47.02 | 8.7270 | 0.0023 (ppm) | Y 371.029 |
| Na (589.592 nm) | 47.1400 | ppm | 0.7611 | 1.61 | 357000.0000 | 47.1400 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0025 | ppm | 0.0002 | 8.14 | -1.2940 | 0.0025 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0305 | ppm | 0.0010 | 3.39 | 30.8500 | 0.0305 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0014 | ppm | 0.0010 | 70.88 | 10.9200 | 0.0014 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0003 u | ppm | 0.0007 | > 100.00 | -0.7745 | -0.0003 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0005 u | ppm | 0.0011 | > 100.00 | 7.6990 | -0.0005 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.5090 | ppm | 0.0348 | 1.39 | 5690.0000 | 2.5090 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0009 u | ppm | 0.0017 | > 100.00 | -1.1620 | -0.0009 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1572 | ppm | 0.0015 | 0.93 | 42380.0000 | 0.1572 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0008 | ppm | 0.0002 | 21.83 | 0.3887 | 0.0008 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0004 u | ppm | 0.0014 | > 100.00 | -7.0040 | 0.0004 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0008 | ppm | 0.0002 | 24.47 | 52.2800 | 0.0008 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0006 u | ppm | 0.0002 | 42.76 | 5.0010 | -0.0006 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0105 | ppm | 0.0000 | 0.14 | 435.8000 | 0.0105 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0005 | ppm | 0.0000 | 2.40 | 52.6000 | 0.0005 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9881 | 598600.0000 | 0.0051 | 0.52 |
| Y_R 371.029 | 0.9972 | 105200.0000 | 0.0040 | 0.40 |

Sample Name: 440-194659-D-2-B

Date: 10/25/2017 1:31:26 PM Rack:Tube: 1:28

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0037 u | ppm | 0.0003 | 8.39 | -223.9000 | -0.0037 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0112 u | ppm | 0.0010 | 9.35 | -949.8000 | -0.0112 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0087 | ppm | 0.0018 | 20.36 | 14.2800 | 0.0087 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.2960 | ppm | 0.0004 | 0.13 | 4209.0000 | 0.2960 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1279 | ppm | 0.0015 | 1.16 | 10010.0000 | 0.1279 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0000 | 6.67 | 51.8900 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 118.8000 | ppm | 0.8253 | 0.69 | 393800.0000 | 118.8000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0000 | 7.84 | 2.7060 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0002 u | ppm | 0.0000 | 21.80 | -33.4700 | -0.0002 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0000 u | ppm | 0.0004 | > 100.00 | 5.4640 | 0.0000 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0012 | ppm | 0.0001 | 8.81 | 467.7000 | 0.0012 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0130 | ppm | 0.0059 | 0.58 | 5614.0000 | 1.0130 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 4.6930 | ppm | 0.0626 | 1.33 | 6920.0000 | 4.6930 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0214 | ppm | 0.0004 | 1.78 | 1295.0000 | 0.0214 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 42.1100 | ppm | 0.2578 | 0.61 | 143200.0000 | 42.1100 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.5006 | ppm | 0.0005 | 0.11 | 49920.0000 | 0.5006 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0131 | ppm | 0.0017 | 12.91 | 62.7700 | 0.0131 (ppm) | Y 371.029 |
| Na (589.592 nm) | 239.5000 | ppm | 0.3412 | 0.14 | 1813000.0000 | 239.5000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0079 | ppm | 0.0008 | 10.29 | -1.3210 | 0.0079 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.1699 | ppm | 0.0019 | 1.10 | 188.8000 | 0.1699 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0017 u | ppm | 0.0001 | 7.98 | 5.1160 | -0.0017 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0004 u | ppm | 0.0025 | > 100.00 | -8.0390 | -0.0004 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0027 u | ppm | 0.0004 | 15.86 | 5.0180 | -0.0027 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 12.3100 | ppm | 0.0084 | 0.07 | 27690.0000 | 12.3100 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0021 u | ppm | 0.0008 | 37.80 | -1.9200 | -0.0021 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.8015 | ppm | 0.0058 | 0.72 | 216900.0000 | 0.8015 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0017 | ppm | 0.0002 | 11.43 | 3.6630 | 0.0017 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0022 u | ppm | 0.0005 | 21.66 | -9.4570 | -0.0022 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0010 | ppm | 0.0002 | 22.04 | 71.1400 | 0.0010 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0003 u | ppm | 0.0005 | > 100.00 | 6.2590 | 0.0003 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0507 | ppm | 0.0000 | 0.09 | 1468.0000 | 0.0507 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0016 | ppm | 0.0001 | 4.36 | 166.7000 | 0.0016 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9909 | 600300.0000 | 0.0004 | 0.04 |
| Y_R 371.029 | 1.0340 | 109000.0000 | 0.0060 | 0.58 |

Sample Name: 440-194659-D-1-B

Date: 10/25/2017 1:33:30 PM Rack:Tube: 1:29

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0036 u | ppm | 0.0002 | 6.19 | -215.7000 | -0.0036 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0173 u | ppm | 0.0019 | 11.10 | -1135.0000 | -0.0173 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0062 | ppm | 0.0031 | 49.62 | 11.8900 | 0.0062 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.3159 | ppm | 0.0107 | 3.38 | 4489.0000 | 0.3159 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1302 | ppm | 0.0019 | 1.46 | 10190.0000 | 0.1302 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 33.7400 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 117.1000 | ppm | 1.4710 | 1.26 | 388100.0000 | 117.1000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | -0.0002 u | ppm | 0.0000 | 25.74 | -5.8100 | -0.0002 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0001 u | ppm | 0.0003 | > 100.00 | -31.1300 | -0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | 6.2880 | 0.0001 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0004 | 47.87 | 453.4000 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9766 | ppm | 0.0146 | 1.49 | 5415.0000 | 0.9766 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 5.1180 | ppm | 0.1330 | 2.60 | 7455.0000 | 5.1180 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0259 | ppm | 0.0008 | 2.94 | 1565.0000 | 0.0259 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 42.1800 | ppm | 0.4955 | 1.17 | 143400.0000 | 42.1800 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4707 | ppm | 0.0178 | 3.77 | 46950.0000 | 0.4707 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0127 | ppm | 0.0001 | 0.58 | 60.8600 | 0.0127 (ppm) | Y 371.029 |
| Na (589.592 nm) | 231.1000 | ppm | 3.0180 | 1.31 | 1750000.0000 | 231.1000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0088 | ppm | 0.0005 | 5.48 | 3.1850 | 0.0088 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.1743 | ppm | 0.0055 | 3.16 | 193.9000 | 0.1743 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0032 u | ppm | 0.0017 | 53.44 | 1.9360 | -0.0032 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0031 u | ppm | 0.0006 | 19.48 | -12.0200 | -0.0031 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0003 u | ppm | 0.0012 | > 100.00 | 8.3510 | -0.0003 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 13.0400 | ppm | 0.4648 | 3.56 | 29320.0000 | 13.0400 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0023 u | ppm | 0.0006 | 24.86 | -2.1210 | -0.0023 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.7810 | ppm | 0.0095 | 1.22 | 211300.0000 | 0.7810 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0012 | ppm | 0.0001 | 8.45 | -39.7200 | 0.0012 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0021 u | ppm | 0.0015 | 74.60 | -9.2320 | -0.0021 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0011 | ppm | 0.0002 | 20.81 | 76.2000 | 0.0011 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0007 u | ppm | 0.0010 | > 100.00 | 7.2580 | 0.0007 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0448 | ppm | 0.0019 | 4.32 | 1319.0000 | 0.0448 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0005 | ppm | 0.0001 | 10.95 | 63.4400 | 0.0005 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9859 | 597200.0000 | 0.0338 | 3.43 |
| Y_R 371.029 | 1.0460 | 110300.0000 | 0.0155 | 1.48 |

Sample Name: 440-194754-G-9-A@5

Date: 10/25/2017 1:35:35 PM Rack:Tube: 1:30

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0040 u | ppm | 0.0001 | 2.34 | -252.7000 | -0.0040 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 39.1400 | ppm | 0.7493 | 1.91 | 1216000.0000 | 39.1400 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0669 | ppm | 0.0013 | 1.90 | 32.3800 | 0.0669 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.8525 | ppm | 0.0128 | 1.50 | 12020.0000 | 0.8525 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0663 | ppm | 0.0014 | 2.05 | 5235.0000 | 0.0663 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0030 | ppm | 0.0001 | 4.50 | 1269.0000 | 0.0030 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 174.5000 | ppm | 0.1800 | 0.10 | 578400.0000 | 174.5000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0000 | 66.09 | 2.8610 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0083 | ppm | 0.0004 | 4.94 | 133.2000 | 0.0083 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 3.2840 | ppm | 0.0666 | 2.03 | 25590.0000 | 3.2840 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0228 | ppm | 0.0005 | 2.19 | 1327.0000 | 0.0228 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 19.0500 | ppm | 0.1044 | 0.55 | 105800.0000 | 19.0500 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 15.8600 | ppm | 0.0377 | 0.24 | 20960.0000 | 15.8600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2049 | ppm | 0.0030 | 1.45 | 12610.0000 | 0.2049 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 165.8000 | ppm | 3.2430 | 1.96 | 563500.0000 | 165.8000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4278 | ppm | 0.0082 | 1.91 | 45430.0000 | 0.4278 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0013 | ppm | 0.0007 | 51.72 | 3.6410 | 0.0013 (ppm) | Y 371.029 |
| Na (589.592 nm) | 344.5000 | ppm | 1.9990 | 0.58 | 2608000.0000 | 344.5000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0321 | ppm | 0.0011 | 3.47 | 102.2000 | 0.0321 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.8130 | ppm | 0.0179 | 0.47 | 4329.0000 | 3.8130 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0195 | ppm | 0.0005 | 2.59 | 44.3700 | 0.0195 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0032 u | ppm | 0.0011 | 32.81 | 43.1900 | -0.0032 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0011 u | ppm | 0.0032 | > 100.00 | 1.4610 | -0.0011 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.8380 | ppm | 0.1314 | 2.25 | 13200.0000 | 5.8380 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0024 u | ppm | 0.0013 | 53.97 | -1.2560 | -0.0024 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 4.1120 | ppm | 0.0064 | 0.16 | 1109000.0000 | 4.1120 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9270 | ppm | 0.0164 | 1.77 | 90880.0000 | 0.9270 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0002 u | ppm | 0.0008 | > 100.00 | -28.4300 | 0.0002 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0464 | ppm | 0.0011 | 2.44 | 1674.0000 | 0.0464 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0004 | ppm | 0.0004 | 92.02 | 5.2180 | 0.0004 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0634 | ppm | 0.0010 | 1.54 | 1684.0000 | 0.0634 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0433 | ppm | 0.0008 | 1.85 | 3854.0000 | 0.0433 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0260 | 621600.0000 | 0.0033 | 0.32 |
| Y_R 371.029 | 1.0440 | 110100.0000 | 0.0005 | 0.05 |

Sample Name: CCV 4444438

Date: 10/25/2017 1:37:40 PM
Rack:Tube: S1:4
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5063 | ppm | 0.0021 | 0.42 | 26180.0000 | 0.5063 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0210 | ppm | 0.0022 | 0.22 | 32790.0000 | 1.0210 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0320 | ppm | 0.0047 | 0.46 | 977.7000 | 1.0320 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0230 | ppm | 0.0072 | 0.71 | 14300.0000 | 1.0230 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0130 | ppm | 0.0031 | 0.30 | 78970.0000 | 1.0130 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0180 | ppm | 0.0053 | 0.52 | 236200.0000 | 1.0180 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.1540 | ppm | 0.0194 | 0.38 | 17190.0000 | 5.1540 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0180 | ppm | 0.0054 | 0.53 | 28440.0000 | 1.0180 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0170 | ppm | 0.0067 | 0.66 | 16820.0000 | 1.0170 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0090 | ppm | 0.0073 | 0.72 | 7861.0000 | 1.0090 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0060 | ppm | 0.0033 | 0.33 | 43850.0000 | 1.0060 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0410 | ppm | 0.0062 | 0.59 | 5757.0000 | 1.0410 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.5900 | ppm | 0.0885 | 0.84 | 14320.0000 | 10.5900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9786 | ppm | 0.0052 | 0.53 | 52550.0000 | 0.9786 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.1850 | ppm | 0.0313 | 0.60 | 17700.0000 | 5.1850 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0110 | ppm | 0.0047 | 0.46 | 100900.0000 | 1.0110 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0170 | ppm | 0.0050 | 0.49 | 5268.0000 | 1.0170 (ppm) | Y 371.029 |
| Na (589.592 nm) | 11.6800 Q | ppm | 0.0325 | 0.28 | 88560.0000 Q | 11.6800 Q (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0210 | ppm | 0.0034 | 0.34 | 4631.0000 | 1.0210 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0200 | ppm | 0.0072 | 0.70 | 1067.0000 | 1.0200 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0180 | ppm | 0.0049 | 0.48 | 2124.0000 | 1.0180 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0120 | ppm | 0.0059 | 0.58 | 1568.0000 | 1.0120 (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0310 | ppm | 0.0040 | 0.39 | 1456.0000 | 1.0310 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.0260 | ppm | 0.0147 | 0.29 | 11560.0000 | 5.0260 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0230 | ppm | 0.0015 | 0.15 | 951.3000 | 1.0230 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0360 | ppm | 0.0023 | 0.22 | 279000.0000 | 1.0360 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0100 | ppm | 0.0050 | 0.50 | 99190.0000 | 1.0100 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0130 | ppm | 0.0009 | 0.08 | 1920.0000 | 1.0130 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0140 | ppm | 0.0057 | 0.56 | 33250.0000 | 1.0140 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0150 | ppm | 0.0070 | 0.69 | 2696.0000 | 1.0150 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0250 | ppm | 0.0058 | 0.57 | 26290.0000 | 1.0250 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0110 | ppm | 0.0040 | 0.40 | 88920.0000 | 1.0110 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9963 | 603500.0000 | 0.0073 | 0.73 |
| Y_R 371.029 | 0.9882 | 104200.0000 | 0.0012 | 0.12 |

Sample Name: CCB 4444437

Date: 10/25/2017 1:39:44 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0028 u | ppm | 0.0001 | 2.34 | -164.5000 | -0.0028 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0011 | ppm | 0.0006 | 54.57 | -211.3000 | 0.0011 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0054 | ppm | 0.0030 | 56.46 | 10.5700 | 0.0054 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0024 | ppm | 0.0012 | 51.37 | 85.8500 | 0.0024 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0000 | 14.65 | 50.4900 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0000 | 20.56 | 41.0300 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0040 | ppm | 0.0014 | 34.41 | 113.1000 | 0.0040 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -1.5870 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0004 | ppm | 0.0004 | > 100.00 | -28.3200 | 0.0004 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0002 | 49.29 | 6.9940 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0014 | ppm | 0.0001 | 6.49 | 667.1000 | 0.0014 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0021 | ppm | 0.0007 | 34.13 | -4.4710 | 0.0021 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.2003 | ppm | 0.0955 | 47.70 | 1305.0000 | 0.2003 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0520 Z | ppm | 0.0012 | 2.32 | 2921.0000 Z | 0.0520 Z (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0085 | ppm | 0.0028 | 33.20 | 114.2000 | 0.0085 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0001 | 36.36 | 55.4600 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0010 | ppm | 0.0003 | 27.98 | 2.3220 | 0.0010 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.0770 Z | ppm | 0.0047 | 0.44 | 8251.0000 Z | 1.0770 Z (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0004 u | ppm | 0.0009 | > 100.00 | -4.6410 | 0.0004 u (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0041 u | ppm | 0.0029 | 69.53 | -8.3680 | -0.0041 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0005 u | ppm | 0.0004 | 72.13 | 6.7010 | -0.0005 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0028 u | ppm | 0.0009 | 30.76 | -2.8420 | -0.0028 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0034 u | ppm | 0.0002 | 4.49 | 3.5860 | -0.0034 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0050 | ppm | 0.0042 | 83.92 | 69.1200 | 0.0050 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0001 u | ppm | 0.0013 | > 100.00 | -0.3137 | 0.0001 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -192.0000 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0001 | 31.31 | -30.8900 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -8.5220 | 0.0000 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0003 u | ppm | 0.0004 | > 100.00 | 31.3500 | 0.0003 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0001 u | ppm | 0.0007 | > 100.00 | 6.9590 | 0.0001 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0003 | ppm | 0.0000 | 10.67 | 173.0000 | 0.0003 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0001 | 39.48 | 23.7600 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9874 | 598100.0000 | 0.0029 | 0.29 |
| Y_R 371.029 | 0.9911 | 104500.0000 | 0.0060 | 0.60 |

Sample Name: CCV 4444438

Date: 10/25/2017 2:07:06 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5137 | ppm | 0.0027 | 0.52 | 26570.0000 | 0.5137 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0320 | ppm | 0.0050 | 0.49 | 33150.0000 | 1.0320 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0500 | ppm | 0.0047 | 0.45 | 994.8000 | 1.0500 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0350 | ppm | 0.0025 | 0.24 | 14470.0000 | 1.0350 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0060 | ppm | 0.0023 | 0.23 | 78390.0000 | 1.0060 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0320 | ppm | 0.0053 | 0.51 | 239600.0000 | 1.0320 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.1440 | ppm | 0.0157 | 0.31 | 17150.0000 | 5.1440 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0310 | ppm | 0.0061 | 0.59 | 28790.0000 | 1.0310 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0400 | ppm | 0.0002 | 0.02 | 17190.0000 | 1.0400 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0230 | ppm | 0.0004 | 0.04 | 7967.0000 | 1.0230 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0220 | ppm | 0.0060 | 0.58 | 44540.0000 | 1.0220 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0460 | ppm | 0.0070 | 0.67 | 5787.0000 | 1.0460 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.4900 | ppm | 0.0428 | 0.41 | 14190.0000 | 10.4900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9805 | ppm | 0.0054 | 0.55 | 52630.0000 | 0.9805 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.1300 | ppm | 0.0161 | 0.31 | 17520.0000 | 5.1300 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0250 | ppm | 0.0059 | 0.57 | 102300.0000 | 1.0250 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0320 | ppm | 0.0063 | 0.61 | 5346.0000 | 1.0320 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.8900 | ppm | 0.0777 | 0.71 | 82580.0000 | 10.8900 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0360 | ppm | 0.0096 | 0.93 | 4698.0000 | 1.0360 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0370 | ppm | 0.0037 | 0.36 | 1084.0000 | 1.0370 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0350 | ppm | 0.0039 | 0.38 | 2159.0000 | 1.0350 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0190 | ppm | 0.0010 | 0.10 | 1579.0000 | 1.0190 (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0460 | ppm | 0.0006 | 0.06 | 1478.0000 | 1.0460 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.0640 | ppm | 0.0394 | 0.78 | 11650.0000 | 5.0640 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0370 | ppm | 0.0065 | 0.62 | 964.6000 | 1.0370 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0410 | ppm | 0.0132 | 1.26 | 280200.0000 | 1.0410 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0250 | ppm | 0.0045 | 0.44 | 100700.0000 | 1.0250 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0280 | ppm | 0.0048 | 0.46 | 1949.0000 | 1.0280 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0290 | ppm | 0.0070 | 0.68 | 33740.0000 | 1.0290 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0340 | ppm | 0.0088 | 0.85 | 2747.0000 | 1.0340 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0410 | ppm | 0.0063 | 0.61 | 26700.0000 | 1.0410 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0250 | ppm | 0.0049 | 0.48 | 90160.0000 | 1.0250 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9882 | 598600.0000 | 0.0021 | 0.21 |
| Y_R 371.029 | 1.0010 | 105600.0000 | 0.0012 | 0.12 |

Sample Name: CCB 4444437

Date: 10/25/2017 2:09:11 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0025 u | ppm | 0.0002 | 8.67 | -151.3000 | -0.0025 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0001 | ppm | 0.0000 | 28.98 | -241.0000 | 0.0001 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0056 | ppm | 0.0006 | 11.30 | 10.7400 | 0.0056 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0010 u | ppm | 0.0014 | > 100.00 | 65.6600 | 0.0010 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0000 | 2.80 | 44.3700 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 69.07 | 33.8700 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0081 u | ppm | 0.0129 | > 100.00 | 126.7000 | 0.0081 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0002 | > 100.00 | 2.1380 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0001 u | ppm | 0.0005 | > 100.00 | -32.2600 | 0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | 4.2480 | 0.0001 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0000 | 0.04 | 643.4000 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0017 | ppm | 0.0007 | 38.77 | -6.7750 | 0.0017 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1064 | ppm | 0.0229 | 21.56 | 1187.0000 | 0.1064 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0509 Z | ppm | 0.0009 | 1.85 | 2856.0000 Z | 0.0509 Z (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | -0.0001 u | ppm | 0.0018 | > 100.00 | 84.7700 | -0.0001 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0001 | 92.51 | 50.4400 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0003 | ppm | 0.0000 | 5.25 | -1.5260 | 0.0003 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.5177 Z | ppm | 0.0110 | 2.12 | 4020.0000 Z | 0.5177 Z (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0005 | ppm | 0.0006 | > 100.00 | -4.3920 | 0.0005 (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0051 u | ppm | 0.0038 | 74.25 | -9.4090 | -0.0051 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0001 u | ppm | 0.0008 | > 100.00 | 8.1230 | 0.0001 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0020 u | ppm | 0.0002 | 10.56 | -1.6140 | -0.0020 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0034 u | ppm | 0.0003 | 7.93 | 3.6190 | -0.0034 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0033 u | ppm | 0.0008 | 23.51 | 50.1300 | -0.0033 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0007 | ppm | 0.0005 | 67.11 | 0.2525 | 0.0007 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -196.8000 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0003 | ppm | 0.0001 | 36.74 | -21.2000 | 0.0003 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0007 u | ppm | 0.0017 | > 100.00 | -7.2150 | 0.0007 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0003 | ppm | 0.0002 | 64.57 | 31.4100 | 0.0003 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0010 | ppm | 0.0006 | 54.60 | 9.4550 | 0.0010 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | 167.5000 | 0.0001 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0001 | 47.05 | 16.8900 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0180 | 616800.0000 | 0.0096 | 0.94 |
| Y_R 371.029 | 1.0180 | 107300.0000 | 0.0107 | 1.05 |

Sample Name: 440-194573-H-12-B

Date: 10/25/2017 2:11:15 PM Rack:Tube: 1:31

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0026 u | ppm | 0.0001 | 3.28 | -155.3000 | -0.0026 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0224 | ppm | 0.0001 | 0.52 | 447.5000 | 0.0224 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0046 | ppm | 0.0017 | 37.59 | 9.8580 | 0.0046 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0009 | ppm | 0.0001 | 12.64 | 64.9900 | 0.0009 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0006 | ppm | 0.0000 | 4.26 | 86.1900 | 0.0006 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 8.5460 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.1011 | ppm | 0.0005 | 0.54 | 434.9000 | 0.1011 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -1.9510 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | -32.7600 | 0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0008 | ppm | 0.0001 | 11.24 | 9.8620 | 0.0008 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0103 | ppm | 0.0004 | 3.41 | 1053.0000 | 0.0103 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0144 | ppm | 0.0000 | 0.05 | 63.6000 | 0.0144 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1092 | ppm | 0.0414 | 37.86 | 1191.0000 | 0.1092 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0415 | ppm | 0.0042 | 10.10 | 2333.0000 | 0.0415 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0265 | ppm | 0.0031 | 11.76 | 175.2000 | 0.0265 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0009 | ppm | 0.0000 | 2.54 | 130.2000 | 0.0009 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0005 u | ppm | 0.0005 | 97.86 | -5.7510 | -0.0005 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.8602 | ppm | 0.0055 | 0.64 | 6613.0000 | 0.8602 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0009 | ppm | 0.0005 | 60.78 | -2.4700 | 0.0009 (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0052 u | ppm | 0.0069 | > 100.00 | -10.1000 | -0.0052 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0014 | ppm | 0.0010 | 71.09 | 10.6800 | 0.0014 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0014 u | ppm | 0.0044 | > 100.00 | 3.6690 | 0.0014 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0017 u | ppm | 0.0010 | 59.37 | 5.9370 | -0.0017 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.2278 | ppm | 0.0007 | 0.30 | 568.8000 | 0.2278 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0014 u | ppm | 0.0010 | 72.42 | -1.7110 | -0.0014 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0002 | ppm | 0.0000 | 18.06 | -135.4000 | 0.0002 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0005 | ppm | 0.0001 | 12.30 | -5.6160 | 0.0005 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0032 u | ppm | 0.0021 | 66.70 | -14.7300 | -0.0032 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0002 | ppm | 0.0001 | 64.18 | 29.7100 | 0.0002 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0007 | ppm | 0.0009 | > 100.00 | 8.6950 | 0.0007 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0023 | ppm | 0.0000 | 0.60 | 226.3000 | 0.0023 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0001 | 69.00 | 19.0200 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0320 | 625000.0000 | 0.0029 | 0.28 |
| Y_R 371.029 | 1.0810 | 114000.0000 | 0.0121 | 1.12 |

Sample Name: 440-194725-A-1-A

Date: 10/25/2017 2:13:20 PM Rack:Tube: 1:32

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0028 u | ppm | 0.0000 | 1.27 | -222.2000 | -0.0028 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 2.1200 | ppm | 0.0585 | 2.76 | 63740.0000 | 2.1200 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0115 | ppm | 0.0013 | 11.49 | 15.9800 | 0.0115 (ppm) | Y 371.029 |
| B (249.678 nm) | 9.4850 | ppm | 0.2473 | 2.61 | 133400.0000 | 9.4850 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.2746 | ppm | 0.0031 | 1.12 | 21440.0000 | 0.2746 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0000 | 20.42 | 109.3000 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 516.6000 | ppm | 3.6390 | 0.70 | 1712000.0000 | 516.6000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 4.6780 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0028 | ppm | 0.0000 | 1.68 | 25.9900 | 0.0028 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2340 | ppm | 0.0059 | 2.52 | 1832.0000 | 0.2340 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0122 | ppm | 0.0001 | 0.42 | 285.9000 | 0.0122 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 2.6460 | ppm | 0.0111 | 0.42 | 14680.0000 | 2.6460 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 11.6600 | ppm | 0.0142 | 0.12 | 15510.0000 | 11.6600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1899 | ppm | 0.0029 | 1.52 | 8314.0000 | 0.1899 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 36.4800 | ppm | 0.3949 | 1.08 | 124100.0000 | 36.4800 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0684 | ppm | 0.0018 | 2.64 | 7313.0000 | 0.0684 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0074 | ppm | 0.0006 | 7.60 | 29.0300 | 0.0074 (ppm) | Y 371.029 |
| Na (589.592 nm) | 960.1000 o | ppm | 4.2780 | 0.45 | 7269000.0000 | 960.1000 o (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1388 | ppm | 0.0018 | 1.30 | 490.0000 | 0.1388 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0568 | ppm | 0.0001 | 0.23 | 58.7100 | 0.0568 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0003 u | ppm | 0.0003 | > 100.00 | 7.7190 | -0.0003 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0190 | ppm | 0.0027 | 14.48 | 0.1416 | 0.0190 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0011 | ppm | 0.0002 | 22.41 | 9.9980 | 0.0011 (ppm) | Y 371.029 |
| Si (251.611 nm) | 21.5400 | ppm | 0.5198 | 2.41 | 48420.0000 | 21.5400 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0037 u | ppm | 0.0011 | 29.71 | -2.9730 | -0.0037 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 5.7160 | ppm | 0.0485 | 0.85 | 1545000.0000 | 5.7160 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0704 | ppm | 0.0021 | 2.97 | 6377.0000 | 0.0704 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0025 u | ppm | 0.0010 | 41.26 | -8.6020 | -0.0025 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0069 | ppm | 0.0002 | 3.62 | 329.8000 | 0.0069 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0032 | ppm | 0.0012 | 38.22 | 5.4410 | 0.0032 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0016 | ppm | 0.0002 | 10.57 | 244.6000 | 0.0016 (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0001 u | ppm | 0.0000 | 20.46 | 84.5100 | -0.0001 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9817 | 594700.0000 | 0.0140 | 1.42 |
| Y_R 371.029 | 1.0140 | 106900.0000 | 0.0010 | 0.10 |

Sample Name: 440-194725-A-2-A

Date: 10/25/2017 2:15:24 PM Rack:Tube: 1:33

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0034 u | ppm | 0.0000 | 0.70 | -213.6000 | -0.0034 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 6.8400 | ppm | 0.1243 | 1.82 | 211900.0000 | 6.8400 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0160 | ppm | 0.0037 | 22.85 | 20.4700 | 0.0160 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.6318 | ppm | 0.0030 | 0.47 | 8917.0000 | 0.6318 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0433 | ppm | 0.0002 | 0.35 | 3425.0000 | 0.0433 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0008 | ppm | 0.0001 | 6.32 | 488.8000 | 0.0008 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 135.9000 | ppm | 0.7582 | 0.56 | 450600.0000 | 135.9000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0004 | ppm | 0.0000 | 2.56 | 13.4000 | 0.0004 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0049 | ppm | 0.0004 | 7.88 | 72.1700 | 0.0049 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0748 | ppm | 0.0006 | 0.79 | 588.8000 | 0.0748 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0187 | ppm | 0.0001 | 0.34 | 1201.0000 | 0.0187 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 9.7960 | ppm | 0.0431 | 0.44 | 54370.0000 | 9.7960 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 20.8700 | ppm | 0.1730 | 0.83 | 27250.0000 | 20.8700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1953 | ppm | 0.0001 | 0.04 | 11110.0000 | 0.1953 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 63.5200 | ppm | 0.2713 | 0.43 | 216000.0000 | 63.5200 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4052 | ppm | 0.0072 | 1.78 | 41640.0000 | 0.4052 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0028 | ppm | 0.0003 | 10.84 | 9.7250 | 0.0028 (ppm) | Y 371.029 |
| Na (589.592 nm) | 152.4000 | ppm | 1.2270 | 0.80 | 1154000.0000 | 152.4000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0464 | ppm | 0.0004 | 0.97 | 173.0000 | 0.0464 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.5293 | ppm | 0.0077 | 1.45 | 596.5000 | 0.5293 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0037 | ppm | 0.0002 | 6.31 | 15.5500 | 0.0037 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0003 u | ppm | 0.0017 | > 100.00 | -6.3430 | 0.0003 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0015 | ppm | 0.0014 | 94.60 | 7.9550 | 0.0015 (ppm) | Y 371.029 |
| Si (251.611 nm) | 52.1600 | ppm | 0.7532 | 1.44 | 117100.0000 | 52.1600 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0024 u | ppm | 0.0012 | 51.03 | -2.0630 | -0.0024 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.7240 | ppm | 0.0036 | 0.49 | 196100.0000 | 0.7240 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.4787 | ppm | 0.0081 | 1.69 | 46860.0000 | 0.4787 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0010 | ppm | 0.0000 | 4.44 | -17.4000 | 0.0010 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0262 | ppm | 0.0007 | 2.65 | 939.7000 | 0.0262 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0007 | ppm | 0.0001 | 20.88 | 7.0120 | 0.0007 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0496 | ppm | 0.0011 | 2.30 | 1438.0000 | 0.0496 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0102 | ppm | 0.0002 | 1.95 | 935.2000 | 0.0102 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0770 | 652500.0000 | 0.0157 | 1.45 |
| Y_R 371.029 | 1.0880 | 114800.0000 | 0.0009 | 0.08 |

Sample Name: 440-194725-A-3-A

Date: 10/25/2017 2:17:29 PM Rack:Tube: 1:34

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0034 u | ppm | 0.0000 | 0.63 | -266.4000 | -0.0034 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 7.6640 | ppm | 0.1329 | 1.73 | 236100.0000 | 7.6640 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0446 | ppm | 0.0025 | 5.59 | 49.5200 | 0.0446 (ppm) | Y 371.029 |
| B (249.678 nm) | 5.7600 | ppm | 0.0778 | 1.35 | 81000.0000 | 5.7600 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1162 | ppm | 0.0003 | 0.27 | 9128.0000 | 0.1162 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0008 | ppm | 0.0001 | 14.16 | 550.2000 | 0.0008 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 566.9000 o | ppm | 4.8540 | 0.86 | 1879000.0000 | 566.9000 o (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 87.97 | 7.7960 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0197 | ppm | 0.0008 | 3.95 | 320.2000 | 0.0197 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1148 | ppm | 0.0025 | 2.13 | 906.0000 | 0.1148 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0197 | ppm | 0.0001 | 0.57 | 550.1000 | 0.0197 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 11.4400 | ppm | 0.0480 | 0.42 | 63540.0000 | 11.4400 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 25.1800 | ppm | 0.1391 | 0.55 | 32550.0000 | 25.1800 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0535 | ppm | 0.0005 | 0.90 | 3379.0000 | 0.0535 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 195.6000 | ppm | 0.3841 | 0.20 | 664800.0000 | 195.6000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.5801 | ppm | 0.0105 | 1.81 | 59700.0000 | 0.5801 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0150 | ppm | 0.0004 | 2.69 | 66.0600 | 0.0150 (ppm) | Y 371.029 |
| Na (589.592 nm) | 500.7000 | ppm | 0.5017 | 0.10 | 3791000.0000 | 500.7000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0997 | ppm | 0.0008 | 0.81 | 304.3000 | 0.0997 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.4434 | ppm | 0.0036 | 0.81 | 497.6000 | 0.4434 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0049 | ppm | 0.0033 | 68.90 | 19.8800 | 0.0049 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0199 | ppm | 0.0050 | 25.17 | -6.0420 | 0.0199 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0070 | ppm | 0.0012 | 17.63 | 16.4800 | 0.0070 (ppm) | Y 371.029 |
| Si (251.611 nm) | 24.2500 | ppm | 0.4504 | 1.86 | 54540.0000 | 24.2500 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0054 u | ppm | 0.0011 | 19.67 | -3.6260 | -0.0054 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 3.6750 | ppm | 0.0369 | 1.00 | 995300.0000 | 3.6750 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.2516 | ppm | 0.0044 | 1.76 | 24150.0000 | 0.2516 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0003 u | ppm | 0.0023 | > 100.00 | -6.0840 | -0.0003 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0252 | ppm | 0.0004 | 1.65 | 967.0000 | 0.0252 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0069 | ppm | 0.0000 | 0.66 | 14.2600 | 0.0069 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0408 | ppm | 0.0013 | 3.24 | 1275.0000 | 0.0408 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0008 | ppm | 0.0000 | 5.10 | 177.2000 | 0.0008 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9257 | 560800.0000 | 0.0183 | 1.98 |
| Y_R 371.029 | 0.9745 | 102800.0000 | 0.0044 | 0.46 |

Sample Name: 440-194725-A-4-A

Date: 10/25/2017 2:19:33 PM Rack:Tube: 1:35

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0035 u | ppm | 0.0003 | 9.68 | -209.7000 | -0.0035 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.6316 | ppm | 0.0028 | 0.45 | 19160.0000 | 0.6316 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0203 | ppm | 0.0007 | 3.38 | 25.1000 | 0.0203 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0584 | ppm | 0.0068 | 11.64 | 869.9000 | 0.0584 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0543 | ppm | 0.0003 | 0.51 | 4271.0000 | 0.0543 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | 14.14 | 42.5500 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 70.3900 | ppm | 0.0324 | 0.05 | 233400.0000 | 70.3900 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -0.4186 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0016 | ppm | 0.0001 | 5.35 | -4.6450 | 0.0016 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0069 | ppm | 0.0003 | 4.41 | 58.7700 | 0.0069 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0017 | ppm | 0.0003 | 17.96 | 567.0000 | 0.0017 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.7824 | ppm | 0.0024 | 0.30 | 4332.0000 | 0.7824 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 4.8070 | ppm | 0.0220 | 0.46 | 7076.0000 | 4.8070 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0358 | ppm | 0.0023 | 6.40 | 2024.0000 | 0.0358 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 21.6200 | ppm | 0.2015 | 0.93 | 73560.0000 | 21.6200 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0264 | ppm | 0.0001 | 0.22 | 2833.0000 | 0.0264 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0086 | ppm | 0.0009 | 11.06 | 40.4400 | 0.0086 (ppm) | Y 371.029 |
| Na (589.592 nm) | 44.7300 | ppm | 0.0486 | 0.11 | 338700.0000 | 44.7300 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0097 | ppm | 0.0002 | 2.40 | 19.7300 | 0.0097 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0513 | ppm | 0.0015 | 2.86 | 54.2300 | 0.0513 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0003 u | ppm | 0.0025 | > 100.00 | 7.3040 | -0.0003 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0031 u | ppm | 0.0008 | 24.91 | -8.5100 | -0.0031 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0007 u | ppm | 0.0039 | > 100.00 | 9.3620 | 0.0007 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 14.6400 | ppm | 0.0410 | 0.28 | 32910.0000 | 14.6400 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0011 u | ppm | 0.0025 | > 100.00 | -1.2160 | -0.0011 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.4810 | ppm | 0.0006 | 0.12 | 130100.0000 | 0.4810 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0229 | ppm | 0.0004 | 1.69 | 2128.0000 | 0.0229 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0004 u | ppm | 0.0006 | > 100.00 | -9.1190 | -0.0004 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0062 | ppm | 0.0004 | 6.86 | 236.9000 | 0.0062 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0059 | ppm | 0.0001 | 1.26 | 20.9500 | 0.0059 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0044 | ppm | 0.0000 | 0.53 | 286.0000 | 0.0044 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0011 | ppm | 0.0001 | 7.04 | 115.0000 | 0.0011 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9775 | 592100.0000 | 0.0022 | 0.22 |
| Y_R 371.029 | 0.9886 | 104300.0000 | 0.0138 | 1.40 |

Sample Name: 440-194725-A-5-A

Date: 10/25/2017 2:21:38 PM Rack:Tube: 1:36

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0029 u | ppm | 0.0005 | 17.53 | -224.7000 | -0.0029 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 2.0920 | ppm | 0.1423 | 6.80 | 63080.0000 | 2.0920 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0146 | ppm | 0.0026 | 17.76 | 21.3600 | 0.0146 (ppm) | Y 371.029 |
| B (249.678 nm) | 2.9730 | ppm | 0.1968 | 6.62 | 41840.0000 | 2.9730 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.2185 | ppm | 0.0041 | 1.86 | 17070.0000 | 0.2185 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | 53.46 | 82.2500 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 465.3000 | ppm | 5.0650 | 1.09 | 1542000.0000 | 465.3000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 3.7580 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0008 | ppm | 0.0004 | 52.85 | -10.4400 | 0.0008 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0111 | ppm | 0.0007 | 6.44 | 95.6000 | 0.0111 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0091 | ppm | 0.0005 | 5.15 | 236.4000 | 0.0091 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.8270 | ppm | 0.0137 | 0.75 | 10140.0000 | 1.8270 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 17.6900 | ppm | 0.3200 | 1.81 | 23110.0000 | 17.6900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2537 | ppm | 0.0015 | 0.57 | 12360.0000 | 0.2537 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 44.3300 | ppm | 0.8873 | 2.00 | 150800.0000 | 44.3300 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0347 | ppm | 0.0024 | 6.95 | 3898.0000 | 0.0347 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0042 | ppm | 0.0011 | 25.62 | 12.8800 | 0.0042 (ppm) | Y 371.029 |
| Na (589.592 nm) | 605.9000 | ppm | 12.1600 | 2.01 | 4587000.0000 | 605.9000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0339 | ppm | 0.0016 | 4.64 | 26.5100 | 0.0339 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0729 | ppm | 0.0066 | 9.00 | 77.5800 | 0.0729 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0007 | ppm | 0.0007 | 98.30 | 9.6510 | 0.0007 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0127 | ppm | 0.0005 | 3.53 | -10.1400 | 0.0127 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0020 u | ppm | 0.0031 | > 100.00 | 11.4700 | 0.0020 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 30.4700 | ppm | 1.9760 | 6.48 | 68470.0000 | 30.4700 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0015 u | ppm | 0.0006 | 42.87 | -0.9431 | -0.0015 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 4.3710 | ppm | 0.0450 | 1.03 | 1182000.0000 | 4.3710 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0622 | ppm | 0.0037 | 5.99 | 5621.0000 | 0.0622 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0003 u | ppm | 0.0048 | > 100.00 | -4.6810 | -0.0003 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0048 | ppm | 0.0006 | 12.82 | 250.8000 | 0.0048 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0014 | ppm | 0.0013 | 94.43 | 1.9820 | 0.0014 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0162 | ppm | 0.0015 | 9.31 | 620.4000 | 0.0162 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0001 | 76.19 | 91.4900 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9699 | 587600.0000 | 0.0552 | 5.69 |
| Y_R 371.029 | 0.9289 | 97970.0000 | 0.0092 | 0.99 |

Sample Name: 440-194727-A-1-A

Date: 10/25/2017 2:23:42 PM Rack:Tube: 1:37

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0035 u | ppm | 0.0002 | 5.90 | -223.9000 | -0.0035 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.5127 | ppm | 0.0070 | 1.37 | 14820.0000 | 0.5127 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0150 | ppm | 0.0004 | 2.84 | 20.6700 | 0.0150 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.2138 | ppm | 0.0003 | 0.13 | 3054.0000 | 0.2138 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0822 | ppm | 0.0008 | 1.01 | 6451.0000 | 0.0822 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 23.7100 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 249.9000 | ppm | 0.3354 | 0.13 | 828200.0000 | 249.9000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 0.6238 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0003 | ppm | 0.0004 | > 100.00 | -23.0000 | 0.0003 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0099 | ppm | 0.0008 | 7.65 | 84.0600 | 0.0099 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0045 | ppm | 0.0001 | 2.84 | 393.2000 | 0.0045 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.6704 | ppm | 0.0036 | 0.54 | 3715.0000 | 0.6704 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 12.0000 | ppm | 0.0702 | 0.59 | 16040.0000 | 12.0000 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0676 | ppm | 0.0015 | 2.20 | 2916.0000 | 0.0676 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 34.9800 | ppm | 0.4685 | 1.34 | 119000.0000 | 34.9800 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0170 | ppm | 0.0145 | 1.42 | 101000.0000 | 1.0170 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0085 | ppm | 0.0002 | 2.80 | 37.9000 | 0.0085 (ppm) | Y 371.029 |
| Na (589.592 nm) | 157.9000 | ppm | 0.2192 | 0.14 | 1196000.0000 | 157.9000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0197 | ppm | 0.0003 | 1.32 | 17.5400 | 0.0197 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0418 | ppm | 0.0019 | 4.50 | 42.7700 | 0.0418 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0025 u | ppm | 0.0015 | 60.43 | 3.4060 | -0.0025 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0040 | ppm | 0.0008 | 19.77 | -9.4420 | 0.0040 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0027 u | ppm | 0.0008 | 30.04 | 5.7600 | -0.0027 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 21.6700 | ppm | 0.4061 | 1.87 | 48710.0000 | 21.6700 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0025 u | ppm | 0.0024 | 95.64 | -2.1570 | -0.0025 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 2.4040 | ppm | 0.0003 | 0.01 | 649800.0000 | 2.4040 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0218 | ppm | 0.0003 | 1.47 | 1855.0000 | 0.0218 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0004 u | ppm | 0.0011 | > 100.00 | -3.3050 | -0.0004 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0020 | ppm | 0.0003 | 13.49 | 126.8000 | 0.0020 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0029 | ppm | 0.0000 | 1.58 | 9.7950 | 0.0029 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0127 | ppm | 0.0004 | 3.04 | 516.9000 | 0.0127 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0001 | 40.08 | 70.7700 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9817 | 594700.0000 | 0.0113 | 1.15 |
| Y_R 371.029 | 0.9845 | 103800.0000 | 0.0104 | 1.05 |

Sample Name: 440-194727-A-2-A

Date: 10/25/2017 2:25:46 PM Rack:Tube: 1:38

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0032 u | ppm | 0.0000 | 0.85 | -188.7000 | -0.0032 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0203 u | ppm | 0.0005 | 2.45 | -1028.0000 | -0.0203 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0088 | ppm | 0.0013 | 15.15 | 14.0100 | 0.0088 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0773 | ppm | 0.0001 | 0.07 | 1138.0000 | 0.0773 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0447 | ppm | 0.0004 | 0.99 | 3522.0000 | 0.0447 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 4.68 | -3.0300 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 47.4700 | ppm | 0.1272 | 0.27 | 157400.0000 | 47.4700 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -1.3270 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0002 | ppm | 0.0001 | 39.84 | -29.1300 | 0.0002 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0007 | ppm | 0.0003 | 46.38 | 9.5370 | 0.0007 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0012 | ppm | 0.0000 | 1.26 | 584.9000 | 0.0012 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.1240 | ppm | 0.0024 | 1.91 | 674.9000 | 0.1240 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 4.3100 | ppm | 0.0202 | 0.47 | 6456.0000 | 4.3100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0196 | ppm | 0.0021 | 10.56 | 1064.0000 | 0.0196 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 11.7700 | ppm | 0.0750 | 0.64 | 40080.0000 | 11.7700 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1070 | ppm | 0.0002 | 0.23 | 10700.0000 | 0.1070 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0048 | ppm | 0.0001 | 2.41 | 21.2600 | 0.0048 (ppm) | Y 371.029 |
| Na (589.592 nm) | 83.1200 | ppm | 0.1390 | 0.17 | 629400.0000 | 83.1200 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0037 | ppm | 0.0009 | 23.90 | -2.1400 | 0.0037 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0324 | ppm | 0.0007 | 2.19 | 32.8900 | 0.0324 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0000 u | ppm | 0.0019 | > 100.00 | 8.0670 | 0.0000 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0006 | ppm | 0.0007 | > 100.00 | -1.0690 | 0.0006 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0008 u | ppm | 0.0008 | 95.43 | 7.4060 | -0.0008 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 19.3300 | ppm | 0.1500 | 0.78 | 43420.0000 | 19.3300 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0009 u | ppm | 0.0005 | 55.31 | -1.0690 | -0.0009 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.3874 | ppm | 0.0014 | 0.37 | 104600.0000 | 0.3874 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0005 | ppm | 0.0000 | 0.32 | -43.3000 | 0.0005 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0027 u | ppm | 0.0001 | 5.42 | -12.7200 | -0.0027 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0005 | ppm | 0.0001 | 13.45 | 46.4500 | 0.0005 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0004 u | ppm | 0.0001 | 31.31 | 5.0040 | -0.0004 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0128 | ppm | 0.0000 | 0.21 | 495.3000 | 0.0128 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0005 | ppm | 0.0000 | 1.33 | 56.7700 | 0.0005 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0520 | 637000.0000 | 0.0024 | 0.23 |
| Y_R 371.029 | 1.0580 | 111600.0000 | 0.0068 | 0.65 |

Sample Name: 440-194727-A-3-A

Date: 10/25/2017 2:27:50 PM Rack:Tube: 1:39

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0030 u | ppm | 0.0002 | 6.75 | -182.5000 | -0.0030 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.4962 | ppm | 0.0093 | 1.88 | 15020.0000 | 0.4962 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0093 | ppm | 0.0015 | 15.73 | 14.5700 | 0.0093 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0510 | ppm | 0.0011 | 2.06 | 765.6000 | 0.0510 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0325 | ppm | 0.0001 | 0.26 | 2571.0000 | 0.0325 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | 67.08 | 43.5000 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 52.9400 | ppm | 0.1193 | 0.23 | 175500.0000 | 52.9400 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | -2.6190 | -0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0021 | ppm | 0.0003 | 13.83 | 2.4550 | 0.0021 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0027 | ppm | 0.0002 | 5.73 | 25.3000 | 0.0027 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0011 | ppm | 0.0000 | 2.71 | 570.2000 | 0.0011 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9933 | ppm | 0.0042 | 0.42 | 5501.0000 | 0.9933 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 5.4050 | ppm | 0.0723 | 1.34 | 7831.0000 | 5.4050 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0295 | ppm | 0.0006 | 2.00 | 1629.0000 | 0.0295 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 15.3000 | ppm | 0.0648 | 0.42 | 52100.0000 | 15.3000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1680 | ppm | 0.0032 | 1.91 | 16870.0000 | 0.1680 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0177 | ppm | 0.0007 | 3.86 | 88.1100 | 0.0177 (ppm) | Y 371.029 |
| Na (589.592 nm) | 45.5800 | ppm | 0.2535 | 0.56 | 345200.0000 | 45.5800 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0049 | ppm | 0.0010 | 19.42 | 2.4900 | 0.0049 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.1343 | ppm | 0.0021 | 1.57 | 148.4000 | 0.1343 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0007 | ppm | 0.0010 | > 100.00 | 9.5130 | 0.0007 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0008 u | ppm | 0.0035 | > 100.00 | -3.9610 | -0.0008 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0026 | ppm | 0.0023 | 89.61 | 11.9900 | 0.0026 (ppm) | Y 371.029 |
| Si (251.611 nm) | 14.2200 | ppm | 0.3394 | 2.39 | 31960.0000 | 14.2200 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0006 u | ppm | 0.0020 | > 100.00 | -0.7610 | -0.0006 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.4067 | ppm | 0.0011 | 0.28 | 109900.0000 | 0.4067 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0243 | ppm | 0.0003 | 1.29 | 2285.0000 | 0.0243 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0009 u | ppm | 0.0022 | > 100.00 | -9.8540 | -0.0009 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0038 | ppm | 0.0001 | 2.99 | 154.7000 | 0.0038 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0022 | ppm | 0.0013 | 58.12 | 11.6700 | 0.0022 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0061 | ppm | 0.0000 | 0.81 | 328.2000 | 0.0061 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0005 | ppm | 0.0000 | 5.80 | 53.0900 | 0.0005 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0510 | 636500.0000 | 0.0168 | 1.60 |
| Y_R 371.029 | 1.0800 | 113900.0000 | 0.0013 | 0.12 |

Sample Name: 440-194728-A-1-A

Date: 10/25/2017 2:29:55 PM Rack:Tube: 1:40

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0033 u | ppm | 0.0001 | 2.42 | -203.5000 | -0.0033 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0216 u | ppm | 0.0008 | 3.57 | -1317.0000 | -0.0216 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0191 | ppm | 0.0028 | 14.61 | 24.2100 | 0.0191 (ppm) | Y 371.029 |
| B (249.678 nm) | 10.7000 | ppm | 0.0963 | 0.90 | 150500.0000 | 10.7000 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0050 | ppm | 0.0077 | 0.77 | 78340.0000 | 1.0050 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 88.48 | 26.0600 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 119.9000 | ppm | 0.3715 | 0.31 | 397600.0000 | 119.9000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | -0.0171 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0016 u | ppm | 0.0006 | 35.21 | -57.8600 | -0.0016 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0005 | ppm | 0.0000 | 5.37 | 9.3760 | 0.0005 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0025 | ppm | 0.0004 | 16.85 | 520.5000 | 0.0025 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.5797 | ppm | 0.0014 | 0.25 | 3208.0000 | 0.5797 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 20.9700 | ppm | 0.1542 | 0.74 | 27380.0000 | 20.9700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.6011 | ppm | 0.0027 | 0.44 | 33310.0000 | 0.6011 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 25.1600 | ppm | 0.1082 | 0.43 | 85600.0000 | 25.1600 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0354 | ppm | 0.0002 | 0.53 | 3716.0000 | 0.0354 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0076 | ppm | 0.0001 | 1.89 | 34.6700 | 0.0076 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1142.0000 o | ppm | 7.5370 | 0.66 | 8646000.0000 | 1142.0000 o (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0080 | ppm | 0.0004 | 5.59 | -1.1560 | 0.0080 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0200 | ppm | 0.0105 | 52.65 | 18.4700 | 0.0200 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0017 u | ppm | 0.0006 | 34.87 | 4.7320 | -0.0017 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0009 u | ppm | 0.0018 | > 100.00 | -8.4260 | -0.0009 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0000 u | ppm | 0.0016 | > 100.00 | 8.5670 | 0.0000 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 31.2700 | ppm | 0.1692 | 0.54 | 70220.0000 | 31.2700 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0026 u | ppm | 0.0004 | 16.48 | -2.5530 | -0.0026 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 2.3960 | ppm | 0.0036 | 0.15 | 646600.0000 | 2.3960 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0004 | ppm | 0.0000 | 0.58 | -122.3000 | 0.0004 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | -6.4750 | 0.0001 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0010 | ppm | 0.0002 | 17.68 | 72.3200 | 0.0010 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0025 | ppm | 0.0012 | 45.89 | 10.9900 | 0.0025 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0006 | ppm | 0.0000 | 1.51 | 196.7000 | 0.0006 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0023 | ppm | 0.0001 | 2.50 | 228.1000 | 0.0023 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9841 | 596200.0000 | 0.0047 | 0.48 |
| Y_R 371.029 | 1.0300 | 108600.0000 | 0.0030 | 0.29 |

Sample Name: CCV 4444438

Date: 10/25/2017 2:32:00 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4783 | ppm | 0.0009 | 0.20 | 24730.0000 | 0.4783 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.9605 | ppm | 0.0037 | 0.38 | 30810.0000 | 0.9605 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9710 | ppm | 0.0012 | 0.13 | 920.8000 | 0.9710 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9832 | ppm | 0.0121 | 1.23 | 13750.0000 | 0.9832 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9365 | ppm | 0.0015 | 0.17 | 72980.0000 | 0.9365 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9553 | ppm | 0.0017 | 0.17 | 221700.0000 | 0.9553 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.8450 | ppm | 0.0147 | 0.30 | 16160.0000 | 4.8450 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9531 | ppm | 0.0024 | 0.25 | 26620.0000 | 0.9531 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9587 | ppm | 0.0056 | 0.58 | 15850.0000 | 0.9587 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9443 | ppm | 0.0020 | 0.21 | 7356.0000 | 0.9443 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9466 | ppm | 0.0032 | 0.34 | 41300.0000 | 0.9466 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9737 | ppm | 0.0071 | 0.73 | 5385.0000 | 0.9737 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.9870 | ppm | 0.0830 | 0.83 | 13560.0000 | 9.9870 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9173 | ppm | 0.0069 | 0.75 | 49260.0000 | 0.9173 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.7640 | ppm | 0.0075 | 0.16 | 16270.0000 | 4.7640 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9493 | ppm | 0.0014 | 0.14 | 94710.0000 | 0.9493 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9535 | ppm | 0.0021 | 0.22 | 4937.0000 | 0.9535 (ppm) | Y 371.029 |
| Na (589.592 nm) | 11.6600 Q | ppm | 0.0069 | 0.06 | 88420.0000 Q | 11.6600 Q (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9566 | ppm | 0.0030 | 0.31 | 4338.0000 | 0.9566 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9581 | ppm | 0.0014 | 0.15 | 1002.0000 | 0.9581 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9572 | ppm | 0.0019 | 0.20 | 1998.0000 | 0.9572 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9534 | ppm | 0.0030 | 0.32 | 1477.0000 | 0.9534 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9664 | ppm | 0.0015 | 0.16 | 1366.0000 | 0.9664 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.7200 | ppm | 0.0189 | 0.40 | 10860.0000 | 4.7200 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9594 | ppm | 0.0046 | 0.47 | 892.5000 | 0.9594 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9681 | ppm | 0.0105 | 1.08 | 260700.0000 | 0.9681 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9514 | ppm | 0.0018 | 0.19 | 93450.0000 | 0.9514 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9529 | ppm | 0.0035 | 0.37 | 1806.0000 | 0.9529 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9536 | ppm | 0.0032 | 0.33 | 31270.0000 | 0.9536 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9561 | ppm | 0.0006 | 0.06 | 2540.0000 | 0.9561 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9596 | ppm | 0.0032 | 0.33 | 24640.0000 | 0.9596 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9522 | ppm | 0.0013 | 0.14 | 83780.0000 | 0.9522 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0660 | 645500.0000 | 0.0027 | 0.25 |
| Y_R 371.029 | 1.0740 | 113300.0000 | 0.0024 | 0.23 |

Sample Name: CCB 4444437

Date: 10/25/2017 2:34:03 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0025 u | ppm | 0.0000 | 0.29 | -150.4000 | -0.0025 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0004 | ppm | 0.0002 | 54.40 | -233.9000 | 0.0004 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0041 | ppm | 0.0003 | 7.48 | 9.3650 | 0.0041 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0070 | ppm | 0.0024 | 34.08 | 150.4000 | 0.0070 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0001 | 49.62 | 49.4600 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0000 | 14.96 | 42.1800 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0061 | ppm | 0.0061 | 99.99 | 120.0000 | 0.0061 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0000 | 27.00 | 2.1030 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0005 | ppm | 0.0000 | 2.44 | -26.1500 | 0.0005 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0003 | ppm | 0.0001 | 42.87 | 6.4980 | 0.0003 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0005 | ppm | 0.0002 | 55.13 | 628.3000 | 0.0005 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0017 | ppm | 0.0003 | 15.70 | -6.9290 | 0.0017 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.2531 | ppm | 0.0029 | 1.14 | 1372.0000 | 0.2531 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0453 | ppm | 0.0025 | 5.45 | 2547.0000 | 0.0453 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0008 | ppm | 0.0002 | 26.28 | 88.1300 | 0.0008 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0000 | 31.08 | 50.3700 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0006 u | ppm | 0.0017 | > 100.00 | 0.0496 | 0.0006 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.5000 Z | ppm | 0.0234 | 1.56 | 11460.0000 Z | 1.5000 Z (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0005 | ppm | 0.0005 | 96.29 | -4.2220 | 0.0005 (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0009 u | ppm | 0.0002 | 25.15 | -4.6580 | -0.0009 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0004 u | ppm | 0.0023 | > 100.00 | 8.7170 | 0.0004 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0003 u | ppm | 0.0008 | > 100.00 | 0.9235 | -0.0003 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0001 u | ppm | 0.0009 | > 100.00 | 8.1920 | -0.0001 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0007 u | ppm | 0.0031 | > 100.00 | 55.8000 | -0.0007 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0009 u | ppm | 0.0016 | > 100.00 | -1.1810 | -0.0009 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | -185.2000 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0003 | ppm | 0.0000 | 0.59 | -24.3300 | 0.0003 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0005 u | ppm | 0.0003 | 58.79 | -9.4810 | -0.0005 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0004 | ppm | 0.0001 | 22.72 | 36.9500 | 0.0004 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0004 | ppm | 0.0004 | 90.97 | 7.7500 | 0.0004 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | 164.7000 | 0.0000 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 8.92 | 22.4900 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0560 | 639500.0000 | 0.0011 | 0.11 |
| Y_R 371.029 | 1.0510 | 110900.0000 | 0.0059 | 0.57 |

Sample Name: 440-194730-A-1-A

Date: 10/25/2017 2:39:59 PM Rack:Tube: 1:41

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0034 u | ppm | 0.0003 | 9.07 | -224.8000 | -0.0034 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0436 u | ppm | 0.0022 | 4.98 | -2409.0000 | -0.0436 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0306 | ppm | 0.0013 | 4.34 | 35.6800 | 0.0306 (ppm) | Y 371.029 |
| B (249.678 nm) | 10.8500 | ppm | 0.2736 | 2.52 | 152600.0000 | 10.8500 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.3220 | ppm | 0.0059 | 0.44 | 103000.0000 | 1.3220 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 178.4000 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 228.5000 | ppm | 0.8727 | 0.38 | 757400.0000 | 228.5000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 1.5480 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0021 u | ppm | 0.0004 | 19.35 | -56.2400 | -0.0021 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0009 | ppm | 0.0001 | 16.00 | 13.9200 | 0.0009 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0034 | ppm | 0.0002 | 5.11 | 383.9000 | 0.0034 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 5.9000 | ppm | 0.0328 | 0.56 | 32740.0000 | 5.9000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 22.3200 | ppm | 0.1776 | 0.80 | 29020.0000 | 22.3200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.6342 | ppm | 0.0035 | 0.55 | 34580.0000 | 0.6342 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 29.5900 | ppm | 0.1760 | 0.59 | 100700.0000 | 29.5900 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.2040 | ppm | 0.0054 | 2.64 | 21100.0000 | 0.2040 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0089 | ppm | 0.0002 | 2.48 | 40.1600 | 0.0089 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1247.0000 o | ppm | 1.1390 | 0.09 | 9445000.0000 | 1247.0000 o (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0162 | ppm | 0.0004 | 2.24 | 9.2220 | 0.0162 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0271 | ppm | 0.0022 | 8.25 | 26.1500 | 0.0271 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0007 u | ppm | 0.0022 | > 100.00 | 7.3760 | -0.0007 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0048 | ppm | 0.0003 | 6.56 | -6.8450 | 0.0048 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0003 u | ppm | 0.0035 | > 100.00 | 6.6980 | -0.0003 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 32.7300 | ppm | 0.8520 | 2.60 | 73500.0000 | 32.7300 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0026 u | ppm | 0.0007 | 26.50 | -2.3230 | -0.0026 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 3.2940 | ppm | 0.0115 | 0.35 | 889400.0000 | 3.2940 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0003 | ppm | 0.0001 | 21.32 | -233.4000 | 0.0003 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0032 u | ppm | 0.0003 | 10.69 | -10.9800 | -0.0032 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0007 | ppm | 0.0001 | 20.19 | 84.5300 | 0.0007 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0025 | ppm | 0.0010 | 39.72 | 9.0670 | 0.0025 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0098 | ppm | 0.0006 | 5.63 | 433.6000 | 0.0098 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0001 | 43.41 | 68.9800 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9318 | 564500.0000 | 0.0241 | 2.59 |
| Y_R 371.029 | 0.9441 | 99570.0000 | 0.0060 | 0.63 |

Sample Name: 440-194474-g-4-a@5

Date: 10/25/2017 2:42:03 PM Rack:Tube: 1:42

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0038 u | ppm | 0.0000 | 0.91 | -235.6000 | -0.0038 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0237 u | ppm | 0.0010 | 4.02 | -1315.0000 | -0.0237 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0098 | ppm | 0.0036 | 36.28 | -42.2600 | 0.0098 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.8909 | ppm | 0.0311 | 3.49 | 12600.0000 | 0.8909 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0304 | ppm | 0.0005 | 1.48 | 2414.0000 | 0.0304 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 14.0800 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 121.6000 | ppm | 4.1430 | 3.41 | 403000.0000 | 121.6000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -2.7010 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0011 u | ppm | 0.0004 | 32.59 | -24.0500 | -0.0011 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 5.0430 | ppm | 0.1219 | 2.42 | 39290.0000 | 5.0430 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0027 | ppm | 0.0002 | 7.32 | 528.8000 | 0.0027 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0073 | ppm | 0.0014 | 18.81 | 34.5400 | 0.0073 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 7.0480 | ppm | 0.2322 | 3.29 | 9867.0000 | 7.0480 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0305 | ppm | 0.0066 | 21.81 | 1357.0000 | 0.0305 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 52.5700 | ppm | 0.7669 | 1.46 | 178800.0000 | 52.5700 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0019 | ppm | 0.0002 | 9.88 | 419.3000 | 0.0019 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0015 | ppm | 0.0003 | 22.56 | 3.0060 | 0.0015 (ppm) | Y 371.029 |
| Na (589.592 nm) | 284.9000 | ppm | 9.7560 | 3.42 | 2157000.0000 | 284.9000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0079 | ppm | 0.0007 | 9.29 | -1.7570 | 0.0079 (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0011 u | ppm | 0.0004 | 35.65 | -5.2730 | -0.0011 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0010 u | ppm | 0.0015 | > 100.00 | 10.4300 | 0.0010 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0068 u | ppm | 0.0026 | 38.25 | 73.1200 | -0.0068 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0004 u | ppm | 0.0053 | > 100.00 | 7.9270 | -0.0004 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.5540 | ppm | 0.1246 | 2.74 | 10290.0000 | 4.5540 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0049 u | ppm | 0.0053 | > 100.00 | -4.2590 | -0.0049 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 3.1950 | ppm | 0.1215 | 3.80 | 861800.0000 | 3.1950 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0004 | ppm | 0.0001 | 23.14 | -137.3000 | 0.0004 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0013 | ppm | 0.0011 | 84.82 | -1.2870 | 0.0013 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0024 | ppm | 0.0001 | 2.89 | 169.9000 | 0.0024 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0001 u | ppm | 0.0008 | > 100.00 | 4.0490 | -0.0001 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0182 | ppm | 0.0003 | 1.58 | 452.7000 | 0.0182 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0000 | 4.06 | 50.8000 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9653 | 584800.0000 | 0.0193 | 2.00 |
| Y_R 371.029 | 1.0120 | 106700.0000 | 0.0219 | 2.17 |

Sample Name: 440-194474-g-4-b ms@5

Date: 10/25/2017 2:44:07 PM Rack:Tube: 1:43

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0471 | ppm | 0.0001 | 0.27 | 2401.0000 | 0.0471 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0880 | ppm | 0.0002 | 0.22 | 2280.0000 | 0.0880 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1153 | ppm | 0.0015 | 1.34 | 58.9200 | 0.1153 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9580 | ppm | 0.0088 | 0.92 | 13530.0000 | 0.9580 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1272 | ppm | 0.0013 | 1.03 | 9954.0000 | 0.1272 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.1022 | ppm | 0.0008 | 0.75 | 23730.0000 | 0.1022 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 123.3000 | ppm | 1.2740 | 1.03 | 408700.0000 | 123.3000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0962 | ppm | 0.0010 | 1.02 | 2683.0000 | 0.0962 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0974 | ppm | 0.0024 | 2.42 | 1607.0000 | 0.0974 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 4.9820 | ppm | 0.0226 | 0.45 | 38820.0000 | 4.9820 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1037 | ppm | 0.0008 | 0.73 | 4867.0000 | 0.1037 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.1107 | ppm | 0.0015 | 1.36 | 608.2000 | 0.1107 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 8.1880 | ppm | 0.1819 | 2.22 | 11300.0000 | 8.1880 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1308 | ppm | 0.0022 | 1.65 | 6784.0000 | 0.1308 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 54.0900 | ppm | 0.6282 | 1.16 | 183900.0000 | 54.0900 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0994 | ppm | 0.0009 | 0.94 | 10160.0000 | 0.0994 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.1024 | ppm | 0.0006 | 0.61 | 526.0000 | 0.1024 (ppm) | Y 371.029 |
| Na (589.592 nm) | 289.2000 | ppm | 3.3900 | 1.17 | 2190000.0000 | 289.2000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1044 | ppm | 0.0008 | 0.78 | 436.0000 | 0.1044 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.1094 | ppm | 0.0015 | 1.36 | 111.5000 | 0.1094 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0970 | ppm | 0.0025 | 2.57 | 209.9000 | 0.0970 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0994 | ppm | 0.0036 | 3.57 | 234.8000 | 0.0994 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0995 | ppm | 0.0008 | 0.82 | 148.2000 | 0.0995 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.9080 | ppm | 0.0358 | 0.73 | 11110.0000 | 4.9080 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.1004 | ppm | 0.0004 | 0.45 | 93.6700 | 0.1004 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 3.3380 | ppm | 0.0641 | 1.92 | 900400.0000 | 3.3380 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.1011 | ppm | 0.0007 | 0.66 | 9761.0000 | 0.1011 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0923 | ppm | 0.0020 | 2.22 | 171.2000 | 0.0923 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1033 | ppm | 0.0006 | 0.55 | 3474.0000 | 0.1033 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.1005 | ppm | 0.0004 | 0.39 | 270.3000 | 0.1005 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.1124 | ppm | 0.0008 | 0.75 | 2865.0000 | 0.1124 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0993 | ppm | 0.0008 | 0.86 | 8760.0000 | 0.0993 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9760 | 591200.0000 | 0.0110 | 1.12 |
| Y_R 371.029 | 0.9829 | 103700.0000 | 0.0148 | 1.50 |

Sample Name: 440-194474-g-4-c msd@5

Date: 10/25/2017 2:46:12 PM Rack:Tube: 1:44

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0475 | ppm | 0.0005 | 1.09 | 2420.0000 | 0.0475 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0918 | ppm | 0.0010 | 1.14 | 2405.0000 | 0.0918 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1174 | ppm | 0.0007 | 0.60 | 60.2600 | 0.1174 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9714 | ppm | 0.0076 | 0.78 | 13710.0000 | 0.9714 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1266 | ppm | 0.0004 | 0.28 | 9906.0000 | 0.1266 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.1042 | ppm | 0.0012 | 1.13 | 24180.0000 | 0.1042 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 122.5000 | ppm | 0.2186 | 0.18 | 406100.0000 | 122.5000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0979 | ppm | 0.0008 | 0.79 | 2732.0000 | 0.0979 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0987 | ppm | 0.0015 | 1.49 | 1629.0000 | 0.0987 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 5.0420 | ppm | 0.0327 | 0.65 | 39280.0000 | 5.0420 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1056 | ppm | 0.0013 | 1.19 | 4952.0000 | 0.1056 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.1112 | ppm | 0.0010 | 0.86 | 611.3000 | 0.1112 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 8.1450 | ppm | 0.0133 | 0.16 | 11240.0000 | 8.1450 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1319 | ppm | 0.0042 | 3.17 | 6833.0000 | 0.1319 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 53.8400 | ppm | 0.1853 | 0.34 | 183100.0000 | 53.8400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1017 | ppm | 0.0012 | 1.22 | 10380.0000 | 0.1017 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.1056 | ppm | 0.0002 | 0.16 | 542.4000 | 0.1056 (ppm) | Y 371.029 |
| Na (589.592 nm) | 288.5000 | ppm | 0.2485 | 0.09 | 2184000.0000 | 288.5000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1071 | ppm | 0.0003 | 0.30 | 448.7000 | 0.1071 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.1070 | ppm | 0.0046 | 4.30 | 108.5000 | 0.1070 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0987 | ppm | 0.0037 | 3.76 | 213.6000 | 0.0987 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.1056 | ppm | 0.0051 | 4.86 | 245.5000 | 0.1056 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.1000 | ppm | 0.0048 | 4.79 | 149.0000 | 0.1000 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.9910 | ppm | 0.0550 | 1.10 | 11300.0000 | 4.9910 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.1026 | ppm | 0.0013 | 1.24 | 95.8000 | 0.1026 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 3.3010 | ppm | 0.0266 | 0.81 | 890400.0000 | 3.3010 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.1045 | ppm | 0.0012 | 1.17 | 10090.0000 | 0.1045 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0930 | ppm | 0.0042 | 4.52 | 172.5000 | 0.0930 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1053 | ppm | 0.0014 | 1.29 | 3540.0000 | 0.1053 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.1049 | ppm | 0.0023 | 2.17 | 282.0000 | 0.1049 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.1154 | ppm | 0.0013 | 1.17 | 2938.0000 | 0.1154 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1030 | ppm | 0.0013 | 1.28 | 9079.0000 | 0.1030 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9560 | 579100.0000 | 0.0088 | 0.92 |
| Y_R 371.029 | 0.9877 | 104200.0000 | 0.0001 | 0.01 |

Sample Name: 440-194472-g-2-a

Date: 10/25/2017 2:48:16 PM Rack:Tube: 1:45

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0040 u | ppm | 0.0000 | 0.15 | -272.3000 | -0.0040 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0819 u | ppm | 0.0042 | 5.17 | -3706.0000 | -0.0819 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0211 | ppm | 0.0002 | 0.78 | -9.6810 | 0.0211 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.1350 | ppm | 0.0357 | 3.15 | 16010.0000 | 1.1350 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0999 | ppm | 0.0015 | 1.52 | 7845.0000 | 0.0999 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | 47.32 | 27.1800 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 336.4000 | ppm | 2.6950 | 0.80 | 1115000.0000 | 336.4000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | -0.1638 | 0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0011 u | ppm | 0.0007 | 59.92 | -27.5800 | -0.0011 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 3.2470 | ppm | 0.1074 | 3.31 | 25300.0000 | 3.2470 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0018 | ppm | 0.0003 | 16.95 | 151.4000 | 0.0018 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0069 u | ppm | 0.0040 | 58.51 | -14.3900 | -0.0069 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 22.5500 | ppm | 0.1207 | 0.54 | 29330.0000 | 22.5500 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1161 | ppm | 0.0023 | 2.01 | 7618.0000 | 0.1161 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 177.2000 | ppm | 1.6560 | 0.93 | 602600.0000 | 177.2000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0012 | ppm | 0.0002 | 20.28 | 833.0000 | 0.0012 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0098 | ppm | 0.0003 | 2.87 | 41.5500 | 0.0098 (ppm) | Y 371.029 |
| Na (589.592 nm) | 460.4000 | ppm | 3.9900 | 0.87 | 3486000.0000 | 460.4000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0205 | ppm | 0.0004 | 1.97 | 0.6555 | 0.0205 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0251 | ppm | 0.0020 | 7.98 | 24.0700 | 0.0251 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0033 u | ppm | 0.0016 | 48.13 | 2.8800 | -0.0033 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0055 | ppm | 0.0019 | 34.06 | 43.5200 | 0.0055 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0006 | ppm | 0.0005 | 80.42 | 10.4200 | 0.0006 (ppm) | Y 371.029 |
| Si (251.611 nm) | 22.1600 | ppm | 0.7921 | 3.57 | 49830.0000 | 22.1600 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0039 u | ppm | 0.0048 | > 100.00 | -2.4780 | -0.0039 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 10.6000 | ppm | 0.0946 | 0.89 | 2859000.0000 | 10.6000 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0003 u | ppm | 0.0003 | > 100.00 | -390.8000 | -0.0003 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0008 u | ppm | 0.0031 | > 100.00 | 0.3378 | 0.0008 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0098 | ppm | 0.0003 | 2.92 | 431.9000 | 0.0098 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0012 | ppm | 0.0015 | > 100.00 | 2.1600 | 0.0012 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0132 u | ppm | 0.0005 | 4.08 | -227.7000 | -0.0132 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0002 u | ppm | 0.0001 | 40.75 | 41.7600 | -0.0002 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9131 | 553100.0000 | 0.0278 | 3.04 |
| Y_R 371.029 | 0.9997 | 105400.0000 | 0.0058 | 0.58 |

Sample Name: 440-194472-g-1-a

Date: 10/25/2017 2:50:21 PM Rack:Tube: 1:46

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0039 u | ppm | 0.0002 | 6.37 | -261.0000 | -0.0039 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0731 u | ppm | 0.0007 | 1.00 | -3375.0000 | -0.0731 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0232 | ppm | 0.0010 | 4.26 | 12.4700 | 0.0232 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.7660 | ppm | 0.0046 | 0.26 | 24880.0000 | 1.7660 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0494 | ppm | 0.0008 | 1.72 | 3914.0000 | 0.0494 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 18.9200 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 308.9000 | ppm | 1.2700 | 0.41 | 1024000.0000 | 308.9000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | 1.9360 | 0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0005 | ppm | 0.0002 | 47.56 | -10.9000 | 0.0005 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.4720 | ppm | 0.0139 | 0.95 | 11480.0000 | 1.4720 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0028 | ppm | 0.0005 | 19.39 | 236.1000 | 0.0028 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0072 u | ppm | 0.0006 | 8.73 | -20.5400 | -0.0072 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 23.7700 | ppm | 0.1345 | 0.57 | 30870.0000 | 23.7700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1559 | ppm | 0.0007 | 0.45 | 9791.0000 | 0.1559 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 154.3000 | ppm | 1.8570 | 1.20 | 524600.0000 | 154.3000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0082 | ppm | 0.0001 | 1.13 | 1446.0000 | 0.0082 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0171 | ppm | 0.0018 | 10.27 | 79.7200 | 0.0171 (ppm) | Y 371.029 |
| Na (589.592 nm) | 440.2000 | ppm | 2.1800 | 0.50 | 3333000.0000 | 440.2000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0201 | ppm | 0.0010 | 4.85 | 5.9380 | 0.0201 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.1278 | ppm | 0.0006 | 0.50 | 140.5000 | 0.1278 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0026 u | ppm | 0.0000 | 0.52 | 4.2500 | -0.0026 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0040 | ppm | 0.0056 | > 100.00 | 11.1600 | 0.0040 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0019 | ppm | 0.0013 | 67.58 | 12.1400 | 0.0019 (ppm) | Y 371.029 |
| Si (251.611 nm) | 28.2400 | ppm | 0.0874 | 0.31 | 63460.0000 | 28.2400 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0061 u | ppm | 0.0011 | 18.90 | -4.7380 | -0.0061 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 8.1110 | ppm | 0.0245 | 0.30 | 2188000.0000 | 8.1110 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0001 u | ppm | 0.0001 | 63.32 | -347.8000 | -0.0001 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0002 u | ppm | 0.0032 | > 100.00 | -3.0770 | -0.0002 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0092 | ppm | 0.0007 | 7.81 | 390.7000 | 0.0092 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0006 | ppm | 0.0004 | 65.38 | 1.3090 | 0.0006 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0116 u | ppm | 0.0004 | 3.62 | -127.1000 | -0.0116 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0001 | 37.56 | 67.4800 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9366 | 567300.0000 | 0.0041 | 0.44 |
| Y_R 371.029 | 0.9618 | 101400.0000 | 0.0067 | 0.70 |

Sample Name: 440-194470-g-1-a

Date: 10/25/2017 2:52:26 PM Rack:Tube: 1:47

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0037 u | ppm | 0.0006 | 15.16 | -290.6000 | -0.0037 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.1422 u | ppm | 0.0035 | 2.43 | -6483.0000 | -0.1422 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0301 | ppm | 0.0023 | 7.61 | 37.7100 | 0.0301 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.1530 | ppm | 0.0218 | 1.89 | 16240.0000 | 1.1530 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0793 | ppm | 0.0010 | 1.32 | 6267.0000 | 0.0793 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 28.3400 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 642.3000 o | ppm | 5.9700 | 0.93 | 2129000.0000 | 642.3000 o (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | -0.0002 u | ppm | 0.0001 | 38.88 | -3.5060 | -0.0002 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0003 | 85.69 | -21.6000 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0023 | ppm | 0.0002 | 10.37 | 31.4100 | 0.0023 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0035 | ppm | 0.0002 | 4.73 | -265.1000 | 0.0035 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0383 | ppm | 0.0003 | 0.73 | 272.8000 | 0.0383 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 29.3700 | ppm | 0.2879 | 0.98 | 37860.0000 | 29.3700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1782 | ppm | 0.0058 | 3.23 | 12680.0000 | 0.1782 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 324.3000 | ppm | 5.1470 | 1.59 | 1103000.0000 | 324.3000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0897 | ppm | 0.0021 | 2.35 | 10170.0000 | 0.0897 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0067 | ppm | 0.0014 | 20.67 | 19.1900 | 0.0067 (ppm) | Y 371.029 |
| Na (589.592 nm) | 682.4000 | ppm | 4.8840 | 0.72 | 5167000.0000 | 682.4000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0388 | ppm | 0.0010 | 2.53 | 5.9780 | 0.0388 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0002 u | ppm | 0.0020 | > 100.00 | -4.6930 | 0.0002 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0030 u | ppm | 0.0002 | 7.35 | 5.5510 | -0.0030 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0195 | ppm | 0.0046 | 23.51 | -15.4100 | 0.0195 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0028 | ppm | 0.0014 | 49.10 | 14.8600 | 0.0028 (ppm) | Y 371.029 |
| Si (251.611 nm) | 25.4900 | ppm | 0.4284 | 1.68 | 57340.0000 | 25.4900 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0370 | ppm | 0.0007 | 1.89 | 36.5100 | 0.0370 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 17.3800 | ppm | 0.1466 | 0.84 | 4689000.0000 | 17.3800 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0000 | 28.00 | -625.0000 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0001 u | ppm | 0.0007 | > 100.00 | 2.9390 | 0.0001 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0054 | ppm | 0.0002 | 2.86 | 313.1000 | 0.0054 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0021 | ppm | 0.0004 | 18.23 | -2.0620 | 0.0021 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0221 u | ppm | 0.0000 | 0.19 | -275.0000 | -0.0221 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0007 u | ppm | 0.0001 | 10.07 | 41.4100 | -0.0007 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9307 | 563800.0000 | 0.0148 | 1.59 |
| Y_R 371.029 | 1.0110 | 106600.0000 | 0.0126 | 1.24 |

Sample Name: CCV 4444438

Date: 10/25/2017 2:54:30 PM
Rack:Tube: S1:4
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5241 | ppm | 0.0023 | 0.43 | 27100.0000 | 0.5241 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0590 | ppm | 0.0044 | 0.41 | 34000.0000 | 1.0590 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0620 | ppm | 0.0069 | 0.65 | 1006.0000 | 1.0620 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0610 | ppm | 0.0060 | 0.56 | 14830.0000 | 1.0610 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0500 | ppm | 0.0118 | 1.13 | 81820.0000 | 1.0500 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0520 | ppm | 0.0039 | 0.37 | 244100.0000 | 1.0520 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.4720 | ppm | 0.0175 | 0.32 | 18240.0000 | 5.4720 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0490 | ppm | 0.0035 | 0.33 | 29300.0000 | 1.0490 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0580 | ppm | 0.0013 | 0.12 | 17490.0000 | 1.0580 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0470 | ppm | 0.0028 | 0.26 | 8156.0000 | 1.0470 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0450 | ppm | 0.0027 | 0.26 | 45510.0000 | 1.0450 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0930 | ppm | 0.0034 | 0.31 | 6049.0000 | 1.0930 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 11.2900 Q | ppm | 0.1137 | 1.01 | 15200.0000 Q | 11.2900 Q (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0180 | ppm | 0.0006 | 0.06 | 54700.0000 | 1.0180 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.4100 | ppm | 0.0752 | 1.39 | 18470.0000 | 5.4100 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0450 | ppm | 0.0047 | 0.45 | 104300.0000 | 1.0450 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0500 | ppm | 0.0042 | 0.40 | 5438.0000 | 1.0500 (ppm) | Y 371.029 |
| Na (589.592 nm) | 13.4000 Q | ppm | 0.0859 | 0.64 | 101500.0000 Q | 13.4000 Q (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0570 | ppm | 0.0023 | 0.21 | 4795.0000 | 1.0570 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0500 | ppm | 0.0077 | 0.73 | 1098.0000 | 1.0500 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0530 | ppm | 0.0026 | 0.25 | 2197.0000 | 1.0530 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0380 | ppm | 0.0062 | 0.60 | 1609.0000 | 1.0380 (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0610 | ppm | 0.0025 | 0.24 | 1499.0000 | 1.0610 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.1920 | ppm | 0.0106 | 0.20 | 11940.0000 | 5.1920 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0560 | ppm | 0.0027 | 0.25 | 982.8000 | 1.0560 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0820 | ppm | 0.0035 | 0.32 | 291500.0000 | 1.0820 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0470 | ppm | 0.0051 | 0.49 | 102900.0000 | 1.0470 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0420 | ppm | 0.0019 | 0.18 | 1976.0000 | 1.0420 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0510 | ppm | 0.0048 | 0.46 | 34450.0000 | 1.0510 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0570 | ppm | 0.0082 | 0.77 | 2807.0000 | 1.0570 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0570 | ppm | 0.0032 | 0.30 | 27120.0000 | 1.0570 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0480 | ppm | 0.0038 | 0.36 | 92210.0000 | 1.0480 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9746 | 590400.0000 | 0.0067 | 0.69 |
| Y_R 371.029 | 0.9645 | 101700.0000 | 0.0072 | 0.75 |

Sample Name: CCB 4444437

Date: 10/25/2017 2:56:35 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0030 u | ppm | 0.0001 | 4.93 | -173.3000 | -0.0030 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0001 u | ppm | 0.0001 | 72.98 | -249.7000 | -0.0001 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0051 | ppm | 0.0037 | 73.06 | 10.3000 | 0.0051 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0045 | ppm | 0.0013 | 28.66 | 115.2000 | 0.0045 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0000 | 9.98 | 51.5800 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0002 | ppm | 0.0001 | 35.23 | 44.5700 | 0.0002 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0246 | ppm | 0.0119 | 48.39 | 181.2000 | 0.0246 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 | ppm | 0.0000 | 56.15 | -0.4989 | 0.0000 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0003 u | ppm | 0.0004 | > 100.00 | -29.9800 | 0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0001 | ppm | 0.0001 | 49.48 | 4.8450 | 0.0001 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0017 | ppm | 0.0006 | 37.03 | 682.4000 | 0.0017 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0024 | ppm | 0.0014 | 59.86 | -3.2840 | 0.0024 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.3248 | ppm | 0.1116 | 34.35 | 1462.0000 | 0.3248 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0480 | ppm | 0.0030 | 6.33 | 2694.0000 | 0.0480 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0130 | ppm | 0.0059 | 45.48 | 129.5000 | 0.0130 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0000 | 26.30 | 53.0700 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0005 | ppm | 0.0004 | 65.32 | -0.1271 | 0.0005 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.9030 Z | ppm | 0.1029 | 5.41 | 14510.0000 Z | 1.9030 Z (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0011 | ppm | 0.0005 | 44.40 | -1.5870 | 0.0011 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0021 | ppm | 0.0028 | > 100.00 | -1.3110 | 0.0021 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0020 | ppm | 0.0008 | 38.76 | 12.0600 | 0.0020 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0008 | ppm | 0.0000 | 3.95 | 2.7820 | 0.0008 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0014 u | ppm | 0.0004 | 24.50 | 6.3690 | -0.0014 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0002 u | ppm | 0.0045 | > 100.00 | 58.2900 | 0.0002 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0026 | ppm | 0.0009 | 34.83 | 2.0520 | 0.0026 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0003 | ppm | 0.0001 | 17.61 | -114.7000 | 0.0003 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0003 | ppm | 0.0000 | 3.62 | -22.8100 | 0.0003 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0001 u | ppm | 0.0006 | > 100.00 | -8.8170 | -0.0001 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0005 | ppm | 0.0002 | 33.64 | 40.1900 | 0.0005 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0014 | ppm | 0.0003 | 23.95 | 10.3300 | 0.0014 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0006 | ppm | 0.0001 | 15.03 | 182.0000 | 0.0006 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 3.57 | 22.5400 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9651 | 584600.0000 | 0.0068 | 0.71 |
| Y_R 371.029 | 1.0110 | 106600.0000 | 0.0391 | 3.86 |

Sample Name: mb 440-437208/1-a@5

Date: 10/25/2017 3:00:18 PM Rack:Tube: 1:48

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0027 u | ppm | 0.0001 | 2.68 | -157.5000 | -0.0027 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0120 | ppm | 0.0001 | 0.98 | 127.3000 | 0.0120 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0042 | ppm | 0.0011 | 26.61 | 9.4790 | 0.0042 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0025 | ppm | 0.0005 | 20.48 | 87.0100 | 0.0025 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0003 | ppm | 0.0001 | 18.16 | 63.2400 | 0.0003 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 1.55 | 0.3694 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0563 | ppm | 0.0050 | 8.92 | 286.5000 | 0.0563 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -1.6080 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -34.3500 | 0.0000 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0013 | ppm | 0.0002 | 13.96 | 14.2500 | 0.0013 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0023 | ppm | 0.0003 | 14.80 | 708.9000 | 0.0023 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0286 | ppm | 0.0021 | 7.28 | 142.5000 | 0.0286 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.2738 | ppm | 0.0683 | 24.94 | 1398.0000 | 0.2738 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0485 | ppm | 0.0030 | 6.24 | 2724.0000 | 0.0485 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0082 | ppm | 0.0007 | 8.51 | 113.3000 | 0.0082 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0004 | ppm | 0.0001 | 16.56 | 82.5300 | 0.0004 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0005 u | ppm | 0.0018 | > 100.00 | -0.4190 | 0.0005 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.5290 | ppm | 0.0006 | 0.04 | 11680.0000 | 1.5290 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | -6.0630 | 0.0001 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0061 | ppm | 0.0022 | 35.16 | 3.2530 | 0.0061 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0000 u | ppm | 0.0004 | > 100.00 | 7.9110 | 0.0000 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0017 u | ppm | 0.0013 | 72.89 | -1.1770 | -0.0017 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0006 u | ppm | 0.0006 | 99.32 | 7.5320 | -0.0006 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0066 | ppm | 0.0034 | 50.65 | 72.3200 | 0.0066 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0013 | ppm | 0.0013 | 96.27 | 0.8550 | 0.0013 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | -168.8000 | 0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0001 | 46.47 | -33.7700 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0020 u | ppm | 0.0020 | 97.61 | -12.5100 | -0.0020 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0001 u | ppm | 0.0004 | > 100.00 | 25.9100 | 0.0001 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0014 | ppm | 0.0006 | 43.89 | 10.4100 | 0.0014 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0029 u | ppm | 0.0001 | 4.26 | 92.1400 | -0.0029 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0001 | 40.55 | 29.4800 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0540 | 638400.0000 | 0.0124 | 1.18 |
| Y_R 371.029 | 1.0490 | 110600.0000 | 0.0094 | 0.89 |

Sample Name: lcs 440-437208/2-a@5

Date: 10/25/2017 3:02:21 PM Rack:Tube: 1:49

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1654 | ppm | 0.0038 | 2.32 | 8474.0000 | 0.1654 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.3408 | ppm | 0.0071 | 2.09 | 10660.0000 | 0.3408 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.3396 | ppm | 0.0004 | 0.13 | 325.3000 | 0.3396 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.3295 | ppm | 0.0061 | 1.84 | 4687.0000 | 0.3295 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.3255 | ppm | 0.0006 | 0.18 | 25390.0000 | 0.3255 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3291 | ppm | 0.0071 | 2.14 | 76380.0000 | 0.3291 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.4949 | ppm | 0.0049 | 0.99 | 1741.0000 | 0.4949 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3329 | ppm | 0.0055 | 1.65 | 9296.0000 | 0.3329 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.3320 | ppm | 0.0077 | 2.32 | 5465.0000 | 0.3320 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.3376 | ppm | 0.0078 | 2.32 | 2631.0000 | 0.3376 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.3467 | ppm | 0.0074 | 2.13 | 15510.0000 | 0.3467 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.3786 | ppm | 0.0049 | 1.30 | 2083.0000 | 0.3786 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 3.4730 | ppm | 0.0223 | 0.64 | 5406.0000 | 3.4730 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2832 | ppm | 0.0012 | 0.44 | 15290.0000 | 0.2832 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.3499 | ppm | 0.0008 | 0.22 | 1273.0000 | 0.3499 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.3419 | ppm | 0.0071 | 2.08 | 34130.0000 | 0.3419 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.3341 | ppm | 0.0069 | 2.06 | 1728.0000 | 0.3341 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.7150 | ppm | 0.0267 | 0.57 | 35800.0000 | 4.7150 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.3410 | ppm | 0.0065 | 1.92 | 1543.0000 | 0.3410 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.3310 | ppm | 0.0053 | 1.60 | 342.6000 | 0.3310 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.3430 | ppm | 0.0098 | 2.84 | 722.1000 | 0.3430 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.3381 | ppm | 0.0074 | 2.18 | 525.3000 | 0.3381 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3163 | ppm | 0.0102 | 3.22 | 449.1000 | 0.3163 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.4873 | ppm | 0.0112 | 2.29 | 1167.0000 | 0.4873 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.3467 | ppm | 0.0075 | 2.16 | 322.0000 | 0.3467 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.3324 | ppm | 0.0044 | 1.32 | 89380.0000 | 0.3324 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.3338 | ppm | 0.0070 | 2.09 | 32730.0000 | 0.3338 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3345 | ppm | 0.0056 | 1.68 | 628.2000 | 0.3345 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3315 | ppm | 0.0072 | 2.16 | 10880.0000 | 0.3315 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0002 u | ppm | 0.0007 | > 100.00 | 16.1900 | 0.0002 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.3342 | ppm | 0.0068 | 2.05 | 8686.0000 | 0.3342 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0007 | ppm | 0.0001 | 7.06 | 65.1400 | 0.0007 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0140 | 614200.0000 | 0.0125 | 1.23 |
| Y_R 371.029 | 1.0250 | 108100.0000 | 0.0079 | 0.77 |

Sample Name: 440-194329-a-1-f@25

Date: 10/25/2017 3:04:26 PM Rack:Tube: 1:50

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0423 | ppm | 0.0000 | 0.05 | 2098.0000 | 0.0423 (ppm) | Y 371.029 |
| Al (396.152 nm) | 31.1900 | ppm | 0.1776 | 0.57 | 968800.0000 | 31.1900 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0214 | ppm | 0.0014 | 6.46 | 15.8900 | 0.0214 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1338 | ppm | 0.0004 | 0.30 | 1469.0000 | 0.1338 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.5190 | ppm | 0.0031 | 0.20 | 118500.0000 | 1.5190 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0010 | ppm | 0.0001 | 9.77 | 9114.0000 | 0.0010 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 11.1900 | ppm | 0.0470 | 0.42 | 37090.0000 | 11.1900 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0082 | ppm | 0.0001 | 0.67 | 318.5000 | 0.0082 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0168 | ppm | 0.0004 | 2.28 | 649.0000 | 0.0168 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.8493 | ppm | 0.0048 | 0.57 | 6635.0000 | 0.8493 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 16.8500 | ppm | 0.0684 | 0.41 | 725500.0000 | 16.8500 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 303.7000 | ppm | 0.8820 | 0.29 | 1686000.0000 | 303.7000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.7707 | ppm | 0.1033 | 13.41 | 1799.0000 | 0.7707 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1544 | ppm | 0.0072 | 4.66 | 1686.0000 | 0.1544 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 1.8070 | ppm | 0.0076 | 0.42 | 6051.0000 | 1.8070 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.4020 | ppm | 0.0151 | 0.44 | 375000.0000 | 3.4020 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.1265 | ppm | 0.0012 | 0.92 | 652.3000 | 0.1265 (ppm) | Y 371.029 |
| Na (589.592 nm) | 2.1460 | ppm | 0.0110 | 0.51 | 16220.0000 | 2.1460 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.2161 | ppm | 0.0002 | 0.12 | 1071.0000 | 0.2161 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.3698 | ppm | 0.0904 | 24.44 | -627.7000 | 0.3698 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 3.6780 | ppm | 0.0112 | 0.31 | 7695.0000 | 3.6780 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0271 | ppm | 0.0034 | 12.66 | 60.3200 | 0.0271 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0059 | ppm | 0.0032 | 54.30 | -82.1800 | 0.0059 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.8448 | ppm | 0.0031 | 0.36 | 2033.0000 | 0.8448 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.3995 | ppm | 0.0032 | 0.81 | 375.0000 | 0.3995 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.2739 | ppm | 0.0002 | 0.08 | 73760.0000 | 0.2739 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.1447 | ppm | 0.0003 | 0.23 | 14170.0000 | 0.1447 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0044 u | ppm | 0.0008 | 19.03 | 1.1710 | -0.0044 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0341 | ppm | 0.0001 | 0.40 | 1504.0000 | 0.0341 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0073 | ppm | 0.0025 | 34.70 | 399.4000 | 0.0073 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 14.0000 | ppm | 0.0440 | 0.31 | 357900.0000 | 14.0000 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0222 | ppm | 0.0002 | 0.78 | 2272.0000 | 0.0222 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0590 | 641300.0000 | 0.0110 | 1.04 |
| Y_R 371.029 | 1.0630 | 112100.0000 | 0.0108 | 1.01 |

Sample Name: 440-194329-a-1-g ms@25

Date: 10/25/2017 3:06:29 PM Rack:Tube: 1:51

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0342 | ppm | 0.0001 | 0.22 | 1706.0000 | 0.0342 (ppm) | Y 371.029 |
| Al (396.152 nm) | 16.4600 | ppm | 0.0322 | 0.20 | 511300.0000 | 16.4600 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0787 | ppm | 0.0025 | 3.22 | 72.6300 | 0.0787 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.2625 | ppm | 0.0000 | 0.01 | 3305.0000 | 0.2625 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0960 | ppm | 0.0022 | 0.20 | 85460.0000 | 1.0960 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0558 | ppm | 0.0008 | 1.47 | 20390.0000 | 0.0558 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 14.2500 | ppm | 0.0249 | 0.17 | 47240.0000 | 14.2500 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0760 | ppm | 0.0004 | 0.54 | 2193.0000 | 0.0760 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0745 | ppm | 0.0006 | 0.79 | 1559.0000 | 0.0745 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.5653 | ppm | 0.0035 | 0.61 | 4424.0000 | 0.5653 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 22.7800 | ppm | 0.3061 | 1.34 | 980200.0000 | 22.7800 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 254.1000 | ppm | 0.3869 | 0.15 | 1410000.0000 | 254.1000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 1.3700 | ppm | 0.0723 | 5.28 | 2489.0000 | 1.3700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2023 | ppm | 0.0011 | 0.53 | 1785.0000 | 0.2023 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 2.0320 | ppm | 0.0003 | 0.02 | 6837.0000 | 2.0320 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.3920 | ppm | 0.0113 | 0.47 | 268800.0000 | 2.3920 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.1866 | ppm | 0.0004 | 0.23 | 958.6000 | 0.1866 (ppm) | Y 371.029 |
| Na (589.592 nm) | 2.7240 | ppm | 0.0012 | 0.04 | 20570.0000 | 2.7240 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.5437 | ppm | 0.0018 | 0.33 | 2542.0000 | 0.5437 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.5584 | ppm | 0.0532 | 9.52 | -779.1000 | 0.5584 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.1870 | ppm | 0.0063 | 0.53 | 2498.0000 | 1.1870 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0582 | ppm | 0.0030 | 5.17 | 105.0000 | 0.0582 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0605 | ppm | 0.0038 | 6.23 | 11.7700 | 0.0605 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.5125 | ppm | 0.0021 | 0.42 | 1395.0000 | 0.5125 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.2144 | ppm | 0.0036 | 1.69 | 205.3000 | 0.2144 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.7590 | ppm | 0.0006 | 0.08 | 204500.0000 | 0.7590 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.2910 | ppm | 0.0007 | 0.25 | 28570.0000 | 0.2910 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0502 | ppm | 0.0001 | 0.12 | 99.9100 | 0.0502 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0722 | ppm | 0.0005 | 0.69 | 2696.0000 | 0.0722 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0279 | ppm | 0.0052 | 18.67 | 774.0000 | 0.0279 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 26.1100 | ppm | 0.0954 | 0.37 | 665700.0000 | 26.1100 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0364 | ppm | 0.0003 | 0.80 | 3480.0000 | 0.0364 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0460 | 633300.0000 | 0.0085 | 0.82 |
| Y_R 371.029 | 1.0440 | 110100.0000 | 0.0016 | 0.16 |

Sample Name: 440-194329-a-1-h msd@25

Date: 10/25/2017 3:08:33 PM Rack:Tube: 1:52

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0966 | ppm | 0.0004 | 0.46 | 4932.0000 | 0.0966 (ppm) | Y 371.029 |
| Al (396.152 nm) | 14.8800 | ppm | 0.0611 | 0.41 | 462500.0000 | 14.8800 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0884 | ppm | 0.0010 | 1.15 | 80.7400 | 0.0884 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.2112 | ppm | 0.0009 | 0.42 | 2492.0000 | 0.2112 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0330 | ppm | 0.0072 | 0.70 | 80600.0000 | 1.0330 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0586 | ppm | 0.0003 | 0.48 | 23500.0000 | 0.0586 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 19.1900 | ppm | 0.1060 | 0.55 | 63610.0000 | 19.1900 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0660 | ppm | 0.0001 | 0.23 | 1942.0000 | 0.0660 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0829 | ppm | 0.0002 | 0.27 | 1826.0000 | 0.0829 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.6871 | ppm | 0.0036 | 0.53 | 5376.0000 | 0.6871 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 25.2200 | ppm | 0.1860 | 0.74 | 1085000.0000 | 25.2200 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 340.3000 | ppm | 1.6910 | 0.50 | 1889000.0000 | 340.3000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 1.3730 | ppm | 0.0425 | 3.09 | 2491.0000 | 1.3730 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1916 | ppm | 0.0033 | 1.71 | 1570.0000 | 0.1916 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 3.0570 | ppm | 0.0194 | 0.63 | 10280.0000 | 3.0570 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 6.9620 | ppm | 0.0299 | 0.43 | 732300.0000 | 6.9620 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.3983 | ppm | 0.0025 | 0.62 | 2057.0000 | 0.3983 (ppm) | Y 371.029 |
| Na (589.592 nm) | 2.3460 | ppm | 0.0141 | 0.60 | 17710.0000 | 2.3460 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.5103 | ppm | 0.0043 | 0.85 | 2416.0000 | 0.5103 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.5104 | ppm | 0.0137 | 2.69 | -992.4000 | 0.5104 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.3440 | ppm | 0.0039 | 0.29 | 2833.0000 | 1.3440 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0501 | ppm | 0.0117 | 23.39 | 86.0400 | 0.0501 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0607 | ppm | 0.0012 | 1.90 | -16.4800 | 0.0607 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.2872 | ppm | 0.0046 | 1.59 | 809.3000 | 0.2872 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.1683 | ppm | 0.0026 | 1.54 | 161.3000 | 0.1683 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5153 | ppm | 0.0029 | 0.57 | 138900.0000 | 0.5153 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.3851 | ppm | 0.0019 | 0.51 | 37790.0000 | 0.3851 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0510 | ppm | 0.0003 | 0.58 | 115.0000 | 0.0510 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0925 | ppm | 0.0008 | 0.83 | 3397.0000 | 0.0925 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0119 | ppm | 0.0004 | 2.99 | 463.7000 | 0.0119 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 15.9700 | ppm | 0.0914 | 0.57 | 409400.0000 | 15.9700 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.2225 | ppm | 0.0009 | 0.41 | 19920.0000 | 0.2225 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0190 | 617000.0000 | 0.0158 | 1.55 |
| Y_R 371.029 | 1.0280 | 108400.0000 | 0.0040 | 0.39 |

Sample Name: 440-194329-a-1-fPDS@25

Date: 10/25/2017 3:10:38 PM Rack:Tube: 1:53

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0752 | ppm | 0.0008 | 1.05 | 3803.0000 | 0.0752 (ppm) | Y 371.029 |
| Al (396.152 nm) | 30.3700 | ppm | 0.3691 | 1.22 | 943500.0000 | 30.3700 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0861 | ppm | 0.0034 | 3.97 | 77.0000 | 0.0861 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1969 | ppm | 0.0025 | 1.26 | 2366.0000 | 0.1969 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.5160 | ppm | 0.0160 | 1.05 | 118200.0000 | 1.5160 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0661 | ppm | 0.0008 | 1.26 | 23880.0000 | 0.0661 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 11.1100 | ppm | 0.1208 | 1.09 | 36830.0000 | 11.1100 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0726 | ppm | 0.0012 | 1.69 | 2113.0000 | 0.0726 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0824 | ppm | 0.0018 | 2.23 | 1719.0000 | 0.0824 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.8940 | ppm | 0.0119 | 1.33 | 6982.0000 | 0.8940 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 16.5700 | ppm | 0.3039 | 1.83 | 713400.0000 | 16.5700 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 291.7000 | ppm | 2.3390 | 0.80 | 1619000.0000 | 291.7000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 1.2710 | ppm | 0.0743 | 5.84 | 2431.0000 | 1.2710 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1591 | ppm | 0.0006 | 0.35 | 1996.0000 | 0.1591 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 2.0520 | ppm | 0.0216 | 1.05 | 6890.0000 | 2.0520 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.4010 | ppm | 0.0513 | 1.51 | 373500.0000 | 3.4010 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.1880 | ppm | 0.0026 | 1.38 | 970.7000 | 0.1880 (ppm) | Y 371.029 |
| Na (589.592 nm) | 2.4110 | ppm | 0.0141 | 0.58 | 18220.0000 | 2.4110 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.2782 | ppm | 0.0051 | 1.83 | 1349.0000 | 0.2782 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.4354 | ppm | 0.0014 | 0.31 | -537.7000 | 0.4354 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 3.6410 | ppm | 0.0478 | 1.31 | 7615.0000 | 3.6410 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0864 | ppm | 0.0006 | 0.73 | 151.6000 | 0.0864 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0715 | ppm | 0.0005 | 0.70 | 13.9800 | 0.0715 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.1340 | ppm | 0.0151 | 1.34 | 2695.0000 | 1.1340 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4537 | ppm | 0.0042 | 0.93 | 425.3000 | 0.4537 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.3267 | ppm | 0.0060 | 1.84 | 87980.0000 | 0.3267 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.2083 | ppm | 0.0024 | 1.14 | 20420.0000 | 0.2083 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0604 | ppm | 0.0003 | 0.53 | 123.9000 | 0.0604 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0989 | ppm | 0.0011 | 1.08 | 3610.0000 | 0.0989 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0727 | ppm | 0.0035 | 4.76 | 563.8000 | 0.0727 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 13.7300 | ppm | 0.1814 | 1.32 | 350900.0000 | 13.7300 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0917 | ppm | 0.0010 | 1.10 | 8374.0000 | 0.0917 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0640 | 644600.0000 | 0.0055 | 0.52 |
| Y_R 371.029 | 1.0890 | 114800.0000 | 0.0025 | 0.23 |

Sample Name: 440-194329-a-1-fSD@125

Date: 10/25/2017 3:12:42 PM Rack:Tube: 1:54

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0065 | ppm | 0.0001 | 1.93 | 299.9000 | 0.0065 (ppm) | Y 371.029 |
| Al (396.152 nm) | 6.1430 | ppm | 0.1465 | 2.38 | 190600.0000 | 6.1430 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0105 | ppm | 0.0006 | 5.74 | 13.3900 | 0.0105 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0291 | ppm | 0.0006 | 2.19 | 360.6000 | 0.0291 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.3199 | ppm | 0.0009 | 0.27 | 24970.0000 | 0.3199 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 1964.0000 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 2.3450 | ppm | 0.0115 | 0.49 | 7852.0000 | 2.3450 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0017 | ppm | 0.0001 | 8.13 | 65.4800 | 0.0017 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0034 | ppm | 0.0002 | 4.64 | 111.3000 | 0.0034 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1763 | ppm | 0.0039 | 2.19 | 1381.0000 | 0.1763 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 3.4280 | ppm | 0.0868 | 2.53 | 148100.0000 | 3.4280 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 66.6400 | ppm | 0.2864 | 0.43 | 369900.0000 | 66.6400 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1917 | ppm | 0.0672 | 35.07 | 1247.0000 | 0.1917 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0705 | ppm | 0.0021 | 2.93 | 2493.0000 | 0.0705 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.3839 | ppm | 0.0030 | 0.78 | 1352.0000 | 0.3839 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.7006 | ppm | 0.0173 | 2.47 | 77770.0000 | 0.7006 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0251 | ppm | 0.0005 | 1.97 | 126.9000 | 0.0251 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.8845 | ppm | 0.0076 | 0.85 | 6768.0000 | 0.8845 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0459 | ppm | 0.0002 | 0.34 | 223.0000 | 0.0459 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0727 | ppm | 0.0029 | 3.92 | -132.8000 | 0.0727 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.7680 | ppm | 0.0178 | 2.32 | 1613.0000 | 0.7680 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0052 | ppm | 0.0008 | 15.64 | 13.0200 | 0.0052 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0003 u | ppm | 0.0008 | > 100.00 | -12.8500 | 0.0003 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.1711 | ppm | 0.0026 | 1.50 | 458.1000 | 0.1711 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0809 | ppm | 0.0018 | 2.28 | 75.7000 | 0.0809 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0576 | ppm | 0.0002 | 0.29 | 15360.0000 | 0.0576 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0298 | ppm | 0.0003 | 1.14 | 2872.0000 | 0.0298 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0008 u | ppm | 0.0025 | > 100.00 | -6.1760 | -0.0008 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0072 | ppm | 0.0001 | 1.48 | 337.9000 | 0.0072 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0011 u | ppm | 0.0020 | > 100.00 | 90.2300 | 0.0011 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 3.0240 | ppm | 0.0686 | 2.27 | 77360.0000 | 3.0240 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0043 | ppm | 0.0000 | 0.21 | 451.1000 | 0.0043 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0640 | 644600.0000 | 0.0220 | 2.07 |
| Y_R 371.029 | 1.0420 | 109900.0000 | 0.0027 | 0.26 |

Sample Name: CCV 4444438

Date: 10/25/2017 3:14:46 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4825 | ppm | 0.0013 | 0.26 | 24950.0000 | 0.4825 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.9678 | ppm | 0.0046 | 0.47 | 31040.0000 | 0.9678 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9677 | ppm | 0.0025 | 0.26 | 917.5000 | 0.9677 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9651 | ppm | 0.0001 | 0.01 | 13490.0000 | 0.9651 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9354 | ppm | 0.0073 | 0.79 | 72890.0000 | 0.9354 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9582 | ppm | 0.0043 | 0.45 | 222300.0000 | 0.9582 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.8260 | ppm | 0.0481 | 1.00 | 16100.0000 | 4.8260 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9590 | ppm | 0.0031 | 0.33 | 26780.0000 | 0.9590 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9648 | ppm | 0.0113 | 1.17 | 15950.0000 | 0.9648 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9513 | ppm | 0.0085 | 0.90 | 7410.0000 | 0.9513 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9540 | ppm | 0.0052 | 0.55 | 41620.0000 | 0.9540 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9889 | ppm | 0.0038 | 0.39 | 5469.0000 | 0.9889 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.7730 | ppm | 0.1265 | 1.29 | 13290.0000 | 9.7730 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9142 | ppm | 0.0064 | 0.70 | 49080.0000 | 0.9142 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.7500 | ppm | 0.0311 | 0.65 | 16220.0000 | 4.7500 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9556 | ppm | 0.0050 | 0.52 | 95340.0000 | 0.9556 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9592 | ppm | 0.0020 | 0.21 | 4966.0000 | 0.9592 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.3000 | ppm | 0.0833 | 0.81 | 78140.0000 | 10.3000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9635 | ppm | 0.0022 | 0.23 | 4370.0000 | 0.9635 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9604 | ppm | 0.0056 | 0.58 | 1004.0000 | 0.9604 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9648 | ppm | 0.0074 | 0.77 | 2014.0000 | 0.9648 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9534 | ppm | 0.0061 | 0.64 | 1477.0000 | 0.9534 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9692 | ppm | 0.0082 | 0.84 | 1370.0000 | 0.9692 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.7360 | ppm | 0.0329 | 0.69 | 10890.0000 | 4.7360 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9657 | ppm | 0.0056 | 0.58 | 898.4000 | 0.9657 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9652 | ppm | 0.0137 | 1.41 | 259900.0000 | 0.9652 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9569 | ppm | 0.0041 | 0.42 | 93990.0000 | 0.9569 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9627 | ppm | 0.0036 | 0.37 | 1825.0000 | 0.9627 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9590 | ppm | 0.0043 | 0.45 | 31440.0000 | 0.9590 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9635 | ppm | 0.0036 | 0.37 | 2560.0000 | 0.9635 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9654 | ppm | 0.0038 | 0.39 | 24790.0000 | 0.9654 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9588 | ppm | 0.0038 | 0.39 | 84350.0000 | 0.9588 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0510 | 636500.0000 | 0.0008 | 0.08 |
| Y_R 371.029 | 1.0670 | 112600.0000 | 0.0033 | 0.31 |

Sample Name: CCB 4444437

Date: 10/25/2017 3:16:51 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0025 u | ppm | 0.0001 | 5.88 | -147.6000 | -0.0025 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0013 | ppm | 0.0002 | 18.03 | -205.1000 | 0.0013 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0055 | ppm | 0.0016 | 28.98 | 10.7000 | 0.0055 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0019 | ppm | 0.0011 | 57.68 | 78.9400 | 0.0019 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0003 | ppm | 0.0000 | 0.69 | 60.0400 | 0.0003 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0002 | ppm | 0.0001 | 38.57 | 45.7900 | 0.0002 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0008 u | ppm | 0.0115 | > 100.00 | 97.2200 | -0.0008 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -0.7538 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0001 u | ppm | 0.0005 | > 100.00 | -32.0800 | 0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0003 | ppm | 0.0001 | 45.90 | 5.8510 | 0.0003 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0006 | ppm | 0.0003 | 44.92 | 635.4000 | 0.0006 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0102 | ppm | 0.0013 | 12.98 | 40.4600 | 0.0102 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0318 | ppm | 0.0230 | 72.40 | 1094.0000 | 0.0318 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0489 | ppm | 0.0037 | 7.57 | 2748.0000 | 0.0489 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0007 u | ppm | 0.0013 | > 100.00 | 87.7100 | 0.0007 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0003 | ppm | 0.0001 | 36.77 | 64.0900 | 0.0003 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0002 u | ppm | 0.0014 | > 100.00 | -1.8180 | 0.0002 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.5720 Z | ppm | 0.0022 | 0.38 | 4431.0000 Z | 0.5720 Z (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0006 | ppm | 0.0001 | 18.55 | -3.9940 | 0.0006 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0032 | ppm | 0.0013 | 39.62 | 0.0399 | 0.0032 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0019 | ppm | 0.0005 | 26.14 | 11.7800 | 0.0019 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0007 u | ppm | 0.0012 | > 100.00 | 0.4188 | -0.0007 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0007 u | ppm | 0.0011 | > 100.00 | 7.3050 | -0.0007 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0037 u | ppm | 0.0010 | 27.99 | 49.1100 | -0.0037 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0002 u | ppm | 0.0023 | > 100.00 | -0.5359 | -0.0002 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -187.0000 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0003 | ppm | 0.0001 | 17.02 | -19.7600 | 0.0003 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0001 | ppm | 0.0001 | 73.79 | -8.2860 | 0.0001 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | 26.3300 | 0.0001 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0011 | ppm | 0.0013 | > 100.00 | 9.5660 | 0.0011 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0004 | ppm | 0.0001 | 31.54 | 175.1000 | 0.0004 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0001 | 33.96 | 27.8600 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0820 | 655700.0000 | 0.0006 | 0.05 |
| Y_R 371.029 | 1.0930 | 115300.0000 | 0.0002 | 0.02 |

Sample Name: mb 440-437309/1-a@5

Date: 10/25/2017 3:22:21 PM Rack:Tube: 1:55

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0026 u | ppm | 0.0001 | 3.53 | -152.8000 | -0.0026 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0145 | ppm | 0.0006 | 3.84 | 205.8000 | 0.0145 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0046 | ppm | 0.0017 | 37.58 | 9.7970 | 0.0046 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0030 | ppm | 0.0002 | 5.81 | 93.3900 | 0.0030 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0003 | ppm | 0.0001 | 39.73 | 58.0900 | 0.0003 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 58.87 | -1.8170 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0601 | ppm | 0.0007 | 1.10 | 298.8000 | 0.0601 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | -0.0001 u | ppm | 0.0000 | 1.54 | -4.1660 | -0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0005 | ppm | 0.0001 | 19.57 | -26.6900 | 0.0005 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0003 | 68.69 | 6.7510 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0023 | ppm | 0.0002 | 8.79 | 709.4000 | 0.0023 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0176 | ppm | 0.0021 | 12.07 | 81.5800 | 0.0176 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0504 | ppm | 0.0059 | 11.74 | 1117.0000 | 0.0504 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0466 | ppm | 0.0015 | 3.23 | 2618.0000 | 0.0466 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0099 | ppm | 0.0012 | 11.98 | 118.7000 | 0.0099 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0004 | ppm | 0.0000 | 5.62 | 77.1000 | 0.0004 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0003 | ppm | 0.0004 | > 100.00 | -1.5100 | 0.0003 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.5698 | ppm | 0.0028 | 0.49 | 4415.0000 | 0.5698 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0002 | ppm | 0.0001 | 94.96 | -5.8580 | 0.0002 (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0028 u | ppm | 0.0061 | > 100.00 | -6.8400 | -0.0028 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0018 | ppm | 0.0004 | 19.78 | 11.6800 | 0.0018 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0027 u | ppm | 0.0060 | > 100.00 | -2.6650 | -0.0027 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0020 u | ppm | 0.0022 | > 100.00 | 5.5940 | -0.0020 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0039 | ppm | 0.0007 | 18.29 | 66.7500 | 0.0039 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0020 | ppm | 0.0005 | 25.65 | 1.5190 | 0.0020 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0007 | ppm | 0.0001 | 16.87 | -9.1150 | 0.0007 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0001 u | ppm | 0.0000 | 8.60 | -58.5300 | -0.0001 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0030 u | ppm | 0.0015 | 51.81 | -14.3500 | -0.0030 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0003 | ppm | 0.0003 | > 100.00 | 31.6300 | 0.0003 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0006 | ppm | 0.0004 | 59.79 | 8.2890 | 0.0006 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0027 u | ppm | 0.0003 | 9.98 | 99.1000 | -0.0027 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 17.73 | 21.4200 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0590 | 641500.0000 | 0.0022 | 0.21 |
| Y_R 371.029 | 1.0590 | 111700.0000 | 0.0166 | 1.57 |

Sample Name: lcs 440-437309/2-a@5

Date: 10/25/2017 3:24:26 PM Rack:Tube: 1:56

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1969 | ppm | 0.0131 | 6.63 | 10090.0000 | 0.1969 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.3953 | ppm | 0.0266 | 6.73 | 12410.0000 | 0.3953 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4042 | ppm | 0.0300 | 7.43 | 386.1000 | 0.4042 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.3866 | ppm | 0.0198 | 5.12 | 5490.0000 | 0.3866 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.3687 | ppm | 0.0155 | 4.22 | 28750.0000 | 0.3687 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3838 | ppm | 0.0252 | 6.56 | 89060.0000 | 0.3838 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.3921 | ppm | 0.0031 | 0.80 | 1401.0000 | 0.3921 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3929 | ppm | 0.0253 | 6.45 | 10970.0000 | 0.3929 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.3950 | ppm | 0.0257 | 6.50 | 6508.0000 | 0.3950 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.3968 | ppm | 0.0243 | 6.13 | 3092.0000 | 0.3968 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4067 | ppm | 0.0258 | 6.35 | 18090.0000 | 0.4067 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.3681 | ppm | 0.0014 | 0.39 | 2025.0000 | 0.3681 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 3.4670 | ppm | 0.0271 | 0.78 | 5396.0000 | 3.4670 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3097 | ppm | 0.0042 | 1.37 | 16670.0000 | 0.3097 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.3833 | ppm | 0.0190 | 4.96 | 1387.0000 | 0.3833 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4038 | ppm | 0.0273 | 6.76 | 40290.0000 | 0.4038 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.3942 | ppm | 0.0235 | 5.96 | 2039.0000 | 0.3942 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.0250 | ppm | 0.0021 | 0.05 | 30570.0000 | 4.0250 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4022 | ppm | 0.0260 | 6.46 | 1821.0000 | 0.4022 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.3918 | ppm | 0.0244 | 6.22 | 406.4000 | 0.3918 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.3985 | ppm | 0.0267 | 6.71 | 837.7000 | 0.3985 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.4022 | ppm | 0.0267 | 6.65 | 624.5000 | 0.4022 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3651 | ppm | 0.0234 | 6.42 | 517.0000 | 0.3651 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.4149 | ppm | 0.0258 | 6.23 | 1007.0000 | 0.4149 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4061 | ppm | 0.0252 | 6.19 | 377.2000 | 0.4061 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.3524 | ppm | 0.0018 | 0.51 | 94760.0000 | 0.3524 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.3939 | ppm | 0.0261 | 6.62 | 38640.0000 | 0.3939 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3946 | ppm | 0.0266 | 6.75 | 742.5000 | 0.3946 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3923 | ppm | 0.0264 | 6.74 | 12870.0000 | 0.3923 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0012 | ppm | 0.0004 | 32.67 | 20.1000 | 0.0012 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.3905 | ppm | 0.0259 | 6.64 | 10120.0000 | 0.3905 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0005 | ppm | 0.0001 | 11.00 | 41.0800 | 0.0005 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0980 | 665400.0000 | 0.0191 | 1.73 |
| Y_R 371.029 | 1.1580 | 122100.0000 | 0.0068 | 0.58 |

Sample Name: 440-194910-a-5-a@5

Date: 10/25/2017 3:26:30 PM Rack:Tube: 1:57

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0038 u | ppm | 0.0002 | 6.20 | -260.6000 | -0.0038 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 95.0400 | ppm | 6.0490 | 6.37 | 2953000.0000 | 95.0400 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0561 | ppm | 0.0031 | 5.56 | 56.6800 | 0.0561 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0726 | ppm | 0.0058 | 7.95 | 908.2000 | 0.0726 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.6953 | ppm | 0.0507 | 7.29 | 54230.0000 | 0.6953 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0050 | ppm | 0.0020 | 40.08 | 4517.0000 | 0.0050 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 45.2800 | ppm | 0.7806 | 1.72 | 150100.0000 | 45.2800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0015 | ppm | 0.0003 | 16.94 | 72.5100 | 0.0015 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0433 | ppm | 0.0037 | 8.56 | 879.8000 | 0.0433 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1229 | ppm | 0.0079 | 6.46 | 965.0000 | 0.1229 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.2016 | ppm | 0.0132 | 6.54 | 9255.0000 | 0.2016 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 115.2000 | ppm | 1.4610 | 1.27 | 639400.0000 | 115.2000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 31.8600 | ppm | 0.7052 | 2.21 | 41030.0000 | 31.8600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0872 | ppm | 0.0003 | 0.38 | 2829.0000 | 0.0872 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 39.4400 | ppm | 2.8350 | 7.19 | 134100.0000 | 39.4400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.3220 | ppm | 0.1517 | 6.53 | 244600.0000 | 2.3220 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0034 | ppm | 0.0005 | 15.93 | 22.9900 | 0.0034 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.0240 | ppm | 0.0545 | 1.80 | 22990.0000 | 3.0240 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1088 | ppm | 0.0073 | 6.69 | 514.8000 | 0.1088 (ppm) | Y 371.029 |
| P (213.618 nm) | 5.5340 | ppm | 0.3452 | 6.24 | 6274.0000 | 5.5340 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.2904 | ppm | 0.0157 | 5.40 | 603.1000 | 0.2904 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0040 | ppm | 0.0052 | > 100.00 | 9.7520 | 0.0040 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0015 | ppm | 0.0017 | > 100.00 | -26.3900 | 0.0015 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.4900 | ppm | 0.1020 | 6.84 | 3448.0000 | 1.4900 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0192 | ppm | 0.0008 | 3.96 | 18.4000 | 0.0192 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.3930 | ppm | 0.0069 | 1.75 | 106200.0000 | 0.3930 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.4510 | ppm | 0.2563 | 5.76 | 437300.0000 | 4.4510 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0070 | ppm | 0.0007 | 9.40 | -120.0000 | 0.0070 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2433 | ppm | 0.0157 | 6.44 | 8341.0000 | 0.2433 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0025 | ppm | 0.0007 | 29.77 | 25.5100 | 0.0025 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4814 | ppm | 0.0298 | 6.19 | 12310.0000 | 0.4814 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0236 | ppm | 0.0021 | 8.80 | 2196.0000 | 0.0236 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0440 | 632400.0000 | 0.0002 | 0.02 |
| Y_R 371.029 | 1.0720 | 113000.0000 | 0.0102 | 0.95 |

Sample Name: 440-194910-a-5-b ms@5

Date: 10/25/2017 3:28:35 PM Rack:Tube: 1:58

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1827 | ppm | 0.0031 | 1.69 | 9316.0000 | 0.1827 (ppm) | Y 371.029 |
| Al (396.152 nm) | 104.4000 | ppm | 1.7680 | 1.69 | 3244000.0000 | 104.4000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4184 | ppm | 0.0086 | 2.05 | 397.7000 | 0.4184 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4395 | ppm | 0.0051 | 1.17 | 6066.0000 | 0.4395 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0140 | ppm | 0.0194 | 1.91 | 79020.0000 | 1.0140 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3703 | ppm | 0.0049 | 1.31 | 89390.0000 | 0.3703 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 44.0900 | ppm | 0.0770 | 0.17 | 146200.0000 | 44.0900 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3569 | ppm | 0.0055 | 1.55 | 10000.0000 | 0.3569 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.3935 | ppm | 0.0065 | 1.64 | 6689.0000 | 0.3935 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4920 | ppm | 0.0083 | 1.69 | 3838.0000 | 0.4920 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.5576 | ppm | 0.0085 | 1.53 | 24560.0000 | 0.5576 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 118.2000 | ppm | 0.1814 | 0.15 | 656100.0000 | 118.2000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 36.5600 | ppm | 0.0119 | 0.03 | 46920.0000 | 36.5600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4624 | ppm | 0.0039 | 0.85 | 23000.0000 | 0.4624 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 37.8900 | ppm | 0.7447 | 1.97 | 128800.0000 | 37.8900 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.5360 | ppm | 0.0452 | 1.78 | 266400.0000 | 2.5360 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.3566 | ppm | 0.0069 | 1.93 | 1853.0000 | 0.3566 (ppm) | Y 371.029 |
| Na (589.592 nm) | 6.5610 | ppm | 0.0054 | 0.08 | 49760.0000 | 6.5610 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4578 | ppm | 0.0086 | 1.89 | 2102.0000 | 0.4578 (ppm) | Y 371.029 |
| P (213.618 nm) | 5.5060 | ppm | 0.0903 | 1.64 | 6210.0000 | 5.5060 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.5803 | ppm | 0.0085 | 1.47 | 1205.0000 | 0.5803 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.2016 | ppm | 0.0022 | 1.11 | 315.3000 | 0.2016 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3471 | ppm | 0.0056 | 1.60 | 453.8000 | 0.3471 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.8290 | ppm | 0.0405 | 2.22 | 4229.0000 | 1.8290 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.3840 | ppm | 0.0064 | 1.68 | 357.6000 | 0.3840 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.7463 | ppm | 0.0013 | 0.17 | 201300.0000 | 0.7463 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 5.2790 | ppm | 0.0942 | 1.78 | 518700.0000 | 5.2790 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3611 | ppm | 0.0045 | 1.24 | 539.5000 | 0.3611 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.6083 | ppm | 0.0103 | 1.69 | 20310.0000 | 0.6083 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0019 | ppm | 0.0003 | 18.07 | 31.9200 | 0.0019 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.7797 | ppm | 0.0120 | 1.54 | 19920.0000 | 0.7797 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0303 | ppm | 0.0006 | 1.99 | 2788.0000 | 0.0303 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0320 | 624900.0000 | 0.0021 | 0.20 |
| Y_R 371.029 | 1.0710 | 113000.0000 | 0.0054 | 0.51 |

Sample Name: 440-194910-a-5-c msd@5

Date: 10/25/2017 3:30:39 PM Rack:Tube: 1:59

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1860 | ppm | 0.0137 | 7.34 | 9485.0000 | 0.1860 (ppm) | Y 371.029 |
| Al (396.152 nm) | 104.2000 | ppm | 7.8250 | 7.51 | 3237000.0000 | 104.2000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4305 | ppm | 0.0329 | 7.65 | 408.9000 | 0.4305 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4410 | ppm | 0.0318 | 7.22 | 6095.0000 | 0.4410 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9708 | ppm | 0.0450 | 4.63 | 75680.0000 | 0.9708 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3776 | ppm | 0.0292 | 7.73 | 90890.0000 | 0.3776 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 44.1200 | ppm | 0.5478 | 1.24 | 146300.0000 | 44.1200 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3627 | ppm | 0.0259 | 7.14 | 10160.0000 | 0.3627 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.3990 | ppm | 0.0316 | 7.92 | 6775.0000 | 0.3990 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.5070 | ppm | 0.0378 | 7.45 | 3955.0000 | 0.5070 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.5551 | ppm | 0.0401 | 7.22 | 24450.0000 | 0.5551 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 111.6000 | ppm | 0.8877 | 0.80 | 619200.0000 | 111.6000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 34.2500 | ppm | 0.3084 | 0.90 | 44020.0000 | 34.2500 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4418 | ppm | 0.0013 | 0.30 | 21820.0000 | 0.4418 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 37.2200 | ppm | 1.8360 | 4.93 | 126500.0000 | 37.2200 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.6200 | ppm | 0.1998 | 7.63 | 273900.0000 | 2.6200 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.3617 | ppm | 0.0247 | 6.82 | 1880.0000 | 0.3617 (ppm) | Y 371.029 |
| Na (589.592 nm) | 6.1960 | ppm | 0.0641 | 1.03 | 47000.0000 | 6.1960 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4665 | ppm | 0.0328 | 7.03 | 2140.0000 | 0.4665 (ppm) | Y 371.029 |
| P (213.618 nm) | 5.4910 | ppm | 0.4035 | 7.35 | 6193.0000 | 5.4910 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.6087 | ppm | 0.0411 | 6.75 | 1263.0000 | 0.6087 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.2041 | ppm | 0.0173 | 8.49 | 319.4000 | 0.2041 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3512 | ppm | 0.0238 | 6.78 | 461.9000 | 0.3512 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.0010 | ppm | 0.1504 | 7.51 | 4618.0000 | 2.0010 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.3898 | ppm | 0.0239 | 6.12 | 362.9000 | 0.3898 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.7050 | ppm | 0.0087 | 1.23 | 190200.0000 | 0.7050 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 5.4180 | ppm | 0.3987 | 7.36 | 532300.0000 | 5.4180 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3661 | ppm | 0.0211 | 5.76 | 545.4000 | 0.3661 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.6115 | ppm | 0.0451 | 7.37 | 20420.0000 | 0.6115 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0017 | ppm | 0.0007 | 38.22 | 32.1300 | 0.0017 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.8061 | ppm | 0.0579 | 7.18 | 20590.0000 | 0.8061 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0302 | ppm | 0.0025 | 8.25 | 2770.0000 | 0.0302 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0510 | 636600.0000 | 0.0299 | 2.85 |
| Y_R 371.029 | 1.1150 | 117600.0000 | 0.0041 | 0.37 |

Sample Name: 440-194910-a-5-aPDS@5

Date: 10/25/2017 3:32:44 PM Rack:Tube: 1:60

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2231 | ppm | 0.0062 | 2.79 | 11480.0000 | 0.2231 (ppm) | Y 371.029 |
| Al (396.152 nm) | 92.7400 | ppm | 2.9150 | 3.14 | 2882000.0000 | 92.7400 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4937 | ppm | 0.0203 | 4.12 | 469.2000 | 0.4937 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.5139 | ppm | 0.0142 | 2.76 | 7046.0000 | 0.5139 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0880 | ppm | 0.0246 | 2.26 | 84820.0000 | 1.0880 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.4469 | ppm | 0.0142 | 3.18 | 107200.0000 | 0.4469 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 49.8400 | ppm | 0.4248 | 0.85 | 165300.0000 | 49.8400 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4310 | ppm | 0.0131 | 3.03 | 12070.0000 | 0.4310 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4776 | ppm | 0.0125 | 2.61 | 8083.0000 | 0.4776 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.5629 | ppm | 0.0182 | 3.24 | 4391.0000 | 0.5629 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.6508 | ppm | 0.0217 | 3.33 | 28570.0000 | 0.6508 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 120.8000 | ppm | 0.7625 | 0.63 | 670500.0000 | 120.8000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 37.7400 | ppm | 0.1924 | 0.51 | 48400.0000 | 37.7400 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.5294 | ppm | 0.0041 | 0.78 | 26580.0000 | 0.5294 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 39.9200 | ppm | 0.9813 | 2.46 | 135700.0000 | 39.9200 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.6830 | ppm | 0.0892 | 3.32 | 281400.0000 | 2.6830 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4501 | ppm | 0.0153 | 3.39 | 2337.0000 | 0.4501 (ppm) | Y 371.029 |
| Na (589.592 nm) | 7.5300 | ppm | 0.0848 | 1.13 | 57110.0000 | 7.5300 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.5342 | ppm | 0.0201 | 3.75 | 2448.0000 | 0.5342 (ppm) | Y 371.029 |
| P (213.618 nm) | 5.7290 | ppm | 0.1738 | 3.03 | 6455.0000 | 5.7290 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.7128 | ppm | 0.0224 | 3.15 | 1482.0000 | 0.7128 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.4609 | ppm | 0.0080 | 1.74 | 716.8000 | 0.4609 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.4157 | ppm | 0.0165 | 3.96 | 554.0000 | 0.4157 (ppm) | Y 371.029 |
| Si (251.611 nm) | 3.5670 | ppm | 0.1309 | 3.67 | 8205.0000 | 3.5670 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4661 | ppm | 0.0141 | 3.03 | 434.2000 | 0.4661 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.8574 | ppm | 0.0081 | 0.94 | 231300.0000 | 0.8574 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.8010 | ppm | 0.1552 | 3.23 | 471700.0000 | 4.8010 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4388 | ppm | 0.0105 | 2.40 | 703.6000 | 0.4388 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.6861 | ppm | 0.0210 | 3.06 | 22850.0000 | 0.6861 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.4512 | ppm | 0.0173 | 3.84 | 1214.0000 | 0.4512 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.8909 | ppm | 0.0278 | 3.12 | 22750.0000 | 0.8909 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.4765 | ppm | 0.0144 | 3.02 | 42040.0000 | 0.4765 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9452 | 572600.0000 | 0.0071 | 0.75 |
| Y_R 371.029 | 0.9825 | 103600.0000 | 0.0000 | 0.00 |

Sample Name: 440-194910-a-5-aSD@25

Date: 10/25/2017 3:34:48 PM Rack:Tube: 2:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0028 u | ppm | 0.0003 | 9.17 | -173.4000 | -0.0028 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 13.6100 | ppm | 0.0398 | 0.29 | 422500.0000 | 13.6100 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0114 | ppm | 0.0040 | 34.85 | 16.0200 | 0.0114 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0135 | ppm | 0.0007 | 5.26 | 214.0000 | 0.0135 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1066 | ppm | 0.0009 | 0.86 | 8343.0000 | 0.1066 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0005 | ppm | 0.0001 | 12.44 | 708.3000 | 0.0005 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 7.5120 | ppm | 0.0307 | 0.41 | 24990.0000 | 7.5120 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 65.79 | 8.1420 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0067 | ppm | 0.0003 | 5.19 | 110.8000 | 0.0067 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0188 | ppm | 0.0001 | 0.54 | 151.3000 | 0.0188 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0298 | ppm | 0.0004 | 1.44 | 1887.0000 | 0.0298 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 19.6000 | ppm | 0.0307 | 0.16 | 108700.0000 | 19.6000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 5.3520 | ppm | 0.0162 | 0.30 | 7770.0000 | 5.3520 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0349 | ppm | 0.0005 | 1.44 | 1656.0000 | 0.0349 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 6.0170 | ppm | 0.0491 | 0.82 | 20530.0000 | 6.0170 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.3502 | ppm | 0.0013 | 0.36 | 37200.0000 | 0.3502 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0001 u | ppm | 0.0005 | > 100.00 | -2.1770 | -0.0001 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.8820 | ppm | 0.0042 | 0.48 | 6776.0000 | 0.8820 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0170 | ppm | 0.0003 | 2.03 | 75.2700 | 0.0170 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.8245 | ppm | 0.0017 | 0.21 | 931.6000 | 0.8245 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0438 | ppm | 0.0012 | 2.75 | 97.8200 | 0.0438 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0020 u | ppm | 0.0052 | > 100.00 | -1.4130 | -0.0020 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0001 u | ppm | 0.0017 | > 100.00 | 1.9500 | -0.0001 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.2158 | ppm | 0.0001 | 0.05 | 548.5000 | 0.2158 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0028 | ppm | 0.0024 | 88.29 | 2.3270 | 0.0028 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0653 | ppm | 0.0000 | 0.01 | 17480.0000 | 0.0653 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.6601 | ppm | 0.0025 | 0.37 | 64810.0000 | 0.6601 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0004 u | ppm | 0.0006 | > 100.00 | -26.2100 | 0.0004 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0363 | ppm | 0.0001 | 0.24 | 1267.0000 | 0.0363 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0000 u | ppm | 0.0003 | > 100.00 | 8.4220 | 0.0000 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0693 | ppm | 0.0004 | 0.61 | 1910.0000 | 0.0693 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0036 | ppm | 0.0001 | 2.03 | 344.3000 | 0.0036 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0290 | 623300.0000 | 0.0130 | 1.26 |
| Y_R 371.029 | 1.0310 | 108700.0000 | 0.0005 | 0.05 |

Sample Name: 440-194910-d-6-a@5

Date: 10/25/2017 3:36:53 PM Rack:Tube: 2:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0045 u | ppm | 0.0001 | 3.14 | -311.1000 | -0.0045 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 109.8000 | ppm | 5.0580 | 4.61 | 3412000.0000 | 109.8000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0797 | ppm | 0.0055 | 6.94 | 78.7300 | 0.0797 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0951 | ppm | 0.0047 | 4.95 | 1177.0000 | 0.0951 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.8002 | ppm | 0.0369 | 4.61 | 62410.0000 | 0.8002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0055 | ppm | 0.0009 | 15.60 | 5681.0000 | 0.0055 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 56.0100 | ppm | 0.5874 | 1.05 | 185700.0000 | 56.0100 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0016 | ppm | 0.0000 | 0.12 | 85.1000 | 0.0016 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0450 | ppm | 0.0032 | 7.11 | 970.2000 | 0.0450 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1566 | ppm | 0.0059 | 3.76 | 1229.0000 | 0.1566 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1727 | ppm | 0.0084 | 4.88 | 8018.0000 | 0.1727 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 149.8000 | ppm | 1.2240 | 0.82 | 831400.0000 | 149.8000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 36.2100 | ppm | 0.4560 | 1.26 | 46490.0000 | 36.2100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1171 | ppm | 0.0050 | 4.28 | 4086.0000 | 0.1171 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 47.1700 | ppm | 2.2250 | 4.72 | 160300.0000 | 47.1700 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.7000 | ppm | 0.1244 | 4.61 | 286400.0000 | 2.7000 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0054 | ppm | 0.0009 | 16.85 | 34.3800 | 0.0054 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.8170 | ppm | 0.0375 | 0.98 | 28980.0000 | 3.8170 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1160 | ppm | 0.0043 | 3.68 | 556.6000 | 0.1160 (ppm) | Y 371.029 |
| P (213.618 nm) | 5.1680 | ppm | 0.2470 | 4.78 | 5859.0000 | 5.1680 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.2088 | ppm | 0.0077 | 3.68 | 432.2000 | 0.2088 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0032 u | ppm | 0.0053 | > 100.00 | 8.8150 | 0.0032 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0006 u | ppm | 0.0010 | > 100.00 | -40.8900 | -0.0006 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.1460 | ppm | 0.0608 | 5.31 | 2681.0000 | 1.1460 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0164 | ppm | 0.0014 | 8.43 | 15.9000 | 0.0164 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.4076 | ppm | 0.0039 | 0.95 | 110200.0000 | 0.4076 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 5.3820 | ppm | 0.2284 | 4.24 | 528800.0000 | 5.3820 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0070 | ppm | 0.0036 | 51.17 | -146.2000 | 0.0070 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2887 | ppm | 0.0133 | 4.60 | 9913.0000 | 0.2887 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0004 u | ppm | 0.0008 | > 100.00 | 17.6900 | -0.0004 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4772 | ppm | 0.0198 | 4.16 | 12160.0000 | 0.4772 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0298 | ppm | 0.0017 | 5.75 | 2782.0000 | 0.0298 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9909 | 600200.0000 | 0.0037 | 0.37 |
| Y_R 371.029 | 1.0060 | 106100.0000 | 0.0002 | 0.02 |

Sample Name: 440-194910-d-7-a@5

Date: 10/25/2017 3:38:57 PM Rack:Tube: 2:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0039 u | ppm | 0.0002 | 4.35 | -263.6000 | -0.0039 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 88.4500 | ppm | 2.6070 | 2.95 | 2748000.0000 | 88.4500 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0738 | ppm | 0.0025 | 3.32 | 73.7200 | 0.0738 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0741 | ppm | 0.0020 | 2.70 | 934.8000 | 0.0741 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.7131 | ppm | 0.0166 | 2.32 | 55620.0000 | 0.7131 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0033 | ppm | 0.0002 | 5.30 | 4052.0000 | 0.0033 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 34.9100 | ppm | 0.1647 | 0.47 | 115800.0000 | 34.9100 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0010 | ppm | 0.0003 | 32.30 | 56.6100 | 0.0010 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0378 | ppm | 0.0017 | 4.61 | 788.8000 | 0.0378 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1144 | ppm | 0.0031 | 2.67 | 898.9000 | 0.1144 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1267 | ppm | 0.0037 | 2.92 | 6050.0000 | 0.1267 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 111.6000 | ppm | 0.0911 | 0.08 | 619400.0000 | 111.6000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 30.5300 | ppm | 0.0009 | 0.00 | 39360.0000 | 30.5300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0913 | ppm | 0.0009 | 1.04 | 3222.0000 | 0.0913 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 36.9400 | ppm | 0.8446 | 2.29 | 125600.0000 | 36.9400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.9770 | ppm | 0.0636 | 3.22 | 210000.0000 | 1.9770 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0041 | ppm | 0.0015 | 37.17 | 25.9000 | 0.0041 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.1290 | ppm | 0.0084 | 0.27 | 23780.0000 | 3.1290 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0951 | ppm | 0.0021 | 2.25 | 454.3000 | 0.0951 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.1010 | ppm | 0.1393 | 3.40 | 4650.0000 | 4.1010 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.1656 | ppm | 0.0035 | 2.11 | 343.6000 | 0.1656 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0018 u | ppm | 0.0093 | > 100.00 | 6.6670 | 0.0018 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0020 | ppm | 0.0016 | 79.16 | -24.8800 | 0.0020 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.8603 | ppm | 0.0428 | 4.97 | 2031.0000 | 0.8603 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0103 | ppm | 0.0012 | 11.36 | 10.0400 | 0.0103 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.3373 | ppm | 0.0011 | 0.34 | 91050.0000 | 0.3373 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.3670 | ppm | 0.1059 | 2.42 | 429000.0000 | 4.3670 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0054 | ppm | 0.0033 | 61.69 | -121.2000 | 0.0054 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2210 | ppm | 0.0070 | 3.18 | 7596.0000 | 0.2210 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0017 u | ppm | 0.0042 | > 100.00 | 21.0700 | 0.0017 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.3796 | ppm | 0.0110 | 2.90 | 9713.0000 | 0.3796 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0235 | ppm | 0.0011 | 4.73 | 2183.0000 | 0.0235 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0770 | 652100.0000 | 0.0042 | 0.39 |
| Y_R 371.029 | 1.0970 | 115700.0000 | 0.0029 | 0.26 |

Sample Name: 440-194851-a-1-d@5

Date: 10/25/2017 3:41:01 PM Rack:Tube: 2:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0033 u | ppm | 0.0002 | 5.32 | -211.1000 | -0.0033 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 24.2200 | ppm | 0.3917 | 1.62 | 752400.0000 | 24.2200 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0304 | ppm | 0.0042 | 13.68 | 32.9000 | 0.0304 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0077 | ppm | 0.0002 | 2.80 | 79.7900 | 0.0077 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.2393 | ppm | 0.0087 | 3.62 | 18690.0000 | 0.2393 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0015 | ppm | 0.0003 | 19.05 | 2061.0000 | 0.0015 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 10.7300 | ppm | 0.0425 | 0.40 | 35650.0000 | 10.7300 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0009 | ppm | 0.0001 | 13.07 | 41.4600 | 0.0009 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0108 | ppm | 0.0001 | 0.59 | 244.9000 | 0.0108 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1232 | ppm | 0.0025 | 2.04 | 964.9000 | 0.1232 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0310 | ppm | 0.0001 | 0.41 | 1955.0000 | 0.0310 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 58.1000 | ppm | 0.2998 | 0.52 | 322500.0000 | 58.1000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 4.0490 | ppm | 0.0328 | 0.81 | 6120.0000 | 4.0490 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0273 | ppm | 0.0032 | 11.79 | 876.2000 | 0.0273 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 11.4800 | ppm | 0.4106 | 3.58 | 39070.0000 | 11.4800 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4024 | ppm | 0.0064 | 1.60 | 47240.0000 | 0.4024 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0455 | ppm | 0.0003 | 0.71 | 235.0000 | 0.0455 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.2250 | ppm | 0.0085 | 0.69 | 9367.0000 | 1.2250 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0536 | ppm | 0.0005 | 0.95 | 254.0000 | 0.0536 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.9540 | ppm | 0.0293 | 1.50 | 2214.0000 | 1.9540 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0128 | ppm | 0.0013 | 10.13 | 33.4100 | 0.0128 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0033 u | ppm | 0.0033 | 99.72 | -2.5510 | -0.0033 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0378 | ppm | 0.0025 | 6.59 | 41.8400 | 0.0378 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.9013 | ppm | 0.0128 | 1.42 | 2091.0000 | 0.9013 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0034 | ppm | 0.0028 | 81.90 | 3.1770 | 0.0034 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1365 | ppm | 0.0003 | 0.19 | 36690.0000 | 0.1365 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.3950 | ppm | 0.0194 | 1.39 | 137100.0000 | 1.3950 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0018 u | ppm | 0.0015 | 84.55 | -57.9900 | -0.0018 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2008 | ppm | 0.0031 | 1.56 | 6757.0000 | 0.2008 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0007 | ppm | 0.0004 | 53.09 | 10.8700 | 0.0007 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0876 | ppm | 0.0016 | 1.88 | 2335.0000 | 0.0876 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0126 | ppm | 0.0002 | 1.63 | 1173.0000 | 0.0126 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0860 | 657900.0000 | 0.0180 | 1.66 |
| Y_R 371.029 | 1.0920 | 115200.0000 | 0.0053 | 0.48 |

Sample Name: CCV 4444438

Date: 10/25/2017 3:43:06 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4956 | ppm | 0.0122 | 2.46 | 25630.0000 | 0.4956 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0080 | ppm | 0.0299 | 2.97 | 32350.0000 | 1.0080 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9970 | ppm | 0.0256 | 2.57 | 945.1000 | 0.9970 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9905 | ppm | 0.0209 | 2.11 | 13850.0000 | 0.9905 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9720 | ppm | 0.0004 | 0.04 | 75750.0000 | 0.9720 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9868 | ppm | 0.0268 | 2.72 | 229000.0000 | 0.9868 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.0260 | ppm | 0.0189 | 0.38 | 16760.0000 | 5.0260 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9894 | ppm | 0.0270 | 2.73 | 27630.0000 | 0.9894 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9910 | ppm | 0.0240 | 2.42 | 16380.0000 | 0.9910 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9822 | ppm | 0.0265 | 2.70 | 7651.0000 | 0.9822 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9845 | ppm | 0.0270 | 2.74 | 42920.0000 | 0.9845 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0250 | ppm | 0.0006 | 0.06 | 5671.0000 | 1.0250 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.1700 | ppm | 0.0112 | 0.11 | 13790.0000 | 10.1700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9527 | ppm | 0.0013 | 0.14 | 51160.0000 | 0.9527 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.9470 | ppm | 0.0106 | 0.21 | 16900.0000 | 4.9470 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9871 | ppm | 0.0268 | 2.71 | 98480.0000 | 0.9871 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9905 | ppm | 0.0271 | 2.73 | 5129.0000 | 0.9905 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.5000 | ppm | 0.0169 | 0.16 | 79630.0000 | 10.5000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9928 | ppm | 0.0269 | 2.71 | 4503.0000 | 0.9928 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9822 | ppm | 0.0234 | 2.38 | 1026.0000 | 0.9822 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9910 | ppm | 0.0289 | 2.91 | 2069.0000 | 0.9910 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9788 | ppm | 0.0201 | 2.05 | 1517.0000 | 0.9788 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9922 | ppm | 0.0233 | 2.34 | 1402.0000 | 0.9922 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.8810 | ppm | 0.1378 | 2.82 | 11230.0000 | 4.8810 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9940 | ppm | 0.0286 | 2.88 | 924.7000 | 0.9940 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0170 | ppm | 0.0046 | 0.45 | 273800.0000 | 1.0170 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9910 | ppm | 0.0269 | 2.72 | 97340.0000 | 0.9910 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9891 | ppm | 0.0223 | 2.25 | 1875.0000 | 0.9891 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9913 | ppm | 0.0282 | 2.85 | 32500.0000 | 0.9913 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9927 | ppm | 0.0254 | 2.56 | 2637.0000 | 0.9927 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9950 | ppm | 0.0289 | 2.91 | 25540.0000 | 0.9950 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9921 | ppm | 0.0260 | 2.62 | 87280.0000 | 0.9921 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0320 | 625200.0000 | 0.0228 | 2.21 |
| Y_R 371.029 | 1.0400 | 109700.0000 | 0.0048 | 0.46 |

Sample Name: CCB 4444437

Date: 10/25/2017 3:45:09 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0024 u | ppm | 0.0004 | 15.13 | -143.0000 | -0.0024 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0021 | ppm | 0.0009 | 44.26 | -178.1000 | 0.0021 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0048 | ppm | 0.0009 | 18.48 | 10.0000 | 0.0048 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0011 | ppm | 0.0014 | > 100.00 | 67.5600 | 0.0011 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0000 | 17.24 | 56.6000 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0000 | 20.60 | 30.7100 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0072 | ppm | 0.0071 | 98.39 | 123.6000 | 0.0072 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | -0.0880 | 0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0006 | ppm | 0.0004 | 70.85 | -24.8700 | 0.0006 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0003 | 80.76 | 6.9870 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0003 | ppm | 0.0001 | 22.23 | 622.0000 | 0.0003 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0040 | ppm | 0.0006 | 14.92 | 6.1030 | 0.0040 (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.0243 u | ppm | 0.0380 | > 100.00 | 1023.0000 | -0.0243 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0469 | ppm | 0.0016 | 3.34 | 2639.0000 | 0.0469 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0000 u | ppm | 0.0003 | > 100.00 | 85.1900 | 0.0000 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0000 | 7.15 | 56.7200 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0008 u | ppm | 0.0009 | > 100.00 | -6.9520 | -0.0008 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.4004 | ppm | 0.0096 | 2.39 | 3132.0000 | 0.4004 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0004 | ppm | 0.0002 | 54.76 | -4.5290 | 0.0004 (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0024 u | ppm | 0.0033 | > 100.00 | -6.3140 | -0.0024 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0007 u | ppm | 0.0021 | > 100.00 | 9.2540 | 0.0007 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0006 u | ppm | 0.0010 | > 100.00 | 2.3530 | 0.0006 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0036 u | ppm | 0.0026 | 72.76 | 3.2860 | -0.0036 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0006 u | ppm | 0.0020 | > 100.00 | 56.1500 | -0.0006 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0003 u | ppm | 0.0005 | > 100.00 | -0.6763 | -0.0003 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -209.4000 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0003 | ppm | 0.0001 | 22.80 | -27.2100 | 0.0003 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0010 | ppm | 0.0013 | > 100.00 | -6.4650 | 0.0010 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0004 | ppm | 0.0000 | 10.37 | 37.1800 | 0.0004 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0019 | ppm | 0.0007 | 36.42 | 11.4200 | 0.0019 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0054 u | ppm | 0.0001 | 1.38 | 28.9200 | -0.0054 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0001 | 80.89 | 16.2100 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0500 | 636200.0000 | 0.0052 | 0.50 |
| Y_R 371.029 | 1.0500 | 110800.0000 | 0.0018 | 0.17 |

Sample Name: 440-194851-a-2-b@5

Date: 10/25/2017 3:50:49 PM Rack:Tube: 2:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0041 u | ppm | 0.0003 | 7.33 | -265.8000 | -0.0041 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 72.5500 | ppm | 2.8370 | 3.91 | 2254000.0000 | 72.5500 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0220 | ppm | 0.0001 | 0.52 | 23.2200 | 0.0220 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0128 | ppm | 0.0022 | 17.25 | 81.7600 | 0.0128 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.6371 | ppm | 0.0290 | 4.55 | 49690.0000 | 0.6371 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0030 | ppm | 0.0007 | 25.04 | 3910.0000 | 0.0030 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 11.5600 | ppm | 0.1052 | 0.91 | 38400.0000 | 11.5600 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0012 | ppm | 0.0002 | 18.47 | 62.6200 | 0.0012 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0429 | ppm | 0.0020 | 4.65 | 831.2000 | 0.0429 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2490 | ppm | 0.0098 | 3.95 | 1946.0000 | 0.2490 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0642 | ppm | 0.0022 | 3.49 | 3415.0000 | 0.0642 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 108.8000 | ppm | 1.2210 | 1.12 | 604000.0000 | 108.8000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 6.2200 | ppm | 0.1277 | 2.05 | 8825.0000 | 6.2200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0301 | ppm | 0.0012 | 3.86 | 278.2000 | 0.0301 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 21.6700 | ppm | 0.9999 | 4.61 | 73680.0000 | 21.6700 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9894 | ppm | 0.0457 | 4.62 | 111800.0000 | 0.9894 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0016 | ppm | 0.0001 | 8.87 | 12.2200 | 0.0016 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.2040 | ppm | 0.0163 | 0.39 | 31910.0000 | 4.2040 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1460 | ppm | 0.0052 | 3.59 | 691.1000 | 0.1460 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.7640 | ppm | 0.0772 | 4.37 | 1997.0000 | 1.7640 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0204 | ppm | 0.0003 | 1.23 | 44.0700 | 0.0204 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0013 u | ppm | 0.0019 | > 100.00 | 5.2360 | -0.0013 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0005 | ppm | 0.0006 | > 100.00 | -27.0200 | 0.0005 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.8478 | ppm | 0.0317 | 3.74 | 1981.0000 | 0.8478 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0026 | ppm | 0.0026 | > 100.00 | 2.5770 | 0.0026 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1359 | ppm | 0.0012 | 0.86 | 36560.0000 | 0.1359 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 2.7050 | ppm | 0.1072 | 3.96 | 265700.0000 | 2.7050 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0008 | ppm | 0.0004 | 55.15 | -88.3300 | 0.0008 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2518 | ppm | 0.0101 | 4.02 | 8558.0000 | 0.2518 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0018 | ppm | 0.0005 | 25.81 | 16.4800 | 0.0018 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.1814 | ppm | 0.0073 | 4.04 | 4669.0000 | 0.1814 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0268 | ppm | 0.0022 | 8.39 | 2467.0000 | 0.0268 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0040 | 608000.0000 | 0.0094 | 0.94 |
| Y_R 371.029 | 0.9957 | 105000.0000 | 0.0033 | 0.33 |

Sample Name: 440-194851-a-3-b@5

Date: 10/25/2017 3:52:53 PM Rack:Tube: 2:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0050 u | ppm | 0.0003 | 5.91 | -335.3000 | -0.0050 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 121.1000 | ppm | 1.6020 | 1.32 | 3762000.0000 | 121.1000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0449 | ppm | 0.0028 | 6.17 | 45.3600 | 0.0449 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0199 | ppm | 0.0019 | 9.71 | 62.4700 | 0.0199 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.7080 | ppm | 0.0165 | 2.32 | 55230.0000 | 0.7080 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0054 | ppm | 0.0008 | 14.13 | 6860.0000 | 0.0054 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 27.8800 | ppm | 0.8948 | 3.21 | 92460.0000 | 27.8800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0181 | ppm | 0.0003 | 1.79 | 559.2000 | 0.0181 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0679 | ppm | 0.0013 | 1.93 | 1374.0000 | 0.0679 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1970 | ppm | 0.0024 | 1.19 | 1543.0000 | 0.1970 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1450 | ppm | 0.0019 | 1.29 | 6909.0000 | 0.1450 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 190.7000 | ppm | 2.4460 | 1.28 | 1058000.0000 | 190.7000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 19.6100 | ppm | 0.2583 | 1.32 | 25630.0000 | 19.6100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1058 | ppm | 0.0073 | 6.87 | 3687.0000 | 0.1058 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 58.8200 | ppm | 1.3970 | 2.37 | 199900.0000 | 58.8200 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.6850 | ppm | 0.0398 | 1.48 | 290200.0000 | 2.6850 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0221 | ppm | 0.0008 | 3.73 | 122.3000 | 0.0221 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.9430 | ppm | 0.0268 | 1.38 | 14780.0000 | 1.9430 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1745 | ppm | 0.0035 | 2.00 | 843.7000 | 0.1745 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.3330 | ppm | 0.0421 | 1.26 | 3774.0000 | 3.3330 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0383 | ppm | 0.0004 | 1.06 | 78.1400 | 0.0383 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0006 u | ppm | 0.0011 | > 100.00 | 6.7450 | 0.0006 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0051 | ppm | 0.0020 | 40.32 | -46.8400 | 0.0051 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.0710 | ppm | 0.0096 | 0.90 | 2504.0000 | 1.0710 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0100 | ppm | 0.0023 | 22.96 | 10.0800 | 0.0100 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1925 | ppm | 0.0024 | 1.25 | 51970.0000 | 0.1925 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.8620 | ppm | 0.0709 | 1.46 | 477700.0000 | 4.8620 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0055 | ppm | 0.0001 | 1.43 | -141.6000 | 0.0055 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4626 | ppm | 0.0066 | 1.42 | 15680.0000 | 0.4626 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0005 u | ppm | 0.0020 | > 100.00 | 16.6000 | -0.0005 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4168 | ppm | 0.0062 | 1.48 | 10580.0000 | 0.4168 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0503 | ppm | 0.0003 | 0.52 | 4619.0000 | 0.0503 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0210 | 618800.0000 | 0.0326 | 3.19 |
| Y_R 371.029 | 1.0190 | 107500.0000 | 0.0050 | 0.49 |

Sample Name: 440-194851-a-4-b@5

Date: 10/25/2017 3:54:57 PM Rack:Tube: 2:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0040 u | ppm | 0.0003 | 6.59 | -265.2000 | -0.0040 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 63.8600 | ppm | 1.7100 | 2.68 | 1984000.0000 | 63.8600 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0259 | ppm | 0.0015 | 5.95 | 28.6900 | 0.0259 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0131 | ppm | 0.0006 | 4.37 | 105.5000 | 0.0131 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9637 | ppm | 0.0266 | 2.76 | 75130.0000 | 0.9637 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0015 | ppm | 0.0004 | 23.56 | 3103.0000 | 0.0015 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 8.0800 | ppm | 0.0259 | 0.32 | 26860.0000 | 8.0800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0003 | ppm | 0.0001 | 15.91 | 33.6200 | 0.0003 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0218 | ppm | 0.0008 | 3.73 | 484.9000 | 0.0218 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0854 | ppm | 0.0029 | 3.34 | 671.5000 | 0.0854 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0626 | ppm | 0.0027 | 4.30 | 3334.0000 | 0.0626 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 92.3700 | ppm | 0.3754 | 0.41 | 512700.0000 | 92.3700 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 14.7300 | ppm | 0.0077 | 0.05 | 19530.0000 | 14.7300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0248 | ppm | 0.0010 | 4.19 | 155.2000 | 0.0248 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 23.4500 | ppm | 0.6498 | 2.77 | 79730.0000 | 23.4500 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.6631 | ppm | 0.0238 | 3.58 | 77470.0000 | 0.6631 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0293 | ppm | 0.0004 | 1.54 | 154.5000 | 0.0293 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.5440 | ppm | 0.0079 | 0.22 | 26910.0000 | 3.5440 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0402 | ppm | 0.0011 | 2.74 | 205.8000 | 0.0402 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.5830 | ppm | 0.0307 | 1.94 | 1791.0000 | 1.5830 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0219 | ppm | 0.0007 | 3.30 | 47.0700 | 0.0219 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0006 u | ppm | 0.0053 | > 100.00 | 2.7840 | -0.0006 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0030 | ppm | 0.0017 | 55.91 | -18.2400 | 0.0030 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.8950 | ppm | 0.0465 | 2.45 | 4337.0000 | 1.8950 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0078 | ppm | 0.0030 | 39.04 | 7.4030 | 0.0078 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.7548 | ppm | 0.0033 | 0.44 | 203300.0000 | 0.7548 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 3.0980 | ppm | 0.0814 | 2.63 | 304400.0000 | 3.0980 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0031 | ppm | 0.0024 | 77.69 | -94.0500 | 0.0031 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1981 | ppm | 0.0055 | 2.77 | 6766.0000 | 0.1981 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0039 | ppm | 0.0020 | 50.73 | 22.3200 | 0.0039 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.1928 | ppm | 0.0053 | 2.76 | 4979.0000 | 0.1928 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0100 | ppm | 0.0003 | 3.03 | 975.6000 | 0.0100 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9940 | 602200.0000 | 0.0645 | 6.48 |
| Y_R 371.029 | 0.9214 | 97180.0000 | 0.0097 | 1.05 |

Sample Name: 440-194825-e-2-b@5

Date: 10/25/2017 3:57:01 PM Rack:Tube: 2:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0057 u | ppm | 0.0000 | 0.55 | -344.3000 | -0.0057 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 96.1000 | ppm | 4.1530 | 4.32 | 2985000.0000 | 96.1000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0884 | ppm | 0.0022 | 2.49 | 87.9300 | 0.0884 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0862 | ppm | 0.0015 | 1.77 | 1135.0000 | 0.0862 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.5607 | ppm | 0.0316 | 5.64 | 43760.0000 | 0.5607 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0067 | ppm | 0.0007 | 9.69 | 4137.0000 | 0.0067 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 279.2000 | ppm | 5.9390 | 2.13 | 925400.0000 | 279.2000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0004 | ppm | 0.0000 | 7.37 | 34.7000 | 0.0004 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0335 | ppm | 0.0015 | 4.46 | 690.5000 | 0.0335 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1834 | ppm | 0.0071 | 3.86 | 1440.0000 | 0.1834 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0821 | ppm | 0.0029 | 3.59 | 3720.0000 | 0.0821 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 86.6900 | ppm | 1.8970 | 2.19 | 481200.0000 | 86.6900 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 19.6400 | ppm | 0.3820 | 1.95 | 25640.0000 | 19.6400 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2599 | ppm | 0.0024 | 0.94 | 13590.0000 | 0.2599 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 154.0000 | ppm | 8.5230 | 5.53 | 523500.0000 | 154.0000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.3310 | ppm | 0.0597 | 4.49 | 143400.0000 | 1.3310 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0017 | ppm | 0.0000 | 1.23 | 9.6900 | 0.0017 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.2400 | ppm | 0.0941 | 2.22 | 32270.0000 | 4.2400 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1076 | ppm | 0.0049 | 4.60 | 440.5000 | 0.1076 (ppm) | Y 371.029 |
| P (213.618 nm) | 5.0700 | ppm | 0.2005 | 3.95 | 5753.0000 | 5.0700 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0559 | ppm | 0.0011 | 1.96 | 112.5000 | 0.0559 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0024 u | ppm | 0.0062 | > 100.00 | -8.7820 | 0.0024 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0007 u | ppm | 0.0001 | 7.63 | -20.1800 | -0.0007 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.8577 | ppm | 0.0411 | 4.79 | 2067.0000 | 0.8577 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0062 | ppm | 0.0038 | 60.87 | 7.2280 | 0.0062 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.3290 | ppm | 0.0308 | 2.31 | 360400.0000 | 1.3290 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.6840 | ppm | 0.1958 | 4.18 | 460000.0000 | 4.6840 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0071 | ppm | 0.0033 | 46.13 | -130.6000 | 0.0071 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3373 | ppm | 0.0143 | 4.24 | 11460.0000 | 0.3373 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0018 | ppm | 0.0022 | > 100.00 | 11.2300 | 0.0018 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2025 | ppm | 0.0078 | 3.84 | 5289.0000 | 0.2025 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.2271 | ppm | 0.0099 | 4.37 | 20120.0000 | 0.2271 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0340 | 626200.0000 | 0.0012 | 0.12 |
| Y_R 371.029 | 1.0660 | 112400.0000 | 0.0155 | 1.46 |

Sample Name: 440-194825-e-3-b@5

Date: 10/25/2017 3:59:06 PM Rack:Tube: 2:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0050 u | ppm | 0.0000 | 0.06 | -290.3000 | -0.0050 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 108.5000 | ppm | 3.4450 | 3.18 | 3370000.0000 | 108.5000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1207 | ppm | 0.0142 | 11.72 | 117.1000 | 0.1207 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1393 | ppm | 0.0030 | 2.18 | 1868.0000 | 0.1393 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 2.8060 | ppm | 0.0933 | 3.33 | 218700.0000 | 2.8060 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0059 | ppm | 0.0005 | 8.88 | 4168.0000 | 0.0059 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 62.1100 | ppm | 0.4659 | 0.75 | 205900.0000 | 62.1100 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0000 | 0.00 | 28.4100 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0313 | ppm | 0.0008 | 2.65 | 639.3000 | 0.0313 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2784 | ppm | 0.0057 | 2.03 | 2179.0000 | 0.2784 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0984 | ppm | 0.0029 | 2.99 | 4801.0000 | 0.0984 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 94.7800 | ppm | 0.7010 | 0.74 | 526100.0000 | 94.7800 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 24.6300 | ppm | 0.0975 | 0.40 | 32040.0000 | 24.6300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2887 | ppm | 0.0041 | 1.42 | 17870.0000 | 0.2887 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 234.5000 | ppm | 7.7980 | 3.33 | 797000.0000 | 234.5000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.8090 | ppm | 0.0564 | 3.12 | 192000.0000 | 1.8090 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0022 | ppm | 0.0003 | 14.08 | 14.5600 | 0.0022 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.5110 | ppm | 0.0340 | 0.75 | 34280.0000 | 4.5110 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0939 | ppm | 0.0033 | 3.54 | 439.5000 | 0.0939 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.3080 | ppm | 0.0860 | 2.00 | 4887.0000 | 4.3080 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0487 | ppm | 0.0001 | 0.14 | 97.2000 | 0.0487 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0008 u | ppm | 0.0060 | > 100.00 | 1.5300 | -0.0008 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0041 u | ppm | 0.0017 | 41.52 | -27.2100 | -0.0041 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.6076 | ppm | 0.0218 | 3.58 | 1497.0000 | 0.6076 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0046 | ppm | 0.0005 | 10.37 | 5.8210 | 0.0046 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.8042 | ppm | 0.0058 | 0.72 | 217100.0000 | 0.8042 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.4540 | ppm | 0.1287 | 2.89 | 437600.0000 | 4.4540 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0071 | ppm | 0.0002 | 3.35 | -119.9000 | 0.0071 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2536 | ppm | 0.0069 | 2.70 | 8676.0000 | 0.2536 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0008 | ppm | 0.0002 | 25.09 | 13.6700 | 0.0008 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2481 | ppm | 0.0066 | 2.64 | 6437.0000 | 0.2481 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1913 | ppm | 0.0058 | 3.05 | 16930.0000 | 0.1913 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0950 | 663600.0000 | 0.0102 | 0.93 |
| Y_R 371.029 | 1.1150 | 117600.0000 | 0.0049 | 0.44 |

Sample Name: 440-194890-a-1-d@5

Date: 10/25/2017 4:01:10 PM Rack:Tube: 2:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0076 u | ppm | 0.0006 | 8.26 | -465.2000 | -0.0076 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 82.3600 | ppm | 5.8500 | 7.10 | 2558000.0000 | 82.3600 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0615 | ppm | 0.0018 | 2.95 | 61.2100 | 0.0615 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0516 | ppm | 0.0014 | 2.78 | 543.0000 | 0.0516 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.2780 | ppm | 0.1001 | 7.83 | 99670.0000 | 1.2780 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0063 | ppm | 0.0022 | 35.60 | 6240.0000 | 0.0063 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 216.7000 | ppm | 4.8690 | 2.25 | 718300.0000 | 216.7000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0006 | ppm | 0.0002 | 27.56 | 63.6100 | 0.0006 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0630 | ppm | 0.0069 | 10.96 | 1394.0000 | 0.0630 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1835 | ppm | 0.0119 | 6.49 | 1441.0000 | 0.1835 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1689 | ppm | 0.0116 | 6.87 | 7580.0000 | 0.1689 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 162.7000 | ppm | 3.4350 | 2.11 | 903000.0000 | 162.7000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 20.4900 | ppm | 0.3979 | 1.94 | 26660.0000 | 20.4900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1335 | ppm | 0.0029 | 2.19 | 4347.0000 | 0.1335 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 85.8400 | ppm | 6.8290 | 7.96 | 291800.0000 | 85.8400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 4.2160 | ppm | 0.3048 | 7.23 | 438400.0000 | 4.2160 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0040 | ppm | 0.0006 | 14.73 | 21.0400 | 0.0040 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.0660 | ppm | 0.0913 | 2.25 | 30900.0000 | 4.0660 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1547 | ppm | 0.0123 | 7.92 | 694.2000 | 0.1547 (ppm) | Y 371.029 |
| P (213.618 nm) | 8.7830 | ppm | 0.5894 | 6.71 | 9966.0000 | 8.7830 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.1020 | ppm | 0.0055 | 5.34 | 214.3000 | 0.1020 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0073 | ppm | 0.0067 | 91.61 | 4.8940 | 0.0073 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0010 | ppm | 0.0013 | > 100.00 | -41.7300 | 0.0010 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.8450 | ppm | 0.0740 | 8.76 | 2041.0000 | 0.8450 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0051 | ppm | 0.0034 | 66.75 | 6.3050 | 0.0051 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.4030 | ppm | 0.0289 | 2.06 | 379800.0000 | 1.4030 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 7.3230 | ppm | 0.5115 | 6.98 | 719400.0000 | 7.3230 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0078 | ppm | 0.0045 | 57.44 | -203.8000 | 0.0078 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.5254 | ppm | 0.0382 | 7.27 | 17830.0000 | 0.5254 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0019 | ppm | 0.0002 | 9.48 | 16.3900 | 0.0019 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.3335 | ppm | 0.0228 | 6.82 | 8534.0000 | 0.3335 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1685 | ppm | 0.0121 | 7.16 | 15020.0000 | 0.1685 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9868 | 597800.0000 | 0.0092 | 0.94 |
| Y_R 371.029 | 0.9812 | 103500.0000 | 0.0188 | 1.91 |

Sample Name: CCV 4444438

Date: 10/25/2017 4:03:14 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4767 | ppm | 0.0030 | 0.63 | 24650.0000 | 0.4767 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.9866 | ppm | 0.0289 | 2.93 | 31630.0000 | 0.9866 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9572 | ppm | 0.0036 | 0.38 | 907.5000 | 0.9572 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9501 | ppm | 0.0035 | 0.37 | 13280.0000 | 0.9501 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9241 | ppm | 0.0100 | 1.08 | 72010.0000 | 0.9241 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9470 | ppm | 0.0068 | 0.72 | 219700.0000 | 0.9470 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.7520 | ppm | 0.0228 | 0.48 | 15850.0000 | 4.7520 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9497 | ppm | 0.0071 | 0.75 | 26520.0000 | 0.9497 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9575 | ppm | 0.0084 | 0.88 | 15830.0000 | 0.9575 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9474 | ppm | 0.0077 | 0.81 | 7380.0000 | 0.9474 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9441 | ppm | 0.0079 | 0.84 | 41190.0000 | 0.9441 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9742 | ppm | 0.0021 | 0.22 | 5388.0000 | 0.9742 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.5210 | ppm | 0.0476 | 0.50 | 12980.0000 | 9.5210 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9015 | ppm | 0.0033 | 0.36 | 48380.0000 | 0.9015 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.7340 | ppm | 0.0879 | 1.86 | 16170.0000 | 4.7340 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9483 | ppm | 0.0092 | 0.97 | 94610.0000 | 0.9483 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9493 | ppm | 0.0075 | 0.79 | 4915.0000 | 0.9493 (ppm) | Y 371.029 |
| Na (589.592 nm) | 9.9400 | ppm | 0.0335 | 0.34 | 75380.0000 | 9.9400 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9512 | ppm | 0.0058 | 0.61 | 4314.0000 | 0.9512 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9495 | ppm | 0.0076 | 0.80 | 992.3000 | 0.9495 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9522 | ppm | 0.0080 | 0.84 | 1988.0000 | 0.9522 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9397 | ppm | 0.0027 | 0.29 | 1456.0000 | 0.9397 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9591 | ppm | 0.0065 | 0.67 | 1356.0000 | 0.9591 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.6870 | ppm | 0.0551 | 1.18 | 10780.0000 | 4.6870 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9572 | ppm | 0.0055 | 0.58 | 890.5000 | 0.9572 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9497 | ppm | 0.0097 | 1.02 | 255800.0000 | 0.9497 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9537 | ppm | 0.0098 | 1.03 | 93670.0000 | 0.9537 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9512 | ppm | 0.0074 | 0.78 | 1802.0000 | 0.9512 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9515 | ppm | 0.0070 | 0.74 | 31200.0000 | 0.9515 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9498 | ppm | 0.0068 | 0.72 | 2524.0000 | 0.9498 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9558 | ppm | 0.0080 | 0.83 | 24540.0000 | 0.9558 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9541 | ppm | 0.0080 | 0.84 | 83940.0000 | 0.9541 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0630 | 644100.0000 | 0.0024 | 0.22 |
| Y_R 371.029 | 1.0850 | 114400.0000 | 0.0055 | 0.50 |

Sample Name: CCB 4444437

Date: 10/25/2017 4:05:18 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0024 u | ppm | 0.0002 | 7.92 | -144.8000 | -0.0024 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0068 | ppm | 0.0054 | 80.18 | -35.0300 | 0.0068 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0053 | ppm | 0.0005 | 9.71 | 10.5300 | 0.0053 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0012 | ppm | 0.0013 | > 100.00 | 68.4200 | 0.0012 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0004 | ppm | 0.0002 | 57.46 | 65.1800 | 0.0004 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0002 | ppm | 0.0001 | 59.07 | 63.8700 | 0.0002 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0098 | ppm | 0.0071 | 73.24 | 132.1000 | 0.0098 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0003 | ppm | 0.0001 | 21.84 | 5.6030 | 0.0003 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0006 | ppm | 0.0003 | 45.46 | -23.7900 | 0.0006 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0003 | ppm | 0.0001 | 42.48 | 6.5370 | 0.0003 (ppm) | Y 371.029 |
| Cu (324.754 nm) | -0.0003 u | ppm | 0.0005 | > 100.00 | 595.1000 | -0.0003 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0070 | ppm | 0.0007 | 9.73 | 22.7700 | 0.0070 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0438 u | ppm | 0.0708 | > 100.00 | 1109.0000 | 0.0438 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0399 | ppm | 0.0026 | 6.45 | 2247.0000 | 0.0399 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0080 | ppm | 0.0086 | > 100.00 | 112.4000 | 0.0080 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0005 | ppm | 0.0003 | 65.41 | 88.3800 | 0.0005 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0006 u | ppm | 0.0008 | > 100.00 | 0.0612 | 0.0006 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.4192 | ppm | 0.0020 | 0.47 | 3274.0000 | 0.4192 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0002 u | ppm | 0.0007 | > 100.00 | -5.5900 | 0.0002 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0035 | ppm | 0.0032 | 93.07 | 0.3830 | 0.0035 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0000 u | ppm | 0.0013 | > 100.00 | 7.7930 | 0.0000 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0014 u | ppm | 0.0019 | > 100.00 | -0.7856 | -0.0014 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0002 u | ppm | 0.0004 | > 100.00 | 8.1310 | -0.0002 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0014 u | ppm | 0.0031 | > 100.00 | 54.1900 | -0.0014 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0014 u | ppm | 0.0018 | > 100.00 | -1.6640 | -0.0014 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 | ppm | 0.0001 | > 100.00 | -184.8000 | 0.0000 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0008 | ppm | 0.0005 | 70.32 | 21.7300 | 0.0008 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0015 u | ppm | 0.0002 | 13.28 | -11.4700 | -0.0015 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0005 | ppm | 0.0001 | 24.31 | 38.2800 | 0.0005 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0015 | ppm | 0.0006 | 36.62 | 10.6100 | 0.0015 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0053 u | ppm | 0.0001 | 1.50 | 32.1700 | -0.0053 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0004 | ppm | 0.0003 | 82.06 | 39.5500 | 0.0004 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0990 | 665700.0000 | 0.0011 | 0.10 |
| Y_R 371.029 | 1.1020 | 116200.0000 | 0.0185 | 1.68 |

Sample Name: mb 440-437381/1-a@5

Date: 10/25/2017 4:09:52 PM Rack:Tube: 2:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0023 u | ppm | 0.0000 | 0.60 | -136.8000 | -0.0023 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0115 | ppm | 0.0005 | 4.65 | 112.1000 | 0.0115 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0019 | ppm | 0.0001 | 3.94 | 7.2130 | 0.0019 (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0002 u | ppm | 0.0003 | > 100.00 | 49.2800 | -0.0002 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0000 | 11.56 | 49.7700 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 64.72 | 4.7010 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0453 | ppm | 0.0026 | 5.74 | 249.9000 | 0.0453 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 42.38 | 2.7530 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0002 | ppm | 0.0002 | 93.24 | -30.6400 | 0.0002 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 u | ppm | 0.0003 | > 100.00 | 5.3790 | 0.0002 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0012 | ppm | 0.0003 | 26.78 | 662.4000 | 0.0012 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0417 | ppm | 0.0004 | 0.91 | 215.1000 | 0.0417 (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.0006 u | ppm | 0.0329 | > 100.00 | 1053.0000 | -0.0006 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0358 | ppm | 0.0016 | 4.48 | 2016.0000 | 0.0358 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0049 | ppm | 0.0012 | 24.89 | 101.8000 | 0.0049 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0014 | ppm | 0.0001 | 6.13 | 176.4000 | 0.0014 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0002 u | ppm | 0.0005 | > 100.00 | -2.0390 | 0.0002 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.4350 | ppm | 0.0032 | 0.74 | 3394.0000 | 0.4350 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0002 u | ppm | 0.0006 | > 100.00 | -7.3210 | -0.0002 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0011 | ppm | 0.0005 | 47.41 | -2.4020 | 0.0011 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0016 u | ppm | 0.0013 | 84.31 | 4.5880 | -0.0016 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0014 u | ppm | 0.0012 | 84.34 | -0.7599 | -0.0014 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0023 u | ppm | 0.0007 | 32.15 | 5.1450 | -0.0023 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0009 u | ppm | 0.0005 | 52.03 | 55.4700 | -0.0009 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0015 | ppm | 0.0012 | 78.18 | 1.0330 | 0.0015 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0003 | ppm | 0.0000 | 12.41 | -108.3000 | 0.0003 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0012 | ppm | 0.0001 | 5.27 | 68.1300 | 0.0012 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0015 u | ppm | 0.0008 | 55.04 | -11.5600 | -0.0015 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0002 | ppm | 0.0001 | 55.00 | 30.9100 | 0.0002 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0004 | ppm | 0.0002 | 42.79 | 7.6680 | 0.0004 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0032 u | ppm | 0.0001 | 4.00 | 84.6600 | -0.0032 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 17.13 | 17.6100 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.1320 | 685400.0000 | 0.0044 | 0.38 |
| Y_R 371.029 | 1.1410 | 120300.0000 | 0.0058 | 0.51 |

Sample Name: lcs 440-437381/2-a@5

Date: 10/25/2017 4:11:57 PM Rack:Tube: 2:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1856 | ppm | 0.0058 | 3.10 | 9509.0000 | 0.1856 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.3746 | ppm | 0.0106 | 2.82 | 11750.0000 | 0.3746 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.3851 | ppm | 0.0114 | 2.95 | 368.2000 | 0.3851 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.3632 | ppm | 0.0090 | 2.48 | 5161.0000 | 0.3632 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.3700 | ppm | 0.0185 | 5.00 | 28850.0000 | 0.3700 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3641 | ppm | 0.0096 | 2.64 | 84490.0000 | 0.3641 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.4145 | ppm | 0.0033 | 0.80 | 1475.0000 | 0.4145 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3720 | ppm | 0.0110 | 2.95 | 10390.0000 | 0.3720 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.3712 | ppm | 0.0100 | 2.71 | 6114.0000 | 0.3712 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.3776 | ppm | 0.0098 | 2.60 | 2943.0000 | 0.3776 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.3866 | ppm | 0.0110 | 2.84 | 17230.0000 | 0.3866 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.3769 | ppm | 0.0053 | 1.40 | 2074.0000 | 0.3769 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 3.5080 | ppm | 0.0289 | 0.82 | 5449.0000 | 3.5080 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3228 | ppm | 0.0002 | 0.07 | 17430.0000 | 0.3228 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.3850 | ppm | 0.0197 | 5.12 | 1392.0000 | 0.3850 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.3835 | ppm | 0.0108 | 2.81 | 38270.0000 | 0.3835 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.3745 | ppm | 0.0108 | 2.88 | 1937.0000 | 0.3745 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.9880 | ppm | 0.0105 | 0.26 | 30290.0000 | 3.9880 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.3808 | ppm | 0.0113 | 2.96 | 1724.0000 | 0.3808 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.3706 | ppm | 0.0109 | 2.93 | 384.0000 | 0.3706 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.3779 | ppm | 0.0123 | 3.25 | 794.8000 | 0.3779 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.3801 | ppm | 0.0073 | 1.93 | 590.3000 | 0.3801 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3457 | ppm | 0.0080 | 2.33 | 489.9000 | 0.3457 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.3915 | ppm | 0.0130 | 3.33 | 954.2000 | 0.3915 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.3864 | ppm | 0.0149 | 3.86 | 359.0000 | 0.3864 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.3600 | ppm | 0.0080 | 2.23 | 96810.0000 | 0.3600 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.3747 | ppm | 0.0107 | 2.85 | 36760.0000 | 0.3747 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3761 | ppm | 0.0113 | 3.01 | 707.3000 | 0.3761 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3728 | ppm | 0.0104 | 2.78 | 12230.0000 | 0.3728 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0015 | ppm | 0.0009 | 57.71 | 20.5600 | 0.0015 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.3720 | ppm | 0.0101 | 2.71 | 9651.0000 | 0.3720 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0006 | ppm | 0.0001 | 19.37 | 48.6900 | 0.0006 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.1160 | 675800.0000 | 0.0170 | 1.52 |
| Y_R 371.029 | 1.1120 | 117300.0000 | 0.0056 | 0.51 |

Sample Name: 440-194833-b-1-a@5

Date: 10/25/2017 4:14:01 PM Rack:Tube: 2:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0033 u | ppm | 0.0001 | 4.38 | -245.0000 | -0.0033 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 136.1000 | ppm | 7.0290 | 5.16 | 4230000.0000 | 136.1000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0367 | ppm | 0.0025 | 6.71 | 35.5300 | 0.0367 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0161 | ppm | 0.0002 | 1.45 | 75.2800 | 0.0161 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.6025 | ppm | 0.0318 | 5.27 | 47000.0000 | 0.6025 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0035 | ppm | 0.0006 | 16.35 | 5018.0000 | 0.0035 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 23.6900 | ppm | 0.3711 | 1.57 | 78580.0000 | 23.6900 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0006 | ppm | 0.0001 | 17.68 | 54.2300 | 0.0006 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0702 | ppm | 0.0041 | 5.80 | 1384.0000 | 0.0702 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2932 | ppm | 0.0156 | 5.33 | 2292.0000 | 0.2932 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1348 | ppm | 0.0076 | 5.63 | 6427.0000 | 0.1348 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 142.8000 | ppm | 1.4600 | 1.02 | 792500.0000 | 142.8000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 4.3790 | ppm | 0.0404 | 0.92 | 6477.0000 | 4.3790 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0770 | ppm | 0.0022 | 2.84 | 1541.0000 | 0.0770 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 42.9200 | ppm | 2.2480 | 5.24 | 145900.0000 | 42.9200 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.7070 | ppm | 0.1554 | 5.74 | 286300.0000 | 2.7070 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0010 | ppm | 0.0001 | 14.35 | 14.4100 | 0.0010 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.5620 | ppm | 0.0156 | 1.00 | 11910.0000 | 1.5620 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.3102 | ppm | 0.0151 | 4.87 | 1446.0000 | 0.3102 (ppm) | Y 371.029 |
| P (213.618 nm) | 2.7710 | ppm | 0.1636 | 5.90 | 3137.0000 | 2.7710 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0758 | ppm | 0.0026 | 3.47 | 149.0000 | 0.0758 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0058 u | ppm | 0.0060 | > 100.00 | 0.5785 | -0.0058 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0009 u | ppm | 0.0053 | > 100.00 | -36.9900 | 0.0009 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.3710 | ppm | 0.1071 | 7.81 | 3196.0000 | 1.3710 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0055 | ppm | 0.0032 | 57.79 | 5.7450 | 0.0055 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1596 | ppm | 0.0012 | 0.72 | 43060.0000 | 0.1596 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 6.5040 | ppm | 0.3393 | 5.22 | 639000.0000 | 6.5040 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0100 | ppm | 0.0034 | 33.58 | -174.5000 | 0.0100 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3467 | ppm | 0.0195 | 5.62 | 11850.0000 | 0.3467 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0018 u | ppm | 0.0026 | > 100.00 | 19.5900 | 0.0018 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.3046 | ppm | 0.0161 | 5.29 | 7784.0000 | 0.3046 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0354 | ppm | 0.0024 | 6.65 | 3263.0000 | 0.0354 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0940 | 662400.0000 | 0.0016 | 0.14 |
| Y_R 371.029 | 1.0780 | 113700.0000 | 0.0014 | 0.13 |

Sample Name: 440-194833-b-1-b ms@5

Date: 10/25/2017 4:16:05 PM Rack:Tube: 2:14

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1746 | ppm | 0.0096 | 5.51 | 8895.0000 | 0.1746 (ppm) | Y 371.029 |
| Al (396.152 nm) | 130.5000 | ppm | 7.6530 | 5.86 | 4056000.0000 | 130.5000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.3948 | ppm | 0.0264 | 6.69 | 372.8000 | 0.3948 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.3472 | ppm | 0.0151 | 4.35 | 4748.0000 | 0.3472 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.8656 | ppm | 0.0466 | 5.38 | 67490.0000 | 0.8656 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3554 | ppm | 0.0209 | 5.87 | 86360.0000 | 0.3554 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 26.8500 | ppm | 0.1699 | 0.63 | 89070.0000 | 26.8500 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3423 | ppm | 0.0190 | 5.54 | 9595.0000 | 0.3423 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4026 | ppm | 0.0210 | 5.21 | 6896.0000 | 0.4026 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.6340 | ppm | 0.0337 | 5.31 | 4944.0000 | 0.6340 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4987 | ppm | 0.0266 | 5.34 | 22050.0000 | 0.4987 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 132.4000 | ppm | 0.5672 | 0.43 | 734800.0000 | 132.4000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 8.0650 | ppm | 0.0576 | 0.71 | 11100.0000 | 8.0650 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4085 | ppm | 0.0032 | 0.77 | 19520.0000 | 0.4085 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 44.3700 | ppm | 2.3340 | 5.26 | 150800.0000 | 44.3700 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.7790 | ppm | 0.1615 | 5.81 | 292300.0000 | 2.7790 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.3432 | ppm | 0.0196 | 5.70 | 1787.0000 | 0.3432 (ppm) | Y 371.029 |
| Na (589.592 nm) | 5.1770 | ppm | 0.0346 | 0.67 | 39270.0000 | 5.1770 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.6486 | ppm | 0.0355 | 5.47 | 2979.0000 | 0.6486 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.3860 | ppm | 0.1800 | 5.32 | 3805.0000 | 3.3860 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4249 | ppm | 0.0240 | 5.65 | 875.9000 | 0.4249 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.1572 | ppm | 0.0027 | 1.72 | 251.5000 | 0.1572 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3315 | ppm | 0.0141 | 4.25 | 427.2000 | 0.3315 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.3650 | ppm | 0.1000 | 7.32 | 3204.0000 | 1.3650 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.3340 | ppm | 0.0198 | 5.94 | 311.3000 | 0.3340 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5049 | ppm | 0.0031 | 0.62 | 136100.0000 | 0.5049 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 7.2530 | ppm | 0.3877 | 5.35 | 712600.0000 | 7.2530 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3566 | ppm | 0.0089 | 2.50 | 471.8000 | 0.3566 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.6990 | ppm | 0.0381 | 5.45 | 23390.0000 | 0.6990 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0024 | ppm | 0.0003 | 10.94 | 29.8200 | 0.0024 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.6379 | ppm | 0.0322 | 5.04 | 16300.0000 | 0.6379 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0486 | ppm | 0.0027 | 5.62 | 4411.0000 | 0.0486 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0930 | 661900.0000 | 0.0127 | 1.17 |
| Y_R 371.029 | 1.1510 | 121400.0000 | 0.0121 | 1.05 |

Sample Name: 440-194833-b-1-c msd@5

Date: 10/25/2017 4:18:09 PM Rack:Tube: 2:15

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1972 | ppm | 0.0181 | 9.20 | 10050.0000 | 0.1972 (ppm) | Y 371.029 |
| Al (396.152 nm) | 160.1000 | ppm | 14.6800 | 9.17 | 4975000.0000 | 160.1000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4389 | ppm | 0.0363 | 8.26 | 413.5000 | 0.4389 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.3945 | ppm | 0.0319 | 8.09 | 5393.0000 | 0.3945 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0060 | ppm | 0.0652 | 6.48 | 78390.0000 | 1.0060 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.4055 | ppm | 0.0389 | 9.59 | 98370.0000 | 0.4055 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 28.2300 | ppm | 0.1923 | 0.68 | 93620.0000 | 28.2300 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3880 | ppm | 0.0334 | 8.61 | 10870.0000 | 0.3880 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4614 | ppm | 0.0386 | 8.36 | 7899.0000 | 0.4614 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.7130 | ppm | 0.0560 | 7.86 | 5560.0000 | 0.7130 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.5660 | ppm | 0.0556 | 9.83 | 24940.0000 | 0.5660 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 145.6000 | ppm | 1.6480 | 1.13 | 807900.0000 | 145.6000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 8.2680 | ppm | 0.0485 | 0.59 | 11340.0000 | 8.2680 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4502 | ppm | 0.0016 | 0.35 | 21090.0000 | 0.4502 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 43.9500 | ppm | 2.8480 | 6.48 | 149400.0000 | 43.9500 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.3600 | ppm | 0.3210 | 9.55 | 351500.0000 | 3.3600 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.3915 | ppm | 0.0358 | 9.14 | 2040.0000 | 0.3915 (ppm) | Y 371.029 |
| Na (589.592 nm) | 5.2960 | ppm | 0.0498 | 0.94 | 40180.0000 | 5.2960 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.7390 | ppm | 0.0705 | 9.54 | 3394.0000 | 0.7390 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.8370 | ppm | 0.3282 | 8.55 | 4313.0000 | 3.8370 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4889 | ppm | 0.0409 | 8.36 | 1004.0000 | 0.4889 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.1806 | ppm | 0.0156 | 8.63 | 288.9000 | 0.1806 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3673 | ppm | 0.0315 | 8.57 | 472.8000 | 0.3673 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.7550 | ppm | 0.1862 | 10.61 | 4096.0000 | 1.7550 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.3816 | ppm | 0.0346 | 9.06 | 355.6000 | 0.3816 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5314 | ppm | 0.0044 | 0.82 | 143300.0000 | 0.5314 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 8.6880 | ppm | 0.7855 | 9.04 | 853700.0000 | 8.6880 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4049 | ppm | 0.0227 | 5.60 | 523.6000 | 0.4049 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.8149 | ppm | 0.0752 | 9.23 | 27270.0000 | 0.8149 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0027 | ppm | 0.0008 | 27.69 | 33.5500 | 0.0027 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.7381 | ppm | 0.0654 | 8.86 | 18840.0000 | 0.7381 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0572 | ppm | 0.0056 | 9.74 | 5179.0000 | 0.0572 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0490 | 635200.0000 | 0.0263 | 2.51 |
| Y_R 371.029 | 1.1190 | 118000.0000 | 0.0010 | 0.09 |

Sample Name: 440-194833-b-1-aPDS@5

Date: 10/25/2017 4:20:14 PM Rack:Tube: 2:16

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2021 | ppm | 0.0124 | 6.12 | 10390.0000 | 0.2021 (ppm) | Y 371.029 |
| Al (396.152 nm) | 127.9000 | ppm | 8.9700 | 7.01 | 3975000.0000 | 127.9000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4321 | ppm | 0.0243 | 5.63 | 408.5000 | 0.4321 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4062 | ppm | 0.0249 | 6.14 | 5526.0000 | 0.4062 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.8970 | ppm | 0.0406 | 4.53 | 69930.0000 | 0.8970 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3978 | ppm | 0.0288 | 7.24 | 96140.0000 | 0.3978 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 23.5500 | ppm | 0.2169 | 0.92 | 78120.0000 | 23.5500 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3837 | ppm | 0.0236 | 6.15 | 10750.0000 | 0.3837 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4556 | ppm | 0.0328 | 7.20 | 7745.0000 | 0.4556 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.6667 | ppm | 0.0447 | 6.70 | 5200.0000 | 0.6667 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.5313 | ppm | 0.0356 | 6.69 | 23470.0000 | 0.5313 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 130.9000 | ppm | 1.1590 | 0.89 | 726300.0000 | 130.9000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 7.7490 | ppm | 0.1125 | 1.45 | 10700.0000 | 7.7490 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4506 | ppm | 0.0011 | 0.25 | 21730.0000 | 0.4506 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 39.1400 | ppm | 1.8070 | 4.62 | 133000.0000 | 39.1400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.8980 | ppm | 0.2034 | 7.02 | 303800.0000 | 2.8980 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.3972 | ppm | 0.0269 | 6.78 | 2067.0000 | 0.3972 (ppm) | Y 371.029 |
| Na (589.592 nm) | 5.1660 | ppm | 0.0491 | 0.95 | 39200.0000 | 5.1660 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.6759 | ppm | 0.0454 | 6.71 | 3103.0000 | 0.6759 (ppm) | Y 371.029 |
| P (213.618 nm) | 2.9450 | ppm | 0.2049 | 6.96 | 3300.0000 | 2.9450 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4631 | ppm | 0.0315 | 6.81 | 955.3000 | 0.4631 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.3935 | ppm | 0.0321 | 8.16 | 618.1000 | 0.3935 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3755 | ppm | 0.0214 | 5.71 | 493.9000 | 0.3755 (ppm) | Y 371.029 |
| Si (251.611 nm) | 3.1680 | ppm | 0.2579 | 8.14 | 7311.0000 | 3.1680 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.3997 | ppm | 0.0292 | 7.31 | 372.5000 | 0.3997 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5261 | ppm | 0.0035 | 0.67 | 141800.0000 | 0.5261 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 6.4180 | ppm | 0.4244 | 6.61 | 630600.0000 | 6.4180 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3974 | ppm | 0.0184 | 4.64 | 575.8000 | 0.3974 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.7205 | ppm | 0.0463 | 6.43 | 24060.0000 | 0.7205 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.3978 | ppm | 0.0270 | 6.78 | 1068.0000 | 0.3978 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.6649 | ppm | 0.0430 | 6.47 | 16990.0000 | 0.6649 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.4343 | ppm | 0.0294 | 6.77 | 38340.0000 | 0.4343 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0720 | 649200.0000 | 0.0322 | 3.00 |
| Y_R 371.029 | 1.1260 | 118700.0000 | 0.0104 | 0.92 |

Sample Name: 440-194833-b-1-aSD@25

Date: 10/25/2017 4:22:18 PM Rack:Tube: 2:17

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0033 u | ppm | 0.0001 | 2.22 | -200.8000 | -0.0033 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 23.4600 | ppm | 0.1129 | 0.48 | 728600.0000 | 23.4600 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0139 | ppm | 0.0009 | 6.28 | 17.8200 | 0.0139 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0037 | ppm | 0.0008 | 22.88 | 65.5200 | 0.0037 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1035 | ppm | 0.0026 | 2.48 | 8106.0000 | 0.1035 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0006 | ppm | 0.0000 | 3.42 | 948.6000 | 0.0006 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.3400 | ppm | 0.0628 | 1.45 | 14480.0000 | 4.3400 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0000 | 2.57 | 10.1300 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0126 | ppm | 0.0001 | 0.83 | 222.3000 | 0.0126 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0525 | ppm | 0.0005 | 0.98 | 413.4000 | 0.0525 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0254 | ppm | 0.0003 | 1.28 | 1705.0000 | 0.0254 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 26.9800 | ppm | 0.3585 | 1.33 | 149700.0000 | 26.9800 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.8793 | ppm | 0.1250 | 14.21 | 2144.0000 | 0.8793 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0439 | ppm | 0.0003 | 0.77 | 1970.0000 | 0.0439 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 7.3560 | ppm | 0.1763 | 2.40 | 25070.0000 | 7.3560 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4880 | ppm | 0.0026 | 0.53 | 51790.0000 | 0.4880 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0002 u | ppm | 0.0001 | 92.90 | -1.6940 | -0.0002 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.5853 | ppm | 0.0266 | 4.54 | 4527.0000 | 0.5853 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0571 | ppm | 0.0011 | 1.87 | 261.1000 | 0.0571 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.4889 | ppm | 0.0019 | 0.39 | 550.5000 | 0.4889 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0144 | ppm | 0.0006 | 3.82 | 35.2100 | 0.0144 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0032 u | ppm | 0.0038 | > 100.00 | -2.1300 | -0.0032 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0011 | ppm | 0.0013 | > 100.00 | 1.1330 | 0.0011 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.2541 | ppm | 0.0021 | 0.83 | 638.5000 | 0.2541 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0007 u | ppm | 0.0016 | > 100.00 | -0.7991 | -0.0007 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0291 | ppm | 0.0005 | 1.56 | 7683.0000 | 0.0291 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.1510 | ppm | 0.0051 | 0.44 | 113000.0000 | 1.1510 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0027 | ppm | 0.0003 | 12.22 | -36.0300 | 0.0027 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0616 | ppm | 0.0000 | 0.01 | 2127.0000 | 0.0616 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0011 | ppm | 0.0004 | 35.15 | 10.9900 | 0.0011 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0519 | ppm | 0.0005 | 0.98 | 1463.0000 | 0.0519 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0062 | ppm | 0.0003 | 4.11 | 572.5000 | 0.0062 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9461 | 573100.0000 | 0.0044 | 0.46 |
| Y_R 371.029 | 0.9622 | 101500.0000 | 0.0137 | 1.42 |

Sample Name: 440-194899-e-1-a@5

Date: 10/25/2017 4:24:22 PM Rack:Tube: 2:18

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0030 u | ppm | 0.0002 | 7.23 | -197.2000 | -0.0030 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 45.8700 | ppm | 2.3940 | 5.22 | 1425000.0000 | 45.8700 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0096 | ppm | 0.0014 | 14.65 | 13.3200 | 0.0096 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0194 | ppm | 0.0005 | 2.33 | 249.0000 | 0.0194 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.2663 | ppm | 0.0140 | 5.25 | 20790.0000 | 0.2663 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0015 | ppm | 0.0004 | 25.78 | 1924.0000 | 0.0015 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 10.1700 | ppm | 0.0350 | 0.34 | 33800.0000 | 10.1700 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | 16.8800 | 0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0149 | ppm | 0.0008 | 5.65 | 325.5000 | 0.0149 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0561 | ppm | 0.0028 | 5.04 | 442.7000 | 0.0561 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0247 | ppm | 0.0013 | 5.45 | 1670.0000 | 0.0247 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 53.4600 | ppm | 0.2424 | 0.45 | 296700.0000 | 53.4600 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 8.6610 | ppm | 0.0877 | 1.01 | 11910.0000 | 8.6610 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0202 | ppm | 0.0000 | 0.05 | 80.4700 | 0.0202 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 13.4100 | ppm | 0.7066 | 5.27 | 45640.0000 | 13.4100 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.6600 | ppm | 0.0357 | 5.40 | 72180.0000 | 0.6600 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0007 | ppm | 0.0008 | > 100.00 | 4.6910 | 0.0007 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.3040 | ppm | 0.0002 | 0.01 | 9965.0000 | 1.3040 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0341 | ppm | 0.0009 | 2.49 | 164.1000 | 0.0341 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.8612 | ppm | 0.0445 | 5.17 | 973.8000 | 0.8612 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0128 | ppm | 0.0029 | 22.87 | 28.7200 | 0.0128 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0012 u | ppm | 0.0007 | 61.63 | 1.7320 | -0.0012 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0016 | ppm | 0.0014 | 88.25 | -7.0740 | 0.0016 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.0160 | ppm | 0.1090 | 5.41 | 4606.0000 | 2.0160 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0048 | ppm | 0.0013 | 28.27 | 4.4460 | 0.0048 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0631 | ppm | 0.0002 | 0.25 | 16910.0000 | 0.0631 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 2.7620 | ppm | 0.1406 | 5.09 | 271400.0000 | 2.7620 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0027 | ppm | 0.0033 | > 100.00 | -86.2700 | 0.0027 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1880 | ppm | 0.0098 | 5.20 | 6384.0000 | 0.1880 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0007 | ppm | 0.0004 | 60.75 | 11.4000 | 0.0007 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.1071 | ppm | 0.0051 | 4.72 | 2839.0000 | 0.1071 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0131 | ppm | 0.0006 | 4.62 | 1207.0000 | 0.0131 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.1290 | 683900.0000 | 0.0099 | 0.88 |
| Y_R 371.029 | 1.0970 | 115700.0000 | 0.0071 | 0.65 |

Sample Name: 320-32587-a-1-a@5

Date: 10/25/2017 4:26:26 PM Rack:Tube: 2:19

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0039 u | ppm | 0.0001 | 1.75 | -265.5000 | -0.0039 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 89.6100 | ppm | 2.0360 | 2.27 | 2784000.0000 | 89.6100 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0405 | ppm | 0.0064 | 15.90 | 40.6300 | 0.0405 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0141 | ppm | 0.0009 | 6.14 | 48.0800 | 0.0141 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.7985 | ppm | 0.0136 | 1.71 | 62270.0000 | 0.7985 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0024 | ppm | 0.0011 | 46.44 | 4804.0000 | 0.0024 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 21.4000 | ppm | 0.0101 | 0.05 | 70990.0000 | 21.4000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0011 | ppm | 0.0003 | 28.72 | 71.1200 | 0.0011 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0628 | ppm | 0.0022 | 3.47 | 1249.0000 | 0.0628 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2265 | ppm | 0.0051 | 2.26 | 1772.0000 | 0.2265 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1782 | ppm | 0.0044 | 2.49 | 8311.0000 | 0.1782 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 144.0000 | ppm | 0.3257 | 0.23 | 799100.0000 | 144.0000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.5670 | ppm | 0.0415 | 0.43 | 13010.0000 | 9.5670 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0491 | ppm | 0.0022 | 4.39 | 458.1000 | 0.0491 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 25.3000 | ppm | 0.4869 | 1.92 | 86000.0000 | 25.3000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.3590 | ppm | 0.0607 | 2.57 | 251900.0000 | 2.3590 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0028 | ppm | 0.0005 | 17.02 | 19.5100 | 0.0028 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.8150 | ppm | 0.0054 | 0.30 | 13820.0000 | 1.8150 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1513 | ppm | 0.0023 | 1.50 | 723.6000 | 0.1513 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.9490 | ppm | 0.0510 | 2.62 | 2201.0000 | 1.9490 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.2182 | ppm | 0.0047 | 2.16 | 455.2000 | 0.2182 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0065 u | ppm | 0.0012 | 18.93 | -3.0460 | -0.0065 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0038 | ppm | 0.0011 | 30.01 | -33.3000 | 0.0038 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.7057 | ppm | 0.0279 | 3.95 | 1679.0000 | 0.7057 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0055 | ppm | 0.0016 | 28.43 | 5.6860 | 0.0055 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.2022 | ppm | 0.0007 | 0.33 | 54510.0000 | 0.2022 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.4650 | ppm | 0.0737 | 1.65 | 438700.0000 | 4.4650 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0044 | ppm | 0.0023 | 51.35 | -132.4000 | 0.0044 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3978 | ppm | 0.0088 | 2.22 | 13480.0000 | 0.3978 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0023 | ppm | 0.0030 | > 100.00 | 22.8800 | 0.0023 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.3736 | ppm | 0.0083 | 2.22 | 9530.0000 | 0.3736 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0467 | ppm | 0.0018 | 3.93 | 4253.0000 | 0.0467 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0590 | 641800.0000 | 0.0026 | 0.24 |
| Y_R 371.029 | 1.0190 | 107400.0000 | 0.0064 | 0.63 |

Sample Name: 440-194863-a-1-c@5

Date: 10/25/2017 4:28:31 PM Rack:Tube: 2:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0042 u | ppm | 0.0002 | 4.53 | -278.0000 | -0.0042 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 60.5700 | ppm | 6.7840 | 11.20 | 1882000.0000 | 60.5700 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0437 | ppm | 0.0040 | 9.13 | 44.8000 | 0.0437 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0145 | ppm | 0.0025 | 17.23 | 131.1000 | 0.0145 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.3369 | ppm | 0.0135 | 4.00 | 26300.0000 | 0.3369 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0042 | ppm | 0.0016 | 37.85 | 3551.0000 | 0.0042 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 29.9700 | ppm | 0.8225 | 2.74 | 99400.0000 | 29.9700 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0005 | ppm | 0.0000 | 7.20 | 36.4500 | 0.0005 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0463 | ppm | 0.0068 | 14.59 | 956.4000 | 0.0463 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1041 | ppm | 0.0114 | 10.91 | 817.9000 | 0.1041 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0759 | ppm | 0.0094 | 12.35 | 3849.0000 | 0.0759 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 87.2100 | ppm | 1.9770 | 2.27 | 484000.0000 | 87.2100 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 15.7800 | ppm | 0.3091 | 1.96 | 20840.0000 | 15.7800 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0657 | ppm | 0.0051 | 7.77 | 1887.0000 | 0.0657 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 27.4300 | ppm | 1.1260 | 4.10 | 93270.0000 | 27.4300 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.4320 | ppm | 0.1692 | 11.82 | 152900.0000 | 1.4320 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0074 | ppm | 0.0012 | 15.79 | 39.8100 | 0.0074 (ppm) | Y 371.029 |
| Na (589.592 nm) | 2.9190 | ppm | 0.0715 | 2.45 | 22190.0000 | 2.9190 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0709 | ppm | 0.0093 | 13.18 | 337.6000 | 0.0709 (ppm) | Y 371.029 |
| P (213.618 nm) | 6.0440 | ppm | 0.6678 | 11.05 | 6860.0000 | 6.0440 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0577 | ppm | 0.0064 | 11.12 | 120.6000 | 0.0577 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0023 | ppm | 0.0028 | > 100.00 | 7.5300 | 0.0023 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0013 u | ppm | 0.0035 | > 100.00 | -21.9400 | -0.0013 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.8320 | ppm | 0.0953 | 11.45 | 1974.0000 | 0.8320 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0083 | ppm | 0.0010 | 11.65 | 8.1020 | 0.0083 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1932 | ppm | 0.0033 | 1.69 | 52150.0000 | 0.1932 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 5.0970 | ppm | 0.5646 | 11.08 | 500800.0000 | 5.0970 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0051 | ppm | 0.0069 | > 100.00 | -143.8000 | 0.0051 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1952 | ppm | 0.0225 | 11.51 | 6733.0000 | 0.1952 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0019 u | ppm | 0.0032 | > 100.00 | 18.6700 | 0.0019 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2719 | ppm | 0.0301 | 11.08 | 6995.0000 | 0.2719 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0090 | ppm | 0.0009 | 10.11 | 889.6000 | 0.0090 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9963 | 603500.0000 | 0.0486 | 4.87 |
| Y_R 371.029 | 1.0740 | 113300.0000 | 0.0220 | 2.05 |

Sample Name: CCV 4444438

Date: 10/25/2017 4:30:35 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4877 | ppm | 0.0111 | 2.28 | 25220.0000 | 0.4877 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.9954 | ppm | 0.0195 | 1.96 | 31930.0000 | 0.9954 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9810 | ppm | 0.0226 | 2.30 | 930.0000 | 0.9810 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9711 | ppm | 0.0251 | 2.59 | 13580.0000 | 0.9711 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9988 | ppm | 0.0007 | 0.07 | 77830.0000 | 0.9988 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9698 | ppm | 0.0215 | 2.21 | 225000.0000 | 0.9698 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.1490 | ppm | 0.0352 | 0.68 | 17170.0000 | 5.1490 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9721 | ppm | 0.0209 | 2.15 | 27150.0000 | 0.9721 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9793 | ppm | 0.0210 | 2.15 | 16190.0000 | 0.9793 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9693 | ppm | 0.0201 | 2.08 | 7550.0000 | 0.9693 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9693 | ppm | 0.0225 | 2.32 | 42270.0000 | 0.9693 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0580 | ppm | 0.0057 | 0.54 | 5855.0000 | 1.0580 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.2900 | ppm | 0.0395 | 0.38 | 13940.0000 | 10.2900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9846 | ppm | 0.0037 | 0.38 | 52970.0000 | 0.9846 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.0670 | ppm | 0.0016 | 0.03 | 17300.0000 | 5.0670 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9711 | ppm | 0.0229 | 2.35 | 96890.0000 | 0.9711 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9718 | ppm | 0.0204 | 2.10 | 5031.0000 | 0.9718 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.6400 | ppm | 0.0543 | 0.51 | 80710.0000 | 10.6400 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9750 | ppm | 0.0226 | 2.32 | 4422.0000 | 0.9750 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9697 | ppm | 0.0162 | 1.67 | 1013.0000 | 0.9697 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9749 | ppm | 0.0224 | 2.30 | 2035.0000 | 0.9749 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9634 | ppm | 0.0239 | 2.48 | 1493.0000 | 0.9634 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9751 | ppm | 0.0266 | 2.73 | 1379.0000 | 0.9751 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.7930 | ppm | 0.1020 | 2.13 | 11030.0000 | 4.7930 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9754 | ppm | 0.0162 | 1.66 | 907.5000 | 0.9754 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0250 | ppm | 0.0089 | 0.86 | 276100.0000 | 1.0250 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9763 | ppm | 0.0238 | 2.44 | 95900.0000 | 0.9763 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9760 | ppm | 0.0184 | 1.89 | 1850.0000 | 0.9760 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9756 | ppm | 0.0219 | 2.24 | 31980.0000 | 0.9756 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9741 | ppm | 0.0218 | 2.23 | 2588.0000 | 0.9741 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9777 | ppm | 0.0219 | 2.24 | 25100.0000 | 0.9777 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9758 | ppm | 0.0235 | 2.41 | 85840.0000 | 0.9758 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0410 | 630400.0000 | 0.0237 | 2.27 |
| Y_R 371.029 | 1.0060 | 106100.0000 | 0.0012 | 0.12 |

Sample Name: CCB 4444437

Date: 10/25/2017 4:32:39 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0028 u | ppm | 0.0002 | 6.85 | -167.2000 | -0.0028 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0027 | ppm | 0.0008 | 29.43 | -162.2000 | 0.0027 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0079 | ppm | 0.0027 | 34.09 | 12.9500 | 0.0079 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0012 | ppm | 0.0013 | > 100.00 | 69.0300 | 0.0012 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0003 | ppm | 0.0000 | 16.31 | 60.0300 | 0.0003 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 56.85 | 39.5100 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0076 u | ppm | 0.0122 | > 100.00 | 125.0000 | 0.0076 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0000 | 93.26 | -2.2740 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0004 | ppm | 0.0002 | 66.92 | -28.4600 | 0.0004 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | 4.2760 | 0.0001 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0007 | ppm | 0.0002 | 20.86 | 640.2000 | 0.0007 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0077 | ppm | 0.0007 | 9.52 | 26.5100 | 0.0077 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0857 | ppm | 0.0221 | 25.75 | 1161.0000 | 0.0857 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0424 | ppm | 0.0010 | 2.40 | 2389.0000 | 0.0424 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0029 | ppm | 0.0002 | 6.81 | 94.9300 | 0.0029 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0003 | ppm | 0.0000 | 13.06 | 65.0700 | 0.0003 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0004 u | ppm | 0.0007 | > 100.00 | -4.9060 | -0.0004 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.3153 | ppm | 0.0033 | 1.03 | 2487.0000 | 0.3153 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0000 u | ppm | 0.0005 | > 100.00 | -6.6520 | 0.0000 u (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0016 u | ppm | 0.0069 | > 100.00 | -5.4060 | -0.0016 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0014 | ppm | 0.0014 | > 100.00 | 10.7100 | 0.0014 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0008 | ppm | 0.0003 | 35.50 | 2.7960 | 0.0008 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0024 u | ppm | 0.0006 | 23.42 | 4.9900 | -0.0024 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0014 u | ppm | 0.0050 | > 100.00 | 54.3600 | -0.0014 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0014 u | ppm | 0.0011 | 77.58 | -1.6550 | -0.0014 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | -171.6000 | 0.0001 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0004 | ppm | 0.0001 | 35.92 | -14.6900 | 0.0004 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0013 u | ppm | 0.0013 | 96.60 | -11.1300 | -0.0013 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0006 | ppm | 0.0004 | 70.70 | 42.0300 | 0.0006 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0004 u | ppm | 0.0007 | > 100.00 | 5.6300 | -0.0004 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0055 u | ppm | 0.0000 | 0.89 | 26.7300 | -0.0055 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 28.91 | 16.6700 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0190 | 617200.0000 | 0.0127 | 1.24 |
| Y_R 371.029 | 1.0060 | 106100.0000 | 0.0018 | 0.18 |

Sample Name: RINSE 4444447

Date: 10/25/2017 4:36:32 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0021 u | ppm | 0.0004 | 21.34 | -128.1000 | -0.0021 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0013 | ppm | 0.0003 | 18.86 | -203.4000 | 0.0013 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0041 | ppm | 0.0015 | 36.44 | 9.3950 | 0.0041 (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0011 u | ppm | 0.0002 | 22.58 | 37.1300 | -0.0011 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 41.8200 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | > 100.00 | 14.3700 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0064 u | ppm | 0.0124 | > 100.00 | 121.0000 | 0.0064 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | -0.2071 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0005 | ppm | 0.0000 | 8.24 | -26.4700 | 0.0005 (ppm) | Y 371.029 |
| Cr (205.560 nm) | -0.0001 u | ppm | 0.0000 | 22.16 | 3.0590 | -0.0001 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | -0.0008 u | ppm | 0.0001 | 12.06 | 576.6000 | -0.0008 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0009 u | ppm | 0.0021 | > 100.00 | -11.6100 | 0.0009 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.0606 u | ppm | 0.0442 | 72.89 | 977.4000 | -0.0606 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0391 | ppm | 0.0015 | 3.95 | 2205.0000 | 0.0391 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | -0.0031 u | ppm | 0.0016 | 52.67 | 74.6000 | -0.0031 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 38.3900 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0002 u | ppm | 0.0008 | > 100.00 | -2.0330 | 0.0002 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.2669 | ppm | 0.0007 | 0.24 | 2121.0000 | 0.2669 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0003 u | ppm | 0.0016 | > 100.00 | -5.1630 | 0.0003 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0029 u | ppm | 0.0056 | > 100.00 | -0.2155 | 0.0029 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0010 | ppm | 0.0004 | 40.64 | 9.8930 | 0.0010 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0024 u | ppm | 0.0022 | 91.87 | -2.3280 | -0.0024 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0009 u | ppm | 0.0002 | 19.58 | 7.0420 | -0.0009 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0108 u | ppm | 0.0002 | 1.98 | 33.0000 | -0.0108 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0003 u | ppm | 0.0008 | > 100.00 | -0.1220 | 0.0003 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0000 | 23.09 | -225.5000 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0000 | 0.22 | -32.7700 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0003 u | ppm | 0.0016 | > 100.00 | -7.8950 | 0.0003 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0001 | ppm | 0.0000 | 38.56 | 25.2600 | 0.0001 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0004 u | ppm | 0.0006 | > 100.00 | 5.5870 | -0.0004 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0026 u | ppm | 0.0000 | 0.29 | 98.9100 | -0.0026 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 32.06 | 12.2700 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.1220 | 679800.0000 | 0.0049 | 0.44 |
| Y_R 371.029 | 1.1270 | 118800.0000 | 0.0088 | 0.78 |

Sample Name: RINSE 4444447

Date: 10/25/2017 4:38:37 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0029 u | ppm | 0.0001 | 3.21 | -170.8000 | -0.0029 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0003 | ppm | 0.0003 | > 100.00 | -237.0000 | 0.0003 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0044 | ppm | 0.0032 | 73.61 | 9.6310 | 0.0044 (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0013 u | ppm | 0.0002 | 14.31 | 34.3200 | -0.0013 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0000 | ppm | 0.0000 | 48.25 | 40.2700 | 0.0000 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | > 100.00 | 13.4400 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0060 | ppm | 0.0018 | 30.86 | 119.6000 | 0.0060 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -2.6030 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | -33.2900 | 0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 3.7980 | 0.0000 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0009 | ppm | 0.0007 | 78.37 | 645.7000 | 0.0009 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0041 | ppm | 0.0024 | 58.67 | 6.2300 | 0.0041 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1402 | ppm | 0.0375 | 26.77 | 1230.0000 | 0.1402 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0472 | ppm | 0.0019 | 3.93 | 2650.0000 | 0.0472 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0014 | ppm | 0.0006 | 42.45 | 89.8500 | 0.0014 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0000 | 7.22 | 44.1800 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0008 u | ppm | 0.0012 | > 100.00 | -7.3030 | -0.0008 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.3089 | ppm | 0.0013 | 0.42 | 2439.0000 | 0.3089 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0004 | ppm | 0.0000 | 0.20 | -4.4960 | 0.0004 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0008 u | ppm | 0.0066 | > 100.00 | -2.7300 | 0.0008 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0005 u | ppm | 0.0016 | > 100.00 | 8.9310 | 0.0005 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0026 u | ppm | 0.0006 | 23.07 | -2.6170 | -0.0026 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0011 u | ppm | 0.0006 | 55.92 | 6.8330 | -0.0011 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0092 u | ppm | 0.0011 | 11.59 | 37.0300 | -0.0092 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0011 u | ppm | 0.0016 | > 100.00 | 0.6157 | 0.0011 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0002 u | ppm | 0.0000 | 11.14 | -261.4000 | -0.0002 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0000 | 3.78 | -39.7800 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0008 u | ppm | 0.0013 | > 100.00 | -6.8550 | 0.0008 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0004 | ppm | 0.0000 | 1.49 | 34.5700 | 0.0004 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0015 | ppm | 0.0015 | > 100.00 | 10.4900 | 0.0015 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0022 u | ppm | 0.0000 | 1.41 | 109.9000 | -0.0022 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 39.70 | 9.8430 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9919 | 600900.0000 | 0.0175 | 1.77 |
| Y_R 371.029 | 0.9894 | 104300.0000 | 0.0002 | 0.02 |

Sample Name: RINSE 4444447

Date: 10/25/2017 4:40:41 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0027 u | ppm | 0.0001 | 2.75 | -157.3000 | -0.0027 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0002 u | ppm | 0.0000 | 0.81 | -252.7000 | -0.0002 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0059 | ppm | 0.0035 | 59.56 | 11.0800 | 0.0059 (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0009 u | ppm | 0.0007 | 78.56 | 38.9600 | -0.0009 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0000 | 31.97 | 45.0600 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 7.7810 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0077 | ppm | 0.0037 | 48.46 | 125.2000 | 0.0077 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | -3.8370 | -0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -33.8900 | 0.0000 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 | ppm | 0.0000 | 9.46 | 5.4780 | 0.0002 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0012 | ppm | 0.0001 | 10.43 | 659.4000 | 0.0012 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0020 u | ppm | 0.0039 | > 100.00 | -5.0830 | 0.0020 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0543 | ppm | 0.0350 | 64.57 | 1122.0000 | 0.0543 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0442 | ppm | 0.0022 | 4.90 | 2484.0000 | 0.0442 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0001 | ppm | 0.0001 | 84.34 | 85.6500 | 0.0001 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 41.8100 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | -1.9550 | 0.0002 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.2969 | ppm | 0.0118 | 3.96 | 2349.0000 | 0.2969 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0012 | ppm | 0.0007 | 61.24 | -1.1120 | 0.0012 (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0015 u | ppm | 0.0031 | > 100.00 | -5.3820 | -0.0015 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0004 | ppm | 0.0002 | 44.38 | 8.6940 | 0.0004 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0006 u | ppm | 0.0044 | > 100.00 | 0.4464 | -0.0006 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0022 u | ppm | 0.0012 | 53.90 | 5.3550 | -0.0022 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0088 u | ppm | 0.0013 | 14.74 | 37.6700 | -0.0088 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0012 u | ppm | 0.0009 | 76.27 | -1.4750 | -0.0012 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0001 | 52.41 | -228.3000 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | -45.1600 | 0.0001 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0011 | ppm | 0.0011 | 98.52 | -6.3190 | 0.0011 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | 26.3500 | 0.0001 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0009 | ppm | 0.0005 | 58.90 | 8.9140 | 0.0009 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0022 u | ppm | 0.0000 | 0.16 | 110.7000 | -0.0022 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 9.20 | 10.8200 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9818 | 594700.0000 | 0.0039 | 0.39 |
| Y_R 371.029 | 1.0070 | 106200.0000 | 0.0062 | 0.61 |

Sample Name: RINSE 4444447

Date: 10/25/2017 4:42:45 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0025 u | ppm | 0.0002 | 6.24 | -151.7000 | -0.0025 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0003 u | ppm | 0.0005 | > 100.00 | -235.4000 | 0.0003 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0031 | ppm | 0.0011 | 36.09 | 8.3520 | 0.0031 (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0012 u | ppm | 0.0002 | 20.00 | 35.1000 | -0.0012 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 36.8000 | 0.0000 u (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 10.4400 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0019 u | ppm | 0.0006 | 31.16 | 93.5200 | -0.0019 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0000 | 93.19 | -2.7660 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0004 | ppm | 0.0002 | 43.89 | -28.2200 | 0.0004 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0001 u | ppm | 0.0005 | > 100.00 | 4.3920 | 0.0001 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | -0.0001 u | ppm | 0.0000 | 18.36 | 603.1000 | -0.0001 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0016 | ppm | 0.0016 | > 100.00 | -7.2930 | 0.0016 (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.0210 u | ppm | 0.0989 | > 100.00 | 1027.0000 | -0.0210 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0405 | ppm | 0.0022 | 5.39 | 2282.0000 | 0.0405 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | -0.0018 u | ppm | 0.0000 | 0.45 | 79.1800 | -0.0018 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 35.9100 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0003 u | ppm | 0.0009 | > 100.00 | -4.2880 | -0.0003 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.2694 | ppm | 0.0008 | 0.28 | 2140.0000 | 0.2694 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0004 u | ppm | 0.0009 | > 100.00 | -4.8280 | 0.0004 u (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0001 u | ppm | 0.0036 | > 100.00 | -3.7050 | -0.0001 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0011 | ppm | 0.0003 | 27.45 | 10.1400 | 0.0011 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0028 u | ppm | 0.0022 | 78.71 | -2.9040 | -0.0028 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0021 u | ppm | 0.0005 | 21.72 | 5.3640 | -0.0021 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0097 u | ppm | 0.0004 | 4.30 | 35.5200 | -0.0097 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0010 u | ppm | 0.0028 | > 100.00 | -1.3540 | -0.0010 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | -223.1000 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0000 | 8.02 | -35.1600 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0020 | ppm | 0.0012 | 61.66 | -4.5900 | 0.0020 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | 24.5100 | 0.0001 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0004 u | ppm | 0.0006 | > 100.00 | 7.6730 | 0.0004 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0025 u | ppm | 0.0002 | 9.22 | 101.2000 | -0.0025 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 0.9636 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0650 | 644900.0000 | 0.0056 | 0.52 |
| Y_R 371.029 | 1.0730 | 113200.0000 | 0.0010 | 0.09 |

Sample Name: RINSE 4444447

Date: 10/25/2017 4:44:49 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0028 u | ppm | 0.0001 | 2.02 | -165.7000 | -0.0028 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0004 u | ppm | 0.0001 | 30.55 | -257.1000 | -0.0004 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0036 | ppm | 0.0019 | 52.05 | 8.8560 | 0.0036 (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0014 u | ppm | 0.0003 | 20.33 | 32.3800 | -0.0014 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0000 | ppm | 0.0000 | 76.69 | 40.1800 | 0.0000 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | 16.12 | 12.9500 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0092 | ppm | 0.0051 | 55.13 | 130.3000 | 0.0092 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -2.0130 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0005 | ppm | 0.0000 | 0.51 | -26.0400 | 0.0005 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 u | ppm | 0.0004 | > 100.00 | 5.1540 | 0.0002 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0007 | ppm | 0.0000 | 3.21 | 638.8000 | 0.0007 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0013 | ppm | 0.0010 | 74.96 | -8.9900 | 0.0013 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0453 u | ppm | 0.0764 | > 100.00 | 1110.0000 | 0.0453 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0430 | ppm | 0.0013 | 2.98 | 2419.0000 | 0.0430 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | -0.0004 u | ppm | 0.0004 | > 100.00 | 83.8400 | -0.0004 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 34.2100 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0006 u | ppm | 0.0020 | > 100.00 | 0.2043 | 0.0006 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.2750 | ppm | 0.0007 | 0.27 | 2182.0000 | 0.2750 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0012 | ppm | 0.0008 | 69.92 | -1.2870 | 0.0012 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0006 | ppm | 0.0008 | > 100.00 | -2.9460 | 0.0006 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0011 u | ppm | 0.0016 | > 100.00 | 5.4630 | -0.0011 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0003 u | ppm | 0.0021 | > 100.00 | 0.9810 | -0.0003 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0009 u | ppm | 0.0036 | > 100.00 | 7.1010 | -0.0009 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0091 u | ppm | 0.0019 | 21.12 | 36.8700 | -0.0091 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0011 u | ppm | 0.0003 | 26.19 | -1.4190 | -0.0011 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0002 u | ppm | 0.0001 | 27.96 | -250.0000 | -0.0002 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -56.1000 | 0.0000 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0002 u | ppm | 0.0031 | > 100.00 | -8.9240 | -0.0002 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0005 | ppm | 0.0000 | 4.94 | 38.2100 | 0.0005 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0008 | ppm | 0.0008 | > 100.00 | 8.6160 | 0.0008 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0024 u | ppm | 0.0001 | 3.43 | 104.9000 | -0.0024 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | -4.6100 | -0.0001 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0140 | 614100.0000 | 0.0009 | 0.08 |
| Y_R 371.029 | 1.0230 | 107900.0000 | 0.0037 | 0.36 |

Sample Name: CCV 4444438

Date: 10/25/2017 5:39:39 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5385 | ppm | 0.0015 | 0.28 | 27850.0000 | 0.5385 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0930 | ppm | 0.0050 | 0.46 | 35110.0000 | 1.0930 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0820 | ppm | 0.0021 | 0.19 | 1025.0000 | 1.0820 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0740 | ppm | 0.0090 | 0.84 | 15010.0000 | 1.0740 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0790 | ppm | 0.0024 | 0.22 | 84050.0000 | 1.0790 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0760 | ppm | 0.0041 | 0.38 | 249600.0000 | 1.0760 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.5490 Q | ppm | 0.0050 | 0.09 | 18490.0000 Q | 5.5490 Q (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0770 | ppm | 0.0042 | 0.39 | 30090.0000 | 1.0770 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0810 | ppm | 0.0025 | 0.23 | 17870.0000 | 1.0810 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0780 | ppm | 0.0056 | 0.52 | 8395.0000 | 1.0780 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0790 | ppm | 0.0044 | 0.40 | 46990.0000 | 1.0790 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.1250 Q | ppm | 0.0024 | 0.21 | 6225.0000 Q | 1.1250 Q (ppm) | Y_R 371.029 |
| K (766.491 nm) | 11.1400 Q | ppm | 0.0324 | 0.29 | 15000.0000 Q | 11.1400 Q (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0690 | ppm | 0.0015 | 0.14 | 57430.0000 | 1.0690 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.4730 | ppm | 0.0172 | 0.31 | 18680.0000 | 5.4730 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0770 | ppm | 0.0046 | 0.43 | 107400.0000 | 1.0770 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0800 | ppm | 0.0060 | 0.55 | 5594.0000 | 1.0800 (ppm) | Y 371.029 |
| Na (589.592 nm) | 11.3000 Q | ppm | 0.0278 | 0.25 | 85650.0000 Q | 11.3000 Q (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0830 | ppm | 0.0052 | 0.48 | 4911.0000 | 1.0830 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0710 | ppm | 0.0046 | 0.43 | 1119.0000 | 1.0710 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0790 | ppm | 0.0076 | 0.71 | 2252.0000 | 1.0790 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0650 | ppm | 0.0108 | 1.01 | 1650.0000 | 1.0650 (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0790 | ppm | 0.0041 | 0.38 | 1524.0000 | 1.0790 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.2960 | ppm | 0.0048 | 0.09 | 12180.0000 | 5.2960 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0820 | ppm | 0.0050 | 0.46 | 1007.0000 | 1.0820 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.1210 Q | ppm | 0.0080 | 0.71 | 302000.0000 Q | 1.1210 Q (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0820 | ppm | 0.0040 | 0.37 | 106300.0000 | 1.0820 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0770 | ppm | 0.0042 | 0.39 | 2042.0000 | 1.0770 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0810 | ppm | 0.0058 | 0.54 | 35450.0000 | 1.0810 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0800 | ppm | 0.0037 | 0.35 | 2868.0000 | 1.0800 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0860 | ppm | 0.0050 | 0.46 | 27850.0000 | 1.0860 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0820 | ppm | 0.0047 | 0.44 | 95150.0000 | 1.0820 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9590 | 580900.0000 | 0.0116 | 1.21 |
| Y_R 371.029 | 0.9515 | 100400.0000 | 0.0050 | 0.52 |

Sample Name: CCB 4444437

Date: 10/25/2017 5:41:43 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0030 u | ppm | 0.0000 | 0.61 | -173.6000 | -0.0030 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0004 u | ppm | 0.0003 | 67.64 | -259.1000 | -0.0004 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0011 | ppm | 0.0004 | 33.75 | 6.4710 | 0.0011 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0010 | ppm | 0.0010 | 92.70 | 66.6000 | 0.0010 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0001 | 27.09 | 55.2500 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0000 | 12.90 | 41.7400 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0053 | ppm | 0.0025 | 46.53 | 117.5000 | 0.0053 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -1.3920 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0001 u | ppm | 0.0006 | > 100.00 | -33.4700 | 0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0001 | ppm | 0.0001 | 54.70 | 4.8250 | 0.0001 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0011 | ppm | 0.0006 | 50.53 | 656.4000 | 0.0011 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0017 | ppm | 0.0004 | 23.45 | -6.7820 | 0.0017 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0359 | ppm | 0.0215 | 59.85 | 1099.0000 | 0.0359 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0422 | ppm | 0.0034 | 8.12 | 2372.0000 | 0.0422 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0001 u | ppm | 0.0015 | > 100.00 | 85.7100 | 0.0001 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0000 | 20.57 | 55.6300 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0001 u | ppm | 0.0010 | > 100.00 | -2.3900 | 0.0001 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.1999 | ppm | 0.0007 | 0.34 | 1614.0000 | 0.1999 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0004 | ppm | 0.0000 | 8.95 | -4.5040 | 0.0004 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0004 u | ppm | 0.0012 | > 100.00 | -3.2040 | 0.0004 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0003 u | ppm | 0.0023 | > 100.00 | 7.1900 | -0.0003 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0005 u | ppm | 0.0028 | > 100.00 | 0.7162 | -0.0005 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0026 u | ppm | 0.0025 | 94.44 | 4.6800 | -0.0026 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0021 u | ppm | 0.0032 | > 100.00 | 52.7400 | -0.0021 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0016 | ppm | 0.0010 | 59.93 | 1.1460 | 0.0016 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0001 | 71.23 | -234.9000 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0000 | 0.18 | -36.1000 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0017 u | ppm | 0.0026 | > 100.00 | -11.8600 | -0.0017 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0003 | ppm | 0.0001 | 22.23 | 32.3600 | 0.0003 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0010 | ppm | 0.0005 | 46.89 | 9.2010 | 0.0010 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0053 u | ppm | 0.0001 | 1.23 | 31.9000 | -0.0053 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 21.59 | 23.3100 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9803 | 593800.0000 | 0.0105 | 1.07 |
| Y_R 371.029 | 0.9919 | 104600.0000 | 0.0198 | 1.99 |

Sample Name: mb 440-437359/1-a

Date: 10/25/2017 5:45:16 PM Rack:Tube: 2:21

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0027 u | ppm | 0.0004 | 14.39 | -161.3000 | -0.0027 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0065 | ppm | 0.0003 | 5.30 | -42.5500 | 0.0065 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0058 | ppm | 0.0024 | 41.85 | 10.9900 | 0.0058 (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0007 u | ppm | 0.0003 | 42.37 | 42.5100 | -0.0007 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 41.3600 | 0.0000 u (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 3.1630 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0088 | ppm | 0.0082 | 92.64 | 129.1000 | 0.0088 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0000 | 51.76 | -2.1440 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | -31.9700 | 0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | -0.0003 u | ppm | 0.0001 | 39.65 | 1.9040 | -0.0003 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0027 | ppm | 0.0002 | 6.03 | 726.9000 | 0.0027 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0036 | ppm | 0.0004 | 10.40 | 3.4000 | 0.0036 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0555 | ppm | 0.0507 | 91.30 | 1123.0000 | 0.0555 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0313 | ppm | 0.0000 | 0.09 | 1766.0000 | 0.0313 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0005 | ppm | 0.0006 | > 100.00 | 86.9200 | 0.0005 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0001 | 81.02 | 42.7000 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0005 u | ppm | 0.0011 | > 100.00 | -5.7960 | -0.0005 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.2251 | ppm | 0.0018 | 0.81 | 1805.0000 | 0.2251 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0003 u | ppm | 0.0011 | > 100.00 | -5.3630 | 0.0003 u (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0020 u | ppm | 0.0015 | 73.97 | -6.0150 | -0.0020 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0009 u | ppm | 0.0019 | > 100.00 | 9.8030 | 0.0009 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0018 | ppm | 0.0002 | 12.82 | 4.3080 | 0.0018 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0016 u | ppm | 0.0006 | 40.53 | 6.1650 | -0.0016 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0075 u | ppm | 0.0011 | 15.24 | 40.7200 | -0.0075 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0008 | ppm | 0.0002 | 24.87 | 0.3424 | 0.0008 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | -162.6000 | 0.0001 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -52.5300 | 0.0000 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0010 u | ppm | 0.0007 | 73.87 | -10.5100 | -0.0010 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0005 | ppm | 0.0002 | 35.08 | 40.5700 | 0.0005 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0003 u | ppm | 0.0012 | > 100.00 | 7.3800 | 0.0003 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0044 u | ppm | 0.0000 | 0.68 | 53.9400 | -0.0044 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 37.43 | 11.6900 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0070 | 610100.0000 | 0.0151 | 1.50 |
| Y_R 371.029 | 1.0350 | 109100.0000 | 0.0048 | 0.47 |

Sample Name: lcs 440-437359/2-a

Date: 10/25/2017 5:47:21 PM Rack:Tube: 2:22

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4697 | ppm | 0.0067 | 1.42 | 24290.0000 | 0.4697 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.9399 | ppm | 0.0153 | 1.62 | 30180.0000 | 0.9399 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9375 | ppm | 0.0156 | 1.66 | 888.9000 | 0.9375 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9193 | ppm | 0.0103 | 1.12 | 12850.0000 | 0.9193 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9239 | ppm | 0.0102 | 1.10 | 72000.0000 | 0.9239 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9257 | ppm | 0.0133 | 1.44 | 214800.0000 | 0.9257 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.7820 | ppm | 0.0238 | 0.50 | 15950.0000 | 4.7820 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9304 | ppm | 0.0129 | 1.39 | 25980.0000 | 0.9304 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9391 | ppm | 0.0137 | 1.46 | 15520.0000 | 0.9391 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9333 | ppm | 0.0173 | 1.85 | 7270.0000 | 0.9333 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9450 | ppm | 0.0149 | 1.58 | 41230.0000 | 0.9450 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9604 | ppm | 0.0074 | 0.77 | 5311.0000 | 0.9604 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.5050 | ppm | 0.0643 | 0.68 | 12960.0000 | 9.5050 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9198 | ppm | 0.0050 | 0.54 | 49420.0000 | 0.9198 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.6570 | ppm | 0.0506 | 1.09 | 15910.0000 | 4.6570 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9380 | ppm | 0.0137 | 1.46 | 93590.0000 | 0.9380 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9456 | ppm | 0.0162 | 1.71 | 4896.0000 | 0.9456 (ppm) | Y 371.029 |
| Na (589.592 nm) | 9.7780 | ppm | 0.0853 | 0.87 | 74150.0000 | 9.7780 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9405 | ppm | 0.0135 | 1.43 | 4265.0000 | 0.9405 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9176 | ppm | 0.0151 | 1.65 | 955.9000 | 0.9176 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9366 | ppm | 0.0142 | 1.52 | 1956.0000 | 0.9366 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9766 | ppm | 0.0119 | 1.21 | 1513.0000 | 0.9766 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.8887 | ppm | 0.0105 | 1.18 | 1258.0000 | 0.8887 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.2420 | ppm | 0.0579 | 1.36 | 9784.0000 | 4.2420 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9357 | ppm | 0.0127 | 1.35 | 870.5000 | 0.9357 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9610 | ppm | 0.0290 | 3.01 | 258800.0000 | 0.9610 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9472 | ppm | 0.0137 | 1.45 | 93040.0000 | 0.9472 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9390 | ppm | 0.0132 | 1.41 | 1779.0000 | 0.9390 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9416 | ppm | 0.0143 | 1.51 | 30870.0000 | 0.9416 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9412 | ppm | 0.0142 | 1.50 | 2500.0000 | 0.9412 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9239 | ppm | 0.0135 | 1.46 | 23730.0000 | 0.9239 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9485 | ppm | 0.0132 | 1.40 | 83440.0000 | 0.9485 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0430 | 631600.0000 | 0.0101 | 0.97 |
| Y_R 371.029 | 1.0540 | 111200.0000 | 0.0162 | 1.54 |

Sample Name: 440-194578-d-2-a

Date: 10/25/2017 5:49:25 PM Rack:Tube: 2:23

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0035 u | ppm | 0.0000 | 1.23 | -229.5000 | -0.0035 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0164 | ppm | 0.0003 | 1.57 | -266.0000 | 0.0164 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0090 | ppm | 0.0002 | 2.51 | 8.4410 | 0.0090 (ppm) | Y 371.029 |
| B (249.678 nm) | 2.3060 | ppm | 0.0067 | 0.29 | 32460.0000 | 2.3060 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0033 | ppm | 0.0003 | 7.61 | 321.4000 | 0.0033 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0003 | ppm | 0.0003 | 96.06 | 192.6000 | 0.0003 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 222.2000 | ppm | 1.4830 | 0.67 | 736600.0000 | 222.2000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0005 | ppm | 0.0001 | 26.69 | 12.1600 | 0.0005 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0132 | ppm | 0.0005 | 4.12 | 200.2000 | 0.0132 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.5969 | ppm | 0.0002 | 0.03 | 4657.0000 | 0.5969 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1905 | ppm | 0.0000 | 0.01 | 8452.0000 | 0.1905 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 3.5500 | ppm | 0.0009 | 0.02 | 19720.0000 | 3.5500 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 1.0810 | ppm | 0.0196 | 1.81 | 2392.0000 | 1.0810 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | -0.0250 u | ppm | 0.0008 | 3.11 | 425.0000 | -0.0250 u (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 163.0000 | ppm | 0.8457 | 0.52 | 554000.0000 | 163.0000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.2458 | ppm | 0.0001 | 0.05 | 25470.0000 | 0.2458 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0073 | ppm | 0.0009 | 11.78 | 29.8600 | 0.0073 (ppm) | Y 371.029 |
| Na (589.592 nm) | 71.0600 | ppm | 0.0284 | 0.04 | 538200.0000 | 71.0600 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.2424 | ppm | 0.0014 | 0.56 | 1040.0000 | 0.2424 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0914 | ppm | 0.0007 | 0.74 | 88.0500 | 0.0914 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0002 u | ppm | 0.0009 | > 100.00 | 9.6870 | -0.0002 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0034 | ppm | 0.0003 | 8.04 | 0.3416 | 0.0034 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0007 u | ppm | 0.0005 | 69.99 | 7.4070 | -0.0007 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 20.5600 | ppm | 0.0519 | 0.25 | 46220.0000 | 20.5600 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0030 u | ppm | 0.0017 | 57.92 | -1.9080 | -0.0030 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9656 | ppm | 0.0011 | 0.11 | 262100.0000 | 0.9656 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0048 | ppm | 0.0001 | 1.22 | 217.0000 | 0.0048 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0009 u | ppm | 0.0018 | > 100.00 | -6.0300 | -0.0009 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0304 | ppm | 0.0001 | 0.28 | 1077.0000 | 0.0304 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0012 | ppm | 0.0000 | 2.74 | 5.0550 | 0.0012 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0084 | ppm | 0.0000 | 0.49 | 444.8000 | 0.0084 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0006 | ppm | 0.0001 | 14.31 | 98.8700 | 0.0006 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9953 | 602900.0000 | 0.0018 | 0.18 |
| Y_R 371.029 | 1.0380 | 109400.0000 | 0.0042 | 0.41 |

Sample Name: 440-194578-d-2-b ms

Date: 10/25/2017 5:51:30 PM Rack:Tube: 2:24

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4870 | ppm | 0.0002 | 0.04 | 25150.0000 | 0.4870 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0900 | ppm | 0.0005 | 0.05 | 34380.0000 | 1.0900 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9824 | ppm | 0.0006 | 0.06 | 926.6000 | 0.9824 (ppm) | Y 371.029 |
| B (249.678 nm) | 3.1120 | ppm | 0.0066 | 0.21 | 43660.0000 | 3.1120 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9097 | ppm | 0.0107 | 1.18 | 70910.0000 | 0.9097 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9542 | ppm | 0.0005 | 0.05 | 221500.0000 | 0.9542 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 211.4000 | ppm | 4.2110 | 1.99 | 700800.0000 | 211.4000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.8948 | ppm | 0.0004 | 0.05 | 24990.0000 | 0.8948 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9001 | ppm | 0.0039 | 0.44 | 14900.0000 | 0.9001 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.4880 | ppm | 0.0027 | 0.18 | 11590.0000 | 1.4880 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.1490 | ppm | 0.0010 | 0.09 | 49680.0000 | 1.1490 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 4.2970 | ppm | 0.0707 | 1.65 | 23870.0000 | 4.2970 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 11.0200 | ppm | 0.2299 | 2.09 | 14850.0000 | 11.0200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9407 | ppm | 0.0139 | 1.48 | 52310.0000 | 0.9407 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 159.4000 | ppm | 2.1700 | 1.36 | 542000.0000 | 159.4000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.1530 | ppm | 0.0016 | 0.14 | 116000.0000 | 1.1530 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9714 | ppm | 0.0005 | 0.06 | 5025.0000 | 0.9714 (ppm) | Y 371.029 |
| Na (589.592 nm) | 76.5800 | ppm | 1.1980 | 1.56 | 580000.0000 | 76.5800 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.1030 | ppm | 0.0008 | 0.08 | 4954.0000 | 1.1030 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0540 | ppm | 0.0041 | 0.39 | 1097.0000 | 1.0540 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9085 | ppm | 0.0034 | 0.37 | 1899.0000 | 0.9085 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0050 | ppm | 0.0001 | 0.01 | 1551.0000 | 1.0050 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9045 | ppm | 0.0003 | 0.03 | 1280.0000 | 0.9045 (ppm) | Y 371.029 |
| Si (251.611 nm) | 22.8300 | ppm | 0.0218 | 0.10 | 51540.0000 | 22.8300 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9344 | ppm | 0.0019 | 0.20 | 870.5000 | 0.9344 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.8840 | ppm | 0.0203 | 1.08 | 509500.0000 | 1.8840 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9713 | ppm | 0.0009 | 0.09 | 95220.0000 | 0.9713 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9092 | ppm | 0.0013 | 0.14 | 1722.0000 | 0.9092 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9936 | ppm | 0.0003 | 0.03 | 32630.0000 | 0.9936 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9585 | ppm | 0.0005 | 0.06 | 2540.0000 | 0.9585 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.8805 | ppm | 0.0005 | 0.05 | 22710.0000 | 0.8805 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9603 | ppm | 0.0008 | 0.08 | 84520.0000 | 0.9603 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9845 | 596400.0000 | 0.0027 | 0.27 |
| Y_R 371.029 | 1.0060 | 106100.0000 | 0.0149 | 1.48 |

Sample Name: 440-194578-d-2-c msd

Date: 10/25/2017 5:53:34 PM Rack:Tube: 2:25

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4965 | ppm | 0.0048 | 0.97 | 25640.0000 | 0.4965 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0970 | ppm | 0.0109 | 0.99 | 34560.0000 | 1.0970 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9922 | ppm | 0.0059 | 0.59 | 935.5000 | 0.9922 (ppm) | Y 371.029 |
| B (249.678 nm) | 3.2660 | ppm | 0.0279 | 0.86 | 45820.0000 | 3.2660 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9584 | ppm | 0.0196 | 2.05 | 74710.0000 | 0.9584 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9736 | ppm | 0.0090 | 0.93 | 226000.0000 | 0.9736 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 234.5000 | ppm | 5.9480 | 2.54 | 777200.0000 | 234.5000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9105 | ppm | 0.0093 | 1.03 | 25430.0000 | 0.9105 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9156 | ppm | 0.0078 | 0.86 | 15150.0000 | 0.9156 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.5280 | ppm | 0.0132 | 0.86 | 11910.0000 | 1.5280 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.1800 | ppm | 0.0132 | 1.12 | 50960.0000 | 1.1800 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 4.7100 | ppm | 0.0980 | 2.08 | 26160.0000 | 4.7100 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 11.7500 | ppm | 0.2788 | 2.37 | 15760.0000 | 11.7500 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9902 | ppm | 0.0251 | 2.53 | 55210.0000 | 0.9902 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 175.0000 | ppm | 3.5690 | 2.04 | 595000.0000 | 175.0000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.1850 | ppm | 0.0130 | 1.10 | 119200.0000 | 1.1850 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9832 | ppm | 0.0111 | 1.13 | 5085.0000 | 0.9832 (ppm) | Y 371.029 |
| Na (589.592 nm) | 84.4000 | ppm | 1.4640 | 1.73 | 639200.0000 | 84.4000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.1340 | ppm | 0.0084 | 0.74 | 5086.0000 | 1.1340 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0750 | ppm | 0.0078 | 0.72 | 1118.0000 | 1.0750 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9242 | ppm | 0.0112 | 1.22 | 1932.0000 | 0.9242 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0180 | ppm | 0.0100 | 0.98 | 1570.0000 | 1.0180 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9213 | ppm | 0.0077 | 0.84 | 1304.0000 | 0.9213 (ppm) | Y 371.029 |
| Si (251.611 nm) | 24.0800 | ppm | 0.2201 | 0.91 | 54340.0000 | 24.0800 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9410 | ppm | 0.0094 | 1.00 | 876.8000 | 0.9410 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 2.0190 | ppm | 0.0556 | 2.75 | 546100.0000 | 2.0190 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9852 | ppm | 0.0111 | 1.12 | 96560.0000 | 0.9852 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9293 | ppm | 0.0141 | 1.52 | 1761.0000 | 0.9293 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0120 | ppm | 0.0091 | 0.90 | 33250.0000 | 1.0120 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9754 | ppm | 0.0065 | 0.67 | 2584.0000 | 0.9754 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.8980 | ppm | 0.0089 | 0.99 | 23160.0000 | 0.8980 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9736 | ppm | 0.0100 | 1.03 | 85690.0000 | 0.9736 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9841 | 596100.0000 | 0.0081 | 0.82 |
| Y_R 371.029 | 0.9725 | 102600.0000 | 0.0181 | 1.86 |

Sample Name: 440-194578-d-2-d pds

Date: 10/25/2017 5:55:38 PM Rack:Tube: 2:26

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4707 | ppm | 0.0031 | 0.66 | 24310.0000 | 0.4707 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0180 | ppm | 0.0068 | 0.67 | 32080.0000 | 1.0180 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9457 | ppm | 0.0033 | 0.35 | 891.6000 | 0.9457 (ppm) | Y 371.029 |
| B (249.678 nm) | 3.1030 | ppm | 0.0176 | 0.57 | 43540.0000 | 3.1030 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.8682 | ppm | 0.0047 | 0.54 | 67680.0000 | 0.8682 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9206 | ppm | 0.0077 | 0.84 | 213700.0000 | 0.9206 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 213.6000 | ppm | 1.2610 | 0.59 | 707900.0000 | 213.6000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.8637 | ppm | 0.0062 | 0.72 | 24120.0000 | 0.8637 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.8720 | ppm | 0.0002 | 0.02 | 14430.0000 | 0.8720 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.4860 | ppm | 0.0031 | 0.21 | 11580.0000 | 1.4860 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.1160 | ppm | 0.0066 | 0.59 | 48250.0000 | 1.1160 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 4.2840 | ppm | 0.0355 | 0.83 | 23790.0000 | 4.2840 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.8000 | ppm | 0.1331 | 1.23 | 14560.0000 | 10.8000 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9099 | ppm | 0.0079 | 0.87 | 50610.0000 | 0.9099 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 157.6000 | ppm | 0.3896 | 0.25 | 535600.0000 | 157.6000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.1230 | ppm | 0.0101 | 0.90 | 113000.0000 | 1.1230 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9379 | ppm | 0.0090 | 0.96 | 4851.0000 | 0.9379 (ppm) | Y 371.029 |
| Na (589.592 nm) | 76.7200 | ppm | 0.2663 | 0.35 | 581000.0000 | 76.7200 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0790 | ppm | 0.0083 | 0.77 | 4841.0000 | 1.0790 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0250 | ppm | 0.0112 | 1.10 | 1067.0000 | 1.0250 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.8795 | ppm | 0.0043 | 0.49 | 1839.0000 | 0.8795 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9626 | ppm | 0.0013 | 0.13 | 1485.0000 | 0.9626 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.8752 | ppm | 0.0055 | 0.63 | 1239.0000 | 0.8752 (ppm) | Y 371.029 |
| Si (251.611 nm) | 22.9600 | ppm | 0.1062 | 0.46 | 51810.0000 | 22.9600 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.8968 | ppm | 0.0016 | 0.18 | 835.5000 | 0.8968 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.8510 | ppm | 0.0224 | 1.21 | 500600.0000 | 1.8510 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9369 | ppm | 0.0066 | 0.70 | 91830.0000 | 0.9369 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.8827 | ppm | 0.0026 | 0.30 | 1672.0000 | 0.8827 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9589 | ppm | 0.0089 | 0.93 | 31490.0000 | 0.9589 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9293 | ppm | 0.0075 | 0.81 | 2463.0000 | 0.9293 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.8510 | ppm | 0.0089 | 1.05 | 21950.0000 | 0.8510 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9271 | ppm | 0.0062 | 0.67 | 81600.0000 | 0.9271 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9980 | 604600.0000 | 0.0072 | 0.72 |
| Y_R 371.029 | 1.0350 | 109200.0000 | 0.0037 | 0.36 |

Sample Name: 440-194578-d-2-aSD@5

Date: 10/25/2017 5:57:42 PM Rack:Tube: 2:27

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0033 u | ppm | 0.0002 | 7.22 | -197.3000 | -0.0033 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0084 u | ppm | 0.0005 | 5.70 | -615.6000 | -0.0084 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0097 | ppm | 0.0002 | 2.26 | 13.6100 | 0.0097 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4552 | ppm | 0.0082 | 1.80 | 6448.0000 | 0.4552 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0010 | ppm | 0.0000 | 4.56 | 123.8000 | 0.0010 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0002 | ppm | 0.0001 | 45.46 | 75.9200 | 0.0002 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 45.7800 | ppm | 0.3882 | 0.85 | 151800.0000 | 45.7800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0000 | 19.19 | 3.7280 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0032 | ppm | 0.0001 | 2.86 | 22.5300 | 0.0032 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1197 | ppm | 0.0028 | 2.35 | 937.3000 | 0.1197 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0361 | ppm | 0.0015 | 4.11 | 2090.0000 | 0.0361 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.7613 | ppm | 0.0027 | 0.35 | 4217.0000 | 0.7613 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.3350 | ppm | 0.0304 | 9.08 | 1471.0000 | 0.3350 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0234 | ppm | 0.0063 | 27.08 | 1722.0000 | 0.0234 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 34.6400 | ppm | 0.0943 | 0.27 | 117800.0000 | 34.6400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0499 | ppm | 0.0011 | 2.23 | 5207.0000 | 0.0499 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0012 | ppm | 0.0001 | 8.15 | 2.2490 | 0.0012 (ppm) | Y 371.029 |
| Na (589.592 nm) | 15.3000 | ppm | 0.0686 | 0.45 | 116000.0000 | 15.3000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0517 | ppm | 0.0015 | 2.98 | 217.2000 | 0.0517 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0160 | ppm | 0.0014 | 8.53 | 12.3000 | 0.0160 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0002 u | ppm | 0.0003 | > 100.00 | 8.7820 | 0.0002 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0045 u | ppm | 0.0048 | > 100.00 | -6.8540 | -0.0045 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0003 u | ppm | 0.0005 | > 100.00 | 7.9240 | -0.0003 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.0160 | ppm | 0.0902 | 2.25 | 9075.0000 | 4.0160 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0003 u | ppm | 0.0017 | > 100.00 | 0.1587 | 0.0003 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.2030 | ppm | 0.0011 | 0.55 | 54930.0000 | 0.2030 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0012 | ppm | 0.0000 | 0.35 | 22.2700 | 0.0012 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0007 u | ppm | 0.0011 | > 100.00 | -6.3740 | 0.0007 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0066 | ppm | 0.0001 | 1.92 | 252.2000 | 0.0066 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0002 | ppm | 0.0002 | 64.70 | 6.2100 | 0.0002 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0025 u | ppm | 0.0001 | 4.33 | 116.8000 | -0.0025 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0005 | ppm | 0.0001 | 22.56 | 54.3000 | 0.0005 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0420 | 631000.0000 | 0.0263 | 2.52 |
| Y_R 371.029 | 1.0030 | 105800.0000 | 0.0000 | 0.00 |

Sample Name: 440-194578-d-3-a

Date: 10/25/2017 5:59:47 PM Rack:Tube: 2:28

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0039 u | ppm | 0.0001 | 2.38 | -251.2000 | -0.0039 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0096 u | ppm | 0.0001 | 1.36 | -1051.0000 | -0.0096 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0102 | ppm | 0.0032 | 31.74 | 10.7000 | 0.0102 (ppm) | Y 371.029 |
| B (249.678 nm) | 2.3280 | ppm | 0.0500 | 2.15 | 32770.0000 | 2.3280 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0029 | ppm | 0.0001 | 3.74 | 285.2000 | 0.0029 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | 135.7000 | 0.0002 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 215.8000 | ppm | 1.0530 | 0.49 | 715200.0000 | 215.8000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0000 | 16.15 | 2.6990 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0126 | ppm | 0.0009 | 7.31 | 187.6000 | 0.0126 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4987 | ppm | 0.0133 | 2.67 | 3892.0000 | 0.4987 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1613 | ppm | 0.0042 | 2.59 | 7207.0000 | 0.1613 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 2.5590 | ppm | 0.0023 | 0.09 | 14230.0000 | 2.5590 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 1.2390 | ppm | 0.0240 | 1.93 | 2594.0000 | 1.2390 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | -0.0206 u | ppm | 0.0014 | 6.84 | 722.2000 | -0.0206 u (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 162.3000 | ppm | 1.1910 | 0.73 | 551900.0000 | 162.3000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.2455 | ppm | 0.0066 | 2.70 | 25310.0000 | 0.2455 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0055 | ppm | 0.0010 | 17.97 | 20.5400 | 0.0055 (ppm) | Y 371.029 |
| Na (589.592 nm) | 70.6900 | ppm | 0.2600 | 0.37 | 535400.0000 | 70.6900 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.2171 | ppm | 0.0039 | 1.80 | 926.7000 | 0.2171 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0748 | ppm | 0.0010 | 1.39 | 70.9800 | 0.0748 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0003 u | ppm | 0.0019 | > 100.00 | 9.3690 | -0.0003 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0012 | ppm | 0.0003 | 26.18 | -4.3410 | 0.0012 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0008 u | ppm | 0.0027 | > 100.00 | 9.7830 | 0.0008 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 20.6100 | ppm | 0.4793 | 2.33 | 46330.0000 | 20.6100 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0043 u | ppm | 0.0031 | 70.35 | -3.2000 | -0.0043 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9542 | ppm | 0.0032 | 0.33 | 258900.0000 | 0.9542 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0027 | ppm | 0.0001 | 2.59 | 17.9000 | 0.0027 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0011 | ppm | 0.0002 | 14.42 | -1.9630 | 0.0011 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0250 | ppm | 0.0010 | 4.18 | 899.3000 | 0.0250 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0020 | ppm | 0.0008 | 38.10 | 7.2450 | 0.0020 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0047 | ppm | 0.0005 | 11.13 | 349.8000 | 0.0047 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0004 | ppm | 0.0000 | 7.01 | 73.2900 | 0.0004 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9634 | 583600.0000 | 0.0198 | 2.06 |
| Y_R 371.029 | 1.0200 | 107600.0000 | 0.0028 | 0.27 |

Sample Name: CCV 4444438

Date: 10/25/2017 6:01:51 PM
Rack:Tube: S1:4
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4757 | ppm | 0.0000 | 0.01 | 24600.0000 | 0.4757 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.9579 | ppm | 0.0003 | 0.04 | 30740.0000 | 0.9579 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9542 | ppm | 0.0030 | 0.32 | 904.6000 | 0.9542 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9545 | ppm | 0.0014 | 0.15 | 13340.0000 | 0.9545 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9342 | ppm | 0.0008 | 0.08 | 72800.0000 | 0.9342 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9451 | ppm | 0.0005 | 0.05 | 219300.0000 | 0.9451 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.8300 | ppm | 0.0381 | 0.79 | 16110.0000 | 4.8300 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9475 | ppm | 0.0007 | 0.08 | 26460.0000 | 0.9475 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9510 | ppm | 0.0014 | 0.15 | 15720.0000 | 0.9510 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9450 | ppm | 0.0039 | 0.41 | 7361.0000 | 0.9450 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9433 | ppm | 0.0001 | 0.01 | 41160.0000 | 0.9433 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9720 | ppm | 0.0037 | 0.39 | 5376.0000 | 0.9720 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.7950 | ppm | 0.0025 | 0.03 | 13320.0000 | 9.7950 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9344 | ppm | 0.0105 | 1.12 | 50210.0000 | 0.9344 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.7590 | ppm | 0.0179 | 0.38 | 16260.0000 | 4.7590 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9458 | ppm | 0.0003 | 0.03 | 94370.0000 | 0.9458 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9486 | ppm | 0.0002 | 0.02 | 4912.0000 | 0.9486 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.2100 | ppm | 0.0321 | 0.31 | 77390.0000 | 10.2100 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9498 | ppm | 0.0007 | 0.08 | 4307.0000 | 0.9498 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9446 | ppm | 0.0033 | 0.35 | 986.6000 | 0.9446 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9515 | ppm | 0.0013 | 0.14 | 1987.0000 | 0.9515 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9445 | ppm | 0.0078 | 0.83 | 1463.0000 | 0.9445 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9571 | ppm | 0.0043 | 0.45 | 1353.0000 | 0.9571 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.7120 | ppm | 0.0260 | 0.55 | 10840.0000 | 4.7120 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9550 | ppm | 0.0033 | 0.35 | 888.4000 | 0.9550 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9673 | ppm | 0.0062 | 0.64 | 260500.0000 | 0.9673 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9502 | ppm | 0.0011 | 0.11 | 93330.0000 | 0.9502 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9555 | ppm | 0.0007 | 0.08 | 1811.0000 | 0.9555 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9505 | ppm | 0.0007 | 0.08 | 31160.0000 | 0.9505 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9475 | ppm | 0.0033 | 0.35 | 2518.0000 | 0.9475 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9529 | ppm | 0.0004 | 0.04 | 24470.0000 | 0.9529 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9511 | ppm | 0.0007 | 0.07 | 83680.0000 | 0.9511 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0590 | 641700.0000 | 0.0020 | 0.19 |
| Y_R 371.029 | 1.0670 | 112500.0000 | 0.0007 | 0.06 |

Sample Name: CCB 4444437

Date: 10/25/2017 6:03:56 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0026 u | ppm | 0.0001 | 1.95 | -153.2000 | -0.0026 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0008 u | ppm | 0.0005 | 67.45 | -267.9000 | -0.0008 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0046 | ppm | 0.0017 | 37.21 | 9.8380 | 0.0046 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0041 | ppm | 0.0019 | 47.10 | 109.7000 | 0.0041 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0003 | ppm | 0.0001 | 26.27 | 61.9700 | 0.0003 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0003 | ppm | 0.0001 | 18.74 | 74.2400 | 0.0003 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0058 | ppm | 0.0015 | 25.76 | 119.2000 | 0.0058 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0000 | 13.72 | 3.3000 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0006 | ppm | 0.0002 | 26.48 | -24.2700 | 0.0006 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | 5.2950 | 0.0002 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0004 | 50.98 | 641.8000 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0022 | ppm | 0.0012 | 53.89 | -4.3360 | 0.0022 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1292 | ppm | 0.0104 | 8.06 | 1216.0000 | 0.1292 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0358 | ppm | 0.0018 | 5.13 | 2018.0000 | 0.0358 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0116 | ppm | 0.0051 | 44.06 | 124.5000 | 0.0116 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0003 | ppm | 0.0001 | 24.14 | 67.8700 | 0.0003 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0006 | ppm | 0.0007 | > 100.00 | 0.2867 | 0.0006 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.4895 | ppm | 0.0199 | 4.07 | 3806.0000 | 0.4895 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0014 | ppm | 0.0006 | 43.51 | -0.1619 | 0.0014 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0007 u | ppm | 0.0026 | > 100.00 | -2.9340 | 0.0007 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0025 | ppm | 0.0000 | 0.41 | 12.9900 | 0.0025 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0026 u | ppm | 0.0002 | 7.16 | -2.6870 | -0.0026 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0031 u | ppm | 0.0020 | 63.39 | 3.9950 | -0.0031 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0091 | ppm | 0.0092 | > 100.00 | 78.1200 | 0.0091 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0005 u | ppm | 0.0003 | 61.16 | -0.8443 | -0.0005 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | -182.0000 | 0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0003 | ppm | 0.0001 | 35.54 | -25.5400 | 0.0003 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0003 u | ppm | 0.0003 | > 100.00 | -9.0480 | -0.0003 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0006 | ppm | 0.0000 | 1.02 | 41.8000 | 0.0006 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0023 | ppm | 0.0010 | 44.54 | 12.5100 | 0.0023 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0052 u | ppm | 0.0001 | 1.85 | 33.5000 | -0.0052 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0000 | 12.52 | 28.4300 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0030 | 607600.0000 | 0.0136 | 1.36 |
| Y_R 371.029 | 1.0130 | 106900.0000 | 0.0189 | 1.86 |

Sample Name: RINSE 4444447

Date: 10/25/2017 6:07:59 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0030 u | ppm | 0.0001 | 2.11 | -175.2000 | -0.0030 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0001 u | ppm | 0.0006 | > 100.00 | -242.5000 | 0.0001 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0060 | ppm | 0.0008 | 12.82 | 11.1800 | 0.0060 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0001 u | ppm | 0.0004 | > 100.00 | 54.3100 | 0.0001 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0000 | 54.63 | 43.6300 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0000 | 45.26 | 23.8500 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0016 u | ppm | 0.0036 | > 100.00 | 105.0000 | 0.0016 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 0.7768 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0002 u | ppm | 0.0003 | > 100.00 | -38.0600 | -0.0002 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | 4.6820 | 0.0001 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0004 | 44.70 | 643.5000 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0018 | ppm | 0.0006 | 31.13 | -6.3260 | 0.0018 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1215 | ppm | 0.0637 | 52.39 | 1206.0000 | 0.1215 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0439 | ppm | 0.0028 | 6.43 | 2468.0000 | 0.0439 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0016 | ppm | 0.0007 | 43.27 | 90.5900 | 0.0016 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0000 | 40.22 | 44.1200 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0003 u | ppm | 0.0016 | > 100.00 | -4.7700 | -0.0003 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.4428 | ppm | 0.0099 | 2.23 | 3453.0000 | 0.4428 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0004 u | ppm | 0.0016 | > 100.00 | -4.8240 | 0.0004 u (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0015 u | ppm | 0.0017 | > 100.00 | -5.2950 | -0.0015 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0003 u | ppm | 0.0014 | > 100.00 | 8.4380 | 0.0003 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0030 u | ppm | 0.0008 | 27.03 | -3.2370 | -0.0030 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0009 u | ppm | 0.0022 | > 100.00 | 7.0490 | -0.0009 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0115 u | ppm | 0.0001 | 0.81 | 31.4800 | -0.0115 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0001 u | ppm | 0.0009 | > 100.00 | -0.4354 | -0.0001 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0003 u | ppm | 0.0001 | 29.50 | -266.4000 | -0.0003 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0001 | 80.68 | -45.1700 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0003 u | ppm | 0.0020 | > 100.00 | -7.9640 | 0.0003 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0003 | ppm | 0.0001 | 36.47 | 33.6600 | 0.0003 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0005 u | ppm | 0.0004 | 74.73 | 5.2530 | -0.0005 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0023 u | ppm | 0.0001 | 5.16 | 108.4000 | -0.0023 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 5.7630 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0050 | 608600.0000 | 0.0147 | 1.46 |
| Y_R 371.029 | 0.9945 | 104900.0000 | 0.0182 | 1.83 |

Sample Name: RINSE 4444447

Date: 10/25/2017 6:10:04 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0030 u | ppm | 0.0002 | 7.25 | -173.5000 | -0.0030 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0005 u | ppm | 0.0002 | 40.88 | -262.0000 | -0.0005 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0063 | ppm | 0.0012 | 18.55 | 11.4500 | 0.0063 (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0009 u | ppm | 0.0001 | 9.90 | 39.6800 | -0.0009 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0000 | 0.18 | 42.0100 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | 27.76 | 16.6700 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0100 | ppm | 0.0030 | 30.20 | 132.8000 | 0.0100 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | -0.0001 u | ppm | 0.0002 | > 100.00 | -3.5100 | -0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0001 u | ppm | 0.0003 | > 100.00 | -35.2600 | -0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | -0.0003 u | ppm | 0.0002 | 64.13 | 1.5800 | -0.0003 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0012 | ppm | 0.0001 | 5.11 | 660.5000 | 0.0012 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0003 u | ppm | 0.0007 | > 100.00 | -14.7900 | 0.0003 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1003 | ppm | 0.0475 | 47.38 | 1180.0000 | 0.1003 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0425 | ppm | 0.0002 | 0.52 | 2390.0000 | 0.0425 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0019 | ppm | 0.0013 | 69.36 | 91.8300 | 0.0019 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0000 | 22.32 | 44.6500 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0006 u | ppm | 0.0023 | > 100.00 | -6.2930 | -0.0006 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.4320 | ppm | 0.0073 | 1.68 | 3371.0000 | 0.4320 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0007 | ppm | 0.0001 | 22.03 | -3.4970 | 0.0007 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0061 | ppm | 0.0002 | 3.51 | 3.2080 | 0.0061 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0009 | ppm | 0.0004 | 46.29 | 9.7980 | 0.0009 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0010 u | ppm | 0.0003 | 30.28 | -0.1440 | -0.0010 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0014 u | ppm | 0.0014 | > 100.00 | 6.3810 | -0.0014 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0097 u | ppm | 0.0006 | 6.09 | 35.6100 | -0.0097 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0018 u | ppm | 0.0002 | 12.85 | -2.0910 | -0.0018 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | -221.7000 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0000 | 25.39 | -40.6700 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0012 | ppm | 0.0016 | > 100.00 | -6.1620 | 0.0012 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0002 | ppm | 0.0001 | 30.02 | 30.1700 | 0.0002 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0006 | ppm | 0.0003 | 51.94 | 8.1050 | 0.0006 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0021 u | ppm | 0.0002 | 8.23 | 112.0000 | -0.0021 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0000 | 79.11 | 0.1660 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9664 | 585400.0000 | 0.0034 | 0.35 |
| Y_R 371.029 | 0.9890 | 104300.0000 | 0.0034 | 0.34 |

# GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Irvine  Job Number: 440-194754-1

SDG No.:

Project: VER Treatability Study

| Client Sample ID | Lab Sample ID |
|---|---|
| VER-01D-5.0-20171020 | 440-194754-2 |
| VER-01D-10.0-20171020 | 440-194754-3 |
| VER-01D-10.0-20171020-FD | 440-194754-4 |
| VER-01D-15.0-20171020 | 440-194754-5 |
| VER-01D-20.0-20171020 | 440-194754-6 |
| VER-01D-25.0-20171020 | 440-194754-7 |
| VER-01D-30.0-20171020 | 440-194754-8 |
| VER-01D-40.0-20171020 | 440-194754-10 |
| VER-01D-50.0-20171020 | 440-194754-11 |
| VER-01D-60.0-20171020 | 440-194754-12 |
| VER-01D-70.0-20171020 | 440-194754-13 |
| VER-01D-80.0-20171020 | 440-194754-15 |
| VER-01D-100.0-20171020 | 440-194754-16 |
| VER-01D-110.0-20171020 | 440-194754-17 |
| VER-01D-110.0-20171020-FD | 440-194754-18 |

Comments:

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Irvine Job Number: 440-194754-1

SDG Number:

Matrix: Solid Instrument ID: BAL067

Method: Moisture RL Date: 10/26/2010 18:28

| Analyte | Wavelength/ Mass | RL (%) | |
|---|---|---|---|
| Percent Moisture | | 0.1 | |

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Irvine  Job Number: 440-194754-1

SDG Number:

Matrix: Solid  Instrument ID: BAL067

Method: Moisture  XRL Date: 11/16/2010 10:12

| Analyte | Wavelength/ Mass | XRL (%) | |
|---|---|---|---|
| Percent Moisture | | 0.1 | |

FORM IX - IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Instrument ID: BAL067  Analysis Method: Moisture

Start Date: 10/23/2017 13:38  End Date: 10/23/2017 13:38

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Moist | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-6 | 1 | T | 13:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-6 DU | 1 | T | 13:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-6 MS | 1 | T | 13:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-6 MSD | 1 | T | 13:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-2 | 1 | T | 13:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-3 | 1 | T | 13:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-4 | 1 | T | 13:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-5 | 1 | T | 13:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-7 | 1 | T | 13:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-8 | 1 | T | 13:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-10 | 1 | T | 13:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-11 | 1 | T | 13:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-13 | 1 | T | 13:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-15 | 1 | T | 13:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-16 | 1 | T | 13:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-17 | 1 | T | 13:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-18 | 1 | T | 13:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-12 | 1 | T | 13:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:38 | | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

FORM XIII-IN

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Batch Number: 436935  Batch Start Date: 10/23/17 13:38  Batch Analyst: Le, Ha Thanh T

Batch Method: Moisture  Batch End Date: 10/24/17 14:00

| Lab Sample ID | Client Sample ID | Method Chain | Basis | DishWeight | SampleMassWet | SampleMassDry | AnalysisComment | | |
|---|---|---|---|---|---|---|---|---|---|
| 440-194754-A-6 | VER-01D-20.0-20171020 | Moisture | T | 2.0521 g | 12.1773 g | 10.9953 g | 10.9952 | | |
| 440-194754-A-6 DU | VER-01D-20.0-20171020 | Moisture | T | 2.0984 g | 12.2160 g | 11.0833 g | 11.0832 | | |
| 440-194754-A-6 MS | VER-01D-20.0-20171020 | Moisture | T | 2.0984 g | 12.2160 g | 11.0833 g | 11.0832 | | |
| 440-194754-A-6 MSD | VER-01D-20.0-20171020 | Moisture | T | 2.0984 g | 12.2160 g | 11.0833 g | 11.0832 | | |
| 440-194754-A-2 | VER-01D-5.0-20171020 | Moisture | T | 2.0381 g | 12.1769 g | 10.9937 g | 10.9936 | | |
| 440-194754-A-3 | VER-01D-10.0-20171020 | Moisture | T | 2.0365 g | 12.3893 g | 11.3583 g | 11.3584 | | |
| 440-194754-A-4 | VER-01D-10.0-20171020-FD | Moisture | T | 2.0969 g | 12.1362 g | 11.2348 g | 11.2349 | | |
| 440-194754-A-5 | VER-01D-15.0-20171020 | Moisture | T | 2.0495 g | 12.2871 g | 11.4481 g | 11.4480 | | |
| 440-194754-A-7 | VER-01D-25.0-20171020 | Moisture | T | 2.0607 g | 12.1392 g | 11.2575 g | 11.2576 | | |
| 440-194754-A-8 | VER-01D-30.0-20171020 | Moisture | T | 2.0289 g | 12.1992 g | 8.5315 g | 8.5314 | | |
| 440-194754-A-10 | VER-01D-40.0-20171020 | Moisture | T | 2.0198 g | 12.2279 g | 8.0667 g | 8.0667 | | |
| 440-194754-A-11 | VER-01D-50.0-20171020 | Moisture | T | 2.0117 g | 12.4945 g | 7.1946 g | 7.1945 | | |
| 440-194754-A-13 | VER-01D-70.0-20171020 | Moisture | T | 2.0189 g | 12.2669 g | 8.2209 g | 8.2208 | | |
| 440-194754-A-15 | VER-01D-80.0-20171020 | Moisture | T | 2.0316 g | 12.3938 g | 9.0434 g | 9.0433 | | |
| 440-194754-A-16 | VER-01D-100.0-20171020 | Moisture | T | 2.0290 g | 12.1836 g | 9.9776 g | 9.9776 | | |
| 440-194754-A-17 | VER-01D-110.0-20171020 | Moisture | T | 2.0305 g | 12.1876 g | 8.0008 g | 8.0007 | | |
| 440-194754-A-18 | VER-01D-110.0-20171020-FD | Moisture | T | 2.0635 g | 12.3310 g | 7.5697 g | 7.5696 | | |
| 440-194754-A-12 | VER-01D-60.0-20171020 | Moisture | T | 2.0567 g | 12.3690 g | 10.3375 g | 10.3374 | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194754-1

SDG No.:

Batch Number: 436935  Batch Start Date: 10/23/17 13:38  Batch Analyst: Le, Ha Thanh T

Batch Method: Moisture  Batch End Date: 10/24/17 14:00

| Batch Notes | |
|---|---|
| Balance ID | 67 No Unit |
| Batch Comment | Put samples back in the oven for another 30 min. |
| Date and Time Samples in Desiccator | 10.24.17 @10:05 |
| Date and Time Samples out of Desiccator | 10.24.17 @11:45 |
| Date samples were placed in the oven | 10.23.17 |
| Oven Temp In | 105 Degrees C |
| Time samples were place in the oven | 14:30 |
| Date samples were removed from oven | 10/24/17 |
| Oven Temp Out | 105 Degrees C |
| Time Samples were removed from oven | 10:00 |
| Oven ID | O-02 |
| Thermometer ID | O-007 CF= 1C |
| Uncorrected In Temperature | 104 Celsius |
| Uncorrected Out Temperature | 104 Celsius |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Daily Balance Calibration Logbook

Weight Set ID: **D-6** Weight Set Calib Due: 01.11.2018

| Date | Initials | Balance ID | 0.0020g | 1.000g | 100.0000g | OK? | COMMENTS/ MAINTENANCE |
|---|---|---|---|---|---|---|---|
| 10.06.17 | XL | 65 | 0.0018 | 1.0001 | 100.0012 | ok | |
| 10.06.17 | XL | 67 | 0.0018 | 0.9999 | 100.0008 | ok | |
| 10.07.17 | XL | 65 | 0.0018 | 1.0000 | 100.0013 | ok | |
| 10.07.17 | XL | 67 | 0.0017 | 0.9999 | 100.0007 | ok | |
| 10.09.17 | XL | 65 | 0.0017 | 0.9999 | 100.0013 | ok | |
| 10.09.17 | XL | 67 | 0.0018 | 1.0001 | 100.0009 | ok | |
| 10.10.17 | XL | 65 | 0.0017 | 0.9998 | 100.0012 | ok | |
| 10.10.17 | XL | 67 | 0.0017 | 1.0001 | 100.0008 | ok | |
| 10.11.17 | XL | 65 | 0.0018 | 1.0001 | 100.0013 | ok | |
| 10.11.17 | XL | 67 | 0.0017 | 1.0000 | 100.0004 | ok | |
| 10.12.17 | XL | 65 | 0.0018 | 1.0000 | 100.0012 | ok | |
| 10.12.17 | XL | 67 | 0.0018 | 1.0001 | 100.0004 | ok | |
| 10.13.17 | XL | 65 | 0.0017 | 1.0000 | 100.0013 | ok | |
| 10.13.17 | XL | 67 | 0.0018 | 0.9998 | 100.0002 | ok | |
| 10.14.17 | XL | 65 | 0.0018 | 1.0000 | 100.0011 | ok | |
| 10.14.17 | XL | 67 | 0.0018 | 0.9998 | 100.0003 | ok | |
| 10.16.17 | XL | 65 | 0.0017 | 0.9998 | 100.0009 | ok | |
| 10.16.17 | XL | 67 | 0.0018 | 1.0000 | 100.0002 | ok | |
| 10.17.17 | XL | 65 | 0.0018 | 0.9999 | 100.0011 | ok | |
| 10.17.17 | XL | 67 | 0.0018 | 1.0001 | 100.0004 | ok | |
| 10.18.17 | XL | 67 | 0.0017 | 1.0000 | 100.0003 | ok | |
| 10.18.17 | XL | 65 | 0.0018 | 1.0001 | 100.0013 | ok | |
| 10.19.17 | XL | 65 | 0.0018 | 1.0001 | 100.0011 | ok | |
| 10.19.17 | XL | 67 | 0.0017 | 1.0000 | 100.0004 | ok | |
| 10.20.17 | XL | 65 | 0.0017 | 1.0001 | 100.0009 | ok | |
| 10.20.17 | XL | 67 | 0.0017 | 1.0000 | 100.0002 | ok | |
| 10.23.17 | XL | 65 | 0.0017 | 1.0001 | 100.0009 | ok | |
| 10.23.17 | XL | 67 | 0.0018 | 0.9998 | 100.0004 | ok | |
| 10.24.17 | XL | 65 | 0.0017 | 1.0001 | 100.0009 | ok | |
| 10.24.17 | XL | 67 | 0.0018 | 1.0000 | 100.0004 | ok | |

XL
10.06.17

Reviewed: _____

# Shipping and Receiving Documents

## Mata, Patty

**From:** Wilson, Michael <MICHAEL.WILSON@tetratech.com>
**Sent:** Tuesday, February 27, 2018 7:54 AM
**To:** Mata, Patty
**Cc:** Lenker, Carl; Heaton, Gina
**Subject:** RE: M16 air and water COCs

**-External Email-**

---

Patty,

After talking with the M16 project manager we will need two Level 4 data packages retroactively produced.

Please produce Level 4 data packages for SDGs 320-35962 and 440-194754-1. These two SDGs contain the representative methods/analytes needed for the repot to client.

Thanks

Mike

---

**From:** Mata, Patty [mailto:Patty.Mata@testamericainc.com]
**Sent:** Monday, February 26, 2018 8:49 AM
**To:** Wilson, Michael <MICHAEL.WILSON@tetratech.com>
**Subject:** M16 air and water COCs

Mike,
Attached is the second air set COC form and a recent water COC form.

Thanks,

**PATTY MATA**
Project Manager

Test America
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Ave, Suite #100
Irvine, CA 92614
TEL 949-261-1022 | FAX 949-260-3297
DIRECT 949-260-3213

www.testamericainc.com

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback https://www.surveymonkey.com/s/TAProjectFeedback

TestAmerica Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

# Chain of Custody Record

TestAmerica

| Client Information | Sampler: Jeff Richeson | Lab PM: Patty Mata | Carrier Tracking No(s): | COC No: |
|---|---|---|---|---|
| Client Contact: Mike Crews | Phone: (805) 660-1774 | E-Mail: patty.mata@testamericainc.com | | Page: 1 of 2 |
| Company: Tetra Tech | | | | Job #: |
| Address: 17885 Von Karman Ave., Suite 500 | Due Date Requested: | | | |
| City: Irvine | TAT Requested (days): | | | |
| State, Zip: CA 92614 | | | | |
| Phone: (949)-809-5033 | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: NERT VER Treatability study | Project #: [redacted] | | | |
| Site: Henderson, NV | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

| | |
|---|---|
| A - HCL | M - Hexane |
| B - NaOH | N - None |
| C - Zn Acetate | O - AsNaO2 |
| D - Nitric Acid | P - Na2O4S |
| E - NaHSO4 | Q - Na2SO3 |
| F - MeOH | R - Na2S2O3 |
| G - Amchlor | S - H2SO4 |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice | U - Acetone |
| J - DI Water | V - MCAA |
| K - EDTA | W - pH 4-5 |
| L - EDA | Z - other (specify) |

Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | Hexavalent Chromium | Total Chromium | Perchlorate | Chlorate + Chloride | VOCs | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | N | N | N | N | | | |
| Trip Blank | 10/20/17 | 0700 | 6 | $H_2O$ | | | | | | | X | 3 | |
| VER-01D-5.0-20171020 | | 0730 | | Soil | | | X | X | X | X | | 1 | |
| VER-01D-10.0-20171020 | | 0740 | | Soil | | | X | X | X | X | | 1 | |
| VER-01D-10.0-20171020-FD | | 0740 | | Soil | | | X | X | X | X | | 1 | |
| VER-01D-15.0-20171020 | | 0745 | | Soil | | | X | X | X | X | | 1 | |
| VER-01D-20.0-20171020 | | 0755 | | Soil | | X | X | X | X | X | | 2 | |
| VER-01D-25.0-20171020 | | 0805 | | Soil | | | X | X | X | X | | 1 | |
| VER-01D-30.0-20171020 | | 0815 | | Soil | | | X | X | X | X | | 1 | |
| VER-01D-35.0-20171020 | | 0915 | | $H_2O$ | | | X | X | X | X | X | 7 | Lab to filter perchlorate 537 |
| VER-01D-40.0-20171020 | | 0950 | | Soil | | | X | X | X | X | | 1 | |
| VER-01D-50.0-20171020 | | 1015 | | Soil | | | X | X | X | X | | 1 | |

440-194754 Chain of Custody

LB 10/21/17

**Possible Hazard Identification**
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: LEVEL 3 QC REQUIRED

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|
| | | | |

| | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|---|
| 1 | [signature] | 10/20/17 1400 | Tetra Tech | [signature] | 10-20-17 1400 | TT |
| 2 | [signature] | 10.20-17 1700 | TT | [signature] | 10/20/17 20:15 | TAI |
| 3 | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

Custody Seals Intact: ☐ Yes ☐ No

Custody Seal No.: Fed: # 7462 9258 4232

Cooler Temperature(s) °C and Other Remarks: TALV 17.3 2-6/2.4 IR84

SUA # 526606 COC

2.6/2.4 IR84

TestAmerica Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

# Chain of Custody Record

TestAmerica

| Client Information | Sampler: Jeff Richeson | Lab PM: Patty Mata | Carrier Tracking No(s): | COC No: |
|---|---|---|---|---|
| Client Contact: Mike Crews | Phone: (805) 660-1774 | E-Mail: patty.mata@testamericainc.com | | Page: 2 of 2 |
| Company: Tetra Tech | | | | Job #: |

| Address: 17885 Von Karman Ave., Suite 500 | Due Date Requested: | Analysis Requested |
|---|---|---|
| City: Irvine | TAT Requested (days): | |
| State, Zip: CA 92614 | PO #: | |
| Phone: (949)-809-5033 | WO #: | |
| Email: | Project #: [redacted] | |
| Project Name: NERT VER Treatability Study | SSOW#: | |
| Site: Henderson, NV | | |

**Preservation Codes:**

| | |
|---|---|
| A - HCL | M - Hexane |
| B - NaOH | N - None |
| C - Zn Acetate | O - AsNaO2 |
| D - Nitric Acid | P - Na2O4S |
| E - NaHSO4 | Q - Na2SO3 |
| F - MeOH | R - Na2S2O3 |
| G - Amchlor | S - H2SO4 |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice | U - Acetone |
| J - DI Water | V - MCAA |
| K - EDTA | W - pH 4-5 |
| L - EDA | Z - other (specify) |

Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | Hexavalent Chromium | Total Chromium | Perchlorate | Chlorate + Chlorite | VOCs | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | N | N | N | N | | | |
| VER-01D-60.0-20171020 | 10/20/17 | 1035 | G | Soil | | | X | X | X | X | | 1 | |
| VER-01D-70.0-20171020 | | 1055 | | Soil | | | X | X | X | X | | 1 | |
| VER-01D-70.0-20171020-EB | | 1105 | | H2O | Y | | X | X | X | X | X | 7 | |
| VER-01D-80.0-20171020 | | 1125 | | Soil | | | X | X | X | X | [redacted] | 1 | |
| VER-01D-100.0-20171020 | | 1220 | | Soil | | | X | X | X | X | | 1 | |
| VER-01D-110.0-20171020 | | 1300 | | Soil | | | X | X | X | X | | 1 | |
| VER-01D-110.0-20171020-FD | | 1300 | | Soil | | | X | X | X | X | | 1 | |

10/21/17 LB

**Possible Hazard Identification**
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: LEVEL 3 QC REQUIRED

| Empty Kit Relinquished by: - | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| [signature] | 10/20/17 1400 | Tetra Tech | [signature] | 10-20-17 1400 | TA |
| Relinquished by: [signature] | Date/Time: 10-20-17 1700 | Company TA | Received by: [signature] | Date/Time: 10/20/17 20:15 | Company TA |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: Fed # 746292584232 | Cooler Temperature(s) °C and Other Remarks: THLV 17.3 | 2.6/2.4 IR84 |
|---|---|---|---|

SWA# 526E0E40160 2.6/2.4 IR84

# Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 440-194754-1

**Login Number: 194754**
**List Number: 1**
**Creator: Escalante, Maria I**

**List Source: TestAmerica Irvine**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | N/A | Not Present |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

# ANALYTICAL REPORT

Job Number: 440-194764-1

Job Description: NERT VER M16

For:
Tetra Tech, Inc.
17885 Von Karman Ave, Ste 500
Irvine, CA 92614

Attention: Jeff Richeson

Approved for release.
Kathleen Robb
Project Manager II
11/8/2017 11:24 AM

Designee for
Patty Mata, Senior Project Manager
17461 Derian Ave, Irvine, CA, 92614-5817
patty.mata@testamericainc.com
11/08/2017

# Table of Contents


Cover Title Page . . . . . 1

Data Summaries . . . . . 6

Definitions . . . . . 6

Case Narrative . . . . . 7

Detection Summary . . . . . 8

Client Sample Results . . . . . 9

Default Detection Limits . . . . . 10

Surrogate Summary . . . . . 11

QC Sample Results . . . . . 12

QC Association . . . . . 17

Chronicle . . . . . 19

Certification Summary . . . . . 20

Method Summary . . . . . 21

Sample Summary . . . . . 22

Manual Integration Summary . . . . . 23

Reagent Traceability . . . . . 28

COAs . . . . . 32

Organic Sample Data . . . . . 71

HPLC/IC . . . . . 71

Method 7199 . . . . . 71

Method 7199 QC Summary . . . . . 72

Method 7199 Sample Data . . . . . 77

Standards Data . . . . . 80

Method 7199 ICAL Data . . . . . 80

Method 7199 CCAL Data . . . . . 98

Raw QC Data . . . . . 114

# Table of Contents


Method 7199 Blank Data . . . . . 114

Method 7199 LCS/LCSD Data . . . . . 126

Method 7199 MS/MSD Data . . . . . 129

Method 7199 Run Logs . . . . . 138

Method 7199 Prep Data . . . . . 143

Method 300.1 . . . . . 145

Method 300.1 QC Summary . . . . . 146

Method 300.1 Sample Data . . . . . 157

Standards Data . . . . . 166

Method 300.1 ICAL Data . . . . . 166

Method 300.1 CCAL Data . . . . . 196

Raw QC Data . . . . . 240

Method 300.1 Blank Data . . . . . 240

Method 300.1 LCS/LCSD Data . . . . . 283

Method 300.1 MS/MSD Data . . . . . 300

Method 300.1 Run Logs . . . . . 319

Method 300.1 Prep Data . . . . . 329

Method 314 . . . . . 330

Method 314 QC Summary . . . . . 331

Method 314 Sample Data . . . . . 337

Standards Data . . . . . 340

Method 314 ICAL Data . . . . . 340

Method 314 CCAL Data . . . . . 363

Raw QC Data . . . . . 393

Method 314 Blank Data . . . . . 393

Method 314 LCS/LCSD Data . . . . . 414

# Table of Contents


Method 314 MS/MSD Data . . . . . 424

Method 314 Run Logs . . . . . 432

Method 314 Prep Data . . . . . 436

Inorganic Sample Data . . . . . 437

Metals Data . . . . . 437

Met Cover Page . . . . . 438

Met Sample Data . . . . . 439

Met QC Data . . . . . 440

Met ICV/CCV . . . . . 440

Met CRQL . . . . . 441

Met Blanks . . . . . 442

Met ICSA/ICSAB . . . . . 444

Met MS/MSD/PDS . . . . . 446

Met LCS/LCSD . . . . . 449

Met Serial Dilution . . . . . 450

Met MDL . . . . . 451

Met IECF . . . . . 453

Met Linear Ranges . . . . . 457

Met Preparation Log . . . . . 458

Met Analysis Run Log . . . . . 459

Met Prep Data . . . . . 461

Met Raw Data . . . . . 463

General Chemistry Data . . . . . 789

Gen Chem Cover Page . . . . . 790

Gen Chem MDL . . . . . 791

Gen Chem Analysis Run Log . . . . . 793

# Table of Contents

Gen Chem Prep Data . . . . . 794
Gen Chem Raw Data . . . . . 795
Shipping and Receiving Documents . . . . . 796
Client Chain of Custody . . . . . 797
Sample Receipt Checklist . . . . . 798

## Qualifiers

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| F1 | MS and/or MSD Recovery is outside acceptance limits. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| PQL | Practical Quantitation Limit |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

**Job Narrative**
**440-194764-1**

**Comments**
No additional comments.

**Receipt**
The sample was received on 10/21/2017 10:40 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4º C.

**HPLC/IC**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**Metals**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**General Chemistry**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-194764-1

## Client Sample ID: VER- 01D-90.0-20171020

## Lab Sample ID: 440-194764-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 6900 | | 1300 | 340 | ug/Kg | 5 | ☼ | 300.1B | Soluble |
| Perchlorate | 2.6 | | 0.27 | 0.064 | mg/Kg | 5 | ☼ | 314.0 | Soluble |
| Chromium | 26 | | 1.3 | 0.67 | mg/Kg | 5 | ☼ | 6010B | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: VER- 01D-90.0-20171020

**Date Collected: 10/20/17 11:50**
**Date Received: 10/21/17 10:40**

## Lab Sample ID: 440-194764-1

**Matrix: Solid**
**Percent Solids: 74.1**

### Method: 300.1B - Disinfection By-Products, (IC) - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 270 | 54 | ug/Kg | ☼ | | 10/26/17 08:26 | 1 |
| **Chlorate** | **6900** | | 1300 | 340 | ug/Kg | ☼ | | 10/26/17 09:00 | 5 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *103* | | *90 - 115* | | *10/26/17 09:00* | *5* |
| *Dichloroacetic acid(Surr)* | *103* | | *90 - 115* | | *10/26/17 08:26* | *1* |

### Method: 314.0 - Perchlorate (IC) - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perchlorate** | **2.6** | | 0.27 | 0.064 | mg/Kg | ☼ | | 10/27/17 10:29 | 5 |

### Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 0.40 | 0.20 | mg/Kg | ☼ | 11/03/17 00:26 | 11/03/17 16:06 | 3 |

### Method: 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **26** | | 1.3 | 0.67 | mg/Kg | ☼ | 10/31/17 13:22 | 11/02/17 14:17 | 5 |

# Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-194764-1

## Method: 300.1B - Disinfection By-Products, (IC) - Soluble

### Leach: DI Leach

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chlorate | 200 | 50 | ug/Kg | 300.1B |
| Chlorite | 200 | 40 | ug/Kg | 300.1B |

## Method: 314.0 - Perchlorate (IC) - Soluble

### Leach: DI Leach

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Perchlorate | 0.040 | 0.0095 | mg/Kg | 314.0 |

## Method: 7199 - Chromium, Hexavalent (IC)

### Prep: 3060A

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chromium, hexavalent | 0.30 | 0.15 | mg/Kg | 7199 |

## Method: 6010B - Metals (ICP)

### Prep: 3050B

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chromium | 1.0 | 0.50 | mg/Kg | 6010B |

# Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-194764-1

## Method: 300.1B - Disinfection By-Products, (IC)

**Matrix: Solid** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) |
|---|---|---|
| | | ɔacetic ac |
| **Lab Sample ID** | **Client Sample ID** | **(90-115)** |
| MRL 440-437271/36 | Lab Control Sample | 102 |
| MRL 440-437272/36 | Lab Control Sample | 101 |

**Surrogate Legend**

Dichloroacetic acid(Surr) = Dichloroacetic acid(Surr)

## Method: 300.1B - Disinfection By-Products, (IC)

**Matrix: Solid** **Prep Type: Soluble**

| | | Percent Surrogate Recovery (Acceptance Limits) | |
|---|---|---|---|
| | | ɔacetic ac | ɔacetic ac |
| **Lab Sample ID** | **Client Sample ID** | **(90-115)** | **(90-115)** |
| 440-194754-A-6-B MS | Matrix Spike | 101 | 101 |
| 440-194754-A-6-C MSD | Matrix Spike Duplicate | 100 | 100 |
| 440-194764-1 | VER- 01D-90.0-20171020 | 103 | 103 |
| 440-194764-1 | VER- 01D-90.0-20171020 | 103 | 103 |
| LCS 440-436671/1-A | Lab Control Sample | 100 | 100 |
| MB 440-436671/2-A | Method Blank | 99 | 99 |

**Surrogate Legend**

Dichloroacetic acid(Surr) = Dichloroacetic acid(Surr)

## Method: 300.1B - Disinfection By-Products, (IC)

**Lab Sample ID: MRL 440-437271/36**
**Matrix: Solid**
**Analysis Batch: 437271**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 20.0 | 21.5 | | ug/L | | 108 | 50 - 150 | | |

| *Surrogate* | *MRL %Recovery* | *MRL Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *102* | | *90 - 115* |

**Lab Sample ID: MRL 440-437272/36**
**Matrix: Solid**
**Analysis Batch: 437272**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | | 20.0 | 17.8 | J | ug/L | | 89 | 10 - 200 | | |

| *Surrogate* | *MRL %Recovery* | *MRL Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

**Lab Sample ID: MB 440-436671/2-A**
**Matrix: Solid**
**Analysis Batch: 436780**

**Client Sample ID: Method Blank**
**Prep Type: Soluble**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorate | ND | | 200 | 50 | ug/Kg | | | 10/23/17 11:19 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *99* | | *90 - 115* | | *10/23/17 11:19* | *1* |

**Lab Sample ID: LCS 440-436671/1-A**
**Matrix: Solid**
**Analysis Batch: 436780**

**Client Sample ID: Lab Control Sample**
**Prep Type: Soluble**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 998 | 1000 | | ug/Kg | | 100 | 75 - 125 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

**Lab Sample ID: 440-194754-A-6-B MS**
**Matrix: Solid**
**Analysis Batch: 436780**

**Client Sample ID: Matrix Spike**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 960 | F1 | 1120 | 2460 | F1 | ug/Kg | ☼ | 133 | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

**Lab Sample ID: 440-194754-A-6-C MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 436780**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 960 | F1 | 1120 | 2700 | F1 | ug/Kg | ☼ | 155 | 75 - 125 | 9 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

**Lab Sample ID: MB 440-436671/2-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 436781**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 200 | 40 | ug/Kg | | | 10/23/17 11:19 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *98* | | *90 - 115* | | *10/23/17 11:19* | *1* |

**Lab Sample ID: LCS 440-436671/1-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 436781**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | | 998 | 954 | | ug/Kg | | 96 | 85 - 115 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *99* | | *90 - 115* |

**Lab Sample ID: 440-194754-A-6-B MS** — **Client Sample ID: Matrix Spike**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 436781**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 1120 | 837 | | ug/Kg | ☼ | 75 | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

**Lab Sample ID: 440-194754-A-6-C MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 436781**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 1120 | 939 | | ug/Kg | ☼ | 84 | 75 - 125 | 12 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

## Method: 314.0 - Perchlorate (IC)

**Lab Sample ID: MRL 440-437568/7**
**Matrix: Solid**
**Analysis Batch: 437568**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | | | 4.00 | 3.99 | J | ug/L | | 100 | 75 - 125 | | |

**Lab Sample ID: MB 440-437240/1-A**
**Matrix: Solid**
**Analysis Batch: 437568**

**Client Sample ID: Method Blank**
**Prep Type: Soluble**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 0.040 | 0.0095 | mg/Kg | | | 10/26/17 23:32 | 1 |

**Lab Sample ID: LCS 440-437240/2-A**
**Matrix: Solid**
**Analysis Batch: 437568**

**Client Sample ID: Lab Control Sample**
**Prep Type: Soluble**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | | | 0.499 | 0.455 | | mg/Kg | | 91 | 85 - 115 | | |

**Lab Sample ID: 440-194623-A-4-H MS**
**Matrix: Solid**
**Analysis Batch: 437568**

**Client Sample ID: Matrix Spike**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 0.21 | F1 | 0.550 | 0.629 | F1 | mg/Kg | ☼ | 76 | 80 - 120 | | |

**Lab Sample ID: 440-194623-A-4-I MSD**
**Matrix: Solid**
**Analysis Batch: 437568**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 0.21 | F1 | 0.551 | 0.661 | | mg/Kg | ☼ | 82 | 80 - 120 | 5 | 20 |

**Lab Sample ID: INF 440-437568/6**
**Matrix: Solid**
**Analysis Batch: 437568**

**Client Sample ID: Lab Control Sample**

| Analyte | | | Spike Added | INF Result | INF Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | | | 25.0 | 25.0 | | ug/L | | 100 | 80 - 120 | | |

## Method: 7199 - Chromium, Hexavalent (IC)

**Lab Sample ID: MB 440-439189/1-A**
**Matrix: Solid**
**Analysis Batch: 439195**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 439189**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 0.30 | 0.15 | mg/Kg | | 11/03/17 00:26 | 11/03/17 15:14 | 3 |

## Method: 7199 - Chromium, Hexavalent (IC) (Continued)

**Lab Sample ID: LCS 440-439189/2-A**
**Matrix: Solid**
**Analysis Batch: 439195**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 439189**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | | | 40.0 | 36.0 | | mg/Kg | | 90 | 80 - 120 | | |

**Lab Sample ID: 720-82886-D-2-B MS**
**Matrix: Solid**
**Analysis Batch: 439195**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 439189**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 0.28 | J | 39.8 | 35.7 | | mg/Kg | | 89 | 55 - 110 | | |

**Lab Sample ID: 720-82886-D-2-C MSD**
**Matrix: Solid**
**Analysis Batch: 439195**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 439189**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 0.28 | J | 40.2 | 36.5 | | mg/Kg | | 90 | 55 - 110 | 2 | 20 |

**Lab Sample ID: 720-82886-D-2-D MSI**
**Matrix: Solid**
**Analysis Batch: 439195**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 439189**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSI Result | MSI Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 0.31 | | 970 | 706 | | mg/Kg | | 73 | 55 - 110 | | |

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 440-438571/1-A ^5**
**Matrix: Solid**
**Analysis Batch: 439119**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 438571**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | ND | | 0.99 | 0.50 | mg/Kg | | 10/31/17 13:22 | 11/02/17 14:01 | 5 |

**Lab Sample ID: LCS 440-438571/2-A ^5**
**Matrix: Solid**
**Analysis Batch: 439119**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 438571**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | | | 49.8 | 47.5 | | mg/Kg | | 95 | 80 - 120 | | |

**Lab Sample ID: 440-195191-A-1-C MS ^5**
**Matrix: Solid**
**Analysis Batch: 439119**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 438571**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 2.2 | | 49.3 | 50.0 | | mg/Kg | | 97 | 75 - 125 | | |

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: 440-195191-A-1-D MSD ^5**
**Matrix: Solid**
**Analysis Batch: 439119**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 438571**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 2.2 | | 50.0 | 52.3 | | mg/Kg | | 100 | 75 - 125 | 4 | 20 |

## HPLC/IC

### Leach Batch: 436671

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-194764-1 | VER- 01D-90.0-20171020 | Soluble | Solid | DI Leach | |
| MB 440-436671/2-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 440-436671/1-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| 440-194754-A-6-B MS | Matrix Spike | Soluble | Solid | DI Leach | |
| 440-194754-A-6-C MSD | Matrix Spike Duplicate | Soluble | Solid | DI Leach | |

### Analysis Batch: 436780

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 440-436671/2-A | Method Blank | Soluble | Solid | 300.1B | 436671 |
| LCS 440-436671/1-A | Lab Control Sample | Soluble | Solid | 300.1B | 436671 |
| 440-194754-A-6-B MS | Matrix Spike | Soluble | Solid | 300.1B | 436671 |
| 440-194754-A-6-C MSD | Matrix Spike Duplicate | Soluble | Solid | 300.1B | 436671 |

### Analysis Batch: 436781

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 440-436671/2-A | Method Blank | Soluble | Solid | 300.1B | 436671 |
| LCS 440-436671/1-A | Lab Control Sample | Soluble | Solid | 300.1B | 436671 |
| 440-194754-A-6-B MS | Matrix Spike | Soluble | Solid | 300.1B | 436671 |
| 440-194754-A-6-C MSD | Matrix Spike Duplicate | Soluble | Solid | 300.1B | 436671 |

### Leach Batch: 437240

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-194764-1 | VER- 01D-90.0-20171020 | Soluble | Solid | DI Leach | |
| MB 440-437240/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 440-437240/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| 440-194623-A-4-H MS | Matrix Spike | Soluble | Solid | DI Leach | |
| 440-194623-A-4-I MSD | Matrix Spike Duplicate | Soluble | Solid | DI Leach | |

### Analysis Batch: 437271

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-194764-1 | VER- 01D-90.0-20171020 | Soluble | Solid | 300.1B | 436671 |
| MRL 440-437271/36 | Lab Control Sample | Total/NA | Solid | 300.1B | |

### Analysis Batch: 437272

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-194764-1 | VER- 01D-90.0-20171020 | Soluble | Solid | 300.1B | 436671 |
| MRL 440-437272/36 | Lab Control Sample | Total/NA | Solid | 300.1B | |

### Analysis Batch: 437568

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-194764-1 | VER- 01D-90.0-20171020 | Soluble | Solid | 314.0 | 437240 |
| MB 440-437240/1-A | Method Blank | Soluble | Solid | 314.0 | 437240 |
| INF 440-437568/6 | Lab Control Sample | | Solid | 314.0 | |
| LCS 440-437240/2-A | Lab Control Sample | Soluble | Solid | 314.0 | 437240 |
| MRL 440-437568/7 | Lab Control Sample | Total/NA | Solid | 314.0 | |
| 440-194623-A-4-H MS | Matrix Spike | Soluble | Solid | 314.0 | 437240 |
| 440-194623-A-4-I MSD | Matrix Spike Duplicate | Soluble | Solid | 314.0 | 437240 |

### Prep Batch: 439189

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-194764-1 | VER- 01D-90.0-20171020 | Total/NA | Solid | 3060A | |

## HPLC/IC (Continued)

### Prep Batch: 439189 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 440-439189/1-A | Method Blank | Total/NA | Solid | 3060A | |
| LCS 440-439189/2-A | Lab Control Sample | Total/NA | Solid | 3060A | |
| 720-82886-D-2-B MS | Matrix Spike | Total/NA | Solid | 3060A | |
| 720-82886-D-2-C MSD | Matrix Spike Duplicate | Total/NA | Solid | 3060A | |
| 720-82886-D-2-D MSI | Matrix Spike | Total/NA | Solid | 3060A | |

### Analysis Batch: 439195

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-194764-1 | VER- 01D-90.0-20171020 | Total/NA | Solid | 7199 | 439189 |
| MB 440-439189/1-A | Method Blank | Total/NA | Solid | 7199 | 439189 |
| LCS 440-439189/2-A | Lab Control Sample | Total/NA | Solid | 7199 | 439189 |
| 720-82886-D-2-B MS | Matrix Spike | Total/NA | Solid | 7199 | 439189 |
| 720-82886-D-2-C MSD | Matrix Spike Duplicate | Total/NA | Solid | 7199 | 439189 |
| 720-82886-D-2-D MSI | Matrix Spike | Total/NA | Solid | 7199 | 439189 |

## Metals

### Prep Batch: 438571

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-194764-1 | VER- 01D-90.0-20171020 | Total/NA | Solid | 3050B | |
| MB 440-438571/1-A ^5 | Method Blank | Total/NA | Solid | 3050B | |
| LCS 440-438571/2-A ^5 | Lab Control Sample | Total/NA | Solid | 3050B | |
| 440-195191-A-1-C MS ^5 | Matrix Spike | Total/NA | Solid | 3050B | |
| 440-195191-A-1-D MSD ^5 | Matrix Spike Duplicate | Total/NA | Solid | 3050B | |

### Analysis Batch: 439119

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-194764-1 | VER- 01D-90.0-20171020 | Total/NA | Solid | 6010B | 438571 |
| MB 440-438571/1-A ^5 | Method Blank | Total/NA | Solid | 6010B | 438571 |
| LCS 440-438571/2-A ^5 | Lab Control Sample | Total/NA | Solid | 6010B | 438571 |
| 440-195191-A-1-C MS ^5 | Matrix Spike | Total/NA | Solid | 6010B | 438571 |
| 440-195191-A-1-D MSD ^5 | Matrix Spike Duplicate | Total/NA | Solid | 6010B | 438571 |

## General Chemistry

### Analysis Batch: 436935

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-194764-1 | VER- 01D-90.0-20171020 | Total/NA | Solid | Moisture | |
| 440-194754-A-6 MS | Matrix Spike | Total/NA | Solid | Moisture | |
| 440-194754-A-6 MSD | Matrix Spike Duplicate | Total/NA | Solid | Moisture | |
| 440-194754-A-6 DU | Duplicate | Total/NA | Solid | Moisture | |

# Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-194764-1

## Client Sample ID: VER- 01D-90.0-20171020

**Lab Sample ID: 440-194764-1**

**Date Collected: 10/20/17 11:50**

**Matrix: Solid**

**Date Received: 10/21/17 10:40**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | Moisture | | 1 | 436935 | 10/23/17 13:38 | HTL | TAL IRV |

## Client Sample ID: VER- 01D-90.0-20171020

**Lab Sample ID: 440-194764-1**

**Date Collected: 10/20/17 11:50**

**Matrix: Solid**

**Date Received: 10/21/17 10:40**

**Percent Solids: 74.1**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Soluble | Leach | DI Leach | | | 436671 | 10/21/17 12:56 | YZ | TAL IRV |
| Soluble | Analysis | 300.1B | | 1 | 437272 | 10/26/17 08:26 | YZ | TAL IRV |
| Soluble | Leach | DI Leach | | | 436671 | 10/21/17 12:56 | YZ | TAL IRV |
| Soluble | Analysis | 300.1B | | 5 | 437271 | 10/26/17 09:00 | YZ | TAL IRV |
| Soluble | Leach | DI Leach | | | 437240 | 10/24/17 18:03 | CMM | TAL IRV |
| Soluble | Analysis | 314.0 | | 5 | 437568 | 10/27/17 10:29 | CTH | TAL IRV |
| Total/NA | Prep | 3060A | | | 439189 | 11/03/17 00:26 | RW | TAL IRV |
| Total/NA | Analysis | 7199 | | 3 | 439195 | 11/03/17 16:06 | MN | TAL IRV |
| Total/NA | Prep | 3050B | | | 438571 | 10/31/17 13:22 | DT | TAL IRV |
| Total/NA | Analysis | 6010B | | 5 | 439119 | 11/02/17 14:17 | EN | TAL IRV |

**Laboratory References:**

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

# Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-194764-1

## Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|---|---|---|---|---|
| Alaska | State Program | 10 | CA01531 | 06-30-18 |
| Arizona | State Program | 9 | AZ0671 | 10-14-18 |
| California | LA Cty Sanitation Districts | 9 | 10256 | 06-30-18 |
| California | State Program | 9 | CA ELAP 2706 | 06-30-18 |
| Guam | State Program | 9 | Cert. No. 17-003R | 01-23-18 |
| Hawaii | State Program | 9 | N/A | 01-29-18 |
| Kansas | NELAP | 7 | E-10420 | 07-31-18 |
| Nevada | State Program | 9 | CA015312018-1 | 07-31-18 |
| New Mexico | State Program | 6 | N/A | 01-29-18 * |
| Northern Mariana Islands | State Program | 9 | MP0002 | 01-29-17 * |
| Oregon | NELAP | 10 | 4028 | 01-29-18 |
| USDA | Federal | | P330-15-00184 | 07-08-18 |
| Washington | State Program | 10 | C900 | 09-03-18 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Method Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-194764-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 300.1B | Disinfection By-Products, (IC) | EPA | TAL IRV |
| 314.0 | Perchlorate (IC) | EPA | TAL IRV |
| 7199 | Chromium, Hexavalent (IC) | SW846 | TAL IRV |
| 6010B | Metals (ICP) | SW846 | TAL IRV |
| Moisture | Percent Moisture | EPA | TAL IRV |

**Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

# Sample Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-194764-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 440-194764-1 | VER- 01D-90.0-20171020 | Solid | 10/20/17 11:50 | 10/21/17 10:40 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-11 Analysis Batch Number: 436780

Lab Sample ID: CCV 440-436780/20 Client Sample ID:

Date Analyzed: 10/23/17 15:45 Lab File ID: 20171023020.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromide | 15.32 | Baseline Smoothing | zakhrabovy | 10/24/17 04:46 |
| Chlorate | 16.64 | Baseline Smoothing | zakhrabovy | 10/24/17 04:46 |

Lab Sample ID: CCB 440-436780/21 Client Sample ID:

Date Analyzed: 10/23/17 16:18 Lab File ID: 20171023021.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Dichloroacetic acid(Surr) | 13.40 | Baseline Smoothing | zakhrabovy | 10/24/17 04:47 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-11 Analysis Batch Number: 436781

Lab Sample ID: 440-194754-A-6-B MS Client Sample ID:

Date Analyzed: 10/23/17 12:26 Lab File ID: 20171023014.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.22 | Baseline Smoothing | zakhrabovy | 10/25/17 07:11 |

Lab Sample ID: CCB 440-436781/21 Client Sample ID:

Date Analyzed: 10/23/17 16:18 Lab File ID: 20171023021.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Dichloroacetic acid(Surr) | 13.40 | Baseline Smoothing | zakhrabovy | 10/24/17 04:47 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-25 Analysis Batch Number: 437218

Lab Sample ID: STD1 440-437218/2 IC Client Sample ID:

Date Analyzed: 10/24/17 17:04 Lab File ID: 440-0095217-002_2_ECD_1.d GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.89 | Incomplete Integration | hoangch | 10/25/17 08:14 |

Lab Sample ID: STD3 440-437218/4 IC Client Sample ID:

Date Analyzed: 10/24/17 17:38 Lab File ID: 440-0095217-004_4_ECD_1.d GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.88 | Incomplete Integration | hoangch | 10/25/17 08:15 |

Lab Sample ID: STD4 440-437218/5 IC Client Sample ID:

Date Analyzed: 10/24/17 17:54 Lab File ID: 440-0095217-005_5_ECD_1.d GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.87 | Incomplete Integration | hoangch | 10/25/17 08:12 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-25  Analysis Batch Number: 437568

Lab Sample ID: CCV 440-437568/2  Client Sample ID:

Date Analyzed: 10/26/17 08:40  Lab File ID: 440-0095301-002_2_ECD_1.d  GC Column: AS7 A  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 10.82 | Baseline Smoothing | hoangch | 10/26/17 10:36 |

Lab Sample ID: MRL 440-437568/7  Client Sample ID:

Date Analyzed: 10/26/17 10:29  Lab File ID: 440-0095301-007_7_ECD_1.d  GC Column: AS7 A  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 10.36 | Baseline Smoothing | nikbakhtm | 10/26/17 11:32 |

Lab Sample ID: 440-194623-A-4-H MS  Client Sample ID:

Date Analyzed: 10/27/17 09:00  Lab File ID: 440-0095301-084_84_ECD_1.  GC Column: AS7 A  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.52 | Incomplete Integration | hoangch | 10/27/17 09:35 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-16 Analysis Batch Number: 432478

Lab Sample ID: STD2 440-432478/4 IC Client Sample ID:

Date Analyzed: 10/02/17 13:01 Lab File ID: Info 2_TAIIRV0066_Hex Chr GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 7.53 | Incomplete Integration | nickloffn | 10/02/17 13:25 |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **ME 1:1 HNO3_00252** | 10/11/18 | 10/05/17 | Di Water, Lot N/A | 2000 mL | ME HNO3_00399 | 2000 mL | Stock Chemical | 1 % |
| .ME HNO3_00399 | 02/06/22 | Macron Fine Chemicals, Lot 0000166089 | | | (Purchased Reagent) | | Stock Chemical | 1 % |
| **ME 30% H2O2_00067** | 09/13/18 | Fisher, Lot 172277 | | | (Purchased Reagent) | | Stock Chemical | 30 % |
| **ME HCl_00382** | 05/04/22 | Fisher, Lot 0000175648 | | | (Purchased Reagent) | | Stock Chemical | 100 % |
| **ME HNO3_00399** | 02/06/22 | Macron Fine Chemicals, Lot 0000166089 | | | (Purchased Reagent) | | Stock Chemical | 1 % |
| **ME ICP CRI 2x_00369** | 11/03/17 | 11/02/17 | 1%HNO3/0.5%HCl, Lot HNO3 | 50 mL | CRI CHK STD_00027 | 1 mL | Chromium | 0.01 ug/mL |
| .CRI CHK STD_00027 | 08/27/18 | ACCU STANDARD, Lot 217025071 | | | (Purchased Reagent) | | Chromium | 0.5 ug/mL |
| **ME ICP ICV2_01701** | 11/03/17 | 11/02/17 | 1%HNO3/2%HCl, Lot N/A | 50 mL | ME ICP SPKE A_00028 | 0.5 mL | Chromium | 1 mg/L |
| .ME ICP SPKE A_00028 | 03/09/18 | ACCUSTANDARD, Lot 216035030 | | | (Purchased Reagent) | | Chromium | 100 ug/mL |
| **ME ICP IFA_01731** | 11/03/17 | 11/02/17 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Al | 600 mg/L |
| | | | | | | | Ca | 600 mg/L |
| | | | | | | | Fe | 600 mg/L |
| | | | | | | | Mg | 600 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | o2si, Lot 10064997-1 | | | (Purchased Reagent) | | Al | 6000 mg/L |
| | | | | | | | Ca | 6000 mg/L |
| | | | | | | | Fe | 6000 mg/L |
| | | | | | | | Mg | 6000 mg/L |
| **ME ICP IFB_01750** | 11/03/17 | 11/02/17 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Al | 600.5 mg/L |
| | | | | | | | Ca | 602.5 mg/L |
| | | | | | | | Fe | 600.5 mg/L |
| | | | | | | | Mg | 602.5 mg/L |
| | | | | | ME ICP2 ICV1A_00051 | 0.25 mL | Ag | 0.25 mg/L |
| | | | | | | | Al | 600.5 mg/L |
| | | | | | | | As | 0.5 mg/L |
| | | | | | | | B | 0.5 mg/L |
| | | | | | | | Ba | 0.5 mg/L |
| | | | | | | | Be | 0.5 mg/L |
| | | | | | | | Ca | 602.5 mg/L |
| | | | | | | | Cd | 0.5 mg/L |
| | | | | | | | Chromium | 0.5 mg/L |
| | | | | | | | Co | 0.5 mg/L |
| | | | | | | | Cu | 0.5 mg/L |
| | | | | | | | Fe | 600.5 mg/L |
| | | | | | | | K | 10 mg/L |
| | | | | | | | Li | 0.5 mg/L |
| | | | | | | | Mg | 602.5 mg/L |
| | | | | | | | Mn | 0.5 mg/L |
| | | | | | | | Na | 10 mg/L |
| | | | | | | | Ni | 0.5 mg/L |
| | | | | | | | P | 0.5 mg/L |
| | | | | | | | Pb | 0.5 mg/L |
| | | | | | | | Se | 0.5 mg/L |
| | | | | | | | Sr | 0.5 mg/L |
| | | | | | | | Tl | 0.5 mg/L |

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | V | 0.5 mg/L |
| | | | | | | | Zn | 0.5 mg/L |
| | | | | | ME ICP2 ICV1B_00045 | 0.25 mL | Mo | 0.5 mg/L |
| | | | | | | | Sb | 0.5 mg/L |
| | | | | | | | Si | 2.5 mg/L |
| | | | | | | | Sn | 0.5 mg/L |
| | | | | | | | Ti | 0.5 mg/L |
| | | | | | | | W | 0.5 mg/L |
| | | | | | | | Zr | 0.5 mg/L |
| | | | | | ME K_00007 | 0.25 mL | K | 10 mg/L |
| | | | | | ME Na_00010 | 0.25 mL | Na | 10 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | o2si, Lot 10064997-1 | | | (Purchased Reagent) | | Al | 6000 mg/L |
| | | | | | | | Ca | 6000 mg/L |
| | | | | | | | Fe | 6000 mg/L |
| | | | | | | | Mg | 6000 mg/L |
| .ME ICP2 ICV1A_00051 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662245 | | | (Purchased Reagent) | | Ag | 50 mg/L |
| | | | | | | | Al | 100 mg/L |
| | | | | | | | As | 100 mg/L |
| | | | | | | | B | 100 mg/L |
| | | | | | | | Ba | 100 mg/L |
| | | | | | | | Be | 100 mg/L |
| | | | | | | | Ca | 500 mg/L |
| | | | | | | | Cd | 100 mg/L |
| | | | | | | | Chromium | 100 mg/L |
| | | | | | | | Co | 100 mg/L |
| | | | | | | | Cu | 100 mg/L |
| | | | | | | | Fe | 100 mg/L |
| | | | | | | | K | 1000 mg/L |
| | | | | | | | Li | 100 mg/L |
| | | | | | | | Mg | 500 mg/L |
| | | | | | | | Mn | 100 mg/L |
| | | | | | | | Na | 1000 mg/L |
| | | | | | | | Ni | 100 mg/L |
| | | | | | | | P | 100 mg/L |
| | | | | | | | Pb | 100 mg/L |
| | | | | | | | Se | 100 mg/L |
| | | | | | | | Sr | 100 mg/L |
| | | | | | | | Tl | 100 mg/L |
| | | | | | | | V | 100 mg/L |
| | | | | | | | Zn | 100 mg/L |
| .ME ICP2 ICV1B_00045 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662246 | | | (Purchased Reagent) | | Mo | 100 mg/L |
| | | | | | | | Sb | 100 mg/L |
| | | | | | | | Si | 500 mg/L |
| | | | | | | | Sn | 100 mg/L |
| | | | | | | | Ti | 100 mg/L |
| | | | | | | | W | 100 mg/L |
| | | | | | | | Zr | 100 mg/L |
| .ME K_00007 | 08/17/18 | O2SI, Lot 1103100 | | | (Purchased Reagent) | | K | 1000 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .ME Na_00010 | 08/17/18 | | O2SI, Lot 1103103 | | (Purchased Reagent) | | Na | 1000 mg/L |
| **ME ICP STD3_01726** | 11/03/17 | 11/02/17 | 1%HNO3/2%HCL, Lot 211065110 | 100 mL | ME ICP2 ICV1A_00051 | 1 mL | Chromium | 1 ug/mL |
| .ME ICP2 ICV1A_00051 | 10/18/18 | | INORGANIC VENTURES, Lot M2-MEB662245 | | (Purchased Reagent) | | Chromium | 100 mg/L |
| **ME ICP2 ICV1A_00047** | 04/07/18 | | INORGANIC VENTURES, Lot K2-MEB652897 | | (Purchased Reagent) | | Chromium | 100 mg/L |
| **ME ICP2 ICV1A_00051** | 10/18/18 | | INORGANIC VENTURES, Lot M2-MEB662245 | | (Purchased Reagent) | | Ag | 50 mg/L |
| | | | | | | | Al | 100 mg/L |
| | | | | | | | As | 100 mg/L |
| | | | | | | | B | 100 mg/L |
| | | | | | | | Ba | 100 mg/L |
| | | | | | | | Be | 100 mg/L |
| | | | | | | | Ca | 500 mg/L |
| | | | | | | | Cd | 100 mg/L |
| | | | | | | | Chromium | 100 mg/L |
| | | | | | | | Co | 100 mg/L |
| | | | | | | | Cu | 100 mg/L |
| | | | | | | | Fe | 100 mg/L |
| | | | | | | | K | 1000 mg/L |
| | | | | | | | Li | 100 mg/L |
| | | | | | | | Mg | 500 mg/L |
| | | | | | | | Mn | 100 mg/L |
| | | | | | | | Na | 1000 mg/L |
| | | | | | | | Ni | 100 mg/L |
| | | | | | | | P | 100 mg/L |
| | | | | | | | Pb | 100 mg/L |
| | | | | | | | Se | 100 mg/L |
| | | | | | | | Sr | 100 mg/L |
| | | | | | | | Tl | 100 mg/L |
| | | | | | | | V | 100 mg/L |
| | | | | | | | Zn | 100 mg/L |
| **ME ICP2 ICV1B_00045** | 10/18/18 | | INORGANIC VENTURES, Lot M2-MEB662246 | | (Purchased Reagent) | | Mo | 100 mg/L |
| | | | | | | | Sb | 100 mg/L |
| | | | | | | | Si | 500 mg/L |
| | | | | | | | SiO2 | 1071.15 mg/L |
| | | | | | | | Sn | 100 mg/L |
| | | | | | | | Ti | 100 mg/L |
| | | | | | | | W | 100 mg/L |
| | | | | | | | Zr | 100 mg/L |
| **WC3001ICV_00034** | 12/31/17 | 06/14/17 | Di Water, Lot 20170614 | 100 mL | WC2CHLORATE_00004 | 0.4 mL | Chlorate | 4.004 mg/L |
| | | | | | WC2CHLORITE_00018 | 0.4 mL | Chlorite | 4 mg/L |
| .WC2CHLORATE_00004 | 11/30/20 | | Ultra Scientific, Lot CP-5286 | | (Purchased Reagent) | | Chlorate | 1001 mg/L |
| .WC2CHLORITE_00018 | 12/31/17 | | Ultra Scientific, Lot CR-2105 | | (Purchased Reagent) | | Chlorite | 1000 mg/L |
| **WC3001LCS_00054** | 12/08/17 | 09/13/17 | Di Water, Lot 20170913 | 100 mL | WC1BROMATE_00008 | 0.1 mL | Bromate | 1 mg/L |
| | | | | | WC1CHLORATE_00009 | 0.4 mL | Chlorate | 4 mg/L |
| | | | | | WC1CHLORITE_00007 | 0.4 mL | Chlorite | 4 mg/L |
| | | | | | wcbromide_00013 | 0.1 mL | Bromide | 10 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .WC1BROMATE_00008 | 01/01/19 | | O2Si, Lot 131599-4 | | (Purchased Reagent) | | Bromate | 1000 mg/L |
| .WC1CHLORATE_00009 | 01/01/19 | | O2Si, Lot 142627-2 | | (Purchased Reagent) | | Chlorate | 1000 mg/L |
| .WC1CHLORITE_00007 | 01/01/19 | | O2Si, Lot 119590-5 | | (Purchased Reagent) | | Chlorite | 1000 mg/L |
| .wcbromide_00013 | 12/08/17 | | high purity, Lot 1615819 | | (Purchased Reagent) | | Bromide | 10000 ug/mL |
| **WC314.INF_00252** | 10/27/17 | 10/26/17 | DI water, Lot 20171026 | 50 mL | WCCLO41st-10_00011 | 0.125 mL | Perchlorate | 25 ppb |
| .WCCLO41st-10_00011 | 12/10/17 | 09/10/17 | Di Water, Lot 09/10/17 | 100 mg/L | WCCLO4-1st_00002 | 1 mg/L | Perchlorate | 10 mg/L |
| ..WCCLO4-1st_00002 | 01/30/18 | | SPEX CERTIPREP, Lot 3-149CLO4-2Y | | (Purchased Reagent) | | Perchlorate | 1000 mg/L |
| **WCCLO41st-10_00011** | 12/10/17 | 09/10/17 | Di Water, Lot 09/10/17 | 100 mg/L | WCCLO4-1st_00002 | 1 mg/L | Perchlorate | 10 mg/L |
| .WCCLO4-1st_00002 | 01/30/18 | | SPEX CERTIPREP, Lot 3-149CLO4-2Y | | (Purchased Reagent) | | Perchlorate | 1000 mg/L |
| **WCCLO4ICV10_00028** | 12/10/17 | 09/10/17 | Di Water, Lot 09/10/2017 | 100 mL | WCCLO4ICV_00015 | 1 mL | Perchlorate | 10.0002 mg/L |
| .WCCLO4ICV_00015 | 12/10/17 | 09/10/17 | Di Water, Lot 09/10/2017 | 250 mL | WCCLO4ICVSOLI_00002 | 0.3078 g | Perchlorate | 1000.02 mg/L |
| ..WCCLO4ICVSOLI_00002 | 06/01/22 | | SPECTRUM, Lot 2FH0070 | | (Purchased Reagent) | | Perchlorate | 0.81223 g/g |
| **WCCR6ICV5PPM_00051** | 11/02/17 | 10/02/17 | Di Water, Lot 20171002 | 50 mL | WCCR6ICV_00023 | 5 mL | Chromium, hexavalent | 4.99849 mg/L |
| .WCCR6ICV_00023 | 04/02/18 | 10/02/17 | Di Water, Lot 20170323 | 1000 mL | WCK2CR2O7_00003 | 0.1414 g | Chromium, hexavalent | 49.9849 mg/L |
| ..WCK2CR2O7_00003 | 03/22/22 | | FISHER, Lot 166724 | | (Purchased Reagent) | | Chromium, hexavalent | 0.3535 g/g |
| **WCCR6LCS50PPM_00037** | 12/03/17 | 06/05/17 | Di Water, Lot 20170605 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| .WCCr6 K2Cr2O4_00009 | 04/30/19 | | ERA, Lot 040416 | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCCR6LCS5PPM_00098** | 10/21/17 | 09/21/17 | Di Water, Lot 201709021 | 50 mL | WCCR6LCS50PPM_00037 | 5 mL | Chromium, hexavalent | 5 mg/L |
| .WCCR6LCS50PPM_00037 | 12/03/17 | 06/05/17 | Di Water, Lot 20170605 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| ..WCCr6 K2Cr2O4_00009 | 04/30/19 | | ERA, Lot 040416 | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCCR6LCS5PPM_00099** | 11/23/17 | 10/23/17 | Di Water, Lot 20171023 | 50 mL | WCCR6LCS50PPM_00037 | 5 mL | Chromium, hexavalent | 5 mg/L |
| .WCCR6LCS50PPM_00037 | 12/03/17 | 06/05/17 | Di Water, Lot 20170605 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| ..WCCr6 K2Cr2O4_00009 | 04/30/19 | | ERA, Lot 040416 | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCDCA_00048** | 12/13/17 | 09/13/17 | Di Water, Lot 20170913 | 100 mL | WCKDCA_00003 | 0.065 g | Dichloroacetic acid(Surr) | 496.855 mg/L |
| .WCKDCA_00003 | 02/28/20 | | Aldrich, Lot MKBR8264V | | (Purchased Reagent) | | Dichloroacetic acid(Surr) | 0.764393 g/g |
| **WCDCA_00050** | 01/10/18 | 10/10/17 | Di Water, Lot 20171004 | 100 mL | WCKDCA_00003 | 0.065 g | Dichloroacetic acid(Surr) | 496.855 mg/L |
| .WCKDCA_00003 | 02/28/20 | | Aldrich, Lot MKBR8264V | | (Purchased Reagent) | | Dichloroacetic acid(Surr) | 0.764393 g/g |
| **WCPBCRO4_00004** | 07/03/18 | | Alpha Aesar, Lot 14125 | | (Purchased Reagent) | | Chromium, hexavalent | 0.161 g/g |

# Reagent

# CRI CHK STD_00027

4055617

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

# CERTIFICATE OF ANALYSIS

## AccuTrace™ Reference Standard

**Catalog No:** IS-23644
**Description:** Custom ICP Standard
**Lot:** 217025071
**Matrix:** 5% Nitric Acid
**Hazards:** *Refer to SDS for complete safety information*

**Signal Word: Danger**

**Date Certified:** Feb 27, 2017
**Expiration:** Aug 27, 2018
**Sample Size:** 500 mL
**Components:** 15
**Storage Condition:** Ambient (>5 °C)

Included on ISO/IEC 17025 Scope of Accreditation: Yes

Included on ISO Guide 34 Scope of Accreditation: Yes

| Component | | SRM # | Prepared Concentration (µg/mL) |
|---|---|---|---|
| **Al** | Aluminum | 3101a | 5 |
| **Sb** | Antimony | 3102a | 1 |
| **As** | Arsenic | 3103a | 1 |
| **Ba** | Barium | 3104a | 1 |
| **Be** | Beryllium | 3105a | 0.2 |
| **B** | Boron | 3107 | 5 |
| **Cd** | Cadmium | 3108 | 0.5 |
| **Ca** | Calcium | 3109a | 10 |
| **Cr** | Chromium | 3112a | 0.5 |
| **Co** | Cobalt | 3113 | 1 |
| **Cu** | Copper | 3114 | 1 |
| **Fe** | Iron | 3126a | 4 |
| **Pb** | Lead | 3128 | 0.5 |
| **Li** | Lithium | 3129a | 5 |
| **Mg** | Magnesium | 3131a | 2 |

The gravimetric uncertainty for this product is ±0.2%. See reverse side for details.

In order to verify the concentration(s), the final solution was checked by plasma emission spectroscopy (ICP) against material traceable to the above listed NIST SRM(s).

We use the highest purity raw materials available to minimize impurity levels in the final solution. Typically 99.999%+ pure starting materials are used as well as high purity acids and ASTM Type I 18 megohm deionized water.

All glassware used in preparation is Class A and calibrated regularly.

All weights are traceable through NIST, Test No. 822-275872-11

All bottles are acid leached and triple rinsed with deionized water prior to use.

Shake bottle prior to use and do not pipette directly out of the bottle. Use only cleaned Class A volumetric glassware.

We certify the accuracy of this standard to be ±0.5% of the stated value until its expiration date provided it is kept tightly capped and stored under the conditions stated above.

Certified By: Meigan O'Leary

Meigan O'Leary, Inorganic QC Manager

*Page 1 of 1*

*For use in routine laboratory analysis.*

AccuStandard

# Reagent

# ME ICP SPKE A_00028

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

ID: 3907754

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

# CERTIFICATE OF ANALYSIS

## AccuTrace™ Reference Standard

**Catalog No:** QCS-01-5
**Description:** ICP Quality Control Standard #1
**Lot:** 216035030
**Matrix:** 5% Nitric acid, tr HF
**Hazards:** **CORROSIVE** - *Refer to SDS for safety info*

**Danger 1**

**Date Certified:** Mar 9, 2016
**Expiration:** Mar 9, 2018
**Sample Size:** 500 mL
**Components:** 23
**Storage Condition:** Ambient (>5 °C)

Included on ISO/IEC 17025 Scope of Accreditation: Yes

Included on ISO Guide 34 Scope of Accreditation: Yes

| Component | | SRM # | Prepared Concentration (µg/mL) |
|---|---|---|---|
| **Sb** | Antimony | 3102a | 100 |
| **As** | Arsenic | 3103a | 100 |
| **Be** | Beryllium | 3105a | 100 |
| **Cd** | Cadmium | 3108 | 100 |
| **Ca** | Calcium | 3109a | 100 |
| **Cr** | Chromium | 3112a | 100 |
| **Co** | Cobalt | 3113 | 100 |
| **Cu** | Copper | 3114 | 100 |
| **Fe** | Iron | 3126a | 100 |
| **Pb** | Lead | 3128 | 100 |
| **Li** | Lithium | 3129a | 100 |
| **Mg** | Magnesium | 3131a | 100 |
| **Mn** | Manganese | 3132 | 100 |
| **Mo** | Molybdenum | 3134 | 100 |
| **Ni** | Nickel | 3136 | 100 |
| **P** | Phosphorus | 3139a | 100 |
| **Se** | Selenium | 3149 | 100 |
| **Sr** | Strontium | 3153a | 100 |
| **Tl** | Thallium | 3158 | 100 |
| **Sn** | Tin | 3161a | 100 |
| **Ti** | Titanium | 3162a | 100 |
| **V** | Vanadium | 3165 | 100 |
| **Zn** | Zinc | 3168a | 100 |

The gravimetric uncertainty for this product is ±0.24%. The CRM uncertainty is ±5%. See reverse side for details.

In order to verify the concentration(s), the final solution was checked by plasma emission spectroscopy (ICP) against material traceable to the above listed NIST SRM(s).

We use the highest purity raw materials available to minimize impurity levels in the final solution. Typically 99.999%+ pure starting materials are used as well as high purity acids and ASTM Type I 18 megohm deionized water.

All glassware used in preparation is Class A and calibrated regularly.

All weights are traceable through NIST, Test No. 822-275872-11

All bottles are acid leached and triple rinsed with deionized water prior to use.

Use good laboratory procedure when diluting this product. Shake bottle prior to use and do not pipette directly out of the bottle. Use only cleaned Class A volumetric glassware.

We certify the accuracy of this standard to be ±0.5% of the stated value until its expiration date provided it is kept tightly capped and stored under the conditions stated above.

Certified By: Lydia Snyder
Lydia Snyder, Inorganic QC Manager



*For use in routine laboratory analysis.*

**AccuStandard is accredited to ISO Guide 34, ISO/IEC 17025 and certified to ISO 9001**

OR-ORG/INO-001
Rev. 7/11

# Reagent

# ME ICP_ICSA_00035

o2si
smart solutions

# REPORT OF ANALYSIS

Multi-Element Aqueous RM

## Interference Check Standard Solution A

Product #: 160005-07-03

Matrix: 5% $HNO_3$

Lot #: 10064997-1

| Element | Certified Concentration | Element | Certified Concentration |
|---|---|---|---|
| Al | 6000 µg/mL | Fe | 6000 µg/mL |
| Ca | 6000 µg/mL | Mg | 6000 µg/mL |

**Intended Use:** This solution is intended for use as a reference material (RM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

**Certification & Traceability:** This RM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO Guide 34**, and **ISO/IEC 17025**. This RM was prepared to the certified concentrations shown above by gravimetric methods using single-element concentrates, and was stabilized using high purity nitric acid ($HNO_3$) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this RM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with the certified concentration is ±0.5% relative, which is the sum of the estimated errors due to the purity of the raw materials, the gravimetric preparation of the solution, and transpiration through the container. This represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

**Instructions for Use:** We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the RM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original RM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

**Period of Validity:** O2Si ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

**Chuck Goudreau, Certifying Officer**

July 26, 2017
**Certification Date**

O2Si waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

# Reagent

# ME ICP2 ICV1A_00047

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

# CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

## 1.0 ACCREDITATION / REGISTRATION

**INORGANIC VENTURES** is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

## 2.0 PRODUCT DESCRIPTION

| | |
|---|---|
| Product Code: | Multi Analyte Custom Grade Solution |
| Catalog Number: | TA-86 |
| Lot Number: | K2-MEB652897 |
| Matrix: | 5% (v/v) HNO3 |
| Value / Analyte(s): | 1 000 µg/mL ea: |
| | Potassium, Sodium, |
| | 500 µg/mL ea: |
| | Calcium, Magnesium, |
| | 100 µg/mL ea: |
| | Aluminum, Arsenic, Boron, |
| | Barium, Beryllium, Cadmium, |
| | Cobalt, Chromium+3, Copper, |
| | Iron, Lithium, Manganese, |
| | Nickel, Phosphorus, Lead, |
| | Selenium, Strontium, Thallium, |
| | Vanadium, Zinc, |
| | 50 µg/mL ea: |
| | Silver |

## 3.0 CERTIFIED VALUES AND UNCERTAINTIES

| ANALYTE | CERTIFIED VALUE | ANALYTE | CERTIFIED VALUE |
|---|---|---|---|
| Aluminum, Al | 100.0 ± 0.6 µg/mL | Arsenic, As | 100.0 ± 0.9 µg/mL |
| Barium, Ba | 100.0 ± 0.5 µg/mL | Beryllium, Be | 100.0 ± 0.6 µg/mL |
| Boron, B | 100.0 ± 0.6 µg/mL | Cadmium, Cd | 100.0 ± 0.5 µg/mL |
| Calcium, Ca | 500.0 ± 1.9 µg/mL | Chromium+3, Cr3 | 100.0 ± 0.5 µg/mL |
| Cobalt, Co | 100.0 ± 0.5 µg/mL | Copper, Cu | 100.0 ± 0.5 µg/mL |
| Iron, Fe | 100.0 ± 0.4 µg/mL | Lead, Pb | 100.0 ± 0.5 µg/mL |
| Lithium, Li | 100.0 ± 0.6 µg/mL | Magnesium, Mg | 500.0 ± 2.0 µg/mL |
| Manganese, Mn | 100.0 ± 0.5 µg/mL | Nickel, Ni | 100.0 ± 0.5 µg/mL |
| Phosphorus, P | 100.0 ± 0.4 µg/mL | Potassium, K | 1 000 ± 4 µg/mL |
| Selenium, Se | 100.0 ± 0.6 µg/mL | Silver, Ag | 50.01 ± 0.25 µg/mL |
| Sodium, Na | 1 000 ± 4 µg/mL | Strontium, Sr | 100.0 ± 0.4 µg/mL |
| Thallium, Tl | 100.0 ± 0.5 µg/mL | Vanadium, V | 100.0 ± 0.5 µg/mL |
| Zinc, Zn | 100.0 ± 0.5 µg/mL | | |

**Certified Density:** 1.040 g/mL (measured at 20 ± 1 ºC)

**Assay Information:**

| ANALYTE | METHOD | NIST SRM# | SRM LOT# |
|---|---|---|---|
| Ag | ICP Assay | 3151 | 992212 |
| Ag | Volhard | 999b | 999b |
| Al | ICP Assay | 3101a | 060502 |
| Al | EDTA | 928 | 928 |
| As | ICP Assay | 3103a | 100818 |
| B | ICP Assay | 3107 | 110830 |
| Ba | ICP Assay | 3104a | 070222 |
| Ba | Gravimetric | | See Sec. 4.2 |
| Be | ICP Assay | 3105a | 090514 |
| Ca | ICP Assay | 3109a | 050825 |
| Ca | EDTA | 928 | 928 |
| Cd | ICP Assay | 3108 | 060531 |
| Cd | EDTA | 928 | 928 |
| Co | ICP Assay | 3113 | 000630 Co |
| Co | EDTA | 928 | 928 |
| Cr3 | ICP Assay | 3112a | 030730 |
| Cr3 | Calculated | | See Sec. 4.2 |
| Cu | ICP Assay | 3114 | 121207 |
| Cu | EDTA | 928 | 928 |
| Fe | ICP Assay | 3126a | 140812 |
| Fe | EDTA | 928 | 928 |
| K | ICP Assay | 3141a | 140813 |
| K | Gravimetric | | See Sec. 4.2 |
| Li | ICP Assay | 3129a | 100714 |
| Li | Gravimetric | | See Sec. 4.2 |
| Mg | ICP Assay | 3131a | 050302 |
| Mg | EDTA | 928 | 928 |
| Mn | ICP Assay | 3132 | 050429 |
| Mn | EDTA | 928 | 928 |
| Na | Gravimetric | | |
| Na | ICP Assay | 3152a | 120715 |
| Ni | ICP Assay | 3136 | 120619 |
| Ni | EDTA | 928 | 928 |
| P | ICP Assay | 3139a | 060717 |
| P | Acidimetric | 84L | 84L |
| Pb | ICP Assay | 3128 | 101026 |
| Pb | EDTA | 928 | 928 |
| Se | ICP Assay | 3149 | 100901 |
| Sr | EDTA | 928 | 928 |
| Sr | ICP Assay | 3153a | 990906 |
| Tl | ICP Assay | 3158 | 993012 |
| Tl | Calculated | | See Sec. 4.2 |
| V | EDTA | 928 | 928 |
| V | ICP Assay | 3165 | 992706 |
| Zn | ICP Assay | 3168a | 120629 |
| Zn | EDTA | 928 | 928 |

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

## Characterization of CRM/RM by Two Methods

**Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:**

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

$X_a$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

$X_b$ = mean of Assay Method B with standard uncertainty $u_{char\ b}$

$w_a$ and $w_b$ = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

**CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$**

**k** = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

$u_{bb}$ = bottle to bottle homogeneity standard uncertainty

$u_{lts}$ = long term stability standard uncertainty (storage)

$u_{ts}$ = transport stability standard uncertainty

## Characterization of CRM/RM by One Method

**Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:**

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

**CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$**

**k** = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

$u_{bb}$ = bottle to bottle homogeneity standard uncertainty

$u_{lts}$ = long term stability standard uncertainty (storage)

$u_{ts}$ = transport stability standard uncertainty

## 4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

### 4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

### 4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

### 4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

## 5.0 TRACE METALLIC IMPURITIES (TMI ) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

## 6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

## 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

### 7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag keep cap tightly sealed when not in use. Store and use at 20° ± 4° C. Do not pippette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

## 8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

## 9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

## 10.0 QUALITY STANDARD DOCUMENTATION

### 10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

### 10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

### 10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

### 10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

### 10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

## 11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

### 11.1 Certification Issue Date

October 27, 2016

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

### 11.2 Lot Expiration Date

- **October 27, 2019**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

### 11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year from the date of removal from the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being handled and stored in accordance with the instructions given in Sec 7.1.

## 12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

**Certificate Prepared By:**

Maurice Harris
Product Documentation Technician

**Certificate Approved By:**

Michael Booth
Supervisor, Quality Control

**Certifying Officer:**

Paul Gaines
CEO, Senior Technical Director

# Reagent

# ME K_00007

4121951

o2si smart solutions®

Quality System
Audited & Registered
by NSF-ISR to ISO 9001:2008

# Certificate of Analysis

ACCREDITED

ISO 17025 Accredited
Chemical Testing Lab
Cert. No. 3031.01

Rev 0

**Catalog No.** 060019-02-02
**Lot No.** 1103100
**Storage** Ambient
**Specific Gravity** 1.0160
**Matrix** 1% $HNO_3$
**Description** Potassium 1,000 mg/L in 1% $HNO_3$, 250 mL ($KNO_3$)

**Expiration Date** 17-Aug-2018
**Certification Date** 13-Feb-2017

**Date Received** _____

| Element | Symbol | CAS No | Source Lot No | Purity % | Concentration mg/L |
|---|---|---|---|---|---|
| Potassium | K | 7440-09-7 | 7013.409.5P | 99.999 | 1000 +/- 3 |

This standard has been prepared gravimetrically using balances calibrated with NIST traceable weights (NIST Test Number 822/264157-00). Only Class-A volumetric glassware was used to prepare this product. The concentration and uncertainty of this standard are calculated based on the weight and volumes used in the manufacturing process. The uncertainty value is calculated for a 95% confidence interval with a *k* value of 2. Sub-boiled distilled acid and 18 megaohm deionized water were used to stabilize the product. All raw materials were checked for stoichiometry and purity prior to use. This standard has been certified by ICP against an independent source which is directly traceable to NIST SRM 3141

This standard was analyzed by ICP-MS for trace impurities. A = Major component,
INT = Interferent from the major component.

Trace impurity analysis in µg/L

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Li | <0.1 | Ca | 15 | Cu | <0.1 | Y | <0.1 | Cd | <0.1 | Ce | <0.1 | Ho | <0.1 | Re | <0.1 | Bi | <0.1 |
| Be | <0.1 | Ti | <0.1 | Zn | 3 | Zr | <0.1 | In | <0.1 | Pr | <0.1 | Er | <0.1 | Os | <0.1 | Th | <0.1 |
| B | <1.0 | V | <0.1 | Ga | <0.1 | Nb | <0.1 | Sn | <0.1 | Nd | <0.1 | Tm | <0.1 | Ir | <0.1 | U | <0.1 |
| Na | 5 | Cr | <0.1 | Ge | <0.1 | Mo | <0.1 | Sb | <0.1 | Sm | <0.1 | Yb | <0.1 | Pt | <0.1 | | |
| Mg | 10 | Mn | <0.1 | As | <0.1 | Ru | <0.1 | Te | <0.1 | Eu | <0.1 | Lu | <0.1 | Au | <0.1 | | |
| Al | <1.0 | Fe | 10 | Se | <0.1 | Rh | <0.1 | Cs | <0.1 | Gd | <0.1 | Hf | <0.1 | Hg | <0.1 | | |
| P | <1.0 | Co | <0.1 | Rb | <0.1 | Pd | <0.1 | Ba | <0.1 | Tb | <0.1 | Ta | <0.1 | Tl | <0.1 | | |
| K | A | Ni | <0.1 | Sr | <0.1 | Ag | <0.1 | La | <0.1 | Dy | <0.1 | W | <0.1 | Pb | <0.1 | | |

**Certified By:** Amanda Frazier

Amanda Frazier

2030 Savage Road • Charleston, SC 29407
Phone: 866.272.0932 • Fax: 866.509.5146
www.o2si.com

# Reagent

# ME Na_00010

4121952

# Certificate of Analysis

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Quality System
Audited & Registered
by NSF-ISR to ISO 9001:2008

ACCREDITED

ISO 17025 Accredited
Chemical Testing Lab
Cert. No. 3031.01
Rev 1

**Catalog No.** 060011-02-02
**Lot No.** 1103103
**Storage** Ambient
**Specific Gravity** 1.0157
**Matrix** 1% $HNO_3$
**Description** Sodium 1,000 mg/L in 1% $HNO_3$, 250 mL ($NaNO_3$)

**Expiration Date** 17-Aug-2018
**Certification Date** 13-Feb-2017

**Date Received** _____

| Element | Symbol | CAS No | Source Lot No | Purity % | Concentration mg/L |
|---|---|---|---|---|---|
| Sodium | Na | 7440-23-5 | 7020.409.1P | 99.999 | 1000 +/- 3 |

This standard has been prepared gravimetrically using balances calibrated with NIST traceable weights (NIST Test Number 822/264157-00). Only Class-A volumetric glassware was used to prepare this product. The concentration and uncertainty of this standard are calculated based on the weight and volumes used in the manufacturing process. The uncertainty value is calculated for a 95% confidence interval with a $k$ value of 2. Sub-boiled distilled acid and 18 megaohm deionized water were used to stabilize the product. All raw materials were checked for stoichiometry and purity prior to use. This standard has been certified by ICP against an independent source which is directly traceable to NIST SRM 3152

This standard was analyzed by ICP-MS for trace impurities. A = Major component,
INT = Interferent from the major component.

Trace impurity analysis in µg/L

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Li | <0.1 | Ca | 50 | Cu | INT | Y | <0.1 | Cd | <0.1 | Ce | <0.1 | Ho | <0.1 | Re | <0.1 | Bi | <0.1 |
| Be | <0.1 | Ti | <0.1 | Zn | <0.1 | Zr | <0.1 | In | <0.1 | Pr | <0.1 | Er | <0.1 | Os | <0.1 | Th | <0.1 |
| B | <1.0 | V | <0.1 | Ga | <0.1 | Nb | <0.1 | Sn | <0.1 | Nd | <0.1 | Tm | <0.1 | Ir | <0.1 | U | <0.1 |
| Na | A | Cr | <0.1 | Ge | <0.1 | Mo | <0.1 | Sb | <0.1 | Sm | <0.1 | Yb | <0.1 | Pt | <0.1 | | |
| Mg | <1.0 | Mn | <0.1 | As | <0.1 | Ru | <0.1 | Te | <0.1 | Eu | <0.1 | Lu | <0.1 | Au | <0.1 | | |
| Al | <1.0 | Fe | <0.1 | Se | <0.1 | Rh | <0.1 | Cs | <0.1 | Gd | <0.1 | Hf | <0.1 | Hg | <0.1 | | |
| P | <1.0 | Co | <0.1 | Rb | <0.1 | Pd | <0.1 | Ba | <0.1 | Tb | <0.1 | Ta | <0.1 | Tl | 1 | | |
| K | INT | Ni | <0.1 | Sr | <0.1 | Ag | <0.1 | La | <0.1 | Dy | <0.1 | W | <0.1 | Pb | 4 | | |

**Certified By:** Amanda Frazier

Amanda Frazier

2030 Savage Road • Charleston, SC 29407
Phone: 866.272.0932 • Fax: 866.509.5146
www.o2si.com

# Reagent

# WC1BROMATE_00008

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smart solutions

4245863
ID: WC1BROMATE_00008
Exp:01/01/19 Prpd:YZ Opn:07/12/17
300.1 -Standard Bromate 1

# REPORT OF ANALYSIS

## Ion Chromatography RM

Bromate ($BRO_3^-$) – 1000 µg/mL — Product #: 062015-01-01

Matrix: $H_2O$ — Lot #: 131599-4

| Ion | Certified Concentration |
|---|---|
| $BRO_3^-$ | 1000 µg/mL |

**Intended Use:** This solution is intended for use as a reference material (RM) or calibration standard for ion chromatography (IC) or techniques using other modes of aqueous ion detection.

**Certification & Traceability:** This RM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO Guide 34**, and **ISO/IEC 17025**. This RM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.9% pure bromate ($BRO_3^-$)dissolved and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this RM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration was determined based upon gravimetric procedures. Secondary verification of the certified concentration was performed using ion chromatography (IC) or inductively coupled plasma optical emission spectroscopy (ICP-OES), which was calibrated and/or referenced against **NIST SRM 3184**. The uncertainty associated with the certified concentration is ±0.5% relative, which is the sum of the estimated errors due to the purity of the raw materials, the gravimetric preparation of the solution, and transpiration through the container. This represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

**Instructions for Use:** We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the RM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original RM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

**Period of Validity:** O2Si ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

**Chuck Goudreau, Certifying Officer** — July 5, 2017 **Certification Date**

O2Si waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

# Reagent

# WC1CHLORATE_00009

o2si
smart solutions

4245862
ID: WC1CHLORATE_00009
Exp:01/01/19 Prpd:YZ Opn:07/12/17
300.1 -Standard Chlorate

# REPORT OF ANALYSIS

## Ion Chromatography RM

Chlorate ($ClO_3^-$) – 1000 µg/mL

Product #: 062014-01-01

Matrix: $H_2O$

Lot #: 142627-2

| Ion | Certified Concentration |
|---|---|
| $ClO_3^-$ | 1000 µg/mL |

**Intended Use:** This solution is intended for use as a reference material (RM) or calibration standard for ion chromatography (IC) or techniques using other modes of aqueous ion detection.

**Certification & Traceability:** This RM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO Guide 34**, and **ISO/IEC 17025**. This RM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99% pure sodium chlorate ($NaClO_3$) dissolved and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this RM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration was determined based upon gravimetric procedures. Secondary verification of the certified concentration was performed using ion chromatography (IC) or inductively coupled plasma optical emission spectroscopy (ICP-OES), which was calibrated and/or referenced against NIST SRM when available. The uncertainty associated with the certified concentration is ±0.5% relative, which is the sum of the estimated errors due to the purity of the raw materials, the gravimetric preparation of the solution, and transpiration through the container. This represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

**Instructions for Use:** We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the RM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original RM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

**Period of Validity:** O2Si ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

**Chuck Goudreau, Certifying Officer**

July 5, 2017
**Certification Date**

O2Si waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

# Reagent

# WC1CHLORITE_00007

o2si
smart solutions

4245864
ID: WC1CHLORITE_00007
Exp:01/01/19 Prpd:YZ Opn:07/12/17
300.1- Standard Chlorite

# REPORT OF ANALYSIS

## Ion Chromatography RM

Chlorite ($ClO_2^-$) – 1000 µg/mL

Product #: 062016-01-01

Matrix: $H_2O$

Lot #: 119590-5

| Ion | Certified Concentration |
|---|---|
| $ClO_2^-$ | 1000 µg/mL |

**Intended Use:** This solution is intended for use as a reference material (RM) or calibration standard for ion chromatography (IC) or techniques using other modes of aqueous ion detection.

**Certification & Traceability:** This RM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO Guide 34**, and **ISO/IEC 17025**. This RM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using sodium chlorite ($NaClO_2$) dissolved and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this RM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration was determined based upon gravimetric procedures. Secondary verification of the certified concentration was performed using ion chromatography (IC) or inductively coupled plasma optical emission spectroscopy (ICP-OES), which was calibrated and/or referenced against NIST SRM when available. The uncertainty associated with the certified concentration is ±0.5% relative, which is the sum of the estimated errors due to the purity of the raw materials, the gravimetric preparation of the solution, and transpiration through the container. This represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

**Instructions for Use:** We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the RM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original RM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

**Period of Validity:** O2Si ensures the accuracy of this solution for **18months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

**Chuck Goudreau, Certifying Officer**

July 5, 2017
**Certification Date**

O2Si waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

# Reagent

# WC2CHLORATE_00004

# Certificate of Analysis

## ISO Guide 34 Reference Material

**Product Number:** ICC-011
**Lot Number:** CP-5286

**Product Name:** Chlorate IC Standard

3765501
ID: WC2CHLORATE_00004
Exp:11/30/20 Prpd:YZ Opn:11/22/16
300.1 -Standard Chlorate

**Lot Issue Date:** 20-Oct 2016
**Expiration Date:** 30-Nov 2020

**Description:**
This Reference Material (RM) was gravimetrically prepared in accordance with ISO Guide 34 and under ULTRA Scientific's ISO 9001 registered quality system. The neat materials used for this product have been verified by ULTRA's ISO 17025 laboratory and under ULTRA's ISO Guide 34 accreditation. The analyte concentrations were verified by ULTRA's ISO 17025 accredited laboratory. For each analyte, the true value, with its uncertainty value calculated at the 95% confidence level, is reported below.

| Analyte | Starting Material | Lot Number | Purity (%) | Analyte Concentration | Traceability & Method |
|---|---|---|---|---|---|
| chlorate | potassium chlorate | RM07983 | 99 | 1001 ± 5 µg/mL | 3-150CLO3-2Y; IC<br>NIST SRM 3141a; ICP-OES |

**Solvent:** water (low TOC, < 50 ppb)

**Storage:** Store at Room Temperature (15° to 30°C).

**Traceability:**
Traceability has been established through an unbroken chain of comparisons, each having stated uncertainties. Comparisons are based on appropriate physical or chemical measurements, including gravimetric or volumetric dilution, where the mass or volume of a solution before and after dilution is measured. The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1, ISO 9001, ISO 17025, and ISO Guide 34. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 819.

**Estimation of Uncertainties:**
The true value is reported, with its uncertainty value calculated at the 95% confidence level.

**Homogeneity:**
This RM was formulated and unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

**Intended Use:**
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods and continuing calibration verification.

**Instructions for Use:**
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening and should be processed without delay for the true value to be valid within the stated uncertainties. Do not pipet from the bottle. Do not return any material removed for pipetting to the bottle. Tightly cap the bottle after removing any material and store according to the instructions noted above.

**Hazards:**
Refer to the Safety Data Sheet for information regarding this RM.

**Expiration of Certification:**
The certification of this RM is valid, within the measurement uncertainty specified, until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER
ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 9001 Registered Quality System – TUV USA

# Certificate of Analysis

ISO Guide 34 Reference Material

**Product Number:** ICC-011
**Lot Number:** CP-5286

**Lot Issue Date:** 20-Oct 2016
**Expiration Date:** 30-Nov 2020

**Maintenance of Certification:**
The real-time, long term stability of the RM may be monitored over the lifetime of the certification. If substantive changes occur that affect the certification before the expiration of this certificate, ULTRA Scientific will notify the purchaser.

John Russo
President

Monica Bourgeois
Director of QA/RA

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

# Reagent

# WC2CHLORITE_00018

# Certificate of Analysis

ISO Guide 34 Reference Material

**Product Number:** ICC-012
**Lot Number:** CR-2105

4198591
ID: WC2CHLORITE_00018
Exp:12/31/17 Prpd:YZ Opn:05/14/17
300.1- Standard Chlorite

**Lot Issue Date:** 09-May 2017
**Expiration Date:** 31-Dec 2017

**Product Name:** Chlorite IC Standard

**Description:**
This Reference Material (RM) was gravimetrically prepared in accordance with ISO Guide 34 and under ULTRA Scientific's ISO 9001 registered quality system. The neat materials used for this product have been verified by ULTRA's ISO 17025 laboratory and under ULTRA's ISO Guide 34 accreditation. The analyte concentrations were verified by ULTRA's ISO 17025 accredited laboratory. For each analyte, the true value, with its uncertainty value calculated at the 95% confidence level, is reported below.

| Analyte | Starting Material | Lot Number | Purity (%) | Analyte Concentration | Traceability & Method |
|---|---|---|---|---|---|
| chlorite | sodium chlorite | RM07982 | 80 | 1002 ± 5 µg/mL | 3-157CLO2-2Y; IC<br>NIST SRM 3152a; ICP-OES |

**Solvent:** water (low TOC, < 50 ppb)

**Storage:** Store Refrigerated (2° - 8°C), Do Not Freeze. Light Sensitive.

**Traceability:**
Traceability has been established through an unbroken chain of comparisons, each having stated uncertainties. Comparisons are based on appropriate physical or chemical measurements, including gravimetric or volumetric dilution, where the mass or volume of a solution before and after dilution is measured. The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1, ISO 9001, ISO 17025, and ISO Guide 34. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 819.

**Estimation of Uncertainties:**
The true value is reported, with its uncertainty value calculated at the 95% confidence level.

**Homogeneity:**
This RM was formulated and unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

**Intended Use:**
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods and continuing calibration verification.

**Instructions for Use:**
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening and should be processed without delay for the true value to be valid within the stated uncertainties. Do not pipet from the bottle. Do not return any material removed for pipetting to the bottle. Tightly cap the bottle after removing any material and store according to the instructions noted above.

**Hazards:**
Refer to the Safety Data Sheet for information regarding this RM.

**Expiration of Certification:**
The certification of this RM is valid, within the measurement uncertainty specified, until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER
ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 9001 Registered Quality System – TUV USA

# Certificate of Analysis

ISO Guide 34 Reference Material

**Product Number:** ICC-012
**Lot Number:** CR-2105

**Lot Issue Date:** 09-May 2017
**Expiration Date:** 31-Dec 2017

**Maintenance of Certification:**
The real-time, long term stability of the RM may be monitored over the lifetime of the certification. If substantive changes occur that affect the certification before the expiration of this certificate, ULTRA Scientific will notify the purchaser.

John Russo
President

Monica Bourgeois
Director of QA/RA

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

Reagent

# wcbromide_00013

HIGH-PURITY STANDARDS
www.highpuritystandards.com

P.O. Box 41727
Charleston, SC 29423
Phone (843) 767-7900
Fax (843) 767-7906

# Certificate of Analysis

Certified Reference Material

ISO Guide 34:2009 (RMP) Accreditation
Certificate Number AR-1436

ISO/IEC 17025:2005 Accreditation
Certificate Number AT-1529

**Product Description:**

Bromide

Product Number: **IC-BR-10M**
Lot Number: **1615819**
Matrix: $H_2O$

**Certified Value:**

| Analyte | (µg/mL) | SRM ID | SRM Lot# |
|---|---|---|---|
| Bromide | 10,000 ± 100 | 3184 | 020701 |

The Certified value is based on gravimetric and volumetric preparation, and verified against NIST SRM 3100 series when available, via ion chromatography (IC) and/or inductively coupled plasma optical emission spectrometry (ICP-OES) using an internal laboratory-developed method. The uncertainty in the certified value is calculated for a 95% confidence interval and coverage factor *k* is about 2.
* Refer to Traceability Information, Section d

**Packaging and Storage Conditions:**

The standard is packaged in a pre-cleaned polyethylene bottle. To maintain the integrity of this product, the solution should be kept tightly capped and stored under normal laboratory conditions.

**Expiration Information:**

The expiry date is guaranteed to be valid for eighteen months from the shipping date provided. For this reason, standards from the same lot may have different expiration dates.

**Preparation Date:** **June 2, 2016**
**Shipped Date:** **3/28/2017**
**Expiration Date:** **9/28/2018**
**Certificate Issue Date:** **January 25, 2017**

Moven Mututuvari

Moven Mututuvari, Ph. D, Laboratory Manager

Reagent

# WCCLO4-1st_00002

11/08/2017

ACCREDITED
Reference Materials Producer
Cert #2495.01

# SPEXertificate®

## Certificate of Reference Material

ILAC-MRA ACCREDITED
Chemical Testing
Cert #2495.02

**Catalog Number:** AS-CLO49-2Y **Lot No.** 4-4CLO4-2Y

**Description:** 1000 µg/mL Perchlorate

**Matrix:** $H_2O$

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

**Certified Value:** 1002 µg/mL ±5 µg/mL

**Certified Value is Traceable to:** 0915†

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Perchlorate, Lot# F10T022. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

**Classical Wet Assay:** 1004 µg/mL

**Method:** Evaporate to dryness. Ignite and weigh as KClO4.

**Instrumental Analysis by Ion Chromatography:** 1000 µg/mL

**Uncertified Properties**

**Trace Ionic Impurities in the Actual Solution via IC Analysis:**

| Element | µg/mL | Element | µg/mL |
|---|---|---|---|
| $Br^-$ | <0.03 | $NO_3^-$ | <0.02 |
| $Cl^-$ | <0.05 | $PO4^{-3}$ | <0.03 |
| $F^-$ | <0.005 | $SO4^{-2}$ | <0.5 |
| $NO_2^-$ | <0.02 | | |

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is unopened and stored under ambient laboratory conditions.

Date of Certification: JAN 2017 Certifying Officer:



©2017 SPEX CertiPrep, LLC

Reagent

# WCCr6 K2Cr2O4_00009

ERA

A Waters Company

# Certificate of Analysis

3692087
ID: WCCr6 K2Cr2O4_00009
Exp:10/21/17 Prpd:YZ Opn:10/21/16
Cr-1000ppm 1st

| | |
|---|---|
| **PRODUCT:** | 1000 mg/L Hexavalent Chromium |
| **CATALOG NUMBER:** | 019 |
| **LOT NUMBER:** | 040416 |
| **ISSUE DATE:** | April 14, 2016 |
| **REVISION DATE:** | Original |
| **STARTING MATERIAL:** | Potassium Dichromate ($K_2Cr_2O_7$) |
| **CERTIFIED CONCENTRATION[1]:** | 1000 mg/L |
| **UNCERTAINTY[2]:** | 0.6% |
| **MATRIX:** | 18 megohm deionized water |
| **DENSITY:** | 1.0001 ± 0.0008 g/mL at 21.5°C and 758 mm Hg |
| **TRACEABILITY[3]:** | 101% |
| **NIST/SRM:** | SRM 136f Potassium Dichromate |
| **VERIFICATION METHOD:** | Spectrophotometry |
| **STORAGE:** | Store at 20-25°C |

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation and internal analytical verification of the product by ERA, multiplied by a coverage factor which is equal to the student t factor at a 95% confidence interval at n-1 degrees of freedom. The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability Recovery = ((% Recovery certified standard)/(% Recovery NIST SRM))*100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs.

This standard **expires 4/2019**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

# Reagent

# WCK2CR2O7_00003

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

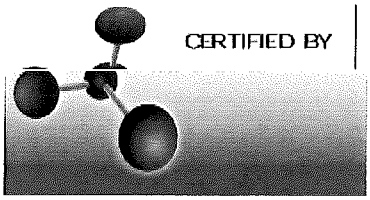
# Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

| | | | |
|---|---|---|---|
| **Catalog Number** | **P188** | **Quality Test / Release Date 10/5/2016** | |
| **Lot Number** | **166724** | | |
| **Description** | **POTASSIUM DICHROMATE, A.C.S.** | | |
| **Country of Origin** | **United States** | *** Suggested Retest Date** | **Oct-2021** |
| **Chemical Origin** | **Inorganic-non animal** | | |
| **BSE/TSE Comment** | No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product. | | |

| Result name | Units | Specifications | Test Value |
|---|---|---|---|
| APPEARANCE | | REPORT | Fine,orange red crystals. |
| ASSAY | % | >= 99 | 100.0 |
| CALCIUM | % | <= 0.003 | <0.0030 |
| CHLORIDE | % | <= 0.001 | <0.0010 |
| IDENTIFICATION | PASS/FAIL | = PASS TEST | PASS TEST |
| INSOLUBLE MATTER | % | <= 0.005 | <0.005 |
| IRON (Fe) | % | <= 0.001 | <0.0010 |
| LOSS ON DRYING @ 105 C | % | <= 0.05 | 0.02 |
| SODIUM (Na) | % | <= 0.02 | 0.001 |
| SULFATE (SO4) | % | <= 0.005 | <0.005 |




Teresa Bailey-Wyche

**Quality Assurance Specialist - Certificate of Analysis Fair Lawn**

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

# Reagent

# WCKDCA_00003

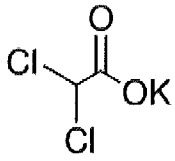
3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

2430129
ID WCKDCA_00003
Exp 02/28/20 Prpd YZ Opn 02/28/15
300.1- Potassium Dichloro

# Certificate of Analysis

Product Name:
Potassium dichloroacetate - 98%

| | |
|---|---|
| **Product Number:** | **348082** |
| **Batch Number:** | **MKBR8264V** |
| Brand: | ALDRICH |
| CAS Number: | 19559-59-2 |
| MDL Number: | MFCD00075411 |
| Formula: | C2HCl2KO2 |
| Formula Weight: | 167.03 g/mol |
| Quality Release Date: | 26 JUN 2014 |




| Test | Specification | Result |
|---|---|---|
| Appearance (Color) | White | White |
| Appearance (Form) | Powder or Crystal or Chunk(s) | Crystals with Chunk(s) |
| Infrared Spectrum | Conforms to Structure | Conforms |
| Purity (Titration by HClO4) | 97.5 - 102.5 % | 99.7 % |

Ali Ataei, Manager
Quality Control
Milwaukee, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

# Method 7199

## Chromium, Hexavalent (IC) by Method 7199

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: LCS 440-439189/2-A Client ID:

| COMPOUND | SPIKE ADDED (mg/Kg) | LCS CONCENTRATION (mg/Kg) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 40.0 | 36.0 | 90 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: 720-82886-D-2-B MS Client ID:

| COMPOUND | SPIKE ADDED (mg/Kg) | SAMPLE CONCENTRATION (mg/Kg) | MS CONCENTRATION (mg/Kg) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chromium, hexavalent | 39.8 | 0.28 J | 35.7 | 89 | 55-110 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: 720-82886-D-2-C MSD Client ID:

| COMPOUND | SPIKE ADDED (mg/Kg) | MSD CONCENTRATION (mg/Kg) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 40.2 | 36.5 | 90 | 2 | 20 | 55-110 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE INSOLUBLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: 720-82886-D-2-D MSI Client ID:

| COMPOUND | SPIKE ADDED (mg/Kg) | SAMPLE CONCENTRATION (mg/Kg) | MSI CONCENTRATION (mg/Kg) | MSI % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chromium, hexavalent | 970 | 0.31 | 706 | 73 | 55-110 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2 Lab Sample ID: MB 440-439189/1-A

Matrix: Solid Date Extracted: 11/03/2017 00:26

Instrument ID: IC-16 Date Analyzed: 11/03/2017 15:14

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 440-439189/2-A | Info 2_TAIIRV0066_Hex Chrom_20171103-153742.d | 11/03/2017 15:26 |
| VER- 01D-90.0-20171020 | 440-194764-1 | Info 2_TAIIRV0066_Hex Chrom_20171103-161815.d | 11/03/2017 16:06 |
| | 720-82886-D-2-B MS | Info 2_TAIIRV0066_Hex Chrom_20171103-234313.d | 11/03/2017 23:31 |
| | 720-82886-D-2-C MSD | Info 2_TAIIRV0066_Hex Chrom_20171103-235450.d | 11/03/2017 23:43 |
| | 720-82886-D-2-D MSI | Info 2_TAIIRV0066_Hex Chrom_20171104-000628.d | 11/03/2017 23:54 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: VER- 01D-90.0-20171020 | Lab Sample ID: 440-194764-1

Matrix: Solid | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 10/20/2017 11:50

Extraction Method: 3060A | Date Extracted: 11/03/2017 00:26

Sample wt/vol: 2.51(g) | Date Analyzed: 11/03/2017 16:06

Con. Extract Vol.: 100(mL) | Dilution Factor: 3

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: 25.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 439195 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 0.40 | 0.20 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171103-161815.d
Lims ID: 440-194764-A-1-F
Client ID: VER- 01D-90.0-20171020
Sample Type: Client
Inject. Date: 03-Nov-2017 16:06:00 ALS Bottle#: 0 Worklist Smp#: 32
Injection Vol: 1000.0 ul Dil. Factor: 3.0000
Sample Info: 440-0095682-032
Misc. Info.: 440-0095682-032
Operator ID: IRVINSTIC16 Instrument ID: IC-16
Raw Data: Smoothed

Method: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\218.6_16.m
Limit Group: IC-7199
Method Label: HEX CHROME
Last Update: 03-Nov-2017 18:56:20 Calib Date: 02-Oct-2017 13:59:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d

Column 1 : Det: Ch-A-20111004015
Process Host: XAWRK002

First Level Reviewer: welchr Date: 03-Nov-2017 18:55:29

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 1 Cr (VI) | 7.115 | 7.440 | -0.325 | 11007 | 0.2227 | |

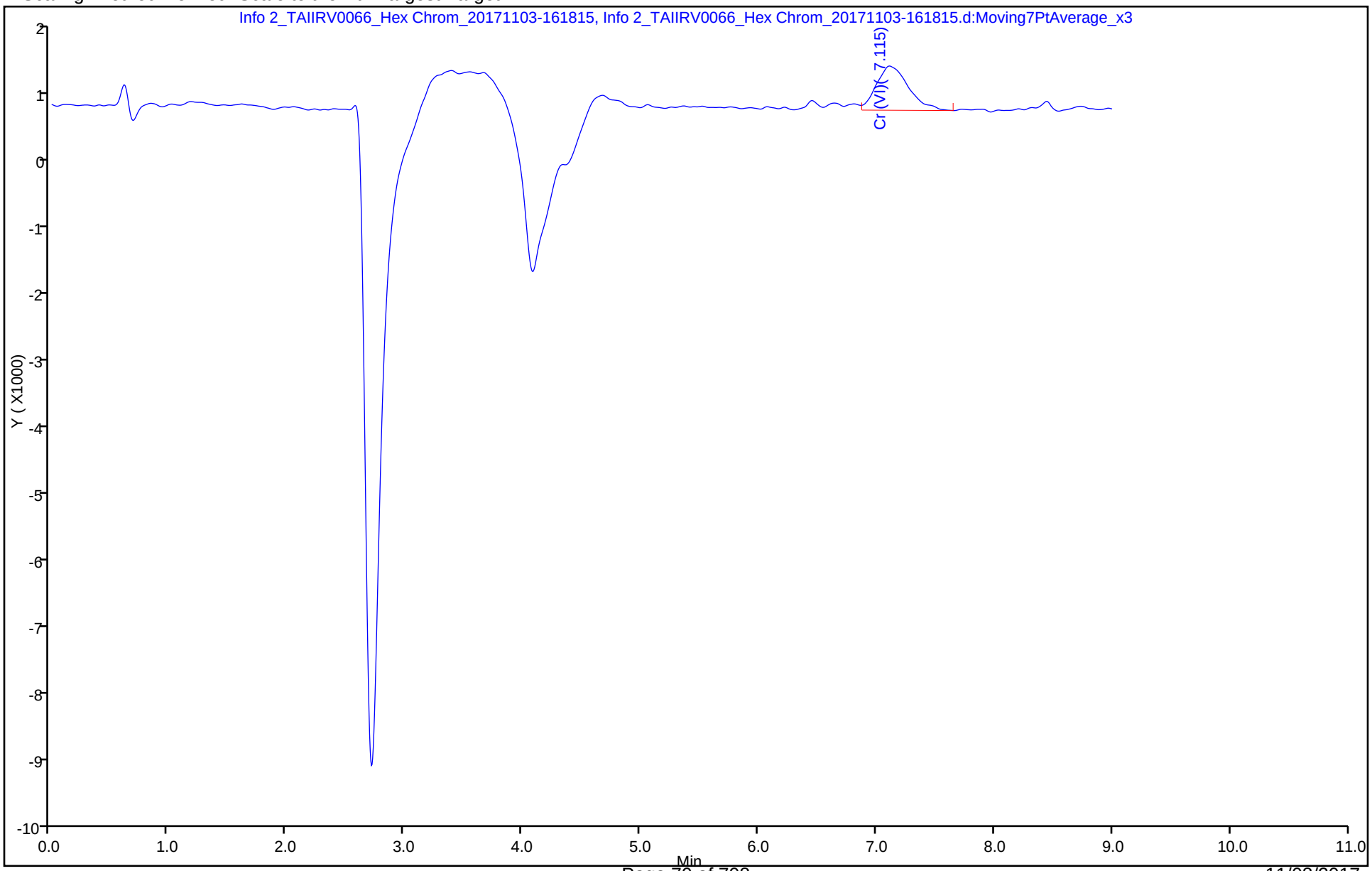
Report Date: 03-Nov-2017 18:56:43 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171103-161815.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2017 16:06:00 | Instrument ID: | IC-16 | Operator ID: | IRVINSTIC16 |
| Lims ID: | 440-194764-A-1-F | Lab Sample ID: | 440-194764-1 | Worklist Smp#: | 32 |
| Client ID: | VER- 01D-90.0-20171020 | | | | |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 3.0000 | ALS Bottle#: | 0 |
| Method: | 218.6_16 | Limit Group: | IC-7199 | | |

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1 Analy Batch No.: 432478

SDG No.:

Instrument ID: IC-16 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2017 12:38 Calibration End Date: 10/02/2017 13:59 Calibration ID: 17606

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-432478/3 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d |
| Level 2 | STD2 440-432478/4 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d |
| Level 3 | STD3 440-432478/5 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d |
| Level 4 | STD4 440-432478/6 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d |
| Level 5 | STD5 440-432478/7 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d |
| Level 6 | STD6 440-432478/8 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d |
| Level 7 | STD7 440-432478/9 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 7.528 | 7.528 | 7.528 | 7.528 | 7.523 | 7.523 | 7.523 | | | | 7.151 - 7.904 | 7.526 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-194764-1 Analy Batch No.: 432478

SDG No.:

Instrument ID: IC-16 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2017 12:38 Calibration End Date: 10/02/2017 13:59 Calibration ID: 17606

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-432478/3 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d |
| Level 2 | STD2 440-432478/4 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d |
| Level 3 | STD3 440-432478/5 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d |
| Level 4 | STD4 440-432478/6 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d |
| Level 5 | STD5 440-432478/7 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d |
| Level 6 | STD6 440-432478/8 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d |
| Level 7 | STD7 440-432478/9 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Chromium, hexavalent | 48520<br>43927 | 45274<br>44791 | 45566<br>44690 | 43498 | Lin1 | 1102.44248 | 44469.5021 | | | | | | | 1.0000 | | 0.9990 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-194764-1 Analy Batch No.: 432478

SDG No.:

Instrument ID: IC-16 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2017 12:38 Calibration End Date: 10/02/2017 13:59 Calibration ID: 17606

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-432478/3 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d |
| Level 2 | STD2 440-432478/4 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d |
| Level 3 | STD3 440-432478/5 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d |
| Level 4 | STD4 440-432478/6 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d |
| Level 5 | STD5 440-432478/7 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d |
| Level 6 | STD6 440-432478/8 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d |
| Level 7 | STD7 440-432478/9 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| Chromium, hexavalent | Lin1 | 14556<br>3359349 | 45274<br>4468974 | 455662 | 1087448 | 2196335 | 0.300<br>75.0 | 1.00<br>100 | 10.0 | 25.0 | 50.0 |

Curve Type Legend:
Lin1 = Linear 1/conc

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d
Lims ID: STD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 02-Oct-2017 12:50:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1000.0 ul Dil. Factor: 1.0000
Sample Info: 440-0094159-003
Misc. Info.: 440-0094159-003
Operator ID: IRVINSTIC16 Instrument ID: IC-16
Sublist: chrom-218.6_16*sub1
Raw Data: Smoothed

Method: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\218.6_16.m
Limit Group: IC-7199
Method Label: HEX CHROME
Last Update: 02-Oct-2017 15:51:40 Calib Date: 02-Oct-2017 13:59:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d

Column 1 : Det: Ch-A-20111004015
Process Host: XAWRK017

First Level Reviewer: nickloffn Date: 02-Oct-2017 13:40:03

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Cr (VI) | 7.528 | 7.528 | 0.000 | 14556 | 0.3000 | 0.3025 | |

## Reagents:

WCCR6LCS5PPM_00098 Amount Added: 0.60 Units: uL

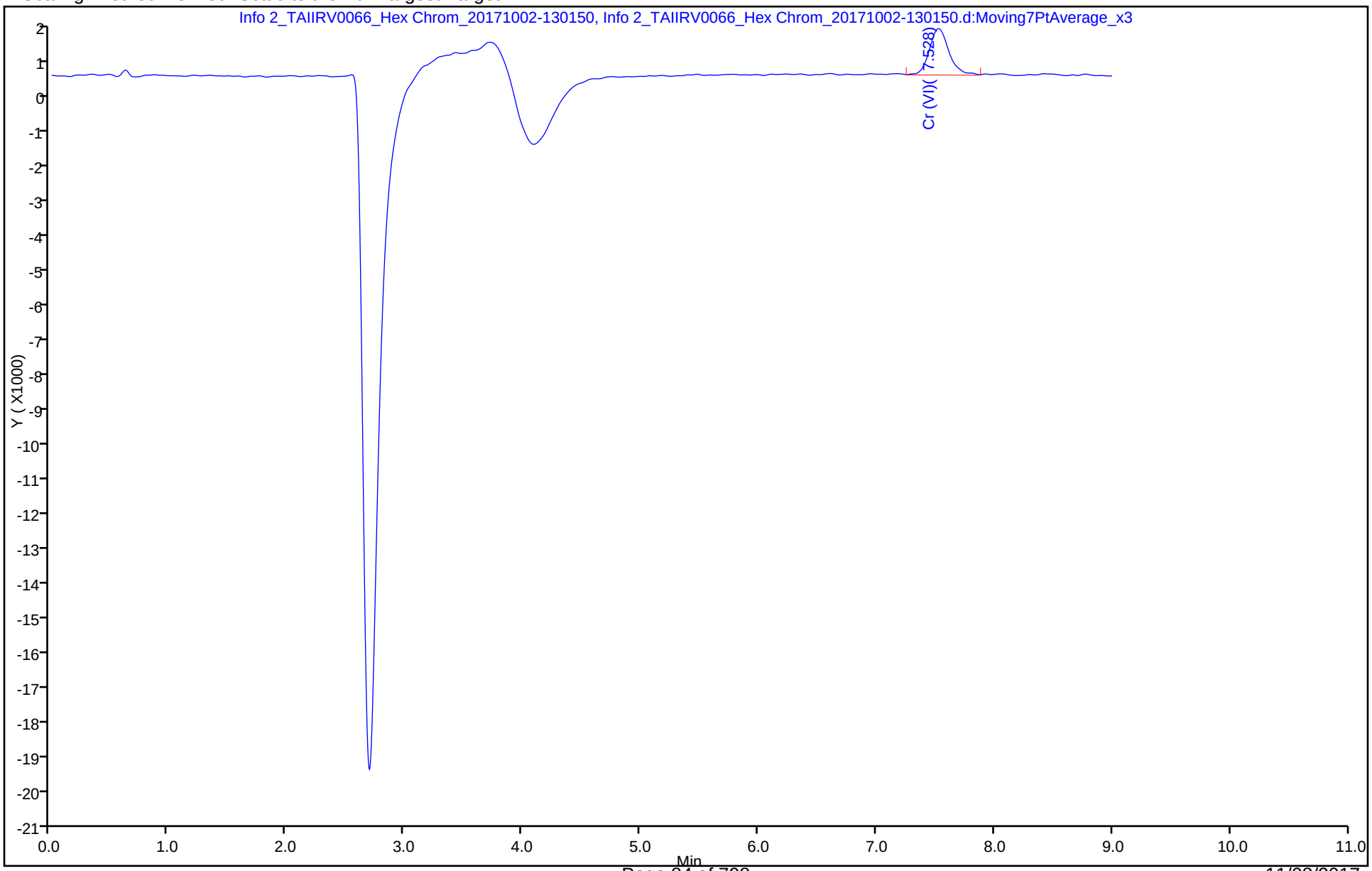
Report Date: 02-Oct-2017 15:51:40 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 02-Oct-2017 12:50:00 | Instrument ID: | IC-16 | Operator ID: | IRVINSTIC16 |
| Lims ID: | STD1 | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 218.6_16 | Limit Group: | IC-7199 | | |

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d
Lims ID: STD2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 02-Oct-2017 13:01:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1000.0 ul Dil. Factor: 1.0000
Sample Info: 440-0094159-004
Misc. Info.: 440-0094159-004
Operator ID: IRVINSTIC16 Instrument ID: IC-16
Sublist: chrom-218.6_16*sub1
Raw Data: Smoothed

Method: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\218.6_16.m
Limit Group: IC-7199
Method Label: HEX CHROME
Last Update: 02-Oct-2017 15:51:40 Calib Date: 02-Oct-2017 13:59:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d

Column 1 : Det: Ch-A-20111004015
Process Host: XAWRK017

First Level Reviewer: nickloffn Date: 02-Oct-2017 13:26:06

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Cr (VI) | 7.528 | 7.528 | 0.000 | 45274 | 1.00 | 0.99 | M |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

WCCR6LCS5PPM_00098 Amount Added: 2.00 Units: uL

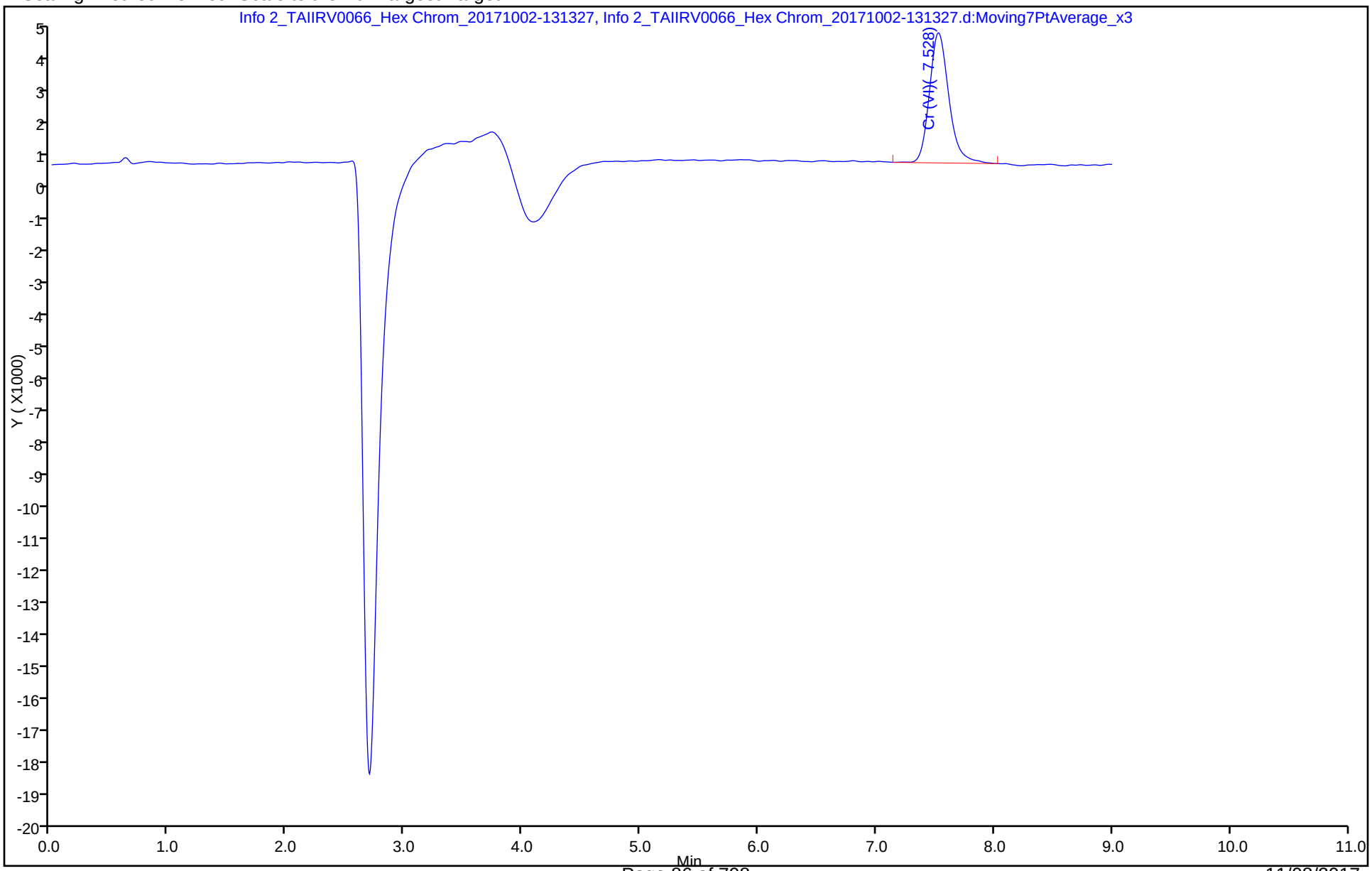
Report Date: 02-Oct-2017 15:51:41 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 02-Oct-2017 13:01:00 | Instrument ID: | IC-16 | Operator ID: | IRVINSTIC16 |
| Lims ID: | STD2 | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 218.6_16 | Limit Group: | IC-7199 | | |

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

TestAmerica Irvine

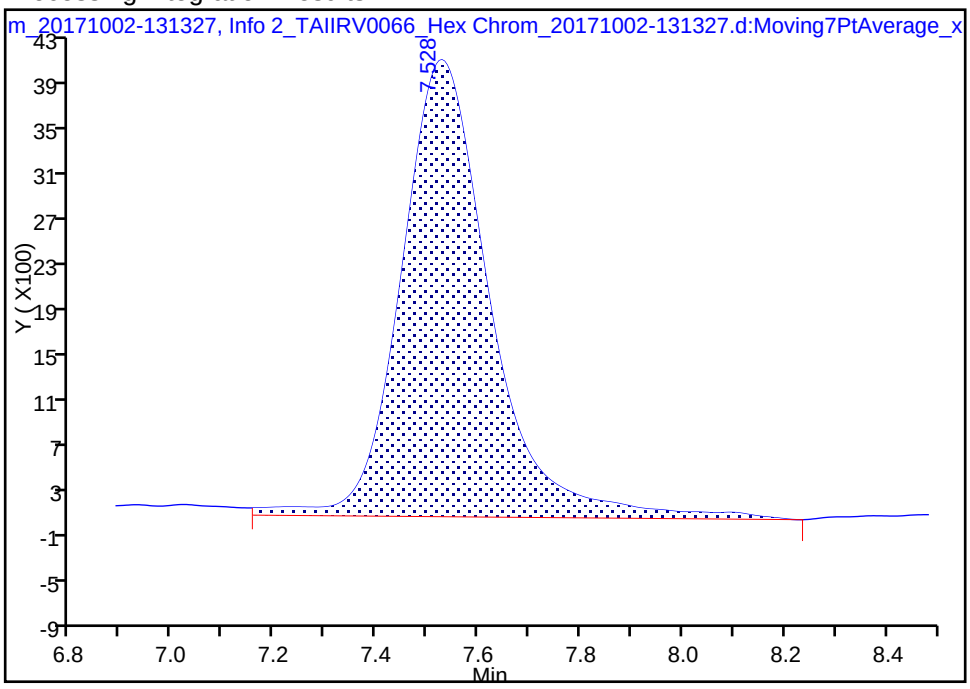
Data File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d
Injection Date: 02-Oct-2017 13:01:00 Instrument ID: IC-16
Lims ID: STD2
Client ID:
Operator ID: IRVINSTIC16 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1000.0 ul Dil. Factor: 1.0000
Method: 218.6_16 Limit Group: IC-7199
Column: Detector Ch-A-20111004015

## 1 Cr (VI), CAS: 18540-29-9

Signal: 1

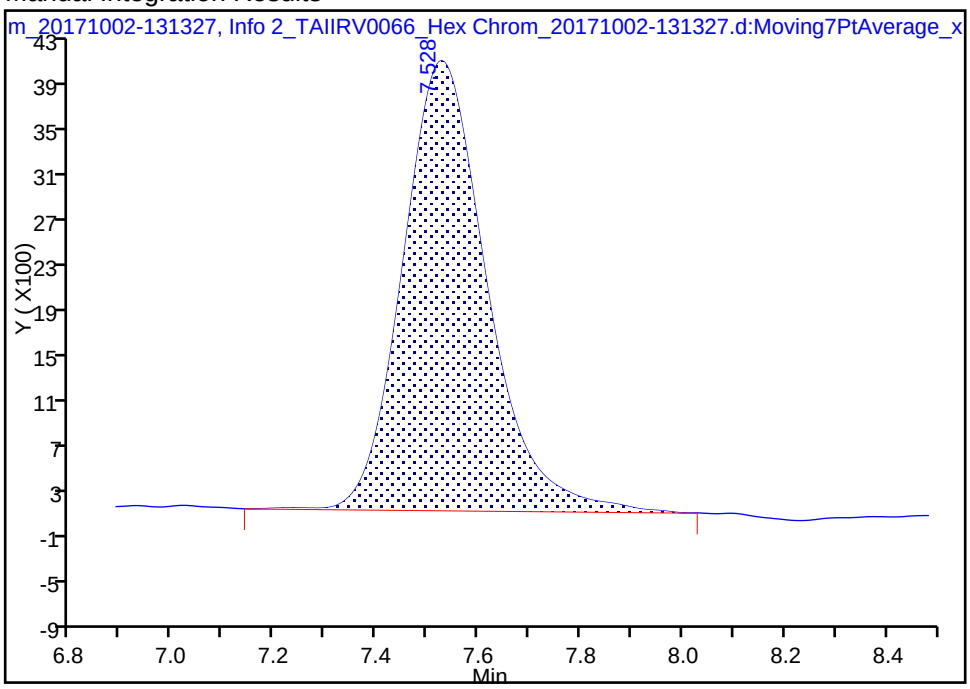
Processing Integration Results

RT: 7.53
Area: 48788
Amount: 1.000000
Amount Units: ug/l




Manual Integration Results

RT: 7.53
Area: 45274
Amount: 0.993300
Amount Units: ug/l




Reviewer: nickloffn, 02-Oct-2017 13:25:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d | | | | |
| Lims ID: | STD3 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 3 | | |
| Inject. Date: | 02-Oct-2017 13:13:00 | ALS Bottle#: | 0 | Worklist Smp#: | 5 |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0094159-005 | | | | |
| Misc. Info.: | 440-0094159-005 | | | | |
| Operator ID: | IRVINSTIC16 | Instrument ID: | IC-16 | | |
| Sublist: | chrom-218.6_16*sub1 | | | | |
| Raw Data: | Smoothed | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\218.6_16.m | | | | |
| Limit Group: | IC-7199 | | | | |
| Method Label: | HEX CHROME | | | | |
| Last Update: | 02-Oct-2017 15:51:41 | Calib Date: | 02-Oct-2017 13:59:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d | | | | |
| Column 1 : | | | Det: Ch-A-20111004015 | | |
| Process Host: | XAWRK017 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Cr (VI) | 7.528 | 7.528 | 0.000 | 455662 | 10.0 | 10.2 | |

## Reagents:

WCCR6LCS5PPM_00098 Amount Added: 20.00 Units: uL

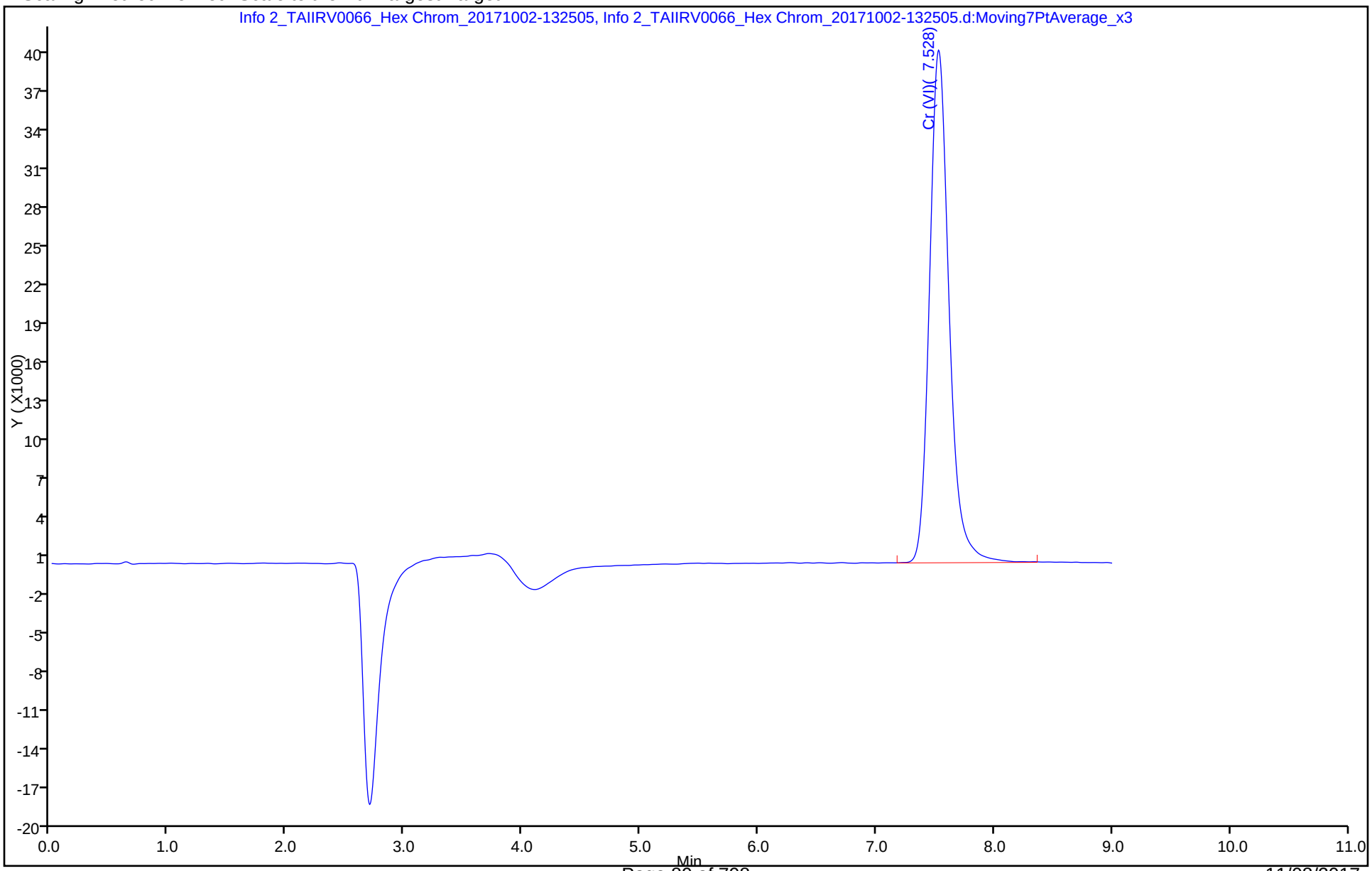
Report Date: 02-Oct-2017 15:51:42 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 02-Oct-2017 13:13:00 | Instrument ID: | IC-16 | Operator ID: | IRVINSTIC16 |
| Lims ID: | STD3 | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 218.6_16 | Limit Group: | IC-7199 | | |

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d
Lims ID: STD4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 02-Oct-2017 13:25:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1000.0 ul Dil. Factor: 1.0000
Sample Info: 440-0094159-006
Misc. Info.: 440-0094159-006
Operator ID: IRVINSTIC16 Instrument ID: IC-16
Sublist: chrom-218.6_16*sub1
Raw Data: Smoothed

Method: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\218.6_16.m
Limit Group: IC-7199
Method Label: HEX CHROME
Last Update: 02-Oct-2017 15:51:42 Calib Date: 02-Oct-2017 13:59:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d

Column 1 : Det: Ch-A-20111004015
Process Host: XAWRK017

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Cr (VI) | 7.528 | 7.528 | 0.000 | 1087448 | 25.0 | 24.4 | |

## Reagents:

WCCR6LCS5PPM_00098 Amount Added: 50.00 Units: uL

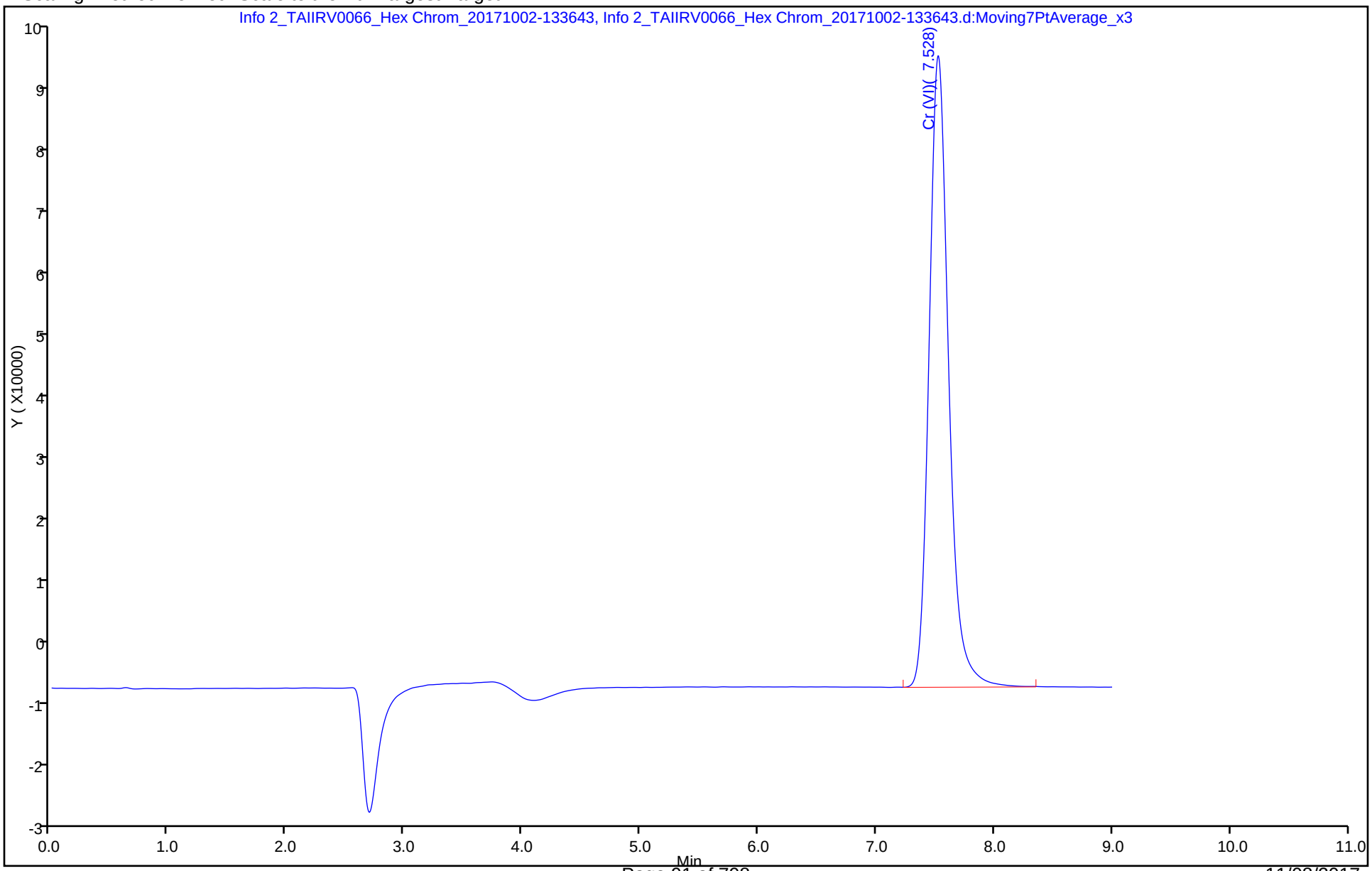
Report Date: 02-Oct-2017 15:51:42 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 02-Oct-2017 13:25:00 | Instrument ID: | IC-16 | Operator ID: | IRVINSTIC16 |
| Lims ID: | STD4 | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 218.6_16 | Limit Group: | IC-7199 | | |

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d
Lims ID: STD5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 02-Oct-2017 13:36:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1000.0 ul Dil. Factor: 1.0000
Sample Info: 440-0094159-007
Misc. Info.: 440-0094159-007
Operator ID: IRVINSTIC16 Instrument ID: IC-16
Sublist: chrom-218.6_16*sub1
Raw Data: Smoothed

Method: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\218.6_16.m
Limit Group: IC-7199
Method Label: HEX CHROME
Last Update: 02-Oct-2017 15:51:43 Calib Date: 02-Oct-2017 13:59:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d

Column 1 : Det: Ch-A-20111004015
Process Host: XAWRK017

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Cr (VI) | 7.523 | 7.528 | -0.005 | 2196335 | 50.0 | 49.4 | |

## Reagents:

WCCR6LCS5PPM_00098 Amount Added: 100.00 Units: uL

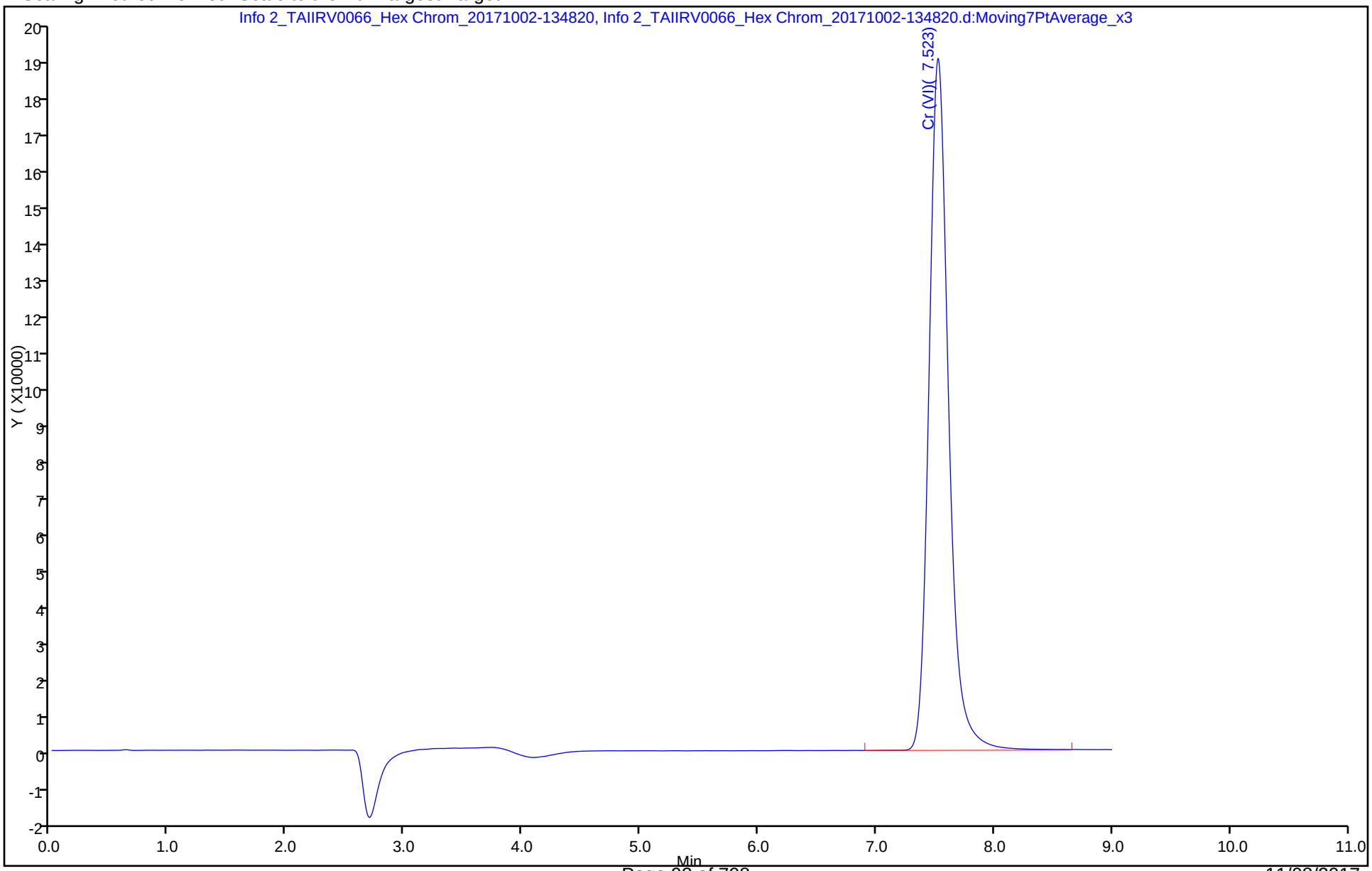
Report Date: 02-Oct-2017 15:51:43 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 02-Oct-2017 13:36:00 | Instrument ID: | IC-16 | Operator ID: | IRVINSTIC16 |
| Lims ID: | STD5 | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 218.6_16 | Limit Group: | IC-7199 | | |

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d | | | | |
| Lims ID: | STD6 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 6 | | |
| Inject. Date: | 02-Oct-2017 13:48:00 | ALS Bottle#: | 0 | Worklist Smp#: | 8 |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0094159-008 | | | | |
| Misc. Info.: | 440-0094159-008 | | | | |
| Operator ID: | IRVINSTIC16 | Instrument ID: | IC-16 | | |
| Sublist: | chrom-218.6_16*sub1 | | | | |
| Raw Data: | Smoothed | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\218.6_16.m | | | | |
| Limit Group: | IC-7199 | | | | |
| Method Label: | HEX CHROME | | | | |
| Last Update: | 02-Oct-2017 15:51:44 | Calib Date: | 02-Oct-2017 13:59:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d | | | | |
| Column 1 : | | | Det: Ch-A-20111004015 | | |
| Process Host: | XAWRK017 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Cr (VI) | 7.523 | 7.528 | -0.005 | 3359349 | 75.0 | 75.5 | |

## Reagents:

WCCR6LCS5PPM_00098 Amount Added: 150.00 Units: uL

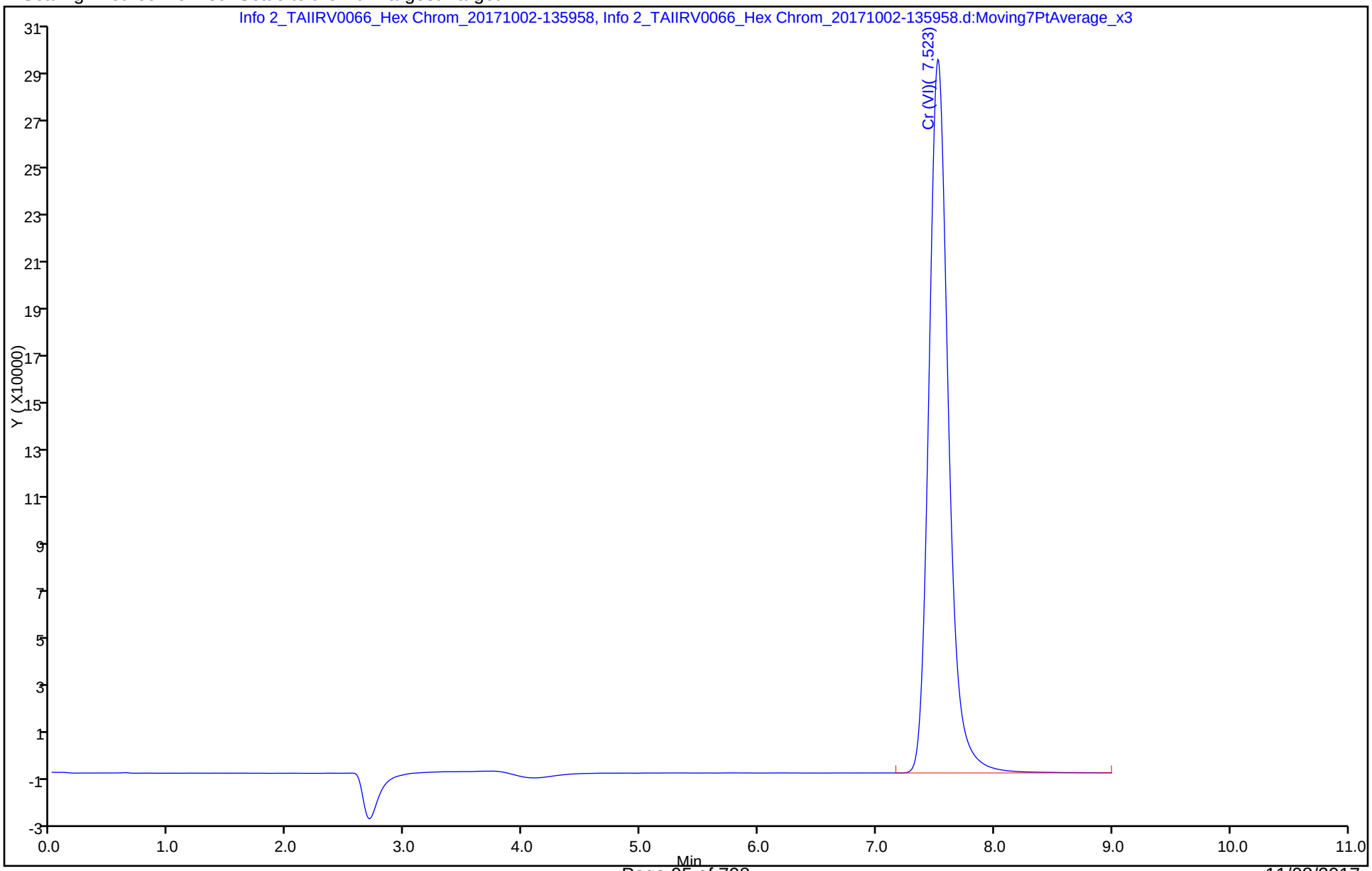
Report Date: 02-Oct-2017 15:51:44 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 02-Oct-2017 13:48:00 | Instrument ID: | IC-16 | Operator ID: | IRVINSTIC16 |
| Lims ID: | STD6 | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 218.6_16 | Limit Group: | IC-7199 | | |

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d
Lims ID: STD7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 02-Oct-2017 13:59:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1000.0 ul Dil. Factor: 1.0000
Sample Info: 440-0094159-009
Misc. Info.: 440-0094159-009
Operator ID: IRVINSTIC16 Instrument ID: IC-16
Sublist: chrom-218.6_16*sub1
Raw Data: Smoothed

Method: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\218.6_16.m
Limit Group: IC-7199
Method Label: HEX CHROME
Last Update: 02-Oct-2017 15:51:45 Calib Date: 02-Oct-2017 13:59:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d

Column 1 : Det: Ch-A-20111004015
Process Host: XAWRK017

First Level Reviewer: nickloffn Date: 02-Oct-2017 14:27:30

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Cr (VI) | 7.523 | 7.528 | -0.005 | 4468974 | 100.0 | 100.5 | |

## Reagents:

WCCR6LCS5PPM_00098 Amount Added: 200.00 Units: uL

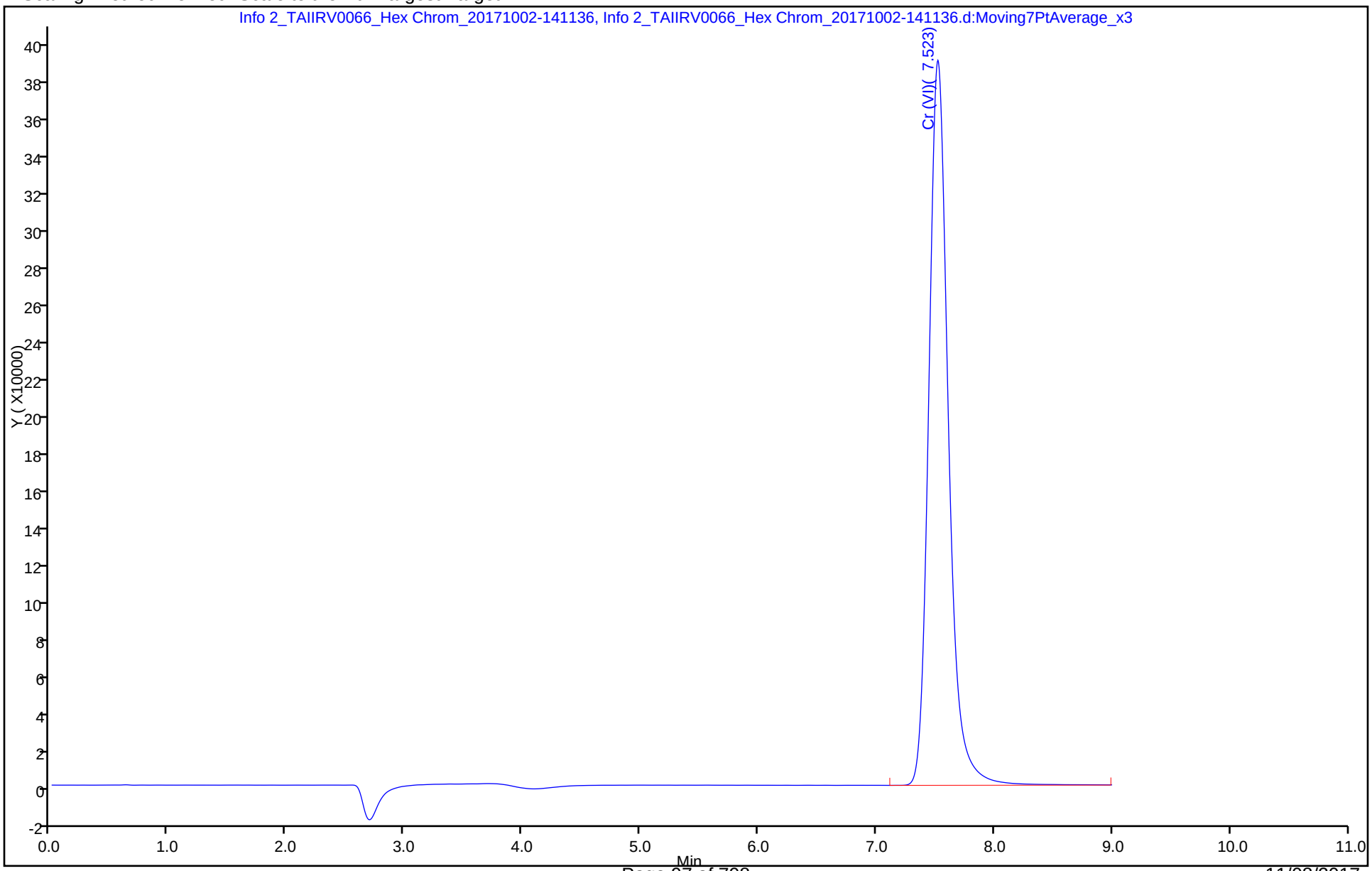
Report Date: 02-Oct-2017 15:51:45 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 02-Oct-2017 13:59:00 | Instrument ID: | IC-16 | Operator ID: | IRVINSTIC16 |
| Lims ID: | STD7 | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 218.6_16 | Limit Group: | IC-7199 | | |

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Lab Sample ID: ICV 440-432478/10  Calibration Date: 10/02/2017 14:26

Instrument ID: IC-16  Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A  ID: 4.00(mm)  Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20171  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 50.1 | 50.0 | 100 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: ICV 440-432478/10 Calibration Date: 10/02/2017 14:26

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20171

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.52 | 7.15 | 7.90 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-143755.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 02-Oct-2017 14:26:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1000.0 ul Dil. Factor: 1.0000
Sample Info: 440-0094159-010
Misc. Info.: 440-0094159-010
Operator ID: IRVINSTIC16 Instrument ID: IC-16
Sublist:
Raw Data: Smoothed

Method: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\218.6_16.m
Limit Group: IC-7199
Method Label: HEX CHROME
Last Update: 02-Oct-2017 15:51:45 Calib Date: 02-Oct-2017 13:59:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d

Column 1 : Det: Ch-A-20111004015
Process Host: XAWRK017

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Cr (VI) | 7.523 | 7.528 | -0.005 | 2228037 | 50.0 | 50.1 | |

## Reagents:

WCCR6ICV5PPM_00051 Amount Added: 100.00 Units: uL

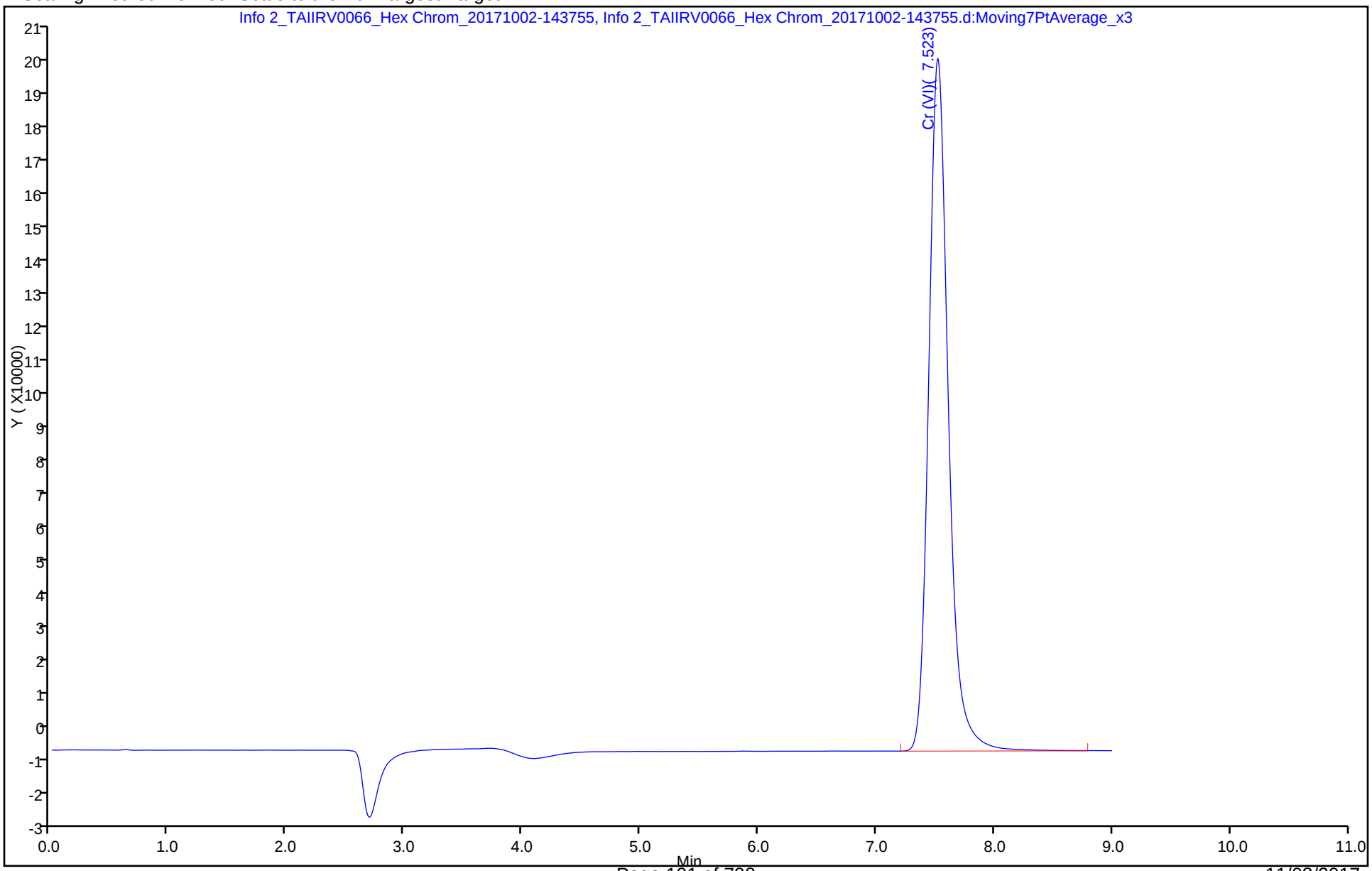
Report Date: 02-Oct-2017 15:51:45 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-143755.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 02-Oct-2017 14:26:00 | Instrument ID: | IC-16 | Operator ID: | IRVINSTIC16 |
| Lims ID: | ICV | | | Worklist Smp#: | 10 |
| Client ID: | | | | | |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 218.6_16 | Limit Group: | IC-7199 | | |

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-439195/26 Calibration Date: 11/03/2017 14:01

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20171 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 51.0 | 50.0 | 102 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-439195/26 Calibration Date: 11/03/2017 14:01

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20171

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.28 | 7.07 | 7.81 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171103-141324.d | | | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 03-Nov-2017 14:01:00 | ALS Bottle#: | 0 | Worklist Smp#: | 26 |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095682-026 | | | | |
| Misc. Info.: | 440-0095682-026 | | | | |
| Operator ID: | IRVINSTIC16 | Instrument ID: | IC-16 | | |
| Sublist: | chrom-218.6_16*sub1 | | | | |
| Raw Data: | Smoothed | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\218.6_16.m | | | | |
| Limit Group: | IC-7199 | | | | |
| Method Label: | HEX CHROME | | | | |
| Last Update: | 03-Nov-2017 18:56:47 | Calib Date: | 02-Oct-2017 13:59:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d | | | | |
| Column 1 : | | | Det: Ch-A-20111004015 | | |
| Process Host: | XAWRK002 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Cr (VI) | 7.280 | 7.440 | -0.160 | 2270704 | 50.0 | 51.0 | |

## Reagents:

WCCR6LCS5PPM_00099 Amount Added: 100.00 Units: uL

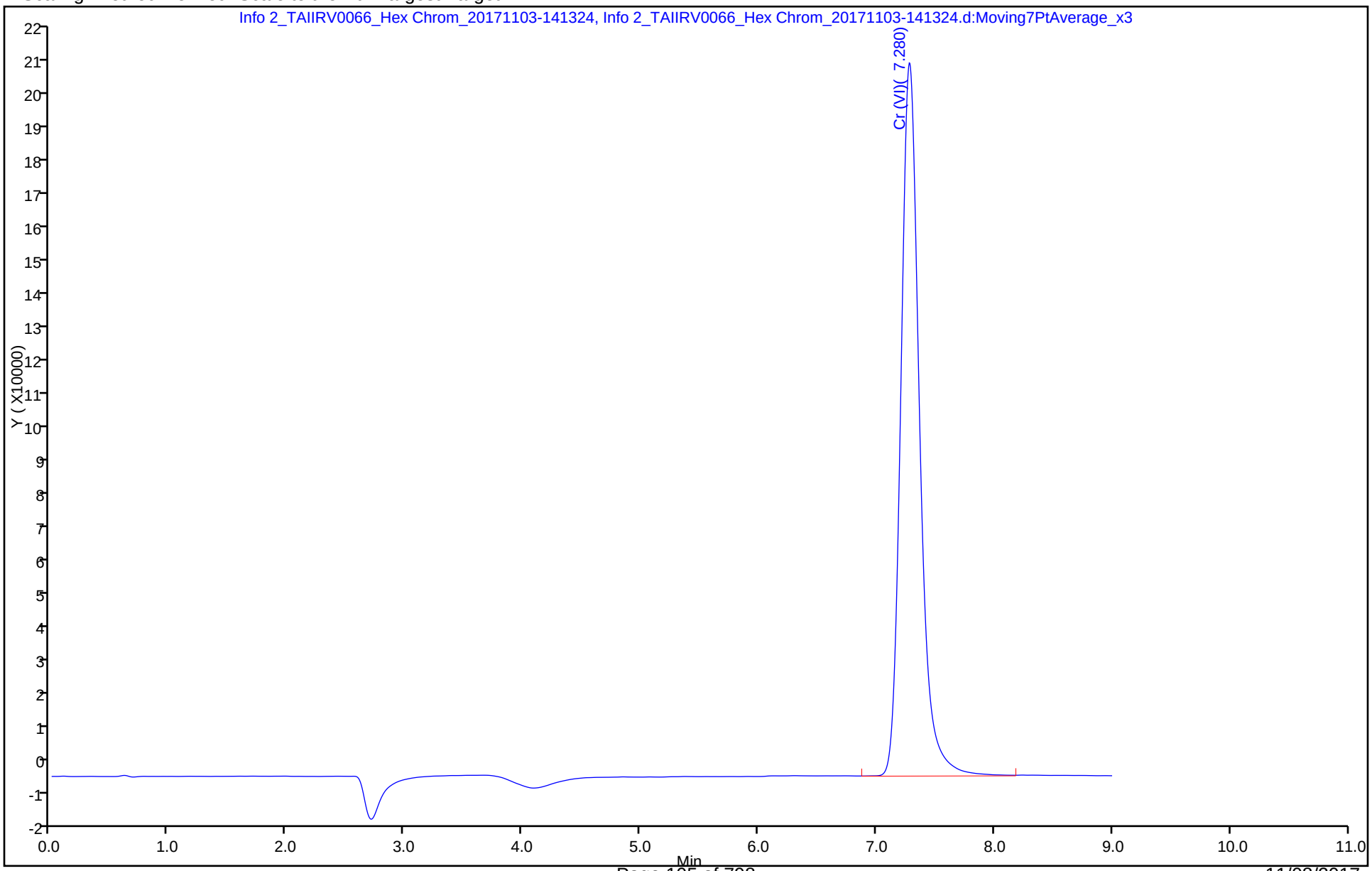
Report Date: 03-Nov-2017 18:56:47 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171103-141324.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2017 14:01:00 | Instrument ID: | IC-16 | Operator ID: | IRVINSTIC16 |
| Lims ID: | CCV | | | Worklist Smp#: | 26 |
| Client ID: | | | | | |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 218.6_16 | Limit Group: | IC-7199 | | |

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-439195/38  Calibration Date: 11/03/2017 17:16

Instrument ID: IC-16  Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A  ID: 4.00(mm)  Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20171  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 53.3 | 50.0 | 107 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-439195/38 Calibration Date: 11/03/2017 17:16

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20171

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.32 | 7.07 | 7.81 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171103-172801.d | | | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 03-Nov-2017 17:16:00 | ALS Bottle#: | 0 | Worklist Smp#: | 38 |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095682-038 | | | | |
| Misc. Info.: | 440-0095682-038 | | | | |
| Operator ID: | IRVINSTIC16 | Instrument ID: | IC-16 | | |
| Sublist: | chrom-218.6_16*sub1 | | | | |
| Raw Data: | Smoothed | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\218.6_16.m | | | | |
| Limit Group: | IC-7199 | | | | |
| Method Label: | HEX CHROME | | | | |
| Last Update: | 03-Nov-2017 19:38:26 | Calib Date: | 02-Oct-2017 13:59:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d | | | | |
| Column 1 : | | | Det: Ch-A-20111004015 | | |
| Process Host: | XAWRK002 | | | | |
| First Level Reviewer: welchr | | Date: | 03-Nov-2017 18:56:20 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Cr (VI) | 7.321 | 7.440 | -0.119 | 2371559 | 50.0 | 53.3 | |

## Reagents:

WCCR6LCS5PPM_00099 Amount Added: 100.00 Units: uL

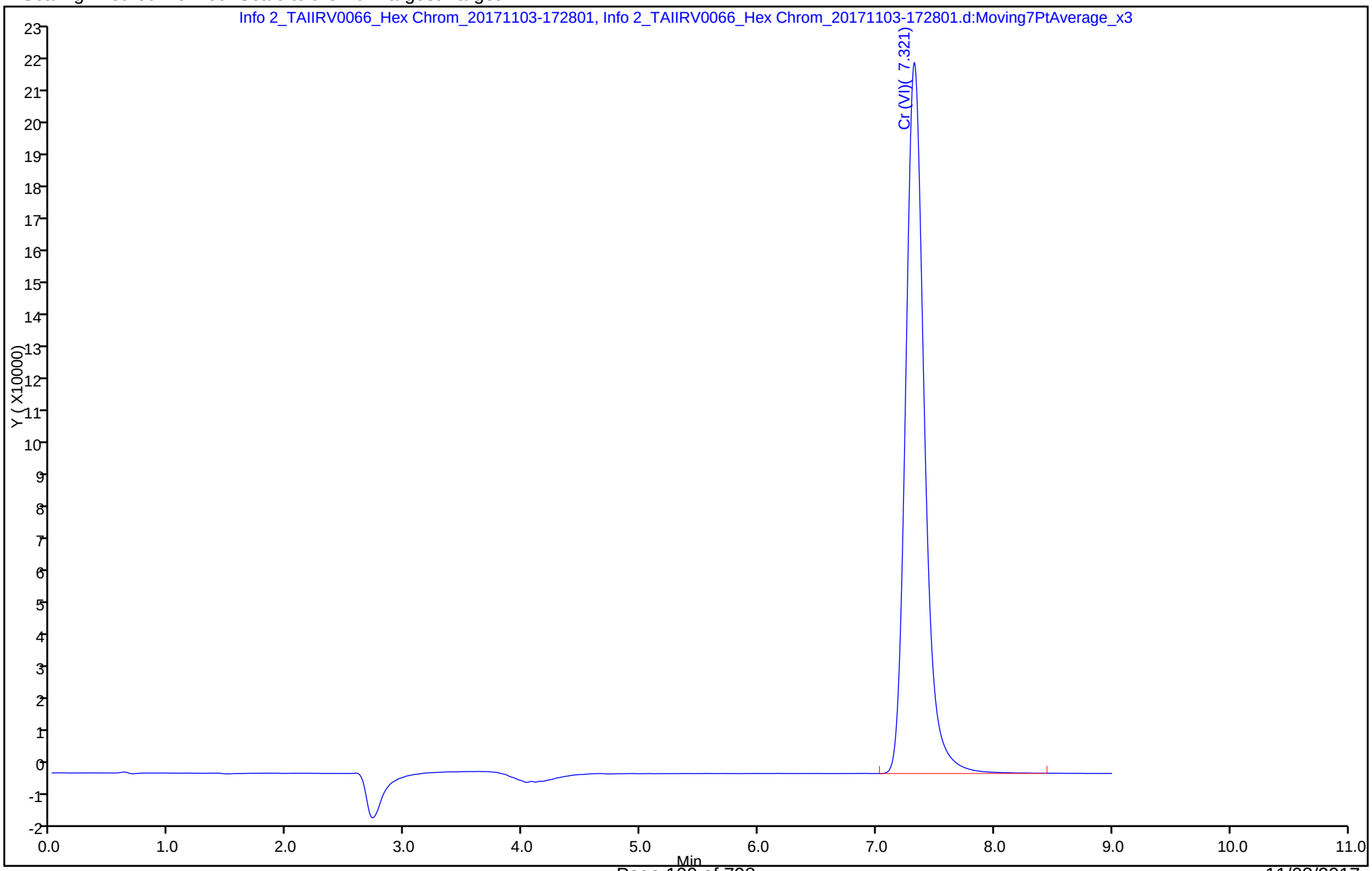
Report Date: 03-Nov-2017 19:38:26 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171103-172801.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2017 17:16:00 | Instrument ID: | IC-16 | Operator ID: | IRVINSTIC16 |
| Lims ID: | CCV | | | Worklist Smp#: | 38 |
| Client ID: | | | | | |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 218.6_16 | Limit Group: | IC-7199 | | |

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-439195/50 Calibration Date: 11/04/2017 00:06

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20171 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 51.5 | 50.0 | 103 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-439195/50 Calibration Date: 11/04/2017 00:06

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20171

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.31 | 7.07 | 7.81 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171104-001806.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 04-Nov-2017 00:06:00 ALS Bottle#: 0 Worklist Smp#: 50
Injection Vol: 1000.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095682-050
Misc. Info.: 440-0095682-050
Operator ID: IRVINSTIC16 Instrument ID: IC-16
Sublist: chrom-218.6_16*sub1
Raw Data: Smoothed

Method: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\218.6_16.m
Limit Group: IC-7199
Method Label: HEX CHROME
Last Update: 04-Nov-2017 05:58:15 Calib Date: 02-Oct-2017 13:59:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d

Column 1 : Det: Ch-A-20111004015
Process Host: XAWRK031

First Level Reviewer: welchr Date: 04-Nov-2017 01:06:20

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Cr (VI) | 7.306 | 7.440 | -0.134 | 2293497 | 50.0 | 51.5 | |

## Reagents:

WCCR6LCS5PPM_00099 Amount Added: 100.00 Units: uL

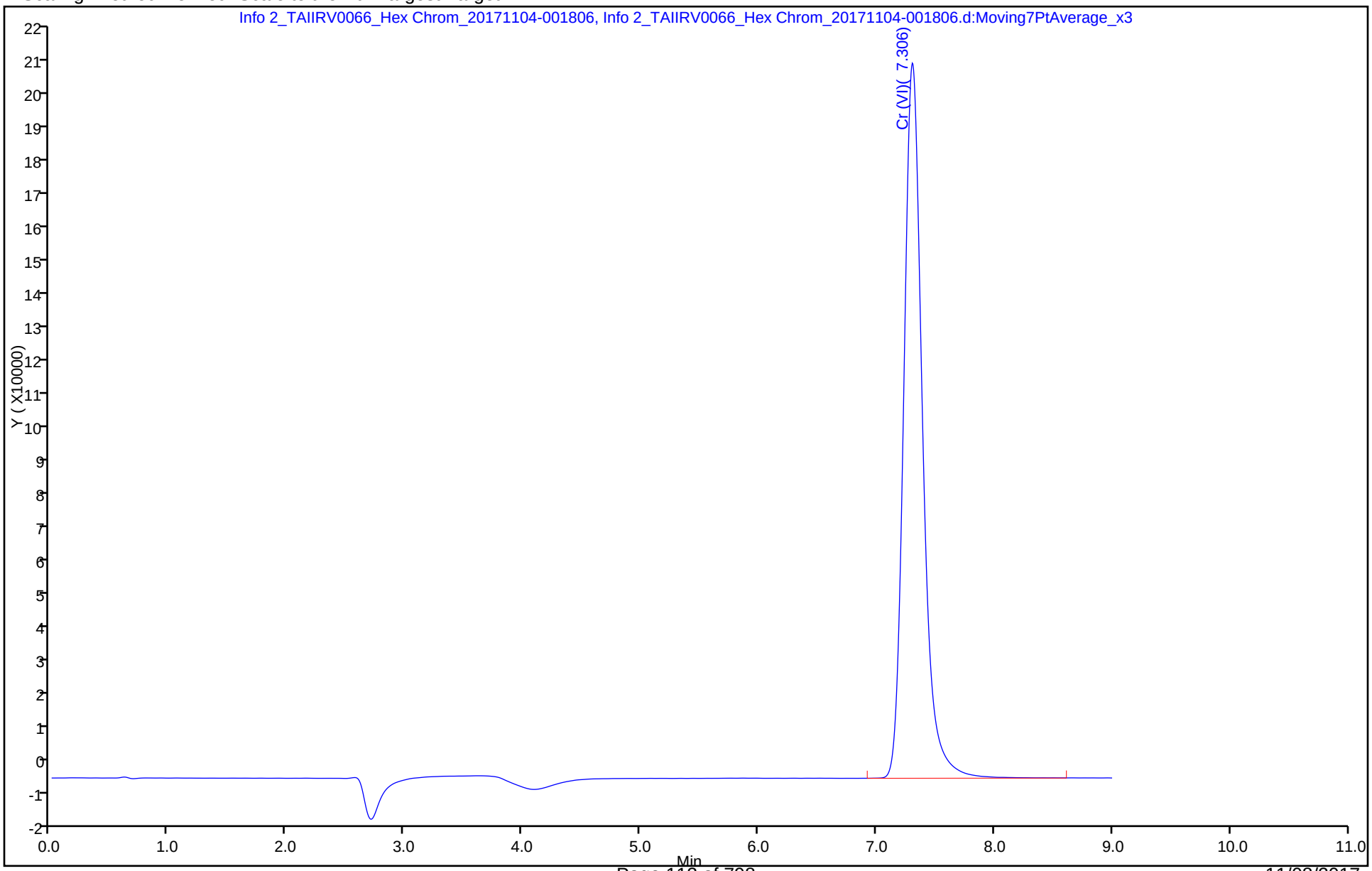
Report Date: 04-Nov-2017 05:58:16 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171104-001806.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Nov-2017 00:06:00 | Instrument ID: | IC-16 | Operator ID: | IRVINSTIC16 |
| Lims ID: | CCV | | | Worklist Smp#: | 50 |
| Client ID: | | | | | |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 218.6_16 | Limit Group: | IC-7199 | | |

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-439189/1-A

Matrix: Solid | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: 3060A | Date Extracted: 11/03/2017 00:26

Sample wt/vol: 2.50(g) | Date Analyzed: 11/03/2017 15:14

Con. Extract Vol.: 100(mL) | Dilution Factor: 3

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 439195 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 0.30 | 0.15 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171103-152605.d | | | | |
| Lims ID: | MB 440-439189/1-A | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 03-Nov-2017 15:14:00 | ALS Bottle#: | 0 | Worklist Smp#: | 28 |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 3.0000 | | |
| Sample Info: | 440-0095682-028 | | | | |
| Misc. Info.: | 440-0095682-028 | | | | |
| Operator ID: | IRVINSTIC16 | Instrument ID: | IC-16 | | |
| Raw Data: | Smoothed | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\218.6_16.m | | | | |
| Limit Group: | IC-7199 | | | | |
| Method Label: | HEX CHROME | | | | |
| Last Update: | 03-Nov-2017 18:56:20 | Calib Date: | 02-Oct-2017 13:59:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d | | | | |
| Column 1 : | | | Det: Ch-A-20111004015 | | |
| Process Host: | XAWRK002 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Cr (VI) | 7.084 | 7.440 | -0.356 | 5425 | | 0.0972 | |

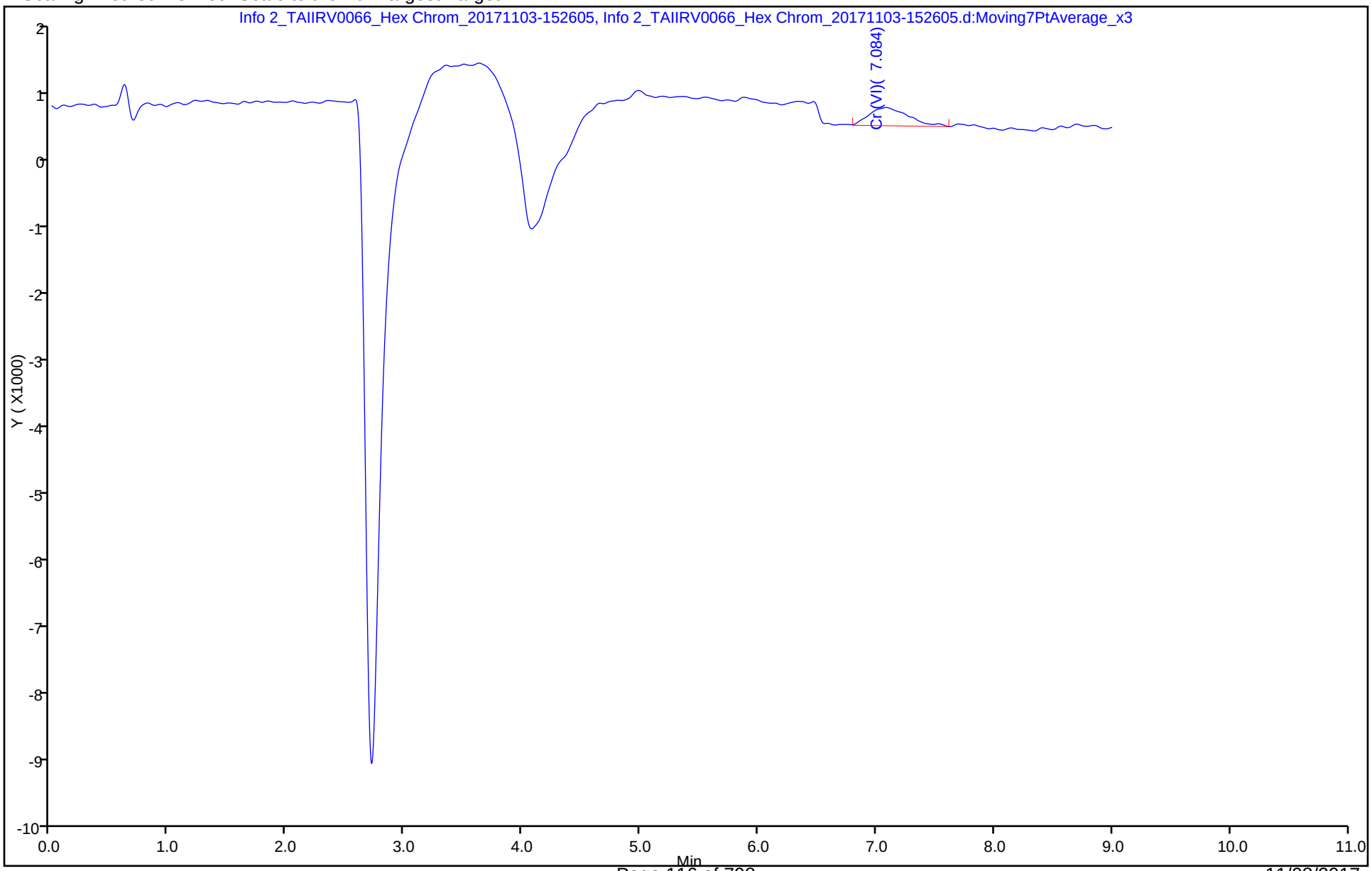
Report Date: 03-Nov-2017 18:56:45 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171103-152605.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2017 15:14:00 | Instrument ID: | IC-16 | Operator ID: | IRVINSTIC16 |
| Lims ID: | MB 440-439189/1-A | | | Worklist Smp#: | 28 |
| Client ID: | | | | | |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 3.0000 | ALS Bottle#: | 0 |
| Method: | 218.6_16 | Limit Group: | IC-7199 | | |

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-439195/27

Matrix: Solid | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/03/2017 14:13

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 439195 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171103-142501.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 03-Nov-2017 14:13:00 | ALS Bottle#: | 0 | Worklist Smp#: | 27 |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095682-027 | | | | |
| Misc. Info.: | 440-0095682-027 | | | | |
| Operator ID: | IRVINSTIC16 | Instrument ID: | IC-16 | | |
| Raw Data: | Smoothed | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\218.6_16.m | | | | |
| Limit Group: | IC-7199 | | | | |
| Method Label: | HEX CHROME | | | | |
| Last Update: | 03-Nov-2017 18:56:20 | Calib Date: | 02-Oct-2017 13:59:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d | | | | |
| Column 1 : | | | Det: Ch-A-20111004015 | | |
| Process Host: | XAWRK002 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

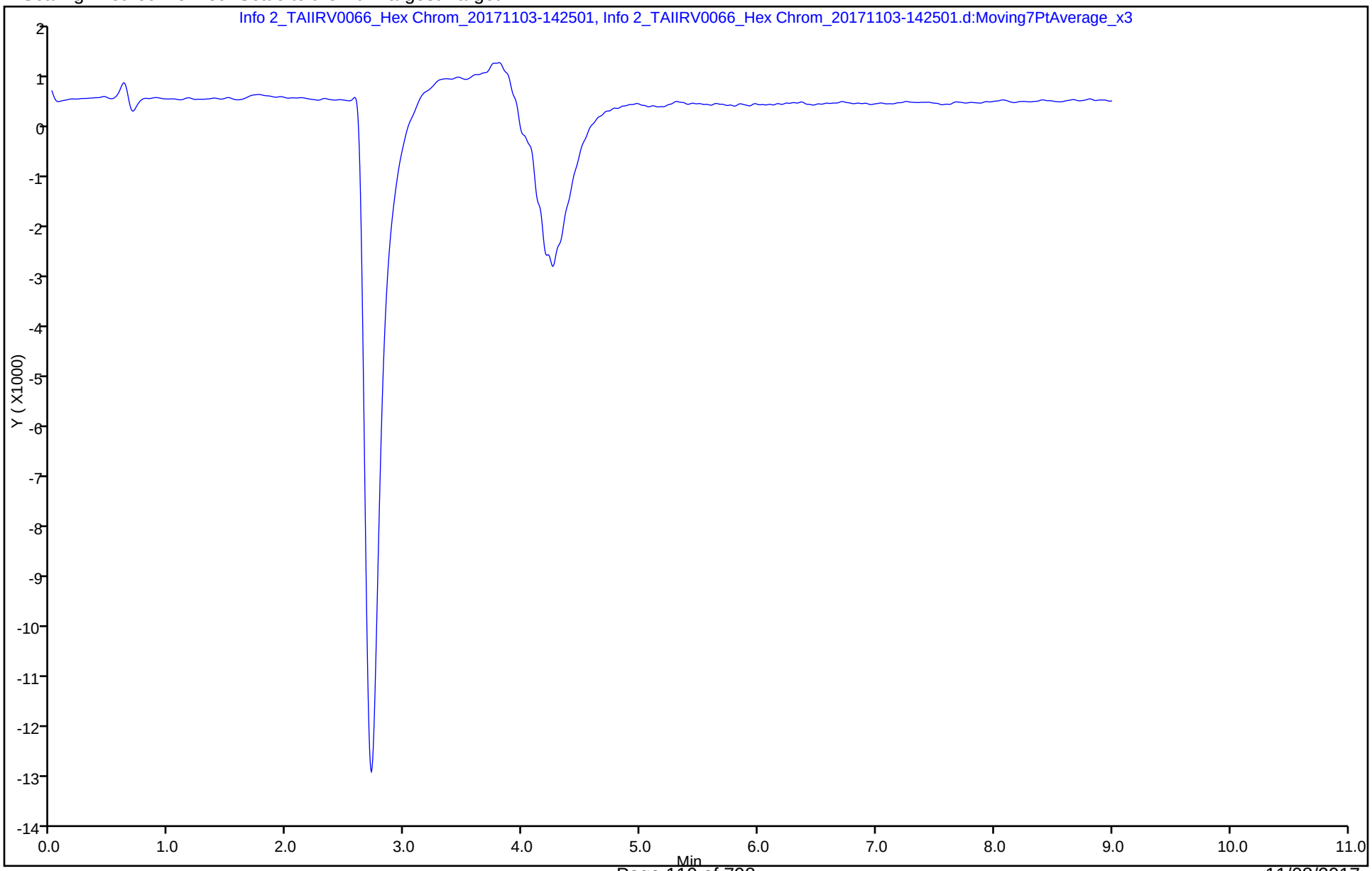
Report Date: 03-Nov-2017 18:56:46 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171103-142501.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2017 14:13:00 | Instrument ID: | IC-16 | Operator ID: | IRVINSTIC16 |
| Lims ID: | CCB | | | Worklist Smp#: | 27 |
| Client ID: | | | | | |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 218.6_16 | Limit Group: | IC-7199 | | |

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-439195/39

Matrix: Solid | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/03/2017 17:28

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 439195 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171103-173940.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 03-Nov-2017 17:28:00 | ALS Bottle#: | 0 | Worklist Smp#: | 39 |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095682-039 | | | | |
| Misc. Info.: | 440-0095682-039 | | | | |
| Operator ID: | IRVINSTIC16 | Instrument ID: | IC-16 | | |
| Raw Data: | Smoothed | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\218.6_16.m | | | | |
| Limit Group: | IC-7199 | | | | |
| Method Label: | HEX CHROME | | | | |
| Last Update: | 03-Nov-2017 23:04:34 | Calib Date: | 02-Oct-2017 13:59:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d | | | | |
| Column 1 : | | | Det: Ch-A-20111004015 | | |
| Process Host: | XAWRK001 | | | | |
| First Level Reviewer: welchr | | Date: | 03-Nov-2017 18:56:27 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

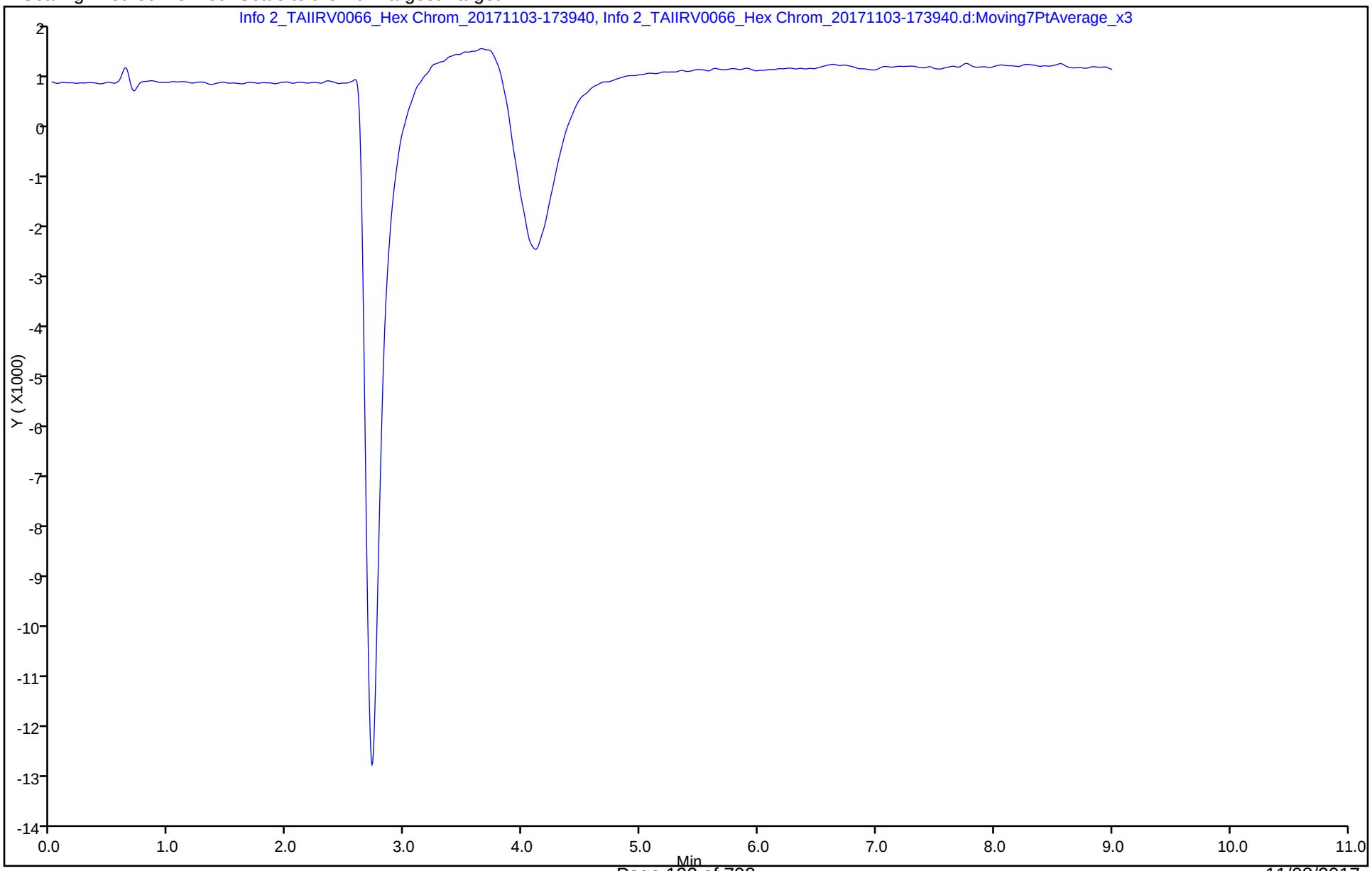
Report Date: 03-Nov-2017 23:05:06 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171103-173940.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2017 17:28:00 | Instrument ID: | IC-16 | Operator ID: | IRVINSTIC16 |
| Lims ID: | CCB | | | Worklist Smp#: | 39 |
| Client ID: | | | | | |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 218.6_16 | Limit Group: | IC-7199 | | |

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-439195/51

Matrix: Solid | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/04/2017 00:18

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 439195 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171104-002943.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 04-Nov-2017 00:18:00 | ALS Bottle#: | 0 | Worklist Smp#: | 51 |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095682-051 | | | | |
| Misc. Info.: | 440-0095682-051 | | | | |
| Operator ID: | IRVINSTIC16 | Instrument ID: | IC-16 | | |
| Raw Data: | Smoothed | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\218.6_16.m | | | | |
| Limit Group: | IC-7199 | | | | |
| Method Label: | HEX CHROME | | | | |
| Last Update: | 04-Nov-2017 05:58:15 | Calib Date: | 02-Oct-2017 13:59:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d | | | | |
| Column 1 : | | | Det: Ch-A-20111004015 | | |
| Process Host: | XAWRK031 | | | | |
| First Level Reviewer: welchr | | Date: | 04-Nov-2017 01:06:28 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

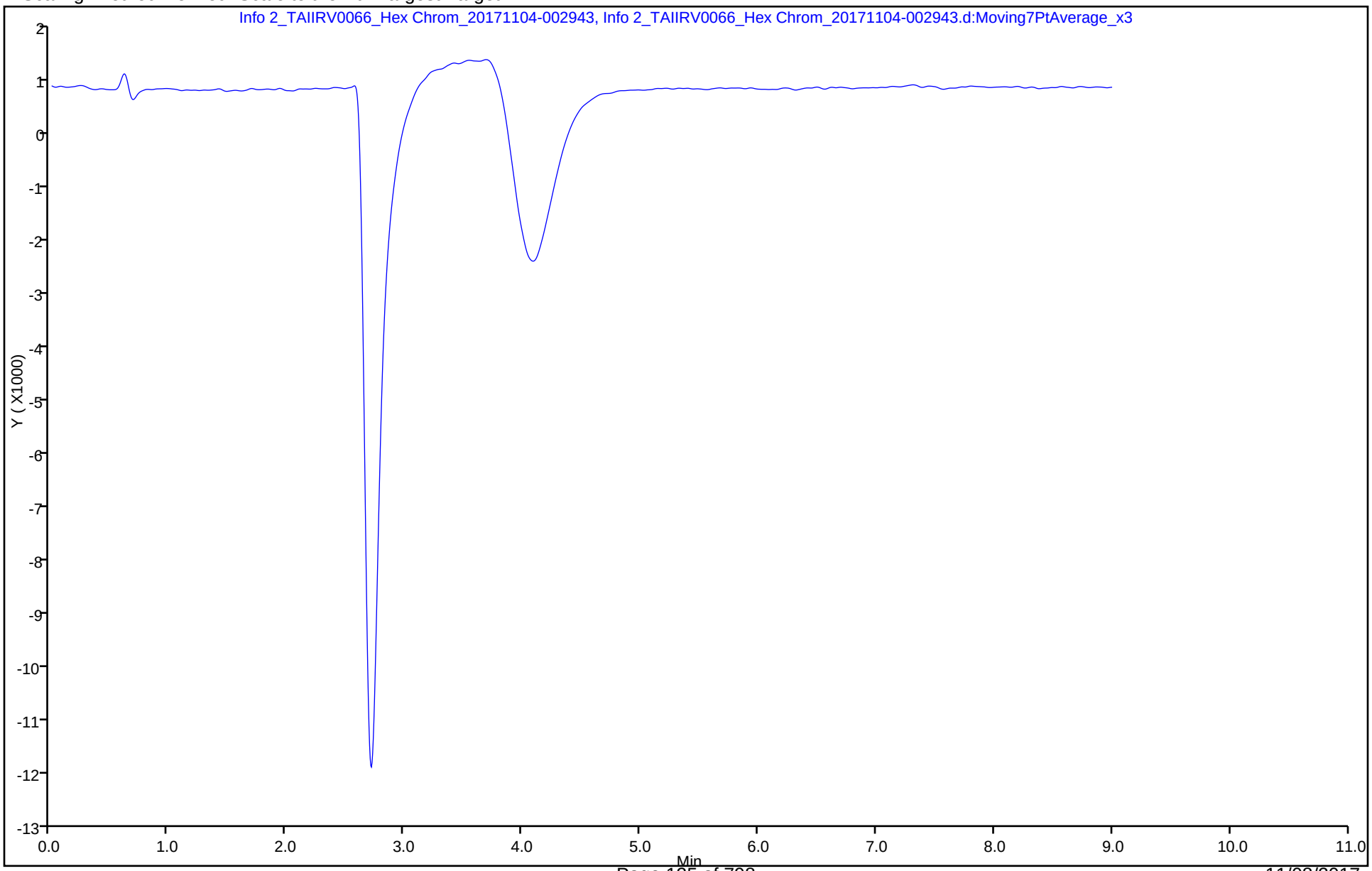
Report Date: 04-Nov-2017 05:58:17 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171104-002943.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 04-Nov-2017 00:18:00 | Instrument ID: | IC-16 | Operator ID: | IRVINSTIC16 |
| Lims ID: | CCB | | | Worklist Smp#: | 51 |
| Client ID: | | | | | |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 218.6_16 | Limit Group: | IC-7199 | | |

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-439189/2-A

Matrix: Solid | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: 3060A | Date Extracted: 11/03/2017 00:26

Sample wt/vol: 2.50(g) | Date Analyzed: 11/03/2017 15:26

Con. Extract Vol.: 100(mL) | Dilution Factor: 20

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 439195 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 36.0 | | 2.0 | 1.0 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171103-153742.d
Lims ID: LCS 440-439189/2-A
Client ID:
Sample Type: LCS
Inject. Date: 03-Nov-2017 15:26:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 1000.0 ul Dil. Factor: 20.0000
Sample Info: 440-0095682-029
Misc. Info.: 440-0095682-029
Operator ID: IRVINSTIC16 Instrument ID: IC-16
Raw Data: Smoothed

Method: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\218.6_16.m
Limit Group: IC-7199
Method Label: HEX CHROME
Last Update: 03-Nov-2017 18:56:20 Calib Date: 02-Oct-2017 13:59:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d

Column 1 : Det: Ch-A-20111004015
Process Host: XAWRK002

First Level Reviewer: parikhk Date: 03-Nov-2017 16:04:44

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Cr (VI) | 7.264 | 7.440 | -0.176 | 2004080 | 50.0 | 45.0 | |

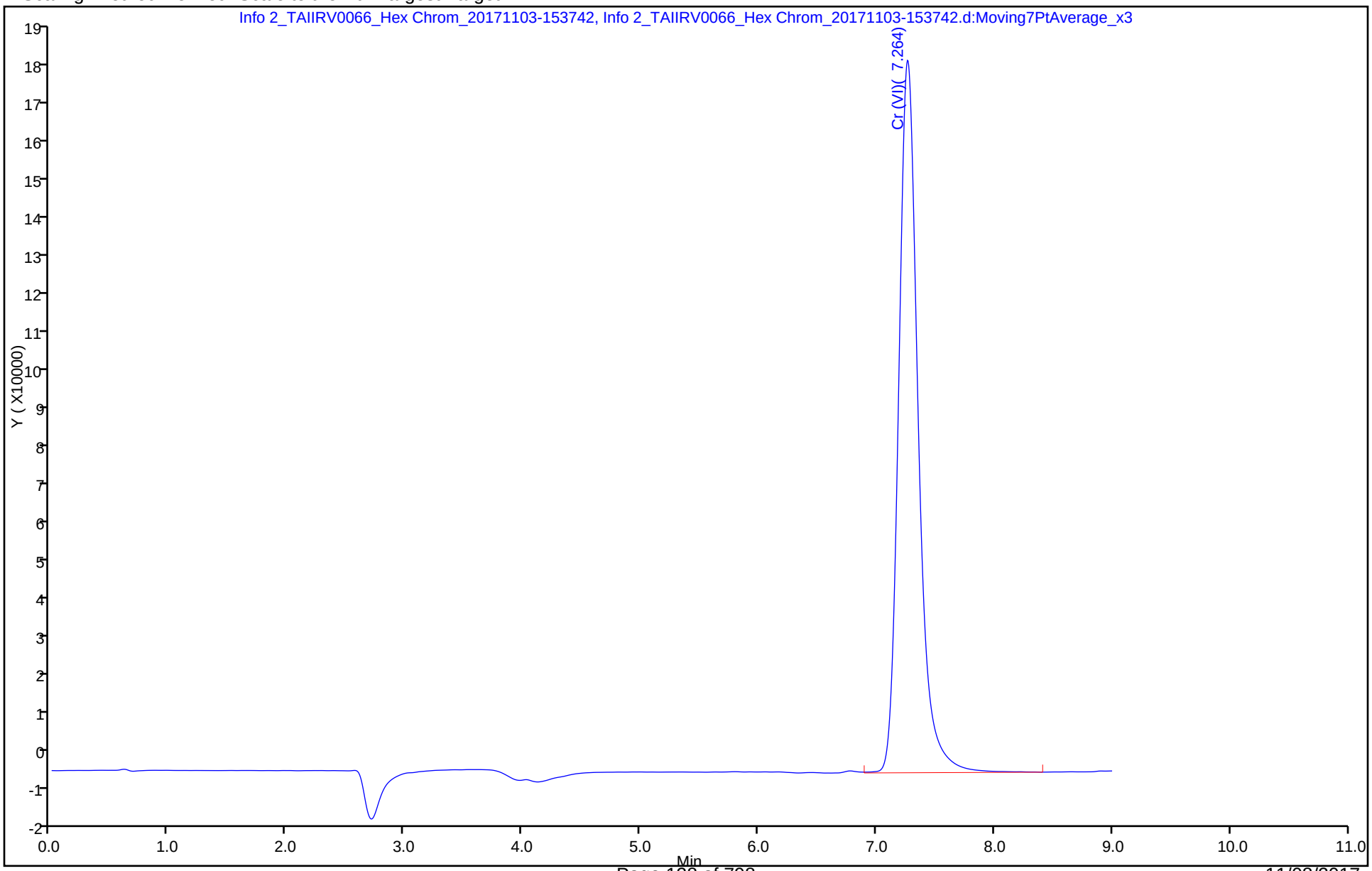
Report Date: 03-Nov-2017 18:56:44 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171103-153742.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2017 15:26:00 | Instrument ID: | IC-16 | Operator ID: | IRVINSTIC16 |
| Lims ID: | LCS 440-439189/2-A | | | Worklist Smp#: | 29 |
| Client ID: | | | | | |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 20.0000 | ALS Bottle#: | 0 |
| Method: | 218.6_16 | Limit Group: | IC-7199 | | |

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: 720-82886-D-2-B MS

Matrix: Solid | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 11/01/2017 10:45

Extraction Method: 3060A | Date Extracted: 11/03/2017 00:26

Sample wt/vol: 2.51(g) | Date Analyzed: 11/03/2017 23:31

Con. Extract Vol.: 100(mL) | Dilution Factor: 20

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 439195 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 35.7 | | 2.0 | 1.0 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171103-234313.d
Lims ID: 720-82886-D-2-B MS
Client ID:
Sample Type: MS
Inject. Date: 03-Nov-2017 23:31:00 ALS Bottle#: 0 Worklist Smp#: 47
Injection Vol: 1000.0 ul Dil. Factor: 20.0000
Sample Info: 440-0095682-047
Misc. Info.: 440-0095682-047
Operator ID: IRVINSTIC16 Instrument ID: IC-16
Raw Data: Smoothed

Method: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\218.6_16.m
Limit Group: IC-7199
Method Label: HEX CHROME
Last Update: 04-Nov-2017 02:05:16 Calib Date: 02-Oct-2017 13:59:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d

Column 1 : Det: Ch-A-20111004015
Process Host: XAWRK001

First Level Reviewer: welchr Date: 04-Nov-2017 01:06:08

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Cr (VI) | 7.280 | 7.440 | -0.160 | 1994432 | 50.0 | 44.8 | |

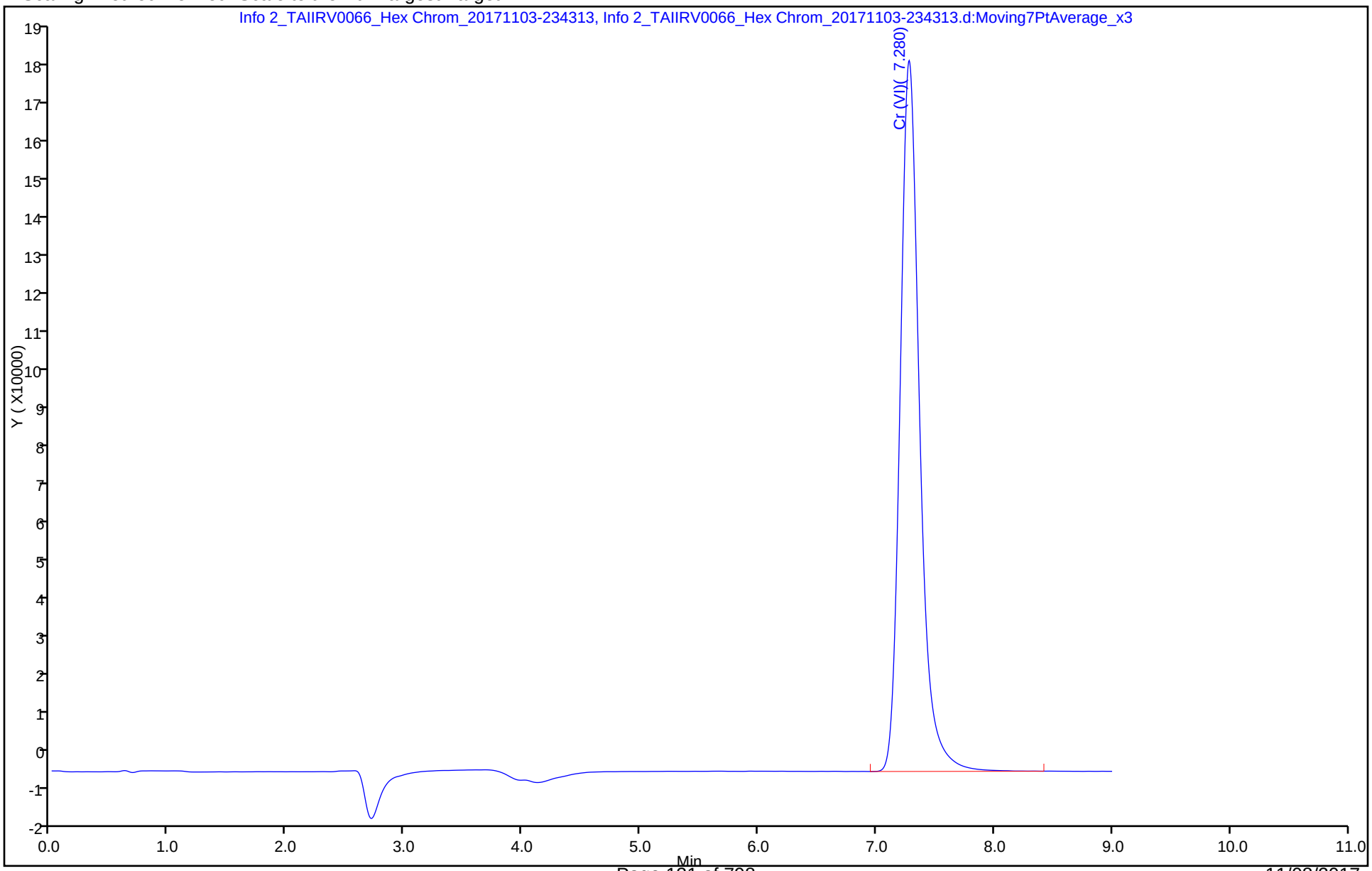
Report Date: 04-Nov-2017 01:06:09 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171103-234313.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2017 23:31:00 | Instrument ID: | IC-16 | Operator ID: | IRVINSTIC16 |
| Lims ID: | 720-82886-D-2-B MS | | | Worklist Smp#: | 47 |
| Client ID: | | | | | |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 20.0000 | ALS Bottle#: | 0 |
| Method: | 218.6_16 | Limit Group: | IC-7199 | | |

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: 720-82886-D-2-C MSD

Matrix: Solid | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 11/01/2017 10:45

Extraction Method: 3060A | Date Extracted: 11/03/2017 00:26

Sample wt/vol: 2.49(g) | Date Analyzed: 11/03/2017 23:43

Con. Extract Vol.: 100(mL) | Dilution Factor: 20

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 439195 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 36.5 | | 2.0 | 1.0 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171103-235450.d
Lims ID: 720-82886-D-2-C MSD
Client ID:
Sample Type: MSD
Inject. Date: 03-Nov-2017 23:43:00 ALS Bottle#: 0 Worklist Smp#: 48
Injection Vol: 1000.0 ul Dil. Factor: 20.0000
Sample Info: 440-0095682-048
Misc. Info.: 440-0095682-048
Operator ID: IRVINSTIC16 Instrument ID: IC-16
Raw Data: Smoothed

Method: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\218.6_16.m
Limit Group: IC-7199
Method Label: HEX CHROME
Last Update: 04-Nov-2017 02:05:16 Calib Date: 02-Oct-2017 13:59:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d

Column 1 : Det: Ch-A-20111004015
Process Host: XAWRK001

First Level Reviewer: welchr Date: 04-Nov-2017 01:06:12

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Cr (VI) | 7.275 | 7.440 | -0.165 | 2023183 | 50.0 | 45.5 | |

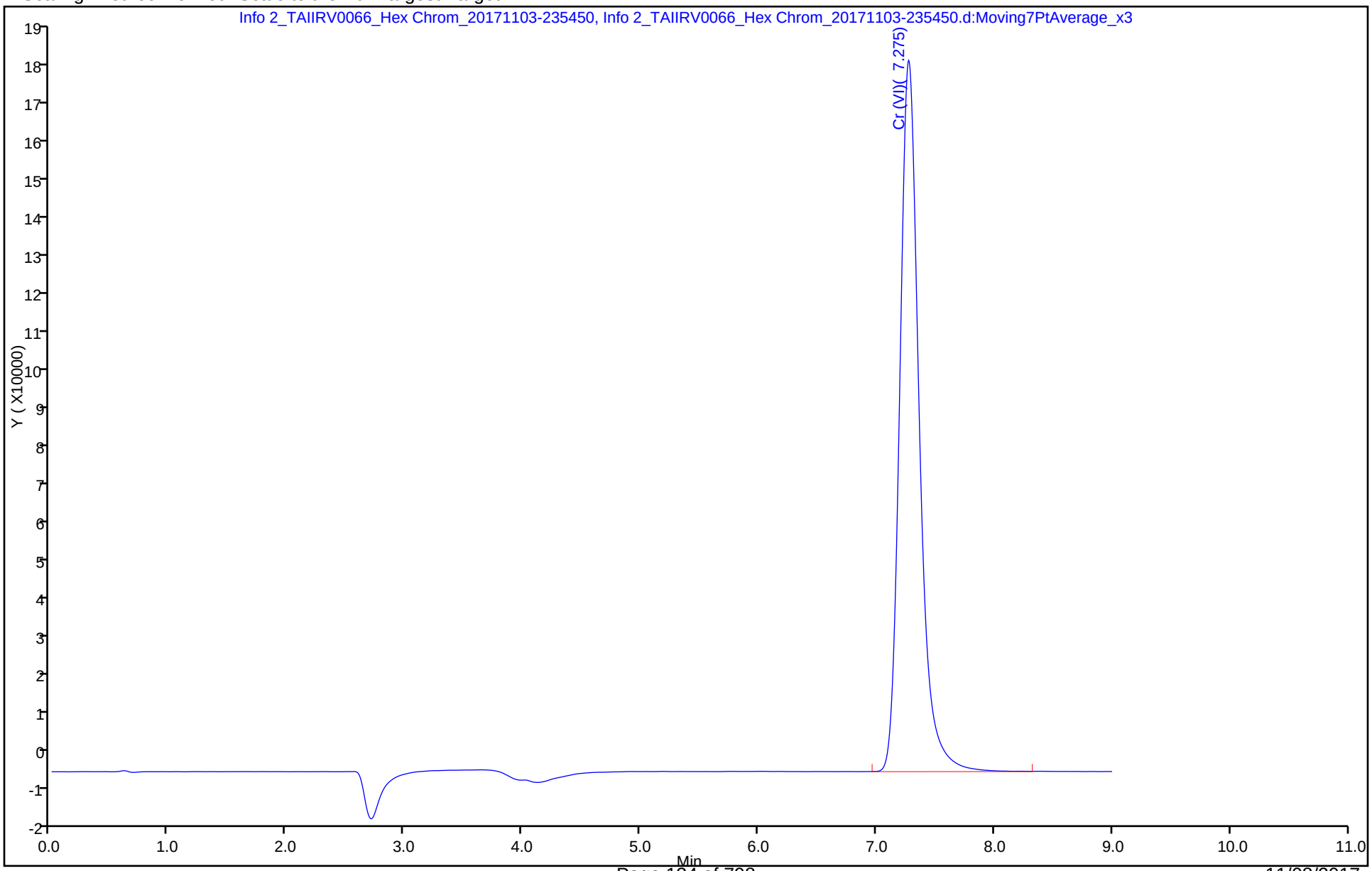
Report Date: 04-Nov-2017 01:06:12 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171103-235450.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2017 23:43:00 | Instrument ID: | IC-16 | Operator ID: | IRVINSTIC16 |
| Lims ID: | 720-82886-D-2-C MSD | | | Worklist Smp#: | 48 |
| Client ID: | | | | | |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 20.0000 | ALS Bottle#: | 0 |
| Method: | 218.6_16 | Limit Group: | IC-7199 | | |

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: 720-82886-D-2-D MSI

Matrix: Solid | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 11/01/2017 10:45

Extraction Method: 3060A | Date Extracted: 11/03/2017 00:26

Sample wt/vol: 2.49(g) | Date Analyzed: 11/03/2017 23:54

Con. Extract Vol.: 100(mL) | Dilution Factor: 1000

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 439195 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 706 | | 100 | 50 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171104-000628.d
Lims ID: MSI
Client ID:
Sample Type: Client
Inject. Date: 03-Nov-2017 23:54:00 ALS Bottle#: 0 Worklist Smp#: 49
Injection Vol: 1000.0 ul Dil. Factor: 1000.0000
Sample Info: 440-0095682-049
Misc. Info.: 440-0095682-049
Operator ID: IRVINSTIC16 Instrument ID: IC-16
Raw Data: Smoothed

Method: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\218.6_16.m
Limit Group: IC-7199
Method Label: HEX CHROME
Last Update: 04-Nov-2017 05:58:42 Calib Date: 02-Oct-2017 13:59:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC16\20171002-94159.b\Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d

Column 1 : Det: Ch-A-20111004015
Process Host: XAWRK031

First Level Reviewer: welchr Date: 04-Nov-2017 01:06:16

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 1 Cr (VI) | 7.306 | 7.440 | -0.134 | 782608 | 17.6 | |

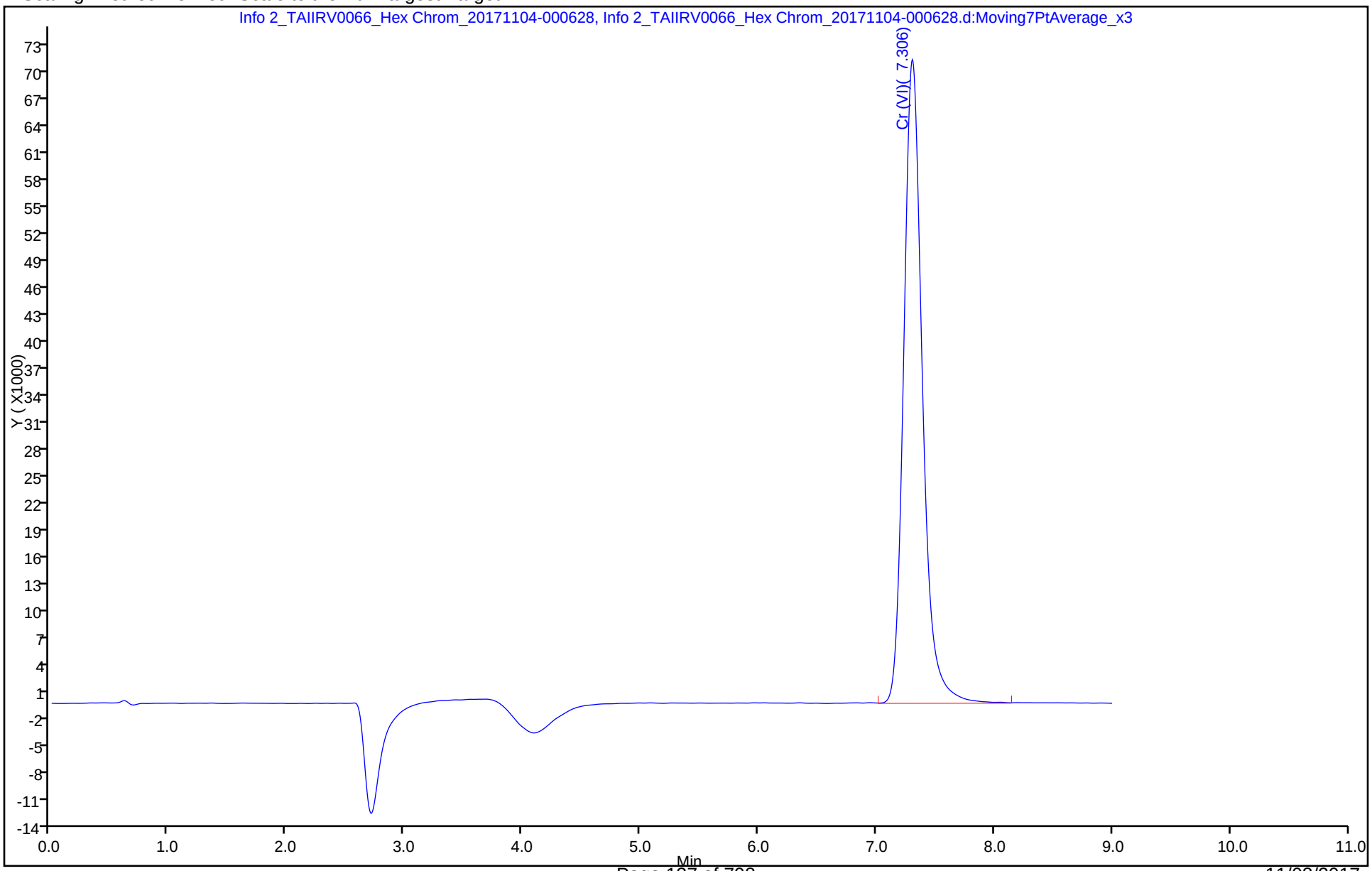
Report Date: 04-Nov-2017 05:59:24 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC16\20171103-95682.b\Info 2_TAIIRV0066_Hex Chrom_20171104-000628.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 03-Nov-2017 23:54:00 | Instrument ID: | IC-16 | Operator ID: | IRVINSTIC16 |
| Lims ID: | MSI | Lab Sample ID: | Client 440-439195/49-A | Worklist Smp#: | 49 |
| Client ID: | | | | | |
| Injection Vol: | 1000.0 ul | Dil. Factor: | 1000.0000 | ALS Bottle#: | 0 |
| Method: | 218.6_16 | Limit Group: | IC-7199 | | |

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-16 Start Date: 10/02/2017 12:38

Analysis Batch Number: 432478 End Date: 10/03/2017 04:27

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| STD0 440-432478/2 IC | | 10/02/2017 12:38 | 1 | | AS7 A 4(mm) |
| STD1 440-432478/3 IC | | 10/02/2017 12:50 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d | AS7 A 4(mm) |
| STD2 440-432478/4 IC | | 10/02/2017 13:01 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d | AS7 A 4(mm) |
| STD3 440-432478/5 IC | | 10/02/2017 13:13 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d | AS7 A 4(mm) |
| STD4 440-432478/6 IC | | 10/02/2017 13:25 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d | AS7 A 4(mm) |
| STD5 440-432478/7 IC | | 10/02/2017 13:36 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d | AS7 A 4(mm) |
| STD6 440-432478/8 IC | | 10/02/2017 13:48 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d | AS7 A 4(mm) |
| STD7 440-432478/9 IC | | 10/02/2017 13:59 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d | AS7 A 4(mm) |
| ICV 440-432478/10 | | 10/02/2017 14:26 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-143755.d | AS7 A 4(mm) |
| ICB 440-432478/11 | | 10/02/2017 14:47 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 14:59 | 1 | | AS7 A 4(mm) |
| CCV 440-432478/1012 | | 10/02/2017 14:59 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 15:10 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/1013 | | 10/02/2017 15:10 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 15:22 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 15:34 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 20:53 | 1 | | AS7 A 4(mm) |
| CCV 440-432478/17 | | 10/02/2017 21:05 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/18 | | 10/02/2017 21:16 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:03 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:15 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:26 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:38 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:50 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-16 Start Date: 10/02/2017 12:38

Analysis Batch Number: 432478 End Date: 10/03/2017 04:27

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 10/02/2017 23:01 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:13 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:25 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:36 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:48 | 10 | | AS7 A 4(mm) |
| CCV 440-432478/29 | | 10/02/2017 23:59 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/30 | | 10/03/2017 00:11 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:23 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:34 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:46 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:58 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:09 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:21 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:32 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:44 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:56 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 02:07 | 1 | | AS7 A 4(mm) |
| CCV 440-432478/41 | | 10/03/2017 02:19 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/42 | | 10/03/2017 02:31 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 02:42 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 02:54 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 03:29 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 03:40 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 03:52 | 2 | | AS7 A 4(mm) |
| CCV 440-432478/51 | | 10/03/2017 04:15 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/52 | | 10/03/2017 04:27 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-16 Start Date: 11/03/2017 05:47

Analysis Batch Number: 439195 End Date: 11/04/2017 04:20

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-439195/2 | | 11/03/2017 05:47 | 1 | | AS7 A 4(mm) |
| CCB 440-439195/3 | | 11/03/2017 06:02 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 06:13 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 06:25 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 06:37 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 06:48 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 07:37 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 08:03 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 08:14 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 09:01 | 1 | | AS7 A 4(mm) |
| CCV 440-439195/19 | | 11/03/2017 09:18 | 1 | | AS7 A 4(mm) |
| CCB 440-439195/20 | | 11/03/2017 09:32 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 09:44 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 09:55 | 1 | | AS7 A 4(mm) |
| CCV 440-439195/24 | | 11/03/2017 10:19 | 1 | | AS7 A 4(mm) |
| CCB 440-439195/25 | | 11/03/2017 10:31 | 1 | | AS7 A 4(mm) |
| CCV 440-439195/26 | | 11/03/2017 14:01 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171103-141324.d | AS7 A 4(mm) |
| CCB 440-439195/27 | | 11/03/2017 14:13 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171103-142501.d | AS7 A 4(mm) |
| MB 440-439189/1-A | | 11/03/2017 15:14 | 3 | Info 2_TAIIRV0066_Hex Chrom_20171103-152605.d | AS7 A 4(mm) |
| LCS 440-439189/2-A | | 11/03/2017 15:26 | 20 | Info 2_TAIIRV0066_Hex Chrom_20171103-153742.d | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 15:43 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 15:55 | 3 | | AS7 A 4(mm) |
| 440-194764-1 | | 11/03/2017 16:06 | 3 | Info 2_TAIIRV0066_Hex Chrom_20171103-161815.d | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 16:18 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 16:29 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 16:41 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 16:53 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 17:04 | 3 | | AS7 A 4(mm) |
| CCV 440-439195/38 | | 11/03/2017 17:16 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171103-172801.d | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-16 Start Date: 11/03/2017 05:47

Analysis Batch Number: 439195 End Date: 11/04/2017 04:20

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCB 440-439195/39 | | 11/03/2017 17:28 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171103-173940.d | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 21:25 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 21:36 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 21:48 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 21:59 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 22:56 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 23:08 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/03/2017 23:19 | 3 | | AS7 A 4(mm) |
| 720-82886-D-2-B MS | | 11/03/2017 23:31 | 20 | Info 2_TAIIRV0066_Hex Chrom_20171103-234313.d | AS7 A 4(mm) |
| 720-82886-D-2-C MSD | | 11/03/2017 23:43 | 20 | Info 2_TAIIRV0066_Hex Chrom_20171103-235450.d | AS7 A 4(mm) |
| 720-82886-D-2-D MSI | | 11/03/2017 23:54 | 1000 | Info 2_TAIIRV0066_Hex Chrom_20171104-000628.d | AS7 A 4(mm) |
| CCV 440-439195/50 | | 11/04/2017 00:06 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171104-001806.d | AS7 A 4(mm) |
| CCB 440-439195/51 | | 11/04/2017 00:18 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171104-002943.d | AS7 A 4(mm) |
| ZZZZZ | | 11/04/2017 00:29 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/04/2017 00:41 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/04/2017 00:53 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/04/2017 01:04 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/04/2017 01:16 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/04/2017 02:12 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/04/2017 02:24 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/04/2017 02:36 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/04/2017 02:47 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/04/2017 02:59 | 3 | | AS7 A 4(mm) |
| CCV 440-439195/62 | | 11/04/2017 03:10 | 1 | | AS7 A 4(mm) |
| CCB 440-439195/63 | | 11/04/2017 03:22 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/04/2017 03:34 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/04/2017 03:45 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/04/2017 03:57 | 3 | | AS7 A 4(mm) |
| CCV 440-439195/67 | | 11/04/2017 04:09 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-16 Start Date: 11/03/2017 05:47

Analysis Batch Number: 439195 End Date: 11/04/2017 04:20

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCB 440-439195/68 | | 11/04/2017 04:20 | 1 | | AS7 A 4(mm) |

# HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Batch Number: 439189  Batch Start Date: 11/03/17 00:26  Batch Analyst: Welch, Raquel

Batch Method: 3060A  Batch End Date: 11/03/17 10:00

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | WCCR6LCS50PPM 00037 | WCPBCRO4 00004 | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-439189/1 | | 3060A, 7199 | | 2.50 g | 100 mL | | | | |
| LCS 440-439189/2 | | 3060A, 7199 | | 2.50 g | 100 mL | 2 mL | | | |
| 440-194764-A-1 | VER-01D-90.0-20171020 | 3060A, 7199 | T | 2.51 g | 100 mL | | | | |
| 720-82886-D-2 MS | | 3060A, 7199 | T | 2.51 g | 100 mL | 2 mL | | | |
| 720-82886-D-2 MSD | | 3060A, 7199 | T | 2.49 g | 100 mL | 2 mL | | | |
| 720-82886-D-2 MSI | | 3060A, 7199 | T | 2.49 g | 100 mL | | 15 mg | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Batch Number: 439189  Batch Start Date: 11/03/17 00:26  Batch Analyst: Welch, Raquel

Batch Method: 3060A  Batch End Date: 11/03/17 10:00

| Batch Notes | |
|---|---|
| Alkaline Digestion Solution ID | 4393453 |
| Balance ID | 61 |
| First End time | 10:00 |
| Filter ID | 17-048 |
| Lot # of Nitric Acid | 4403602 |
| Hot Block ID | 01 |
| Potassium Chromate ID | 3692087 |
| Potassium Chromate Vendor ID | 3692087 |
| Potassium Phosphate Buffer Reagent ID | 4393470 |
| Lead Chromate ID | 1208332 |
| Lead Chromate Vendor ID | 1208332 |
| Magnesium Chloride ID | 689608 |
| Magnesium Chloride Vendor | 689608 |
| Pipette ID | 61 |
| Snap Cap Lot # | 1705110 |
| First Start time | 9:00 |
| Telfon Chips ID | T160-6K001 |
| Ending Temperature | 95 Celsius |
| Starting Temperature | 95 Celsius |
| Thermometer ID | P-095 No Unit |
| Temperature - Uncorrected - End | 95 Celsius |
| Temperature - Uncorrected - Start | 95 Celsius |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Method 300.1

## Disinfection By-Products (IC) by Method 300.1

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Matrix: Solid (Soluble)  Level: Low

GC Column (1): AS14  ID: 4 (mm)

| Client Sample ID | Lab Sample ID | DCAA # |
|---|---|---|
| VER-01D-90.0-20171020 | 440-194764-1 | 103 |
| VER-01D-90.0-20171020 | 440-194764-1 | 103 |
| | MB 440-436671/2-A | 99 |
| | MB 440-436671/2-A | 98 |
| | LCS 440-436671/1-A | 100 |
| | LCS 440-436671/1-A | 99 |
| | MRL 440-437271/36 | 102 |
| | MRL 440-437272/36 | 101 |
| | 440-194754-A-6-B MS | 101 |
| | 440-194754-A-6-B MS | 101 |
| | 440-194754-A-6-C MSD | 100 |
| | 440-194754-A-6-C MSD | 100 |

| | QC LIMITS |
|---|---|
| DCAA = Dichloroacetic acid(Surr) | 90-115 |

# Column to be used to flag recovery values

FORM II 300.1B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Matrix: Solid (Soluble) Level: Low Lab File ID: 20171023011.d

Lab ID: LCS 440-436671/1-A Client ID:

| COMPOUND | SPIKE ADDED (ug/Kg) | LCS CONCENTRATION (ug/Kg) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 998 | 1000 | 100 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Matrix: Solid (Soluble) Level: Low Lab File ID: 20171023011.d

Lab ID: LCS 440-436671/1-A Client ID:

| COMPOUND | SPIKE ADDED (ug/Kg) | LCS CONCENTRATION (ug/Kg) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorite | 998 | 954 | 96 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20171025036.d

Lab ID: MRL 440-437271/36 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 20.0 | 21.5 | 108 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20171025036.d

Lab ID: MRL 440-437272/36 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorite | 20.0 | 17.8 J | 89 | 10-200 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Matrix: Solid (Soluble) Level: Low Lab File ID: 20171023014.d

Lab ID: 440-194754-A-6-B MS Client ID:

| COMPOUND | SPIKE ADDED (ug/Kg) | SAMPLE CONCENTRATION (ug/Kg) | MS CONCENTRATION (ug/Kg) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorate | 1120 | 960 | 2460 | 133 | 75-125 | F1 |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Matrix: Solid (Soluble) Level: Low Lab File ID: 20171023014.d

Lab ID: 440-194754-A-6-B MS Client ID:

| COMPOUND | SPIKE ADDED (ug/Kg) | SAMPLE CONCENTRATION (ug/Kg) | MS CONCENTRATION (ug/Kg) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorite | 1120 | ND | 837 | 75 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Matrix: Solid (Soluble) Level: Low Lab File ID: 20171023015.d

Lab ID: 440-194754-A-6-C MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/Kg) | MSD CONCENTRATION (ug/Kg) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chlorate | 1120 | 2700 | 155 | 9 | 25 | 75-125 | F1 |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Matrix: Solid (Soluble) Level: Low Lab File ID: 20171023015.d

Lab ID: 440-194754-A-6-C MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/Kg) | MSD CONCENTRATION (ug/Kg) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chlorite | 1120 | 939 | 84 | 12 | 25 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab File ID: 20171023012.d Lab Sample ID: MB 440-436671/2-A

Matrix: Solid (Soluble) Date Extracted:

Instrument ID: IC-11 Date Analyzed: 10/23/2017 11:19

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-436780/9 | 20171023009.d | 10/23/2017 09:40 |
| | LCS 440-436671/1-A | 20171023011.d | 10/23/2017 10:46 |
| | 440-194754-A-6-B MS | 20171023014.d | 10/23/2017 12:26 |
| | 440-194754-A-6-C MSD | 20171023015.d | 10/23/2017 12:59 |
| | CCB 440-436780/21 | 20171023021.d | 10/23/2017 16:18 |
| VER- 01D-90.0-20171020 | 440-194764-1 | 20171025041.d | 10/26/2017 09:00 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab File ID: 20171023012.d Lab Sample ID: MB 440-436671/2-A

Matrix: Solid (Soluble) Date Extracted:

Instrument ID: IC-11 Date Analyzed: 10/23/2017 11:19

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-436781/9 | 20171023009.d | 10/23/2017 09:40 |
| | LCS 440-436671/1-A | 20171023011.d | 10/23/2017 10:46 |
| | 440-194754-A-6-B MS | 20171023014.d | 10/23/2017 12:26 |
| | 440-194754-A-6-C MSD | 20171023015.d | 10/23/2017 12:59 |
| | CCB 440-436781/21 | 20171023021.d | 10/23/2017 16:18 |
| VER- 01D-90.0-20171020 | 440-194764-1 | 20171025040.d | 10/26/2017 08:26 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: VER- 01D-90.0-20171020 | Lab Sample ID: 440-194764-1

Matrix: Solid (Soluble) | Lab File ID: 20171025040.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 11:50

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/26/2017 08:26

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 25.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437272 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 270 | 54 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Client Sample ID: VER- 01D-90.0-20171020 Lab Sample ID: 440-194764-1

Matrix: Solid (Soluble) Lab File ID: 20171025040.d

Analysis Method: 300.1B Date Collected: 10/20/2017 11:50

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 10/26/2017 08:26

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: AS14 ID: 4(mm)

% Moisture: 25.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 437272 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025040.d | | | | |
| Lims ID: | 440-194764-A-1-A | | | | |
| Client ID: | VER- 01D-90.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 26-Oct-2017 08:26:54 | ALS Bottle#: | 0 | Worklist Smp#: | 40 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-040 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 09:59:10 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 09:06:35 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.537 | 13.557 | -0.020 | 14461069 | 1019.1 | |
| 2 Chlorate | 17.183 | 17.362 | -0.179 | 12376199 | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

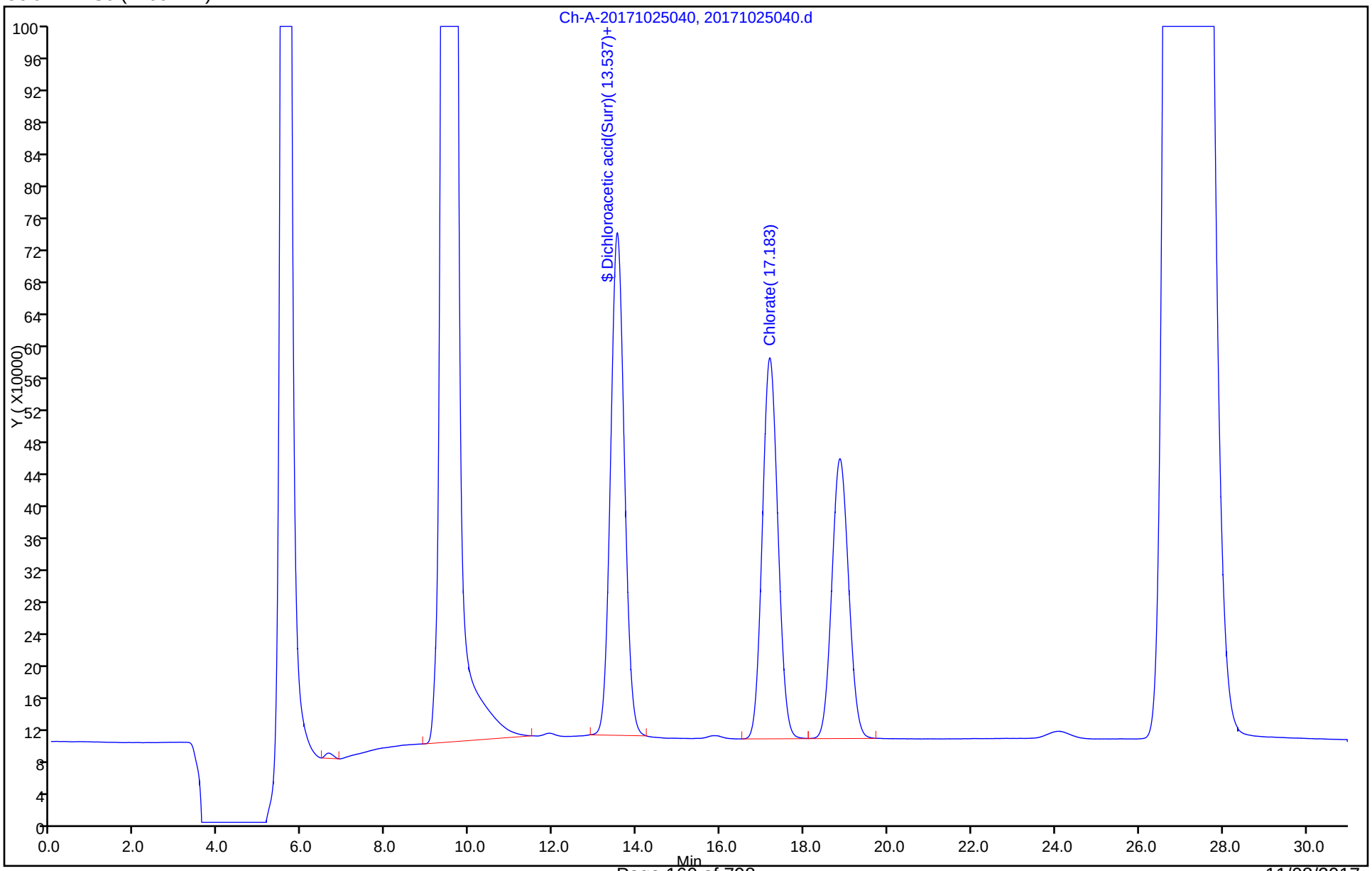
Report Date: 26-Oct-2017 09:06:36 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025040.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 08:26:54 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194764-A-1-A | Lab Sample ID: | 440-194764-1 | Worklist Smp#: | 40 |
| Client ID: | VER- 01D-90.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025040.d | | | | |
| Lims ID: | 440-194764-A-1-A | | | | |
| Client ID: | VER- 01D-90.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 26-Oct-2017 08:26:54 | ALS Bottle#: | 0 | Worklist Smp#: | 40 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-040 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 09:59:10 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 09:06:35 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1019.1 | 102.55 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: VER- 01D-90.0-20171020 | Lab Sample ID: 440-194764-1

Matrix: Solid (Soluble) | Lab File ID: 20171025041.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 11:50

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/26/2017 09:00

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 25.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437271 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 6900 | | 1300 | 340 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025041.d | | | | |
| Lims ID: | 440-194764-A-1-A | | | | |
| Client ID: | VER- 01D-90.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 26-Oct-2017 09:00:05 | ALS Bottle#: | 0 | Worklist Smp#: | 41 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 5.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-041 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 10:33:19 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 09:37:23 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.515 | 13.557 | -0.042 | 2894389 | 204.5 | |
| 2 Chlorate | 17.194 | 17.362 | -0.168 | 2502658 | 102.8 | |

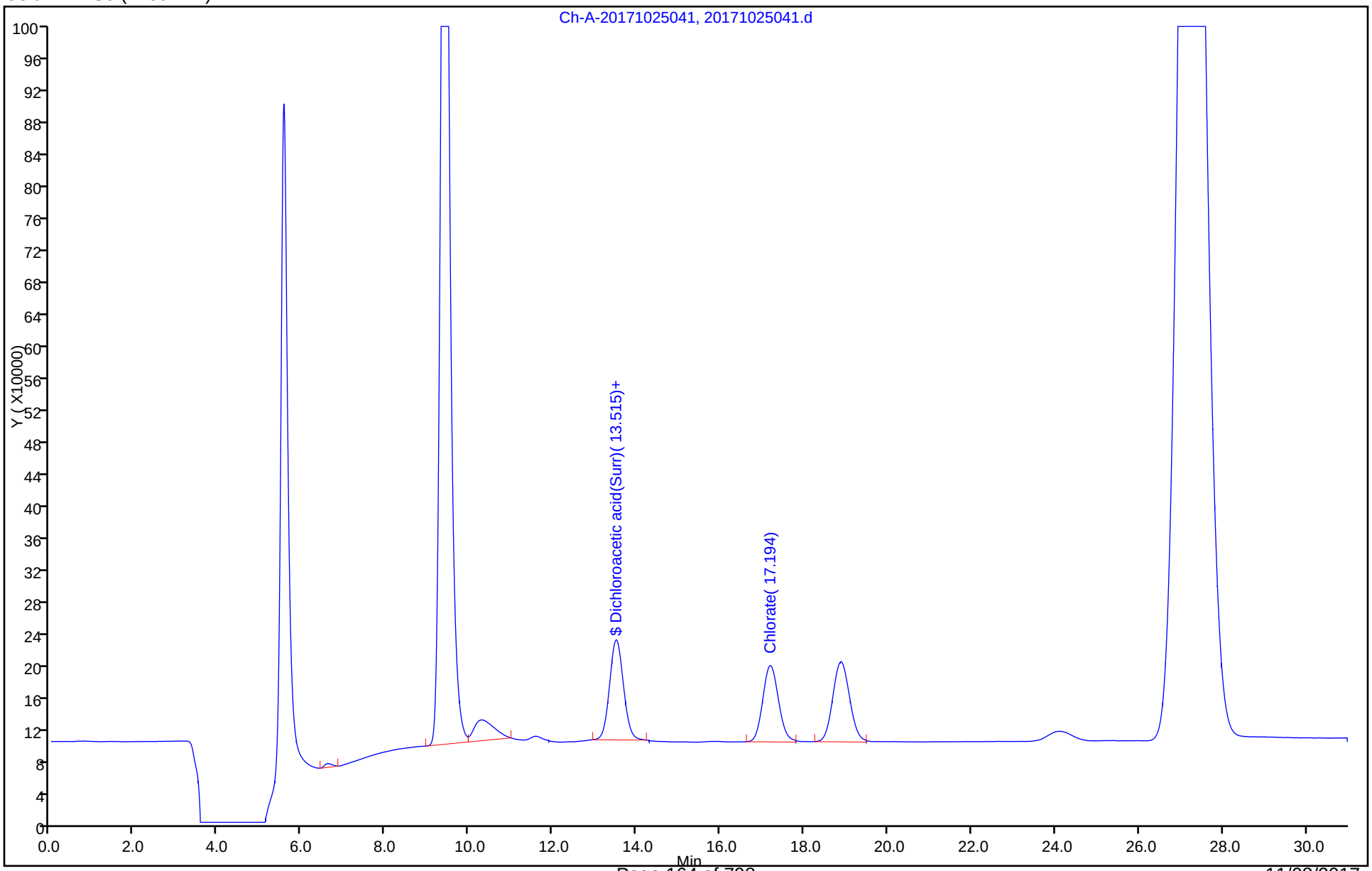
Report Date: 26-Oct-2017 09:37:23 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025041.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 09:00:05 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194764-A-1-A | Lab Sample ID: | 440-194764-1 | Worklist Smp#: | 41 |
| Client ID: | VER- 01D-90.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 5.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025041.d | | | | |
| Lims ID: | 440-194764-A-1-A | | | | |
| Client ID: | VER- 01D-90.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 26-Oct-2017 09:00:05 | ALS Bottle#: | 0 | Worklist Smp#: | 41 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 5.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-041 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 10:33:19 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 09:37:23 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 204.5 | 102.89 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1 Analy Batch No.: 431296

SDG No.:

Instrument ID: IC-11 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2017 09:02 Calibration End Date: 09/26/2017 11:48 Calibration ID: 17562

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-431296/2 | 20170926002.d |
| Level 2 | STD1 440-431296/3 | 20170926003.d |
| Level 3 | STD2 440-431296/4 | 20170926004.d |
| Level 4 | STD3 440-431296/5 | 20170926005.d |
| Level 5 | STD4 440-431296/6 | 20170926006.d |
| Level 6 | STD5 440-431296/7 | 20170926007.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromate | | 8.378 | 8.349 | 8.410 | 8.372 | 8.264 | | | | | 0.000 - 0.000 | 8.355 |
| Bromide | | 15.991 | 15.920 | 16.094 | 16.018 | 15.986 | | | | | 0.000 - 0.000 | 16.002 |
| Chlorate | | 17.306 | 17.283 | 17.432 | 17.347 | 17.209 | | | | | 0.000 - 0.000 | 17.315 |
| Dichloroacetic acid(Surr) | +++++ | 13.559 | 13.544 | 13.590 | 13.540 | 13.433 | | | | | 12.610 - 14.508 | 13.533 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-194764-1 Analy Batch No.: 431296

SDG No.:

Instrument ID: IC-11 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2017 09:02 Calibration End Date: 09/26/2017 11:48 Calibration ID: 17562

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-431296/2 | 20170926002.d |
| Level 2 | STD1 440-431296/3 | 20170926003.d |
| Level 3 | STD2 440-431296/4 | 20170926004.d |
| Level 4 | STD3 440-431296/5 | 20170926005.d |
| Level 5 | STD4 440-431296/6 | 20170926006.d |
| Level 6 | STD5 440-431296/7 | 20170926007.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Bromate | 15546 | 15829<br>15193 | 16999 | 15455 | Lin | 9487.40161 | 15156.7771 | | | | | | | 1.0000 | | 0.9950 |
| Bromide | 26980 | 26730<br>24624 | 27995 | 26901 | Lin | 352119.571 | 24707.7556 | | | | | | | 0.9980 | | 0.9950 |
| Chlorate | 24034 | 23681<br>24293 | 25446 | 24610 | Lin | 12986.0371 | 24224.6023 | | | | | | | 1.0000 | | 0.9950 |
| Dichloroacetic acid(Surr) | +++++<br>14171 | 14094<br>14063 | 14268 | 14179 | Ave | | 14155.0224 | | | | 0.6 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1 | Analy Batch No.: 431296

SDG No.:

Instrument ID: IC-11 | GC Column: AS14 | ID: 4(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2017 09:02 | Calibration End Date: 09/26/2017 11:48 | Calibration ID: 17562

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-431296/2 | 20170926002.d |
| Level 2 | STD1 440-431296/3 | 20170926003.d |
| Level 3 | STD2 440-431296/4 | 20170926004.d |
| Level 4 | STD3 440-431296/5 | 20170926005.d |
| Level 5 | STD4 440-431296/6 | 20170926006.d |
| Level 6 | STD5 440-431296/7 | 20170926007.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Bromate | Lin | 1519299 | 79143 | 212482 | 386378 | 777302 | 0.000000<br>100 | 5.00 | 12.5 | 25.0 | 50.0 |
| Bromide | Lin | 24624099 | 1336520 | 3499404 | 6725300 | 13489824 | 0.000000<br>1000 | 50.0 | 125 | 250 | 500 |
| Chlorate | Lin | 9717216 | 473629 | 1272302 | 2460996 | 4806717 | 0.000000<br>400 | 20.0 | 50.0 | 100 | 200 |
| Dichloroacetic acid(Surr) | Ave | +++++<br>13974525 | 14005340 | 14178518 | 14089380 | 14082237 | +++++<br>994 | 994 | 994 | 994 | 994 |

Curve Type Legend:

Ave = Average
Lin = Linear

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926002.d | | | | |
| Lims ID: | STD0 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 0 | | |
| Inject. Date: | 26-Sep-2017 09:02:58 | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0093892-002 | | | | |
| Misc. Info.: | Study: 93892 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 27-Sep-2017 04:35:08 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK050 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.568 | 13.559 | 0.009 | 14278762 | 993.7 | 1007.1 | |

## Reagents:

| | | | |
|---|---|---|---|
| WC3001LCS_00054 | Amount Added: | 0.00 | Units: uL |
| WCDCA_00048 | Amount Added: | 10.00 | Units: uL |

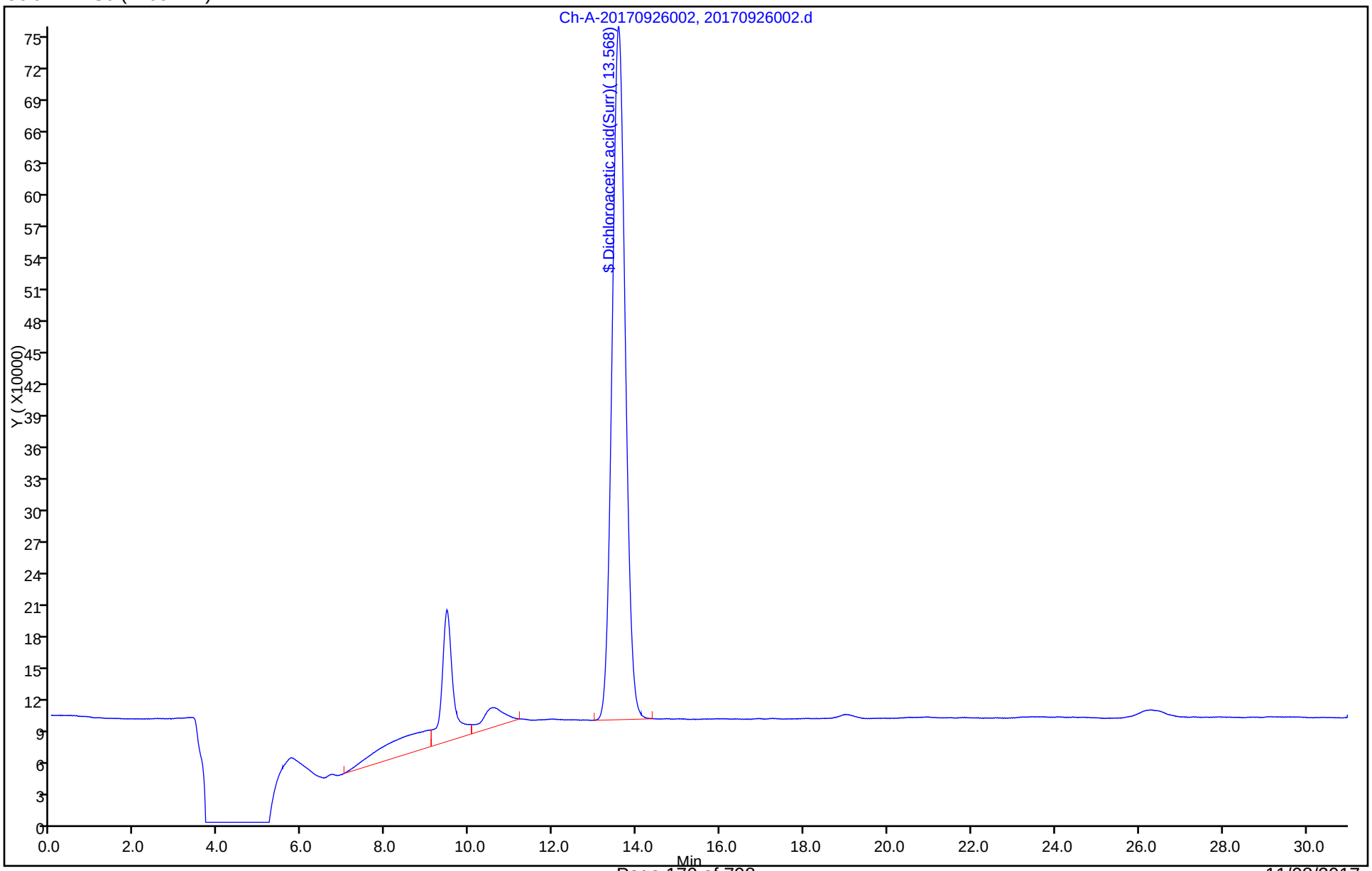
Report Date: 27-Sep-2017 04:35:08 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926002.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 09:02:58 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD0 | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926003.d | | | | |
| Lims ID: | STD1 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 1 | | |
| Inject. Date: | 26-Sep-2017 09:36:10 | ALS Bottle#: | 0 | Worklist Smp#: | 3 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0093892-003 | | | | |
| Misc. Info.: | Study: 93892 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 27-Sep-2017 04:35:09 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK050 | | | | |

| | Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 Chlorite | 7.332 | 7.332 | 0.000 | 480167 | NC | NC | |
| | 3 Bromate | 8.378 | 8.378 | 0.000 | 79143 | 5.00 | 4.60 | |
| $ | 6 Dichloroacetic acid(Surr) | 13.559 | 13.559 | 0.000 | 14005340 | 993.7 | 990.7 | |
| | 4 Bromide | 15.991 | 15.991 | 0.000 | 1336520 | 50.0 | 39.8 | |
| | 2 Chlorate | 17.306 | 17.306 | 0.000 | 473629 | 20.0 | 19.0 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

| | | | |
|---|---|---|---|
| WC3001LCS_00054 | Amount Added: | 25.00 | Units: uL |
| WCDCA_00048 | Amount Added: | 10.00 | Units: uL |

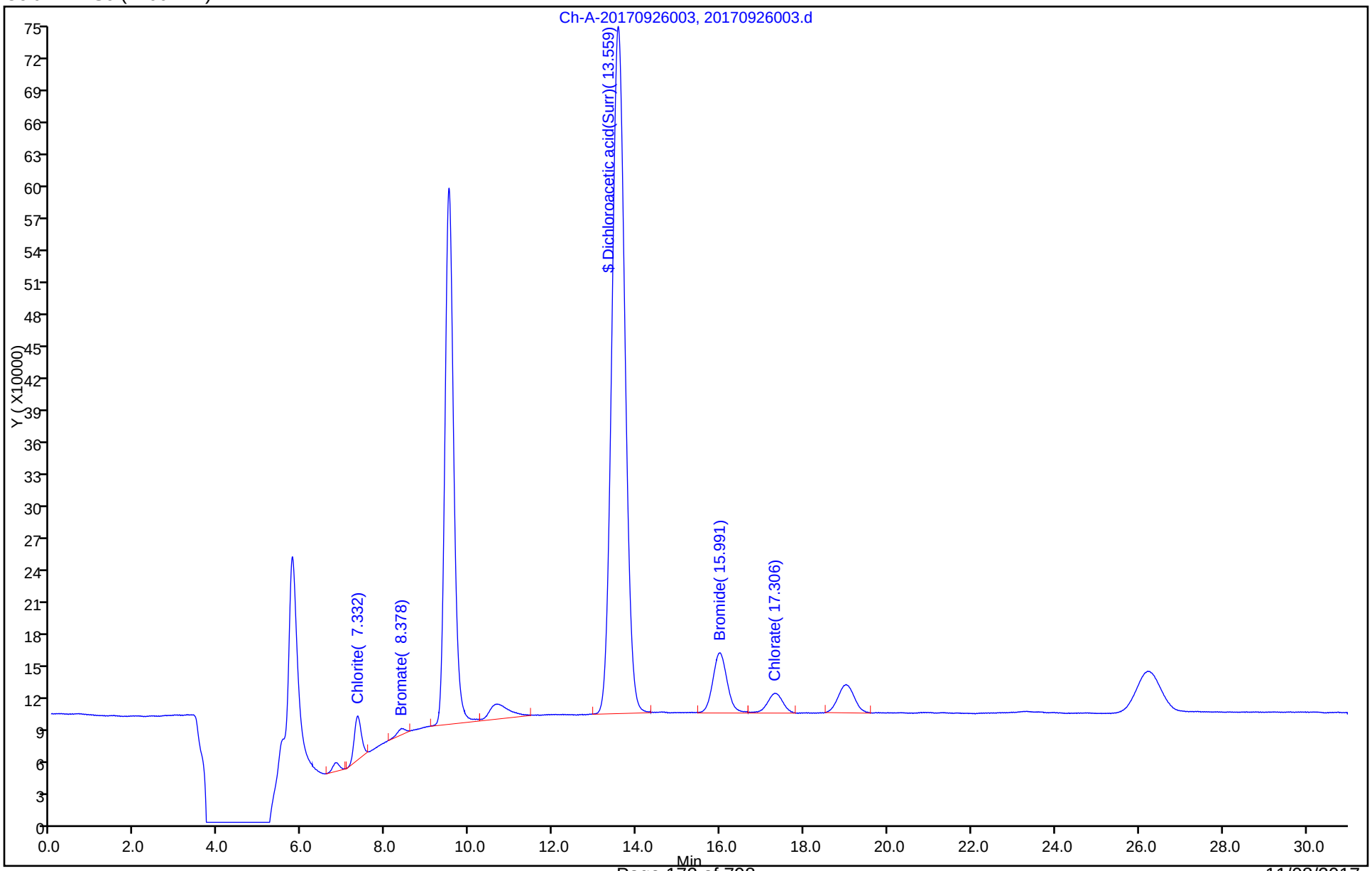
Report Date: 27-Sep-2017 04:35:10 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926003.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 09:36:10 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD1 | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926004.d | | | | |
| Lims ID: | STD2 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 2 | | |
| Inject. Date: | 26-Sep-2017 10:09:21 | ALS Bottle#: | 0 | Worklist Smp#: | 4 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0093892-004 | | | | |
| Misc. Info.: | Study: 93892 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 27-Sep-2017 04:35:11 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK050 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.306 | 7.332 | -0.026 | 1409439 | NC | NC | |
| 3 Bromate | 8.349 | 8.378 | -0.029 | 212482 | 12.5 | 13.4 | |
| $ 6 Dichloroacetic acid(Surr) | 13.544 | 13.559 | -0.015 | 14178518 | 993.7 | 999.9 | |
| 4 Bromide | 15.920 | 15.991 | -0.071 | 3499404 | 125.0 | 127.4 | |
| 2 Chlorate | 17.283 | 17.306 | -0.023 | 1272302 | 50.0 | 52.0 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

| | | | |
|---|---|---|---|
| WC3001LCS_00054 | Amount Added: | 62.50 | Units: uL |
| WCDCA_00048 | Amount Added: | 10.00 | Units: uL |

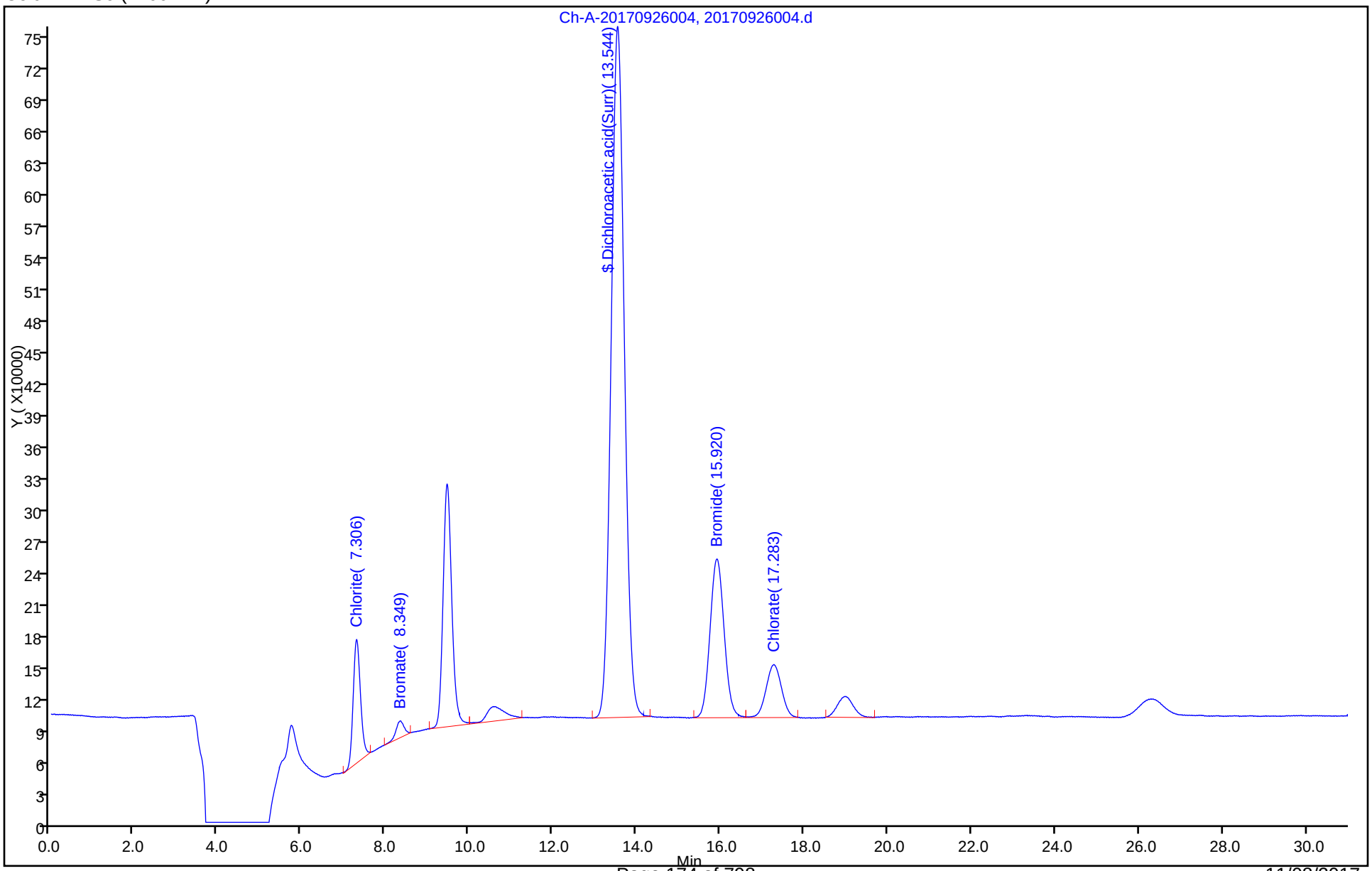
Report Date: 27-Sep-2017 04:35:12 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926004.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 10:09:21 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD2 | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926005.d | | | | |
| Lims ID: | STD3 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 3 | | |
| Inject. Date: | 26-Sep-2017 10:42:32 | ALS Bottle#: | 0 | Worklist Smp#: | 5 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0093892-005 | | | | |
| Misc. Info.: | Study: 93892 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 27-Sep-2017 04:35:04 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK050 | | | | |

| | Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 Chlorite | 7.348 | 7.332 | 0.016 | 2695008 | NC | NC | |
| | 3 Bromate | 8.410 | 8.378 | 0.032 | 386378 | 25.0 | 24.9 | |
| $ | 6 Dichloroacetic acid(Surr) | 13.590 | 13.559 | 0.031 | 14089380 | 993.7 | 993.7 | |
| | 4 Bromide | 16.094 | 15.991 | 0.103 | 6725300 | 250.0 | 257.9 | |
| | 2 Chlorate | 17.432 | 17.306 | 0.126 | 2460996 | 100.0 | 101.1 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

| | | |
|---|---|---|
| WC3001LCS_00054 | Amount Added: 125.00 | Units: uL |
| WCDCA_00048 | Amount Added: 10.00 | Units: uL |

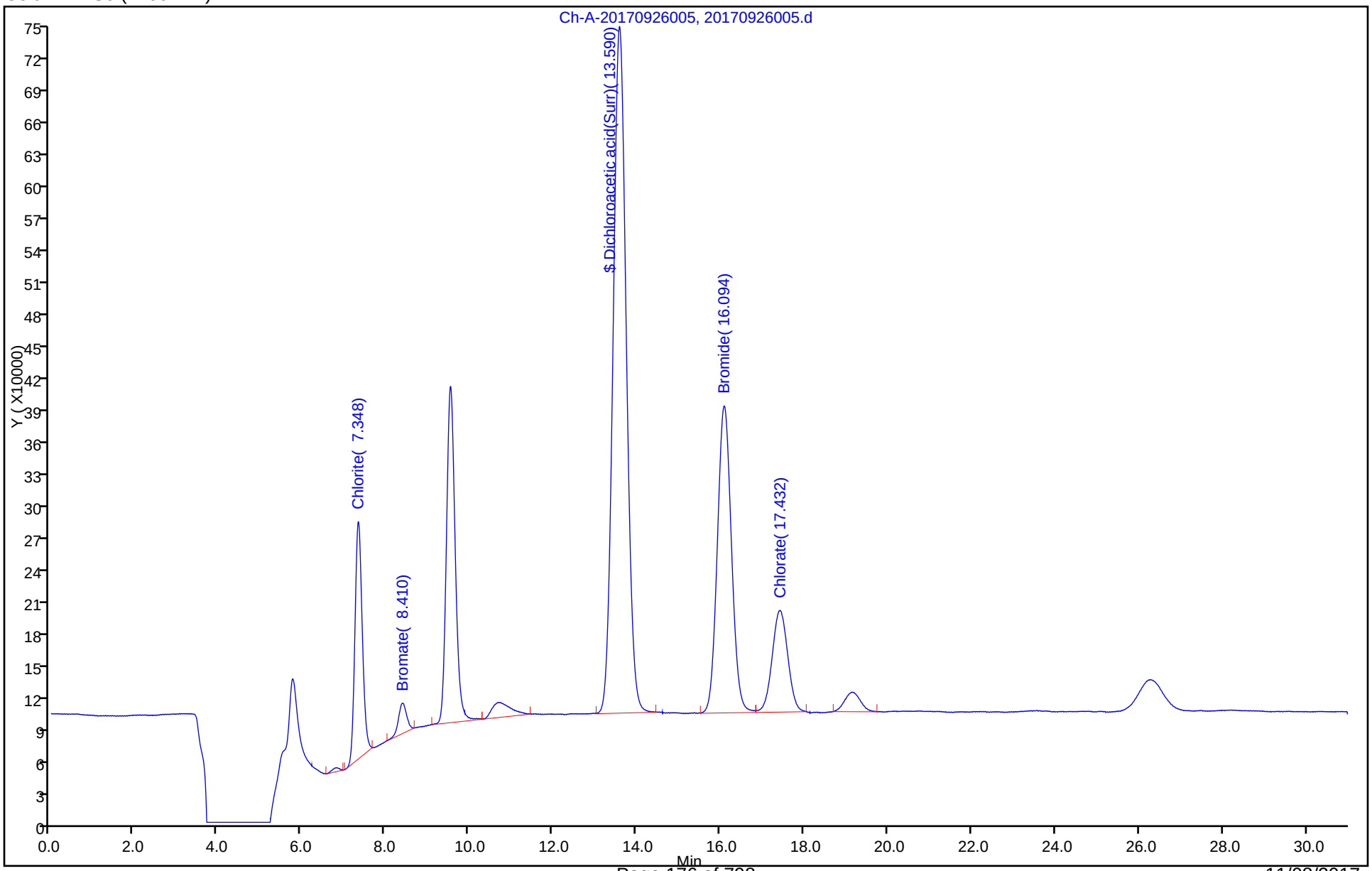
Report Date: 27-Sep-2017 04:35:05 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926005.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 10:42:32 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD3 | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926006.d | | | | |
| Lims ID: | STD4 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 4 | | |
| Inject. Date: | 26-Sep-2017 11:15:44 | ALS Bottle#: | 0 | Worklist Smp#: | 6 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0093892-006 | | | | |
| Misc. Info.: | Study: 93892 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 27-Sep-2017 04:35:13 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK050 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.320 | 7.332 | -0.012 | 5525666 | NC | NC | |
| 3 Bromate | 8.372 | 8.378 | -0.006 | 777302 | 50.0 | 50.7 | |
| $ 6 Dichloroacetic acid(Surr) | 13.540 | 13.559 | -0.019 | 14082237 | 993.7 | 993.2 | |
| 4 Bromide | 16.018 | 15.991 | 0.026 | 13489824 | 500.0 | 531.7 | |
| 2 Chlorate | 17.347 | 17.306 | 0.041 | 4806717 | 200.0 | 197.9 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

| | | |
|---|---|---|
| WC3001LCS_00054 | Amount Added: 250.00 | Units: uL |
| WCDCA_00048 | Amount Added: 10.00 | Units: uL |

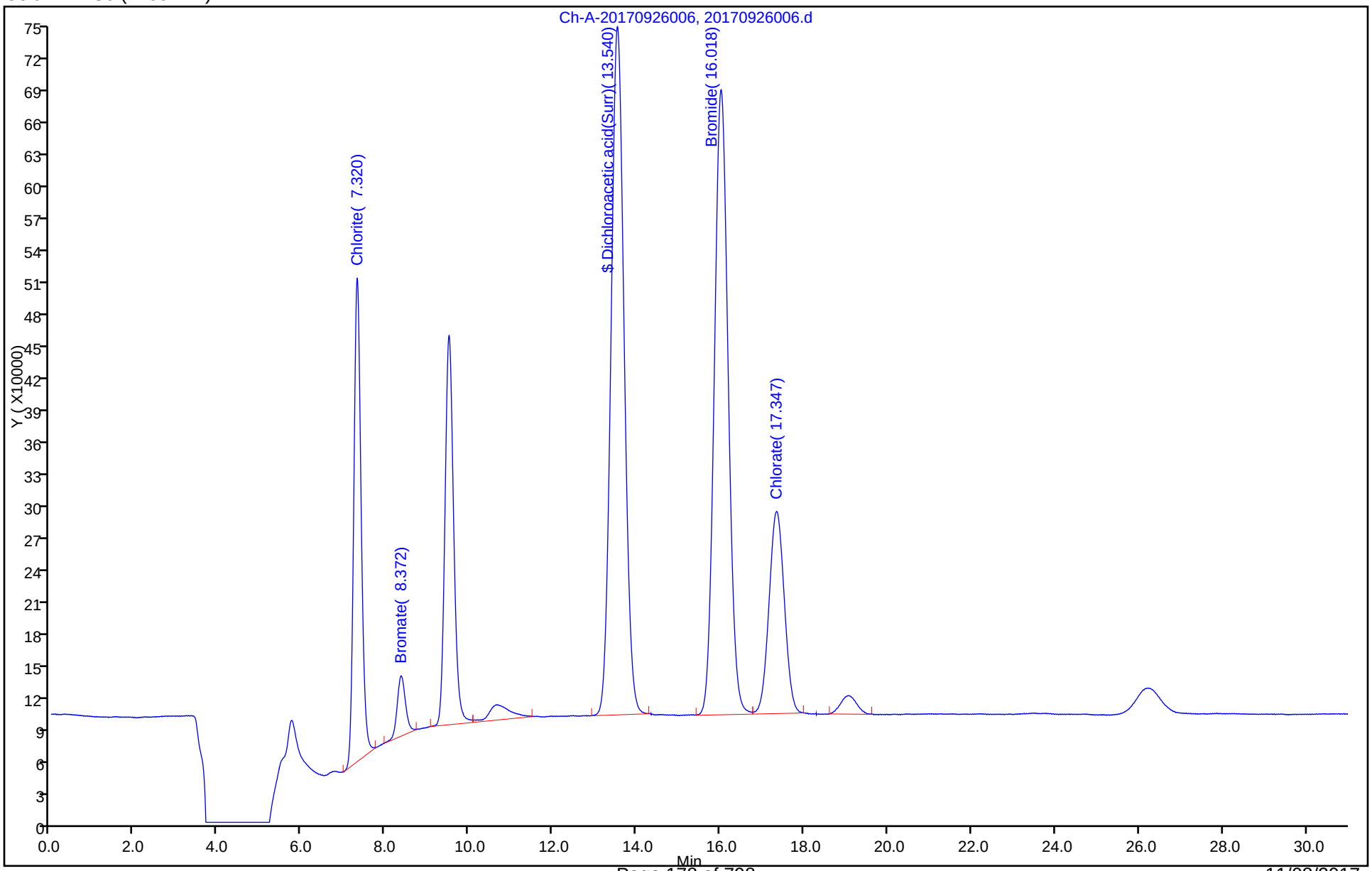
Report Date: 27-Sep-2017 04:35:14 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926006.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 11:15:44 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD4 | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Lims ID: | STD5 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 5 | | |
| Inject. Date: | 26-Sep-2017 11:48:55 | ALS Bottle#: | 0 | Worklist Smp#: | 7 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0093892-007 | | | | |
| Misc. Info.: | Study: 93892 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 27-Sep-2017 04:35:15 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK050 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.225 | 7.332 | -0.107 | 11166724 | NC | NC | |
| 3 Bromate | 8.264 | 8.378 | -0.114 | 1519299 | 100.0 | 99.6 | |
| $ 6 Dichloroacetic acid(Surr) | 13.433 | 13.559 | -0.127 | 13974525 | 993.7 | 987.2 | |
| 4 Bromide | 15.986 | 15.991 | -0.005 | 24624099 | 1000.0 | 982.4 | |
| 2 Chlorate | 17.209 | 17.306 | -0.097 | 9717216 | 400.0 | 400.6 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

| | | |
|---|---|---|
| WC3001LCS_00054 | Amount Added: 500.00 | Units: uL |
| WCDCA_00048 | Amount Added: 10.00 | Units: uL |

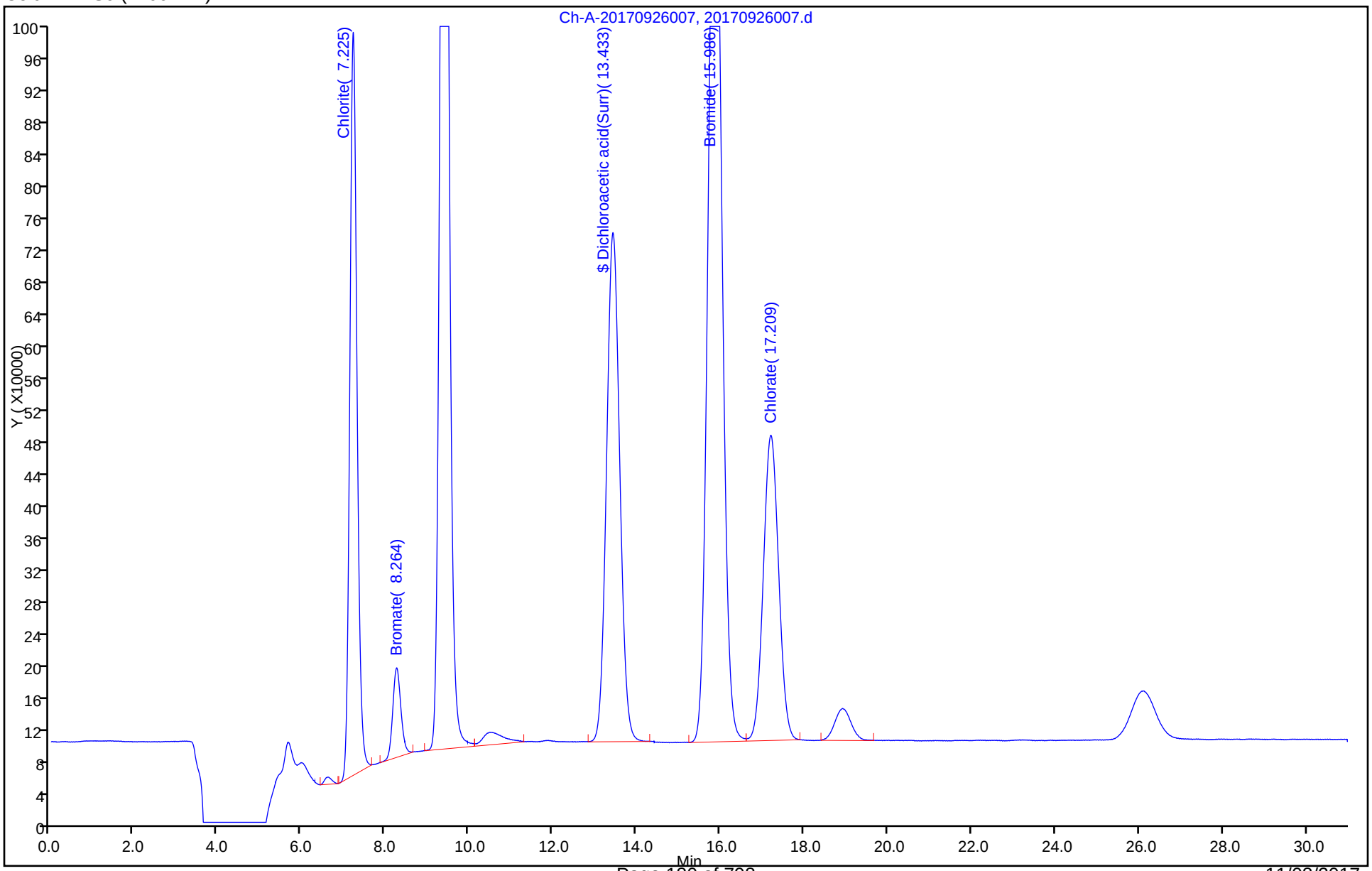
Report Date: 27-Sep-2017 04:35:15 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 11:48:55 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD5 | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1 Analy Batch No.: 431297

SDG No.:

Instrument ID: IC-11 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2017 09:02 Calibration End Date: 09/26/2017 11:48 Calibration ID: 17563

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-431297/2 | 20170926002.d |
| Level 2 | STD1 440-431297/3 | 20170926003.d |
| Level 3 | STD2 440-431297/4 | 20170926004.d |
| Level 4 | STD3 440-431297/5 | 20170926005.d |
| Level 5 | STD4 440-431297/6 | 20170926006.d |
| Level 6 | STD5 440-431297/7 | 20170926007.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | 7.332 | 7.306 | 7.348 | 7.320 | 7.225 | | | | | 0.000 - 0.000 | 7.306 |
| Dichloroacetic acid(Surr) | 13.568 | 13.559 | 13.544 | 13.590 | 13.540 | 13.433 | | | | | 12.610 - 14.508 | 13.539 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-194764-1 Analy Batch No.: 431297

SDG No.:

Instrument ID: IC-11 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2017 09:02 Calibration End Date: 09/26/2017 11:48 Calibration ID: 17563

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-431297/2 | 20170926002.d |
| Level 2 | STD1 440-431297/3 | 20170926003.d |
| Level 3 | STD2 440-431297/4 | 20170926004.d |
| Level 4 | STD3 440-431297/5 | 20170926005.d |
| Level 5 | STD4 440-431297/6 | 20170926006.d |
| Level 6 | STD5 440-431297/7 | 20170926007.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Chlorite | 27628 | 24008<br>27917 | 28189 | 26950 | Lin | -43247.617 | 27969.4671 | | | | | | | 1.0000 | | 0.9950 |
| Dichloroacetic acid(Surr) | 14369<br>14171 | 14094<br>14063 | 14268 | 14179 | Ave | | 14190.7071 | | | | 0.8 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-194764-1 Analy Batch No.: 431297

SDG No.:

Instrument ID: IC-11 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2017 09:02 Calibration End Date: 09/26/2017 11:48 Calibration ID: 17563

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-431297/2 | 20170926002.d |
| Level 2 | STD1 440-431297/3 | 20170926003.d |
| Level 3 | STD2 440-431297/4 | 20170926004.d |
| Level 4 | STD3 440-431297/5 | 20170926005.d |
| Level 5 | STD4 440-431297/6 | 20170926006.d |
| Level 6 | STD5 440-431297/7 | 20170926007.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Chlorite | Lin | 11166724 | 480167 | 1409439 | 2695008 | 5525666 | 0.000000<br>400 | 20.0 | 50.0 | 100 | 200 |
| Dichloroacetic acid(Surr) | Ave | 14278762<br>13974525 | 14005340 | 14178518 | 14089380 | 14082237 | 994<br>994 | 994 | 994 | 994 | 994 |

Curve Type Legend:

Ave = Average
Lin = Linear

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926002.d | | | | |
| Lims ID: | STD0 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 0 | | |
| Inject. Date: | 26-Sep-2017 09:02:58 | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0093892-002 | | | | |
| Misc. Info.: | Study: 93892 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 27-Sep-2017 04:35:08 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK050 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.568 | 13.559 | 0.009 | 14278762 | 993.7 | 1000.3 | |

## Reagents:

| | | | |
|---|---|---|---|
| WC3001LCS_00054 | Amount Added: | 0.00 | Units: uL |
| WCDCA_00048 | Amount Added: | 10.00 | Units: uL |

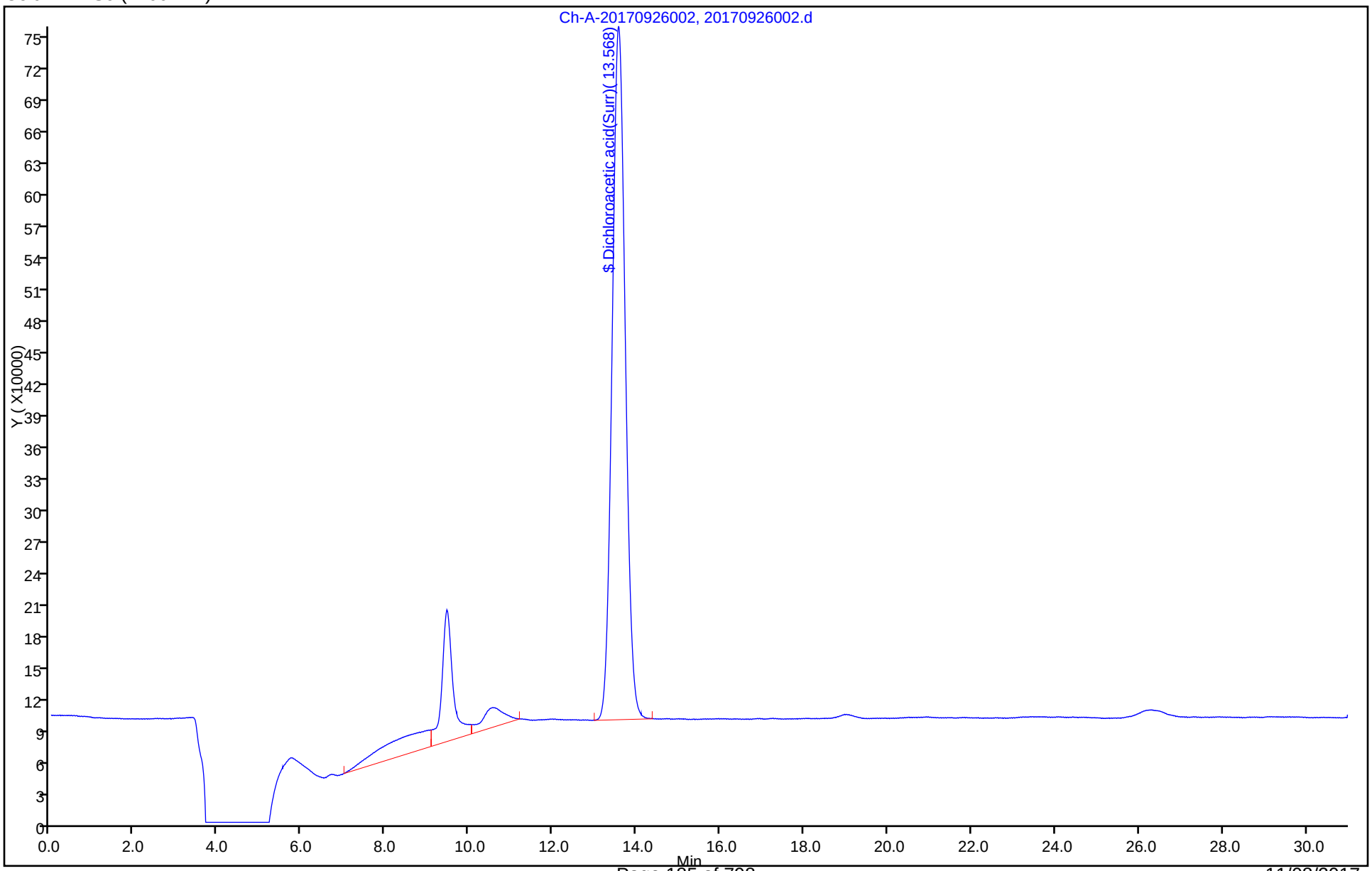
Report Date: 27-Sep-2017 04:35:08 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926002.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 09:02:58 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD0 | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926003.d | | | | |
| Lims ID: | STD1 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 1 | | |
| Inject. Date: | 26-Sep-2017 09:36:10 | ALS Bottle#: | 0 | Worklist Smp#: | 3 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0093892-003 | | | | |
| Misc. Info.: | Study: 93892 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 27-Sep-2017 04:35:09 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK050 | | | | |

| | Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 Chlorite | 7.332 | 7.332 | 0.000 | 480167 | 20.0 | 18.7 | |
| | 3 Bromate | 8.378 | 8.378 | 0.000 | 79143 | NC | NC | |
| $ | 6 Dichloroacetic acid(Surr) | 13.559 | 13.559 | 0.000 | 14005340 | 993.7 | 985.3 | |
| | 4 Bromide | 15.991 | 15.991 | 0.000 | 1336520 | NC | NC | |
| | 2 Chlorate | 17.306 | 17.306 | 0.000 | 473629 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

| | | | |
|---|---|---|---|
| WC3001LCS_00054 | Amount Added: | 25.00 | Units: uL |
| WCDCA_00048 | Amount Added: | 10.00 | Units: uL |

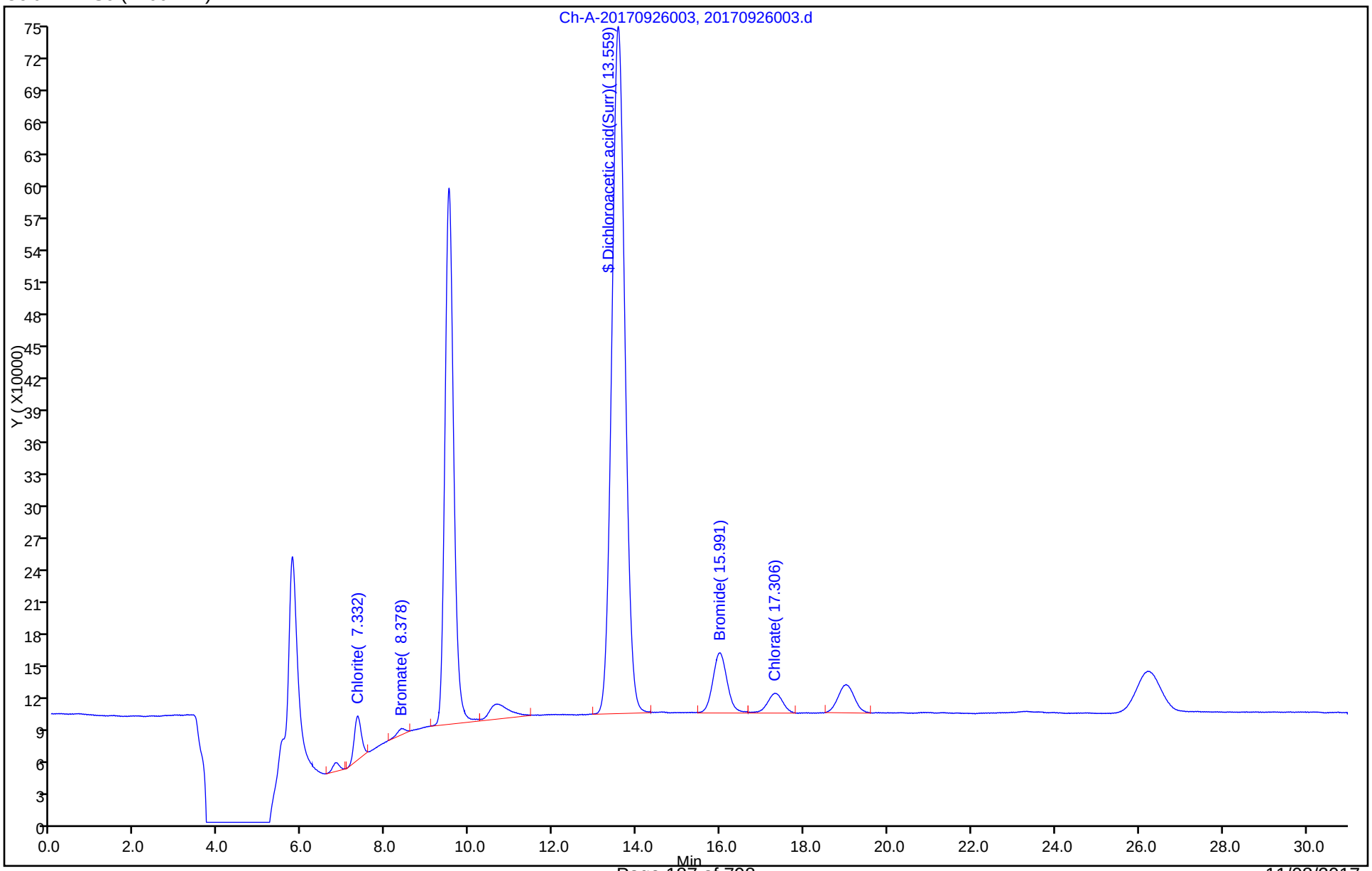
Report Date: 27-Sep-2017 04:35:10 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926003.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 09:36:10 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD1 | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926004.d | | | | |
| Lims ID: | STD2 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 2 | | |
| Inject. Date: | 26-Sep-2017 10:09:21 | ALS Bottle#: | 0 | Worklist Smp#: | 4 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0093892-004 | | | | |
| Misc. Info.: | Study: 93892 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 27-Sep-2017 04:35:11 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK050 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.306 | 7.332 | -0.026 | 1409439 | 50.0 | 51.9 | |
| 3 Bromate | 8.349 | 8.378 | -0.029 | 212482 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.544 | 13.559 | -0.015 | 14178518 | 993.7 | 996.6 | |
| 4 Bromide | 15.920 | 15.991 | -0.071 | 3499404 | NC | NC | |
| 2 Chlorate | 17.283 | 17.306 | -0.023 | 1272302 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

| | | | |
|---|---|---|---|
| WC3001LCS_00054 | Amount Added: | 62.50 | Units: uL |
| WCDCA_00048 | Amount Added: | 10.00 | Units: uL |

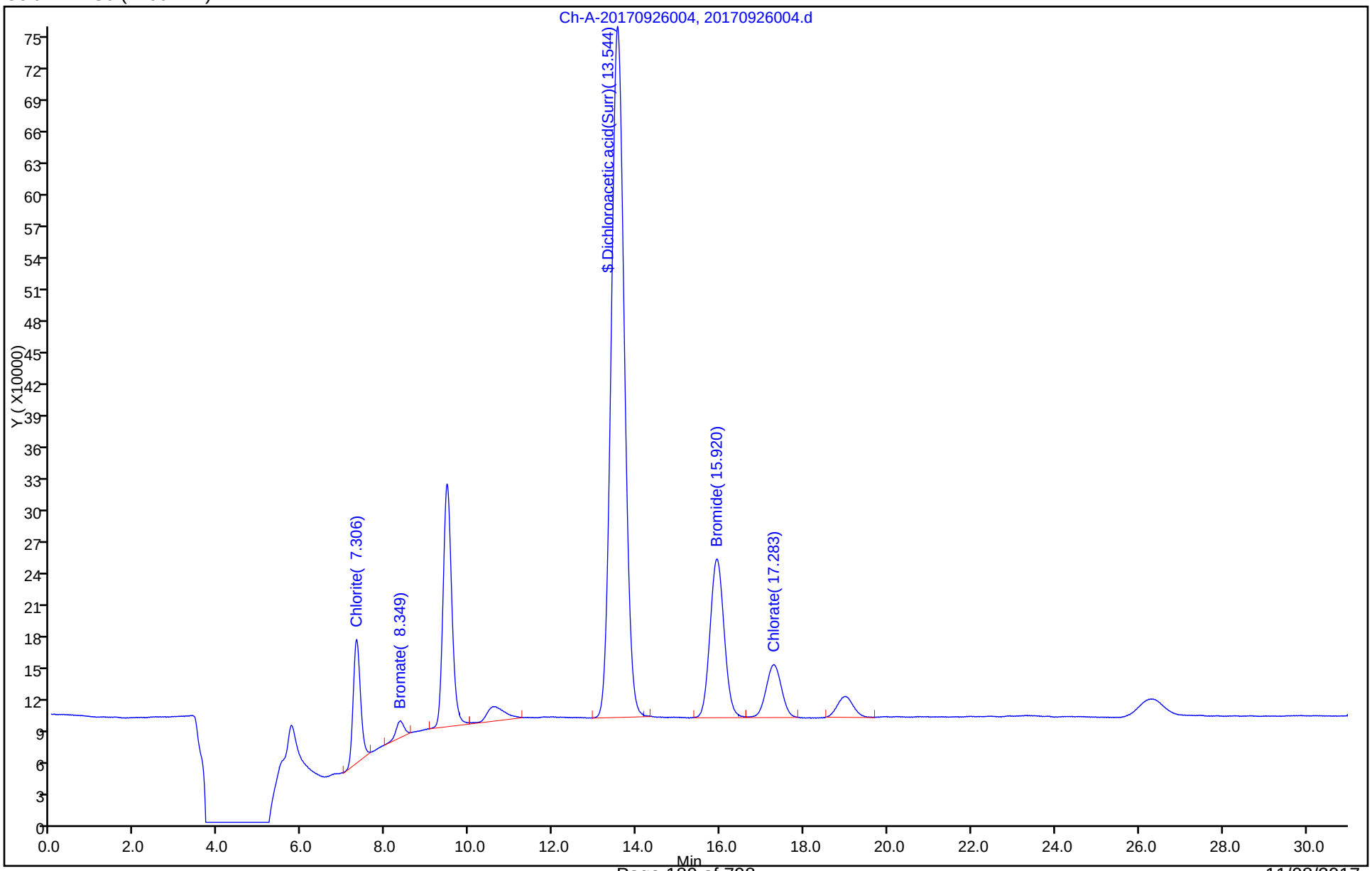
Report Date: 27-Sep-2017 04:35:12 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926004.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 10:09:21 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD2 | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926005.d | | | | |
| Lims ID: | STD3 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 3 | | |
| Inject. Date: | 26-Sep-2017 10:42:32 | ALS Bottle#: | 0 | Worklist Smp#: | 5 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0093892-005 | | | | |
| Misc. Info.: | Study: 93892 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 27-Sep-2017 04:35:04 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK050 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.348 | 7.332 | 0.016 | 2695008 | 100.0 | 97.9 | |
| 3 Bromate | 8.410 | 8.378 | 0.032 | 386378 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.590 | 13.559 | 0.031 | 14089380 | 993.7 | 987.1 | |
| 4 Bromide | 16.094 | 15.991 | 0.103 | 6725300 | NC | NC | |
| 2 Chlorate | 17.432 | 17.306 | 0.126 | 2460996 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

| | | |
|---|---|---|
| WC3001LCS_00054 | Amount Added: 125.00 | Units: uL |
| WCDCA_00048 | Amount Added: 10.00 | Units: uL |

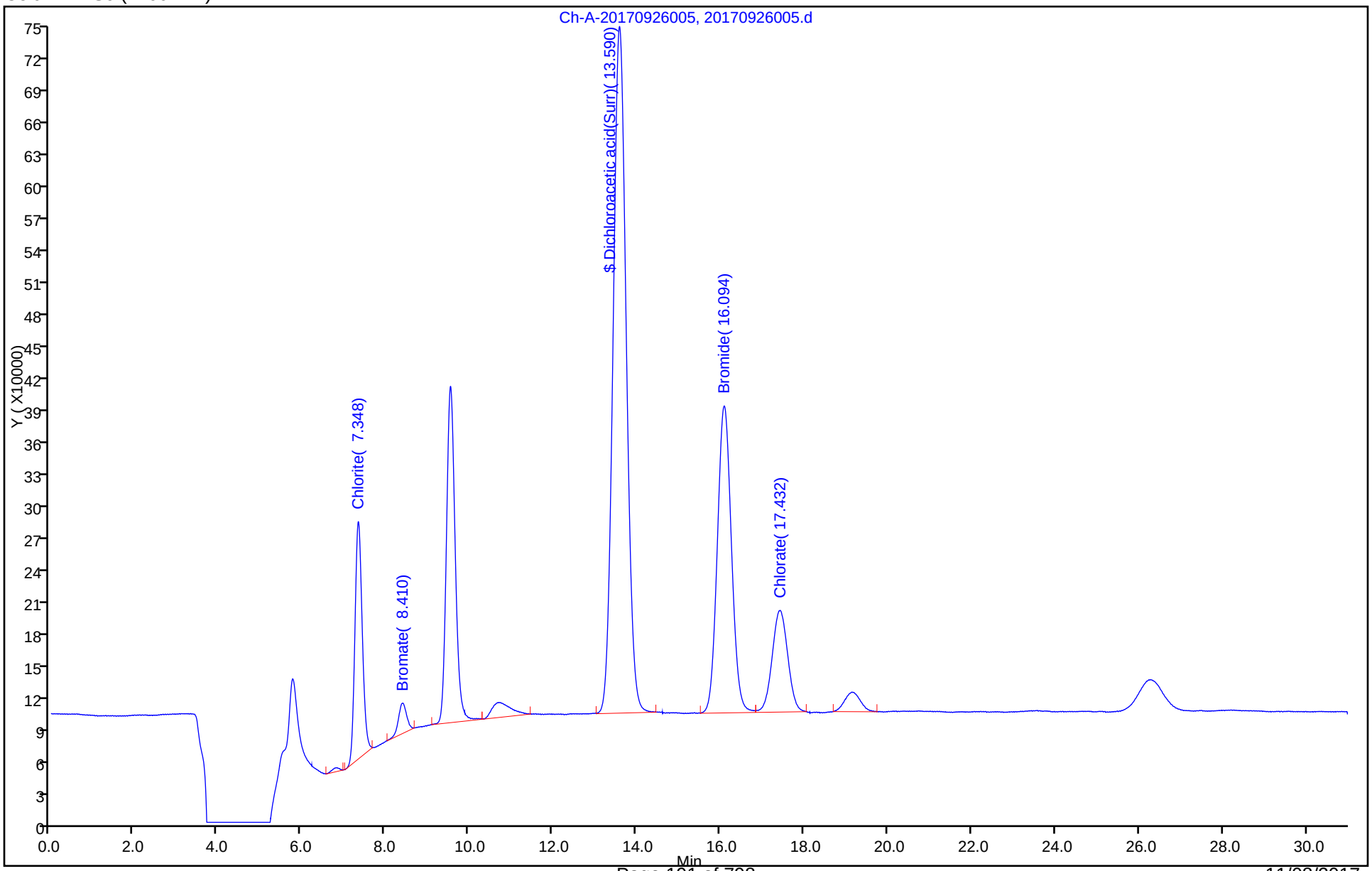
Report Date: 27-Sep-2017 04:35:05 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926005.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 10:42:32 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD3 | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926006.d | | | | |
| Lims ID: | STD4 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 4 | | |
| Inject. Date: | 26-Sep-2017 11:15:44 | ALS Bottle#: | 0 | Worklist Smp#: | 6 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0093892-006 | | | | |
| Misc. Info.: | Study: 93892 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 27-Sep-2017 04:35:13 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK050 | | | | |

| | Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 Chlorite | 7.320 | 7.332 | -0.012 | 5525666 | 200.0 | 199.1 | |
| | 3 Bromate | 8.372 | 8.378 | -0.006 | 777302 | NC | NC | |
| $ | 6 Dichloroacetic acid(Surr) | 13.540 | 13.559 | -0.019 | 14082237 | 993.7 | 990.6 | |
| | 4 Bromide | 16.018 | 15.991 | 0.026 | 13489824 | NC | NC | |
| | 2 Chlorate | 17.347 | 17.306 | 0.041 | 4806717 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

| | | |
|---|---|---|
| WC3001LCS_00054 | Amount Added: 250.00 | Units: uL |
| WCDCA_00048 | Amount Added: 10.00 | Units: uL |

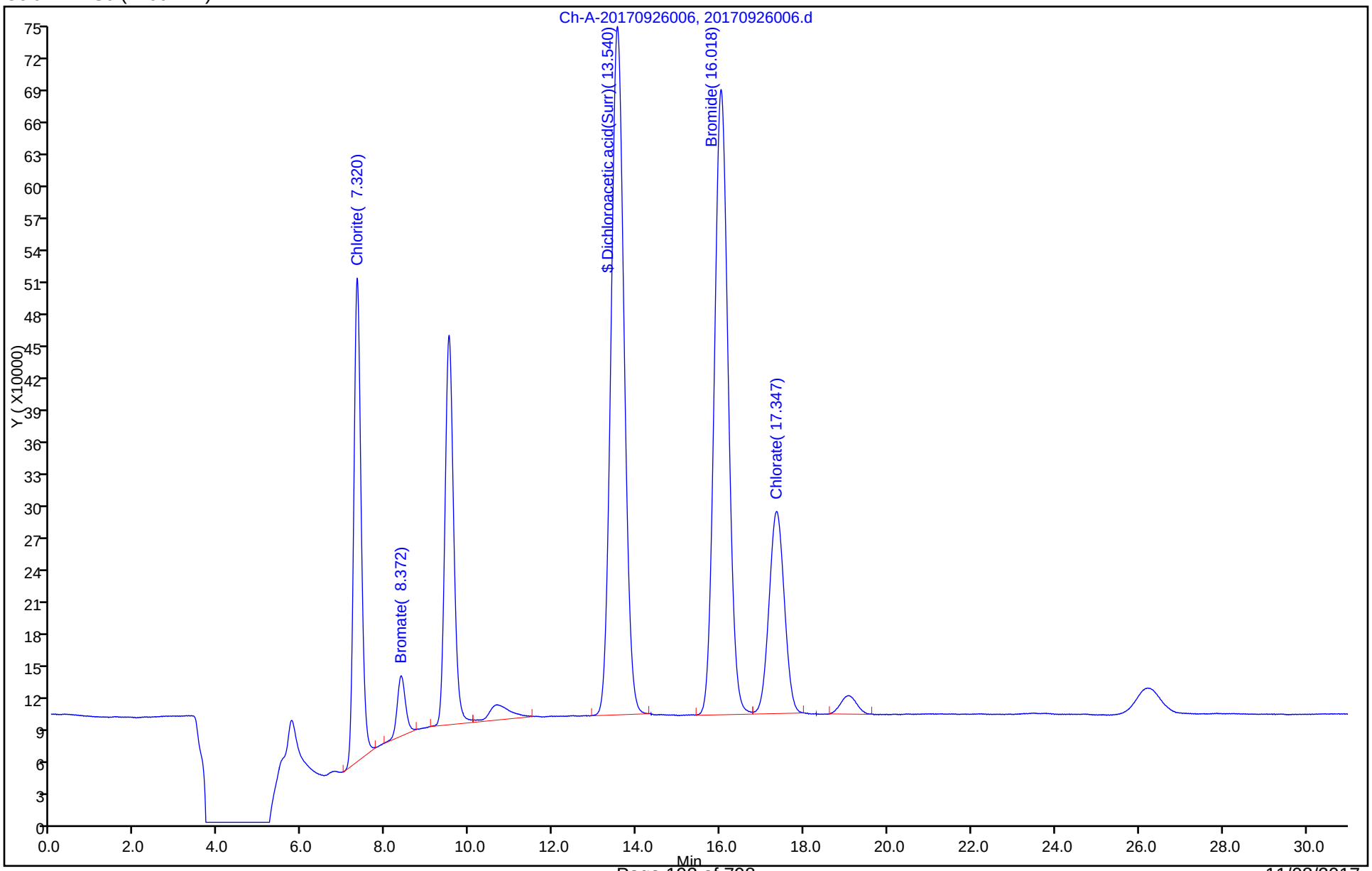
Report Date: 27-Sep-2017 04:35:14 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926006.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 11:15:44 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD4 | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Lims ID: | STD5 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 5 | | |
| Inject. Date: | 26-Sep-2017 11:48:55 | ALS Bottle#: | 0 | Worklist Smp#: | 7 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0093892-007 | | | | |
| Misc. Info.: | Study: 93892 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 27-Sep-2017 04:35:15 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK050 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.225 | 7.332 | -0.107 | 11166724 | 400.0 | 400.8 | |
| 3 Bromate | 8.264 | 8.378 | -0.114 | 1519299 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.433 | 13.559 | -0.127 | 13974525 | 993.7 | 984.8 | |
| 4 Bromide | 15.986 | 15.991 | -0.005 | 24624099 | NC | NC | |
| 2 Chlorate | 17.209 | 17.306 | -0.097 | 9717216 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

| | | |
|---|---|---|
| WC3001LCS_00054 | Amount Added: 500.00 | Units: uL |
| WCDCA_00048 | Amount Added: 10.00 | Units: uL |

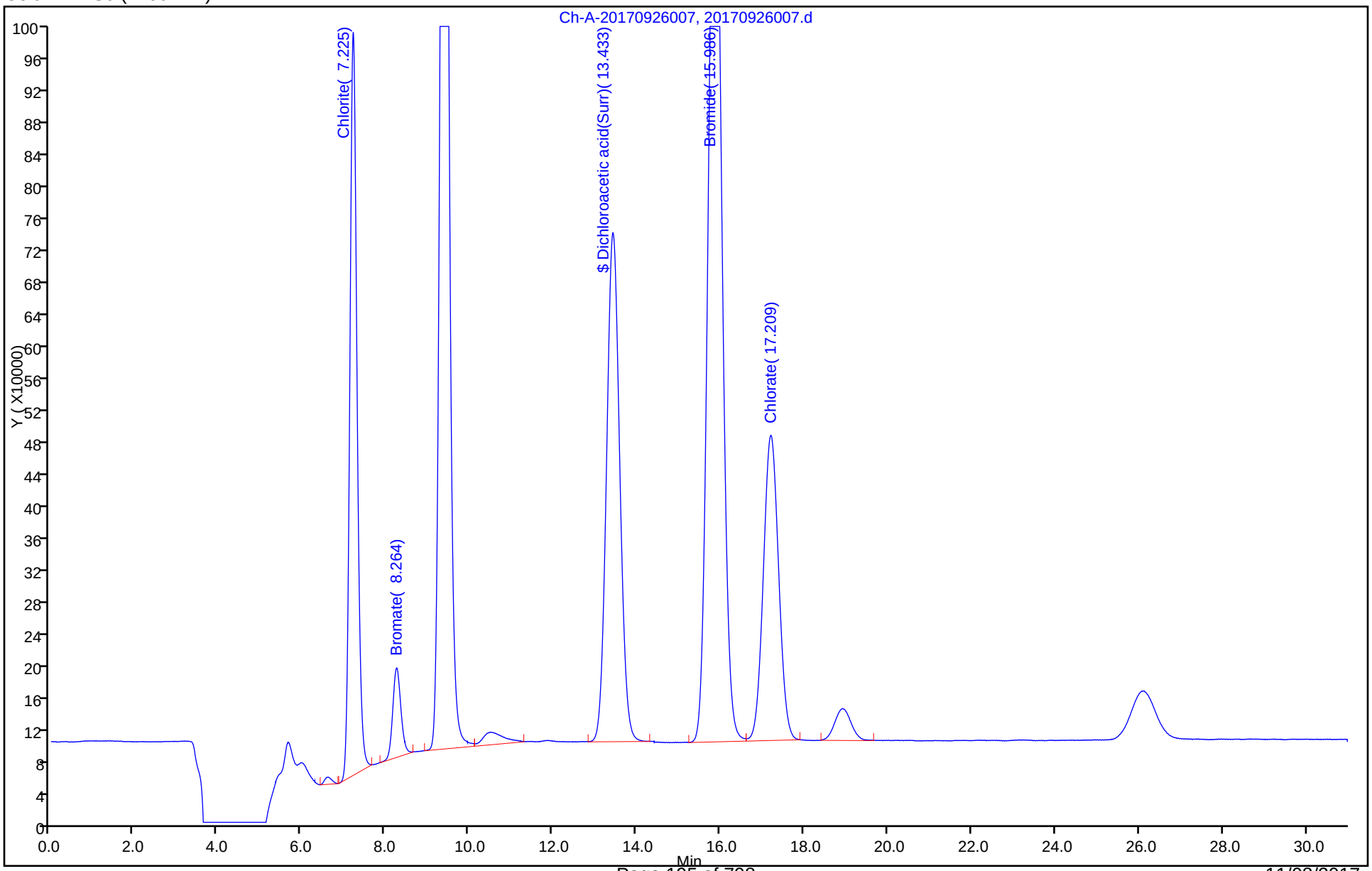
Report Date: 27-Sep-2017 04:35:16 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 11:48:55 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | STD5 | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Lab Sample ID: ICV 440-431296/8  Calibration Date: 09/26/2017 12:33

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20170926008.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 15931 | | 31.0 | 30.1 | 3.0 | 15.0 |
| Bromide | Lin | | 27047 | | 314 | 300 | 4.7 | 15.0 |
| Chlorate | Lin | | 24342 | | 120 | 120 | 0.0 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14155 | 14065 | | 987 | 994 | -0.6 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: ICV 440-431296/8 Calibration Date: 09/26/2017 12:33

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20170926008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.38 | 7.79 | 8.96 |
| Bromide | 16.01 | 14.87 | 17.11 |
| Chlorate | 17.34 | 16.44 | 18.17 |
| Dichloroacetic acid(Surr) | 13.56 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926008.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 26-Sep-2017 12:33:24 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0093892-008
Misc. Info.: Study: 93892 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist:

Method: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 27-Sep-2017 04:48:26 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK050

First Level Reviewer: zakhrabovy Date: 26-Sep-2017 13:06:26

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.334 | 7.332 | 0.002 | 3289372 | NC | NC | |
| 3 Bromate | 8.381 | 8.378 | 0.003 | 478887 | 30.1 | 31.0 | |
| $ 6 Dichloroacetic acid(Surr) | 13.564 | 13.559 | 0.005 | 13976338 | 993.7 | 987.4 | |
| 4 Bromide | 16.010 | 15.991 | 0.019 | 8114020 | 300.0 | 314.1 | |
| 2 Chlorate | 17.340 | 17.306 | 0.034 | 2923929 | 120.1 | 120.2 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WC3001ICV_00034 Amount Added: 150.00 Units: uL
WCDCA_00048 Amount Added: 10.00 Units: uL

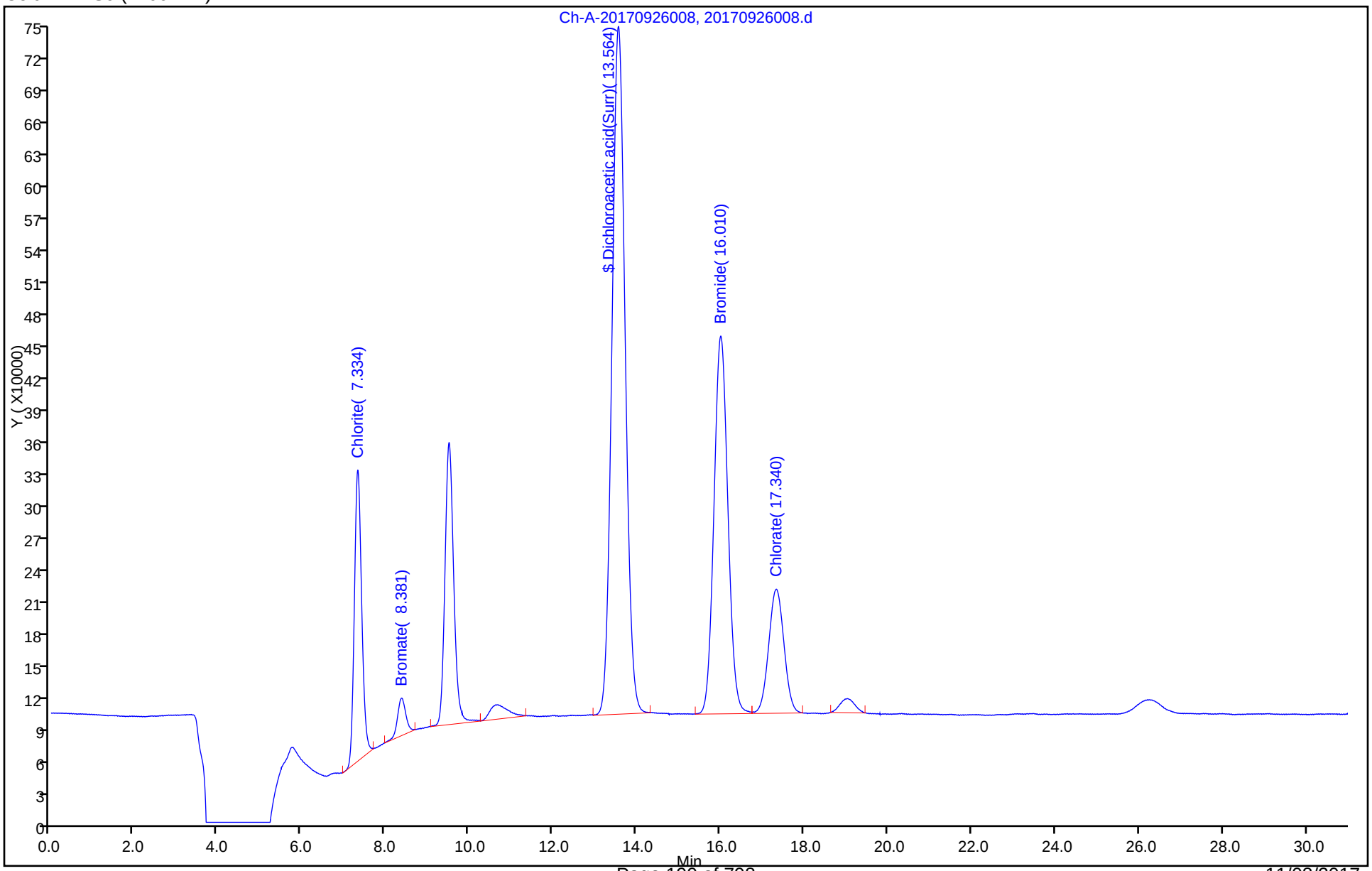
Report Date: 27-Sep-2017 04:48:39 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926008.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 12:33:24 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | ICV | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Lab Sample ID: ICV 440-431297/8  Calibration Date: 09/26/2017 12:33

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20170926008.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 27411 | | 119 | 120 | -0.7 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14191 | 14065 | | 985 | 994 | -0.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: ICV 440-431297/8 Calibration Date: 09/26/2017 12:33

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20170926008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.33 | 6.82 | 7.85 |
| Dichloroacetic acid(Surr) | 13.56 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926008.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 26-Sep-2017 12:33:24 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0093892-008
Misc. Info.: Study: 93892 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist:

Method: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\300.1_C11.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 27-Sep-2017 04:48:26 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK050

First Level Reviewer: zakhrabovy Date: 26-Sep-2017 13:06:26

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.334 | 7.332 | 0.002 | 3289372 | 120.0 | 119.2 | |
| 3 Bromate | 8.381 | 8.378 | 0.003 | 478887 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.564 | 13.559 | 0.005 | 13976338 | 993.7 | 984.9 | |
| 4 Bromide | 16.010 | 15.991 | 0.019 | 8114020 | NC | NC | |
| 2 Chlorate | 17.340 | 17.306 | 0.034 | 2923929 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WC3001ICV_00034 Amount Added: 150.00 Units: uL
WCDCA_00048 Amount Added: 10.00 Units: uL

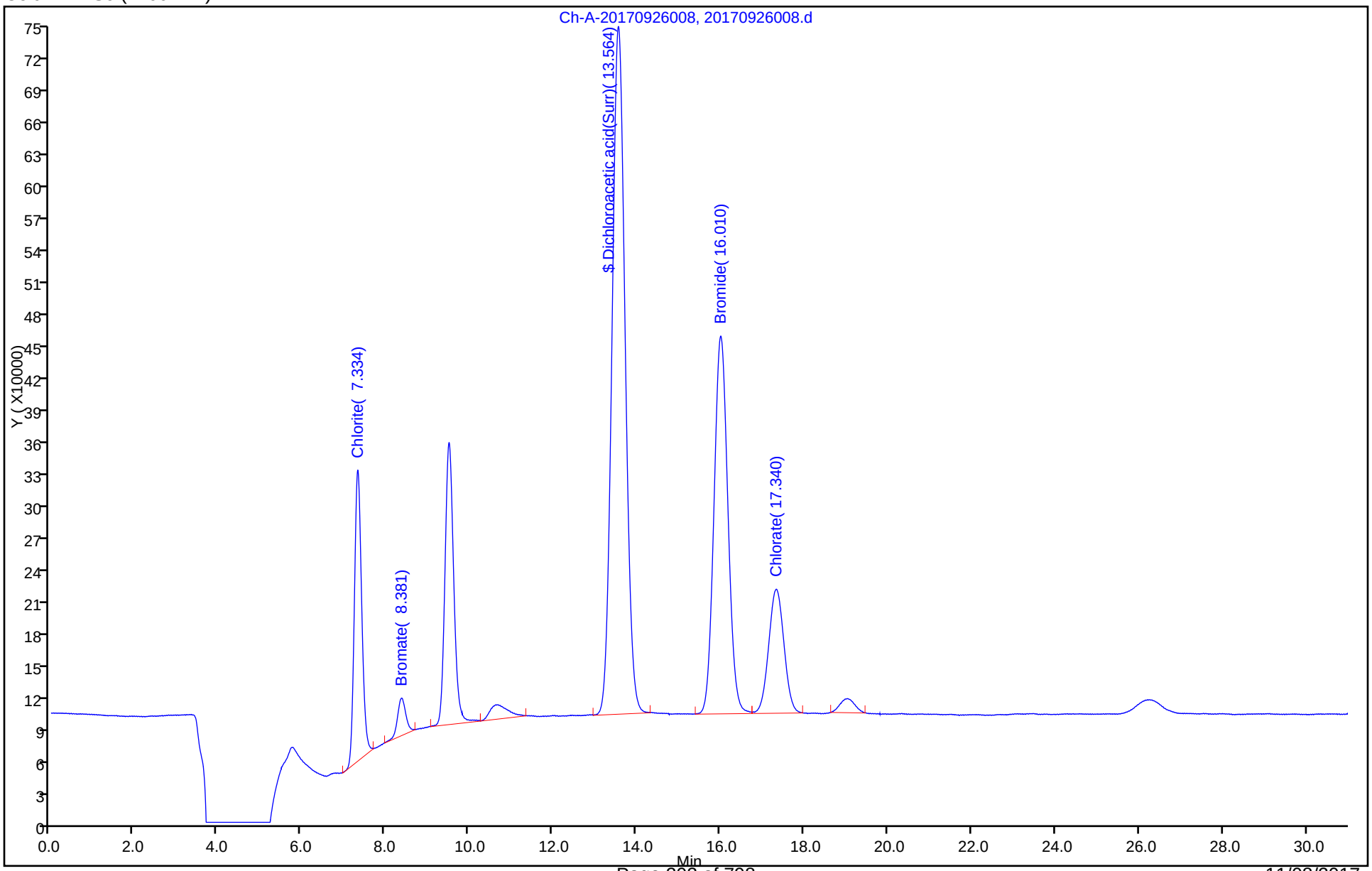
Report Date: 27-Sep-2017 04:48:39 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926008.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Sep-2017 12:33:24 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | ICV | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-436780/8  Calibration Date: 10/23/2017 09:07

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023008.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 13888 | | 45.2 | 50.0 | -9.6 | 15.0 |
| Bromide | Lin | | 25402 | | 500 | 500 | -0.0 | 15.0 |
| Chlorate | Lin | | 23037 | | 190 | 200 | -5.2 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14155 | 13907 | | 976 | 994 | -1.8 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-436780/8 Calibration Date: 10/23/2017 09:07

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.18 | 7.79 | 8.96 |
| Bromide | 15.63 | 14.87 | 17.11 |
| Chlorate | 16.92 | 16.49 | 18.23 |
| Dichloroacetic acid(Surr) | 13.30 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023008.d | | | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 23-Oct-2017 09:07:09 | ALS Bottle#: | 0 | Worklist Smp#: | 8 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-008 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 10:54:14 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.161 | 7.332 | -0.171 | 5184235 | NC | NC | |
| 3 Bromate | 8.178 | 8.378 | -0.200 | 694383 | 50.0 | 45.2 | |
| $ 6 Dichloroacetic acid(Surr) | 13.303 | 13.557 | -0.255 | 13819303 | 993.7 | 976.3 | |
| 4 Bromide | 15.628 | 15.991 | -0.363 | 12701086 | 500.0 | 499.8 | |
| 2 Chlorate | 16.922 | 17.362 | -0.440 | 4607426 | 200.0 | 189.7 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

| | | |
|---|---|---|
| WCDCA_00050 | Amount Added: 10.00 | Units: uL |
| WC3001LCS_00054 | Amount Added: 250.00 | Units: uL |

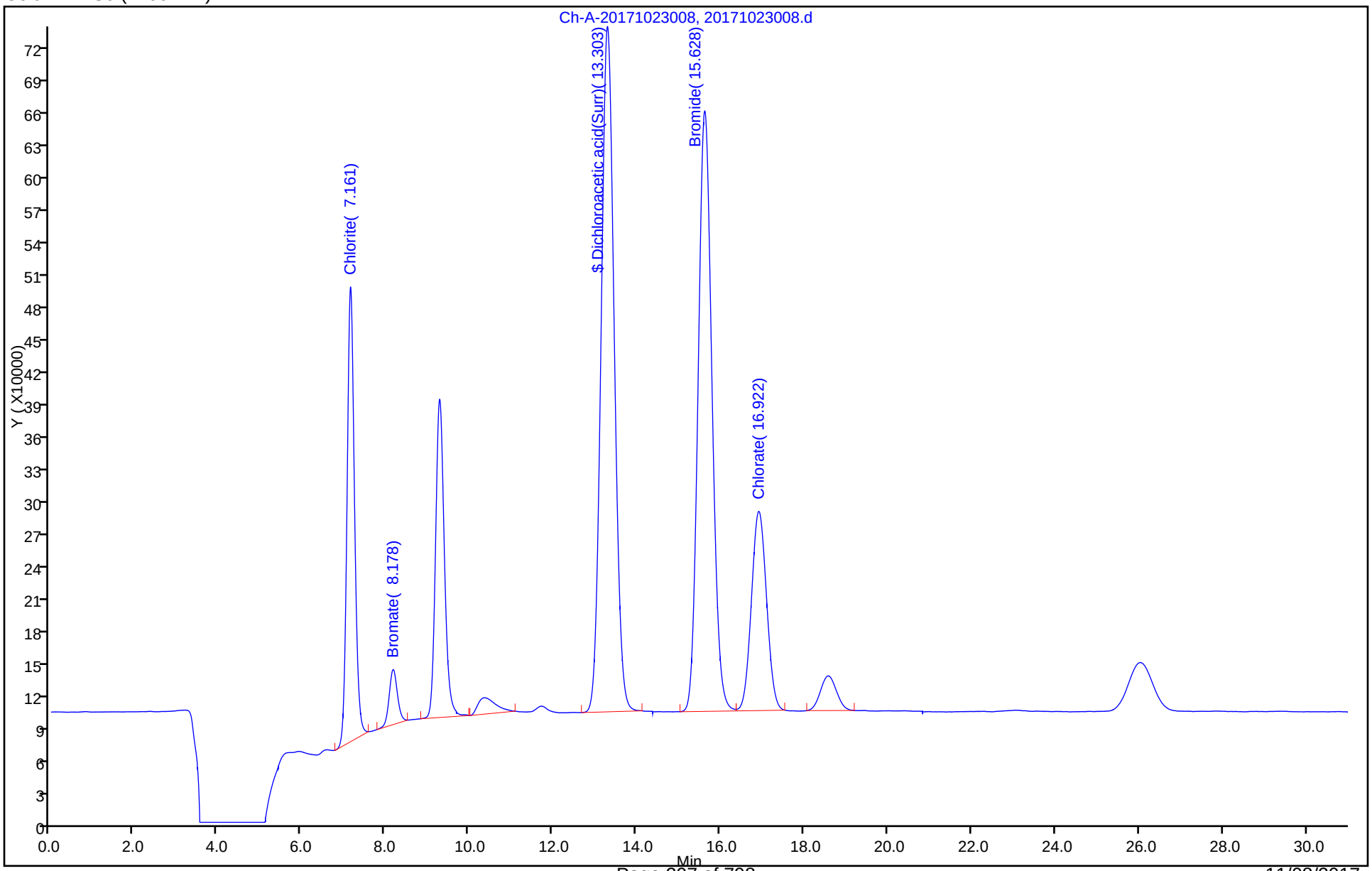
Report Date: 23-Oct-2017 10:54:15 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023008.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 09:07:09 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-436781/8  Calibration Date: 10/23/2017 09:07

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023008.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 25921 | | 187 | 200 | -6.6 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14191 | 13907 | | 974 | 994 | -2.0 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-436781/8 Calibration Date: 10/23/2017 09:07

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.16 | 6.82 | 7.85 |
| Dichloroacetic acid(Surr) | 13.30 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023008.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 23-Oct-2017 09:07:09 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095116-008
Misc. Info.: Study: 95116 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist: chrom-300.1_C11*sub2

Method: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 23-Oct-2017 10:54:14 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK052

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.161 | 7.332 | -0.171 | 5184235 | 200.0 | 186.9 | |
| 3 Bromate | 8.178 | 8.378 | -0.200 | 694383 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.303 | 13.557 | -0.255 | 13819303 | 993.7 | 973.8 | |
| 4 Bromide | 15.628 | 15.991 | -0.363 | 12701086 | NC | NC | |
| 2 Chlorate | 16.922 | 17.362 | -0.440 | 4607426 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL
WC3001LCS_00054 Amount Added: 250.00 Units: uL

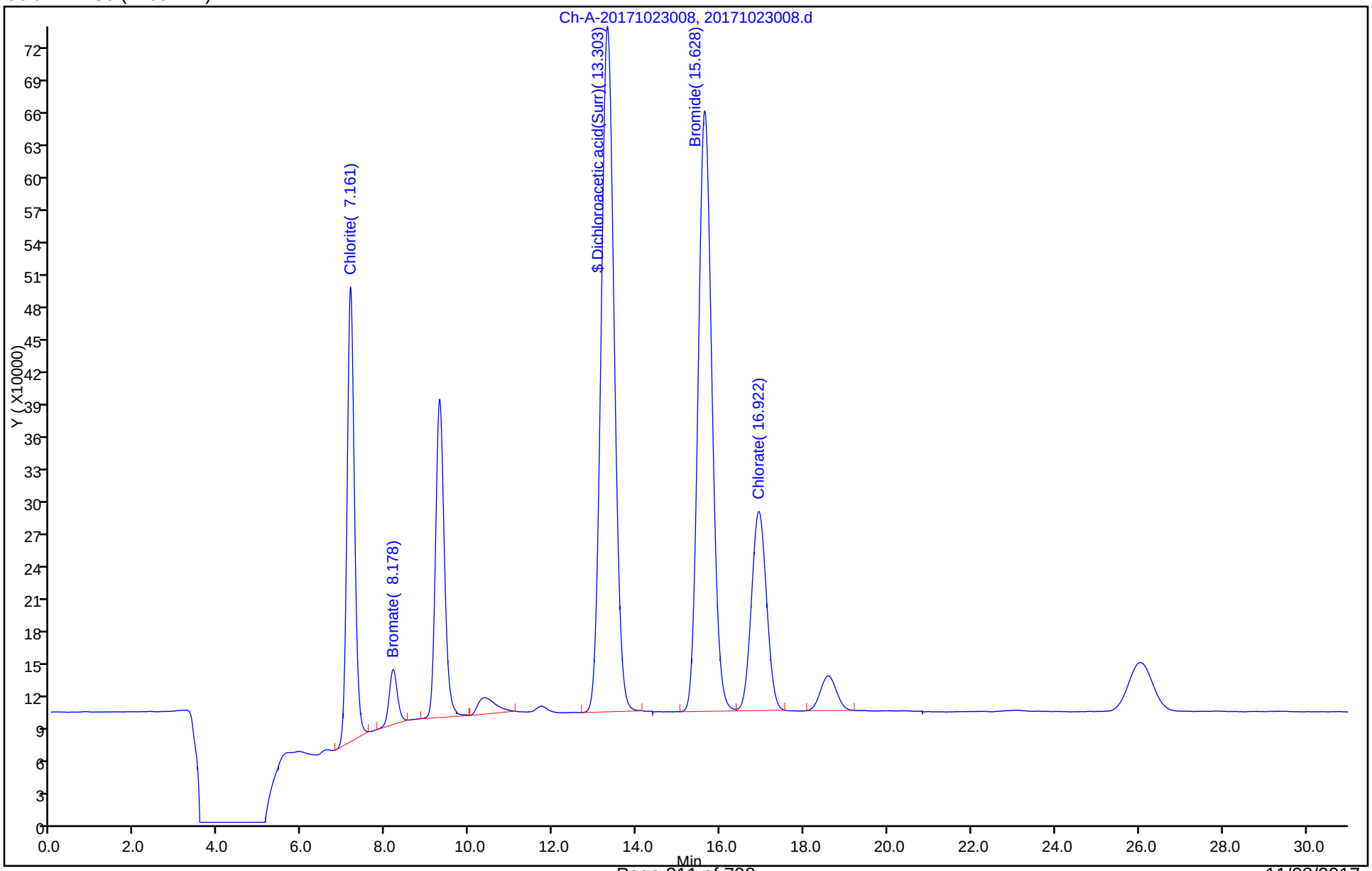
Report Date: 23-Oct-2017 10:54:15 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023008.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 09:07:09 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-436780/20 Calibration Date: 10/23/2017 15:45

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023020.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 15005 | | 24.1 | 25.0 | -3.5 | 15.0 |
| Bromide | Lin | | 27393 | | 263 | 250 | 5.2 | 15.0 |
| Chlorate | Lin | | 25384 | | 104 | 100 | 4.2 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14155 | 13957 | | 980 | 994 | -1.4 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-436780/20 Calibration Date: 10/23/2017 15:45

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023020.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.15 | 7.79 | 8.96 |
| Bromide | 15.32 | 14.87 | 17.11 |
| Chlorate | 16.64 | 16.49 | 18.23 |
| Dichloroacetic acid(Surr) | 13.31 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023020.d | | | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 23-Oct-2017 15:45:25 | ALS Bottle#: | 0 | Worklist Smp#: | 20 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-020 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 05:17:52 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 04:46:58 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.163 | 7.332 | -0.170 | 2698484 | NC | NC | |
| 3 Bromate | 8.152 | 8.378 | -0.226 | 375136 | 25.0 | 24.1 | |
| $ 6 Dichloroacetic acid(Surr) | 13.313 | 13.557 | -0.245 | 13868939 | 993.7 | 979.8 | |
| 4 Bromide | 15.316 | 15.991 | -0.675 | 6848234 | 250.0 | 262.9 | M |
| 2 Chlorate | 16.643 | 17.362 | -0.720 | 2538380 | 100.0 | 104.2 | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

| | | |
|---|---|---|
| WC3001LCS_00054 | Amount Added: 125.00 | Units: uL |
| WCDCA_00050 | Amount Added: 10.00 | Units: uL |

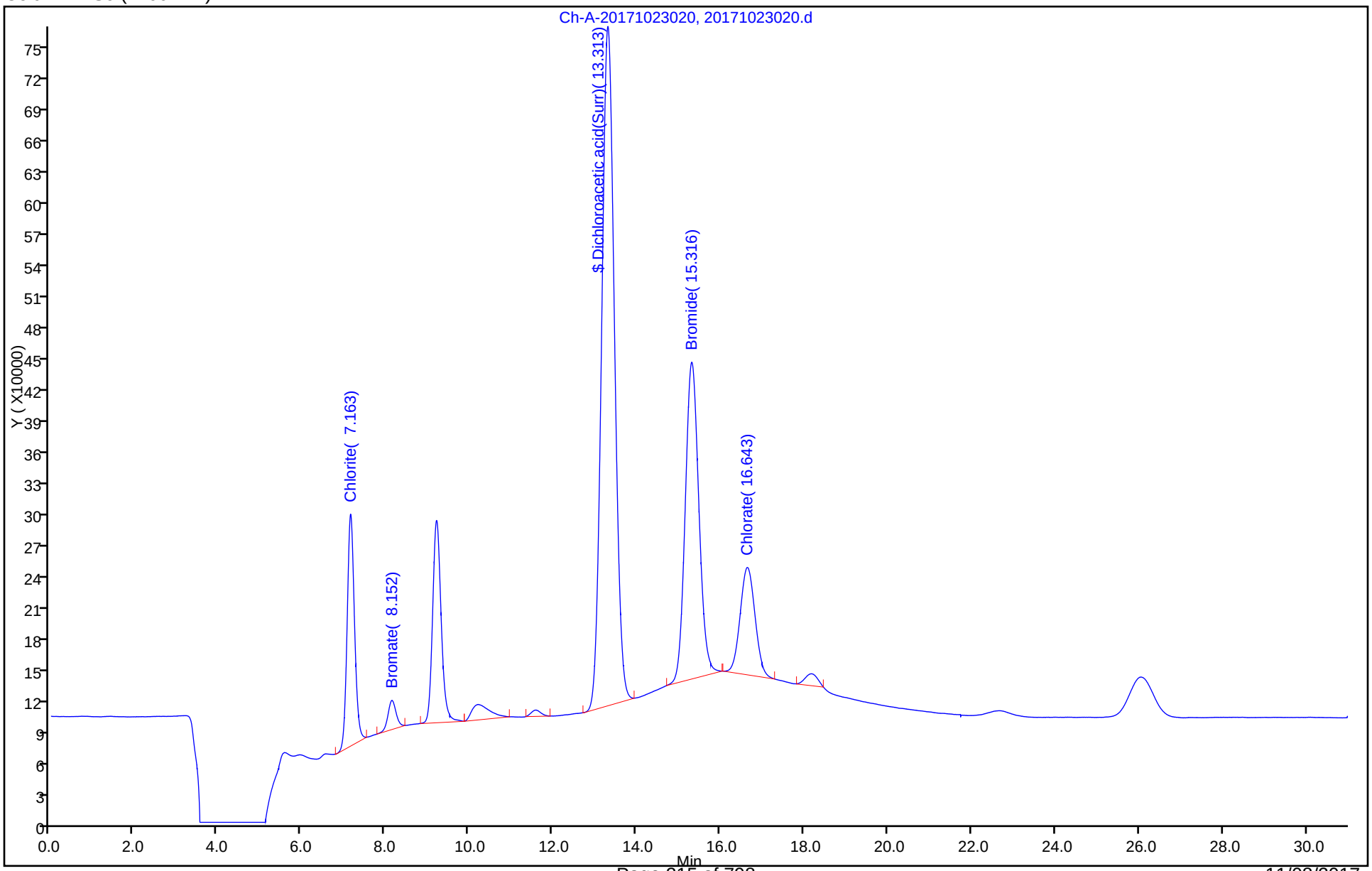
Report Date: 24-Oct-2017 05:17:52 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023020.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 15:45:25 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 20 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



Manual Integration/User Assign Peak Report

TestAmerica Irvine

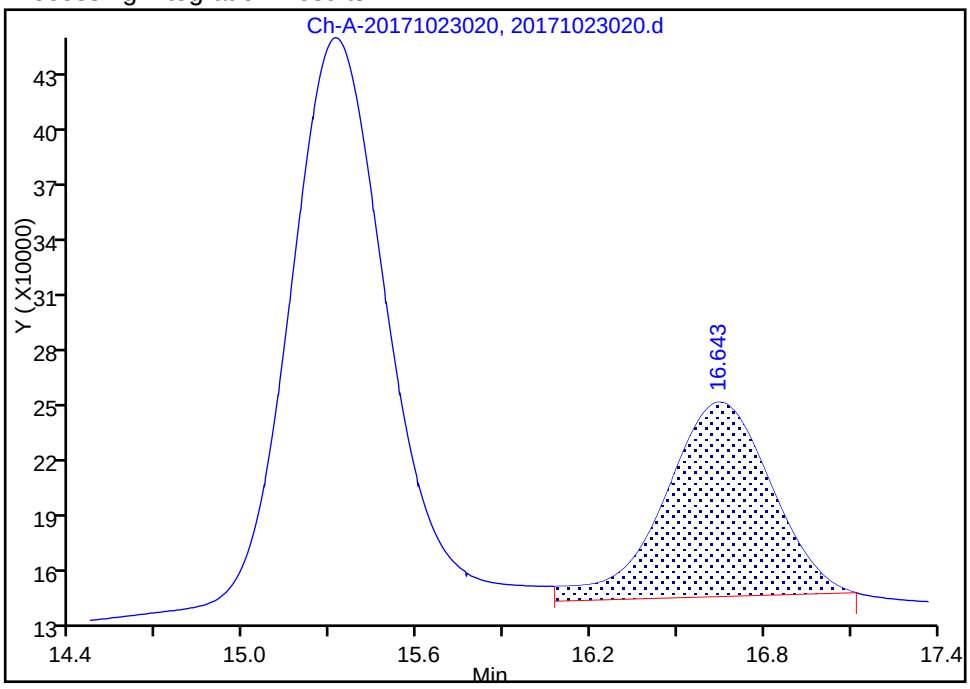
Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023020.d
Injection Date: 23-Oct-2017 15:45:25 Instrument ID: IC-11
Lims ID: CCV
Client ID:
Operator ID: IRVINSTWET4 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C11 Limit Group: IC-300.1_28D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## 4 Bromide, CAS: 24959-67-9

Signal: 1

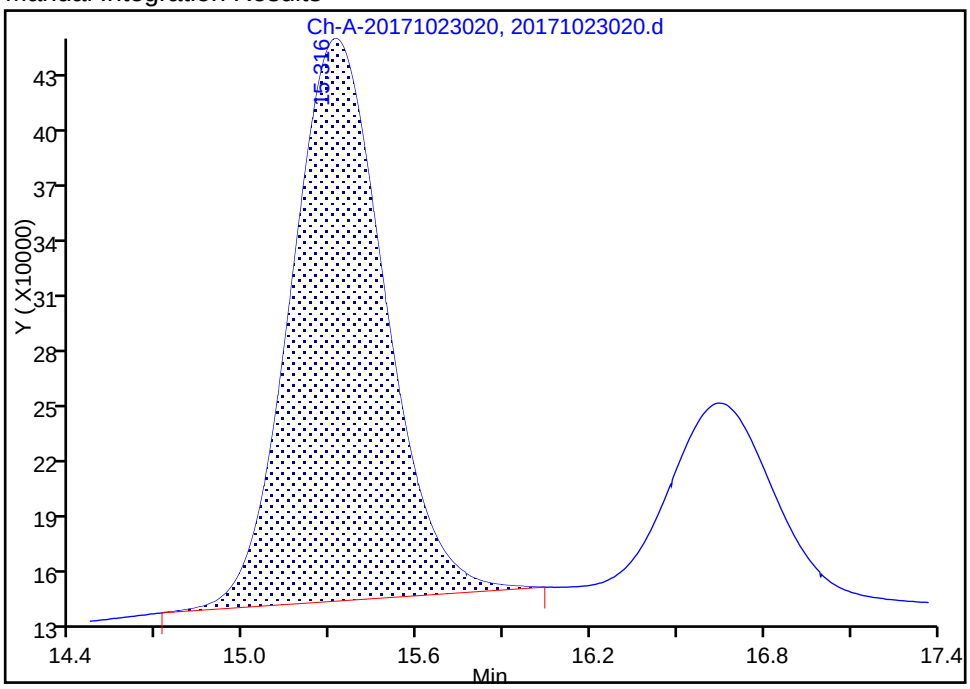
Processing Integration Results

RT: 16.64
Area: 2682825
Amount: 0
Amount Units: ug/l




Manual Integration Results

RT: 15.32
Area: 6848234
Amount: 262.9180
Amount Units: ug/l




Reviewer: zakhrabovy, 24-Oct-2017 04:46:24
Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Irvine

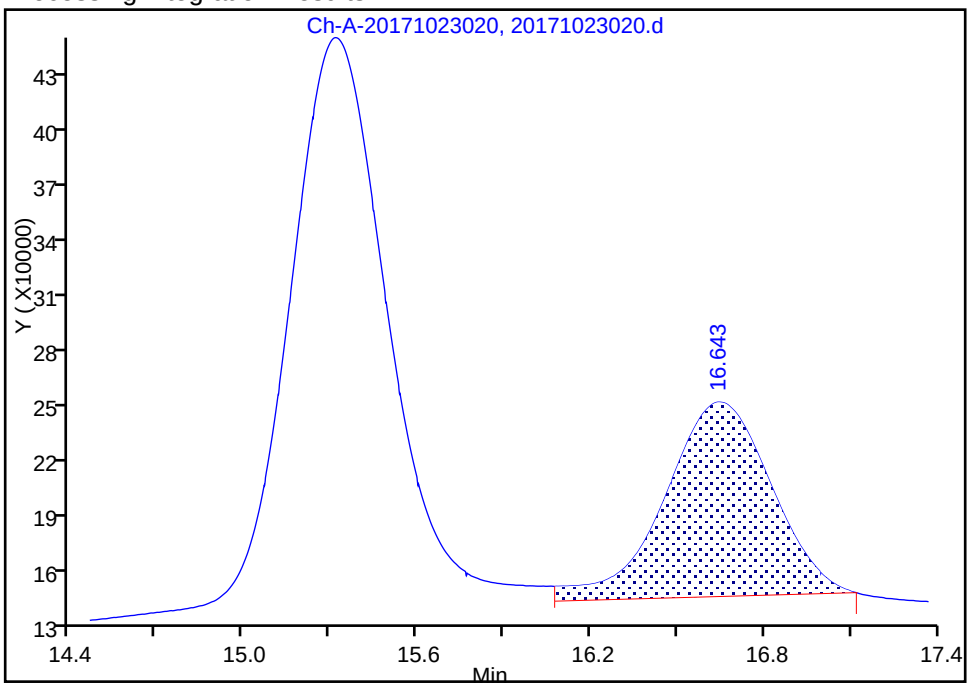
Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023020.d
Injection Date: 23-Oct-2017 15:45:25 Instrument ID: IC-11
Lims ID: CCV
Client ID:
Operator ID: IRVINSTWET4 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C11 Limit Group: IC-300.1_28D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## 4 Bromide, CAS: 24959-67-9

Signal: 1

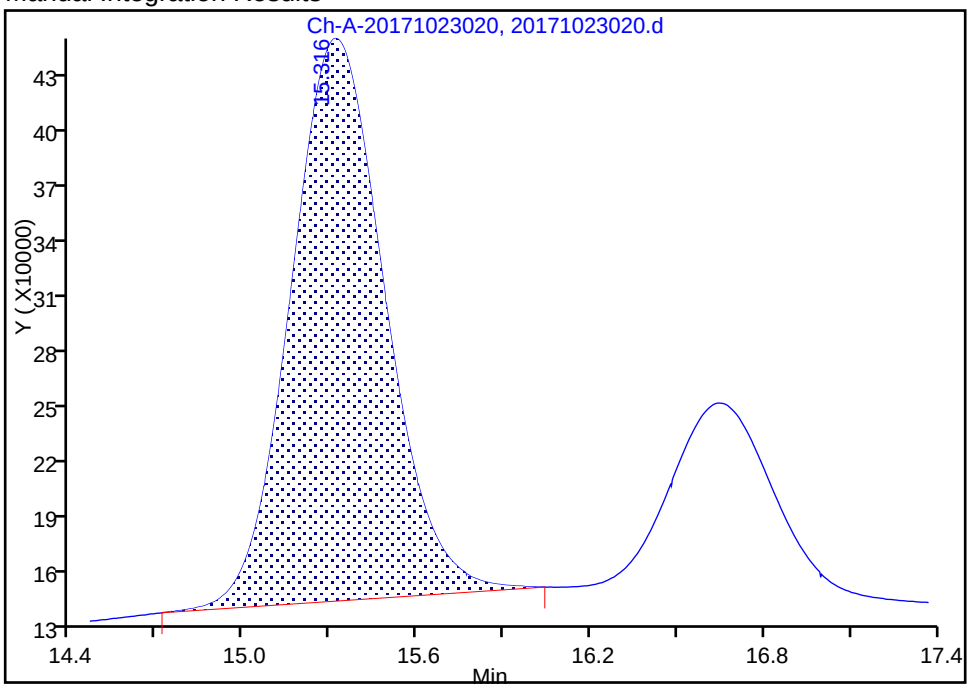
Processing Integration Results

RT: 16.64
Area: 2682825
Amount: 0
Amount Units: ug/l




Manual Integration Results

RT: 15.32
Area: 6848234
Amount: 262.9180
Amount Units: ug/l




Reviewer: zakhrabovy, 24-Oct-2017 04:46:45
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Irvine

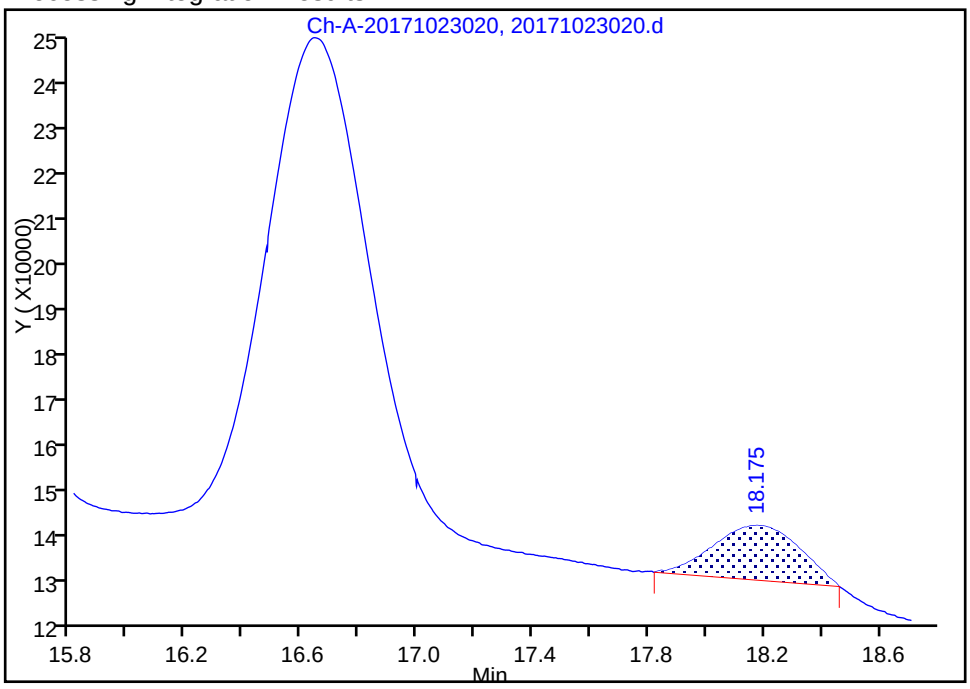
Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023020.d
Injection Date: 23-Oct-2017 15:45:25 Instrument ID: IC-11
Lims ID: CCV
Client ID:
Operator ID: IRVINSTWET4 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C11 Limit Group: IC-300.1_28D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## 2 Chlorate, CAS: 7790-93-4

Signal: 1

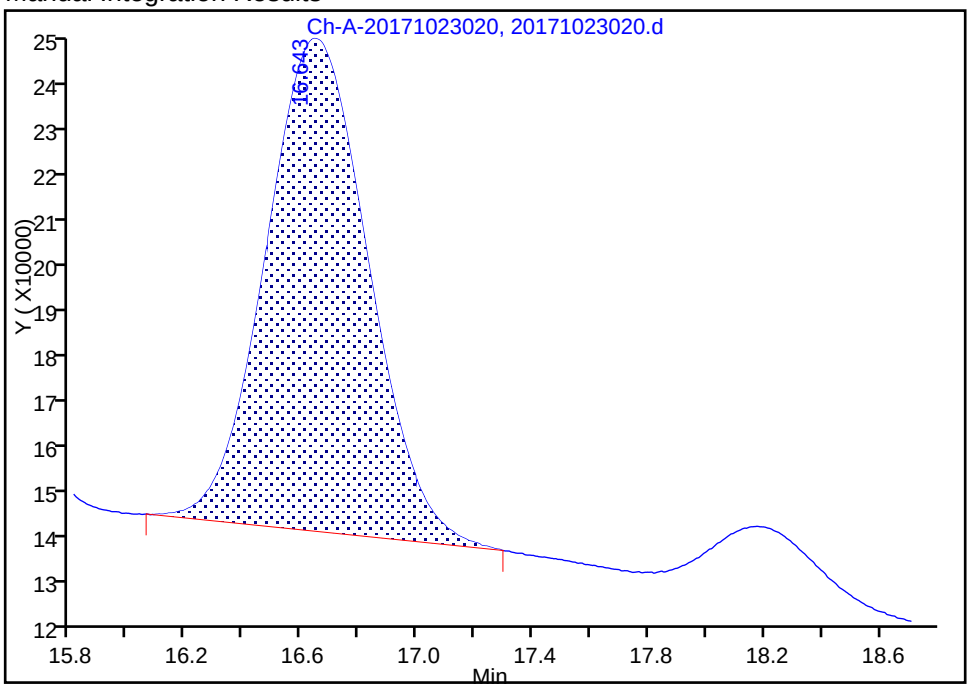
Processing Integration Results

RT: 18.18
Area: 235297
Amount: 0
Amount Units: ug/l




Manual Integration Results

RT: 16.64
Area: 2538380
Amount: 104.2491
Amount Units: ug/l




Reviewer: zakhrabovy, 24-Oct-2017 04:46:29
Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Irvine

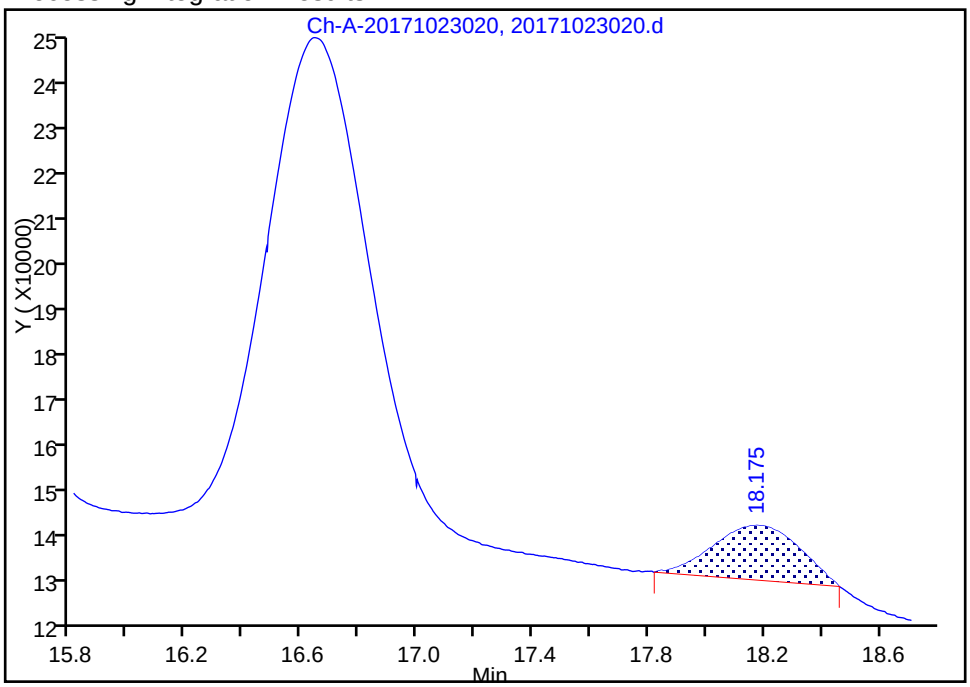
Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023020.d
Injection Date: 23-Oct-2017 15:45:25 Instrument ID: IC-11
Lims ID: CCV
Client ID:
Operator ID: IRVINSTWET4 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C11 Limit Group: IC-300.1_28D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## 2 Chlorate, CAS: 7790-93-4

Signal: 1

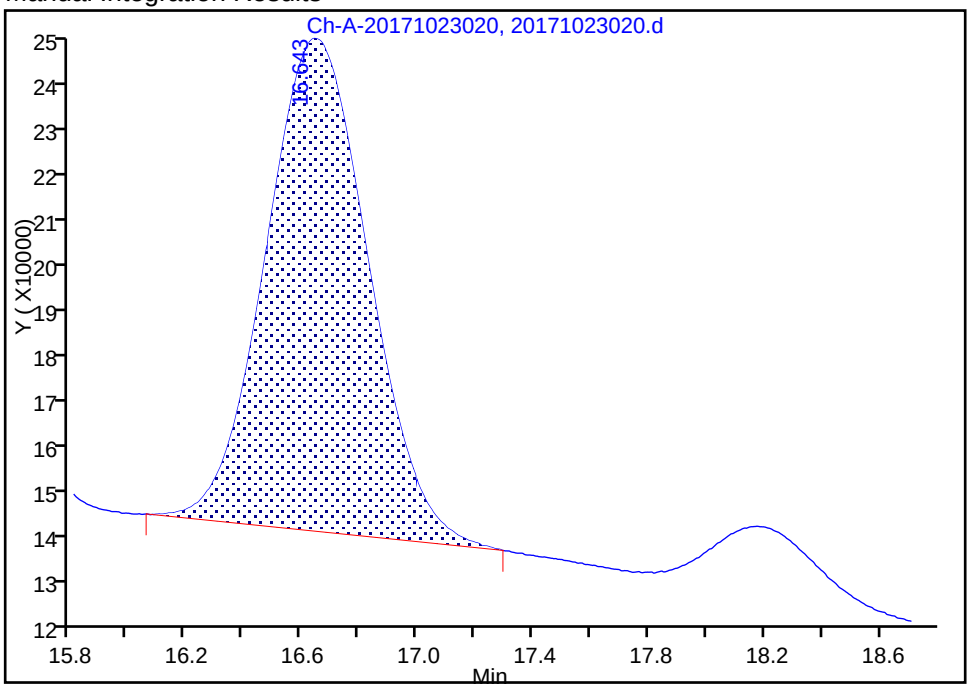
Processing Integration Results

RT: 18.18
Area: 235297
Amount: 0
Amount Units: ug/l




Manual Integration Results

RT: 16.64
Area: 2538380
Amount: 104.2491
Amount Units: ug/l




Reviewer: zakhrabovy, 24-Oct-2017 04:46:37
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-436781/20  Calibration Date: 10/23/2017 15:45

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023020.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 26985 | | 98.0 | 100 | -2.0 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14191 | 13957 | | 977 | 994 | -1.6 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-436781/20 Calibration Date: 10/23/2017 15:45

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171023020.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.16 | 6.82 | 7.85 |
| Dichloroacetic acid(Surr) | 13.31 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023020.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 23-Oct-2017 15:45:25 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095116-020
Misc. Info.: Study: 95116 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11
Sublist: chrom-300.1_C11*sub2

Method: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 24-Oct-2017 05:17:52 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK049

First Level Reviewer: zakhrabovy Date: 24-Oct-2017 04:46:58

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.163 | 7.332 | -0.170 | 2698484 | 100.0 | 98.0 | |
| 3 Bromate | 8.152 | 8.378 | -0.226 | 375136 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.313 | 13.557 | -0.245 | 13868939 | 993.7 | 977.3 | |
| 4 Bromide | 15.316 | 15.991 | -0.675 | 6848234 | NC | NC | M |
| 2 Chlorate | 16.643 | 17.362 | -0.720 | 2538380 | NC | NC | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00054 Amount Added: 125.00 Units: uL
WCDCA_00050 Amount Added: 10.00 Units: uL

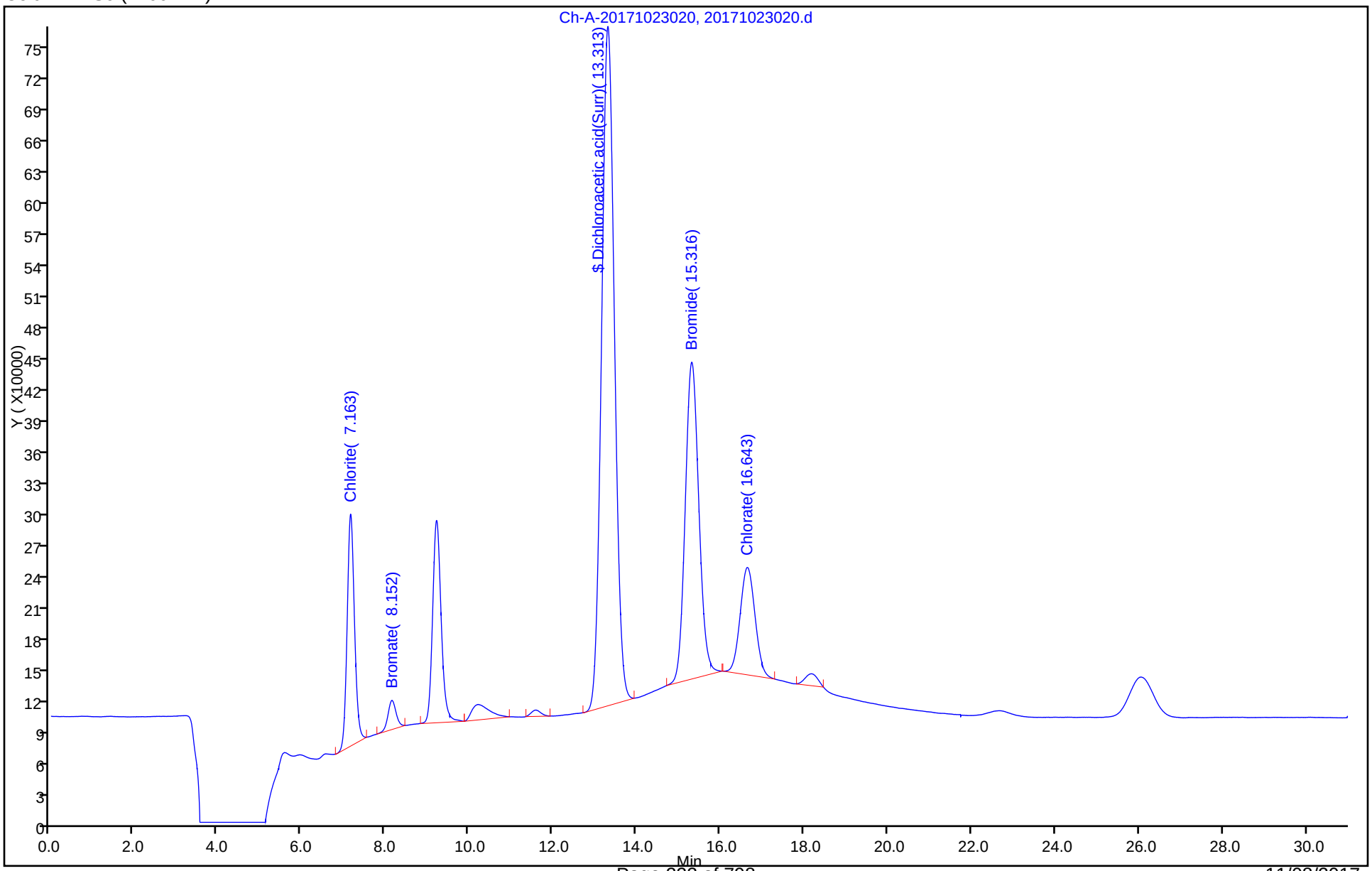
Report Date: 24-Oct-2017 05:17:52 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023020.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 15:45:25 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 20 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-437271/34  Calibration Date: 10/26/2017 05:03

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171025034.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 14384 | | 46.8 | 50.0 | -6.4 | 15.0 |
| Bromide | Lin | | 25686 | | 506 | 500 | 1.1 | 15.0 |
| Chlorate | Lin | | 23665 | | 195 | 200 | -2.6 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14155 | 14120 | | 991 | 994 | -0.2 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-437271/34 Calibration Date: 10/26/2017 05:03

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171025034.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.28 | 7.79 | 8.96 |
| Bromide | 15.84 | 14.87 | 17.11 |
| Chlorate | 17.17 | 16.49 | 18.23 |
| Dichloroacetic acid(Surr) | 13.50 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025034.d | | | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 26-Oct-2017 05:03:43 | ALS Bottle#: | 0 | Worklist Smp#: | 34 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-022 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 08:29:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |

| | Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 Chlorite | 7.238 | 7.332 | -0.094 | 5220196 | NC | NC | |
| | 3 Bromate | 8.276 | 8.378 | -0.102 | 719186 | 50.0 | 46.8 | |
| $ | 6 Dichloroacetic acid(Surr) | 13.497 | 13.557 | -0.060 | 14031121 | 993.7 | 991.2 | |
| | 4 Bromide | 15.844 | 15.991 | -0.147 | 12842827 | 500.0 | 505.5 | |
| | 2 Chlorate | 17.170 | 17.362 | -0.192 | 4733002 | 200.0 | 194.8 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

| | | |
|---|---|---|
| WCDCA_00050 | Amount Added: 10.00 | Units: uL |
| WC3001LCS_00054 | Amount Added: 250.00 | Units: uL |

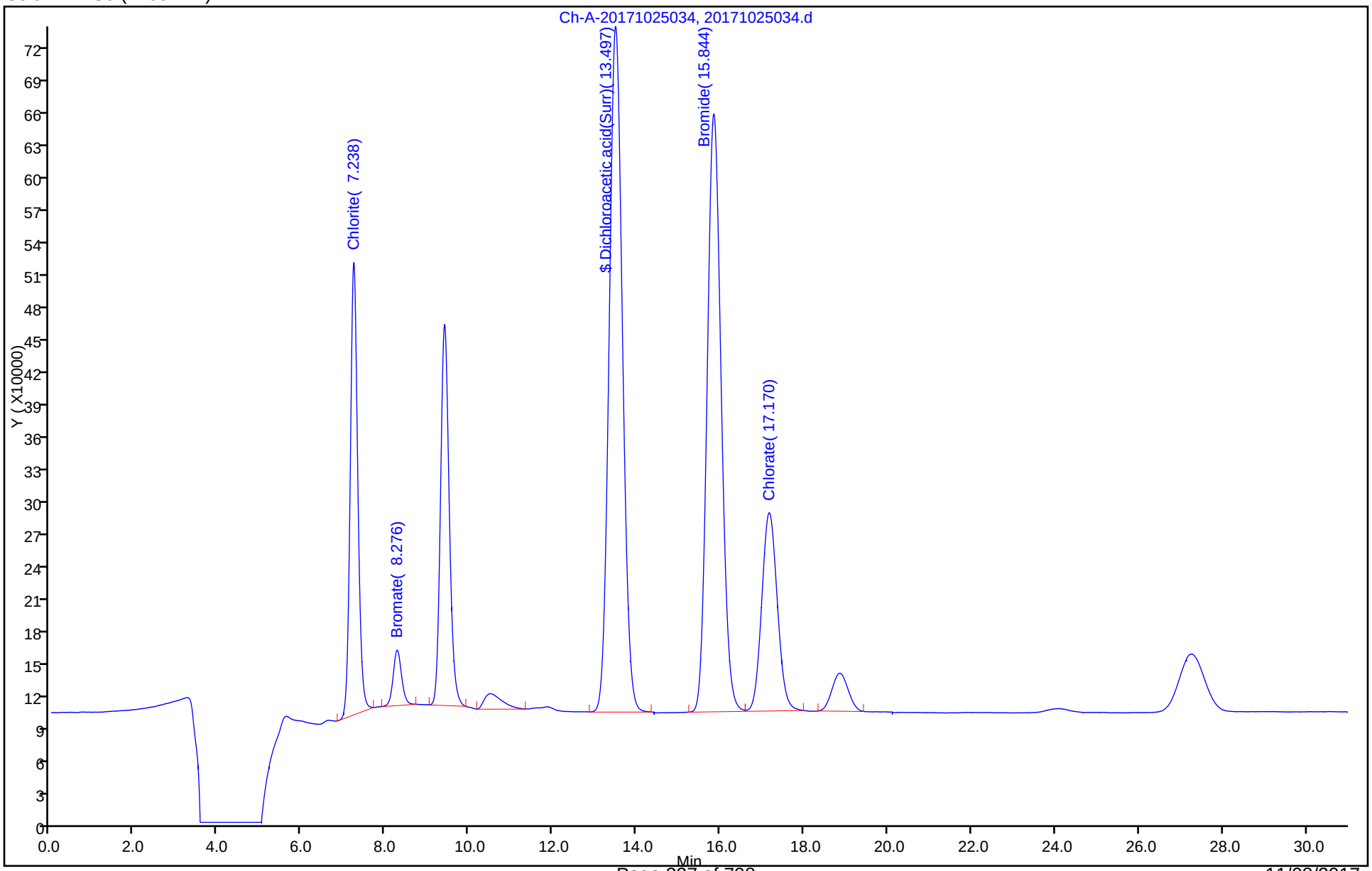
Report Date: 26-Oct-2017 08:29:44 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025034.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 05:03:43 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 34 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-437272/34  Calibration Date: 10/26/2017 05:03

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171025034.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 26101 | | 188 | 200 | -5.9 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14191 | 14120 | | 989 | 994 | -0.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-437272/34 Calibration Date: 10/26/2017 05:03

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171025034.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.24 | 6.82 | 7.85 |
| Dichloroacetic acid(Surr) | 13.50 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025034.d | | | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 26-Oct-2017 05:03:43 | ALS Bottle#: | 0 | Worklist Smp#: | 34 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-022 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 08:29:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |

| | Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 Chlorite | 7.238 | 7.332 | -0.094 | 5220196 | 200.0 | 188.2 | |
| | 3 Bromate | 8.276 | 8.378 | -0.102 | 719186 | NC | NC | |
| $ | 6 Dichloroacetic acid(Surr) | 13.497 | 13.557 | -0.060 | 14031121 | 993.7 | 988.8 | |
| | 4 Bromide | 15.844 | 15.991 | -0.147 | 12842827 | NC | NC | |
| | 2 Chlorate | 17.170 | 17.362 | -0.192 | 4733002 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

| | | |
|---|---|---|
| WCDCA_00050 | Amount Added: 10.00 | Units: uL |
| WC3001LCS_00054 | Amount Added: 250.00 | Units: uL |

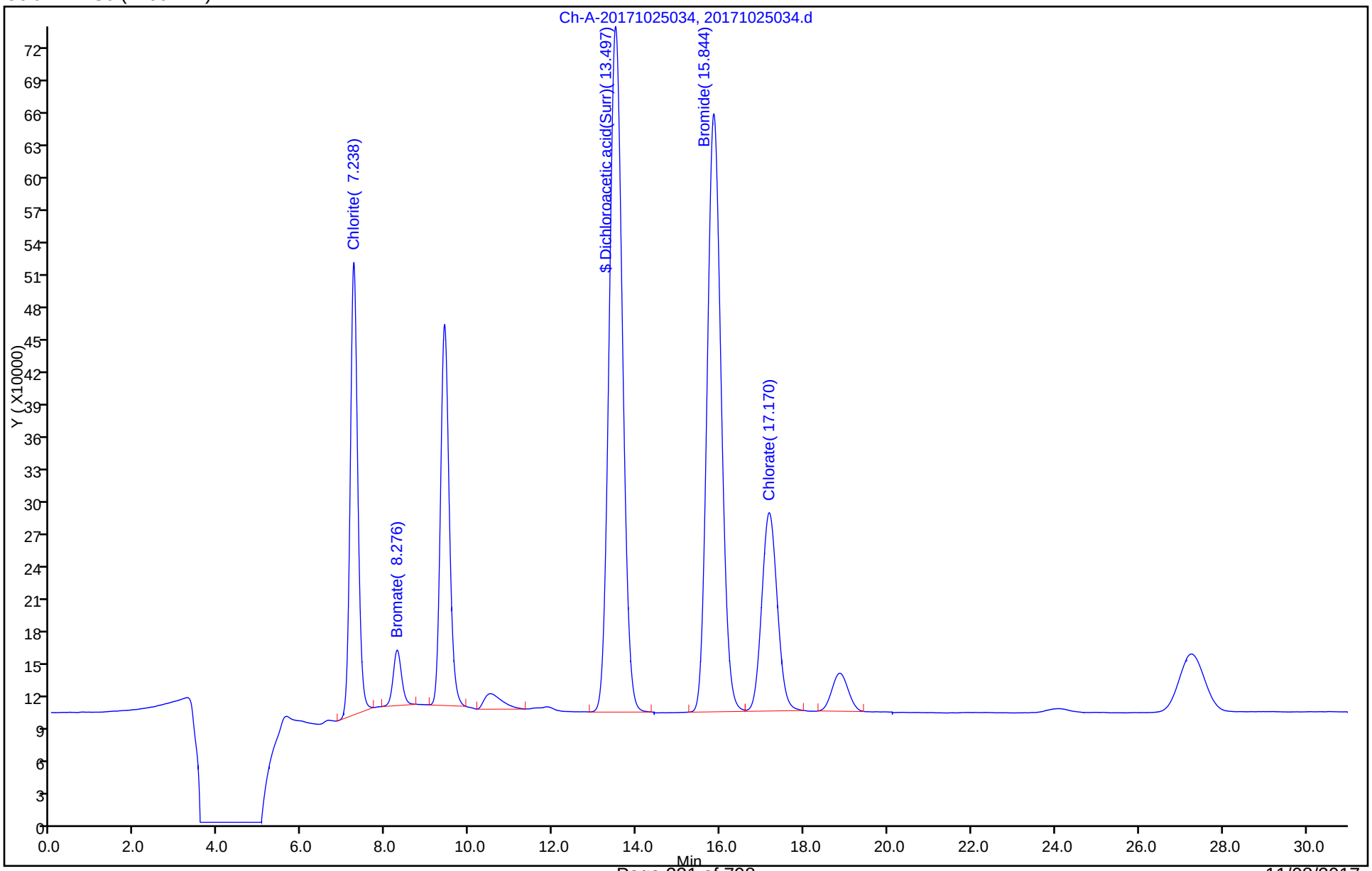
Report Date: 26-Oct-2017 08:29:44 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025034.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 05:03:43 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 34 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-437271/42  Calibration Date: 10/26/2017 09:33

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171025042.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 14354 | | 23.1 | 25.0 | -7.8 | 15.0 |
| Bromide | Lin | | 25835 | | 247 | 250 | -1.1 | 15.0 |
| Chlorate | Lin | | 23570 | | 96.8 | 100 | -3.2 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14155 | 14578 | | 1020 | 994 | 3.0 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-437271/42 Calibration Date: 10/26/2017 09:33

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171025042.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.38 | 7.79 | 8.96 |
| Bromide | 16.05 | 14.87 | 17.11 |
| Chlorate | 17.35 | 16.49 | 18.23 |
| Dichloroacetic acid(Surr) | 13.59 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025042.d | | | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 26-Oct-2017 09:33:17 | ALS Bottle#: | 0 | Worklist Smp#: | 42 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-042 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 10:12:36 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 10:12:36 | | |

| | Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 Chlorite | 7.327 | 7.332 | -0.005 | 2628463 | NC | NC | |
| | 3 Bromate | 8.384 | 8.378 | 0.006 | 358852 | 25.0 | 23.1 | |
| $ | 6 Dichloroacetic acid(Surr) | 13.588 | 13.557 | 0.031 | 14486199 | 993.7 | 1023.4 | |
| | 4 Bromide | 16.048 | 15.991 | 0.057 | 6458862 | 250.0 | 247.2 | |
| | 2 Chlorate | 17.353 | 17.362 | -0.009 | 2356983 | 100.0 | 96.8 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

| | | |
|---|---|---|
| WCDCA_00050 | Amount Added: 10.00 | Units: uL |
| WC3001LCS_00054 | Amount Added: 125.00 | Units: uL |

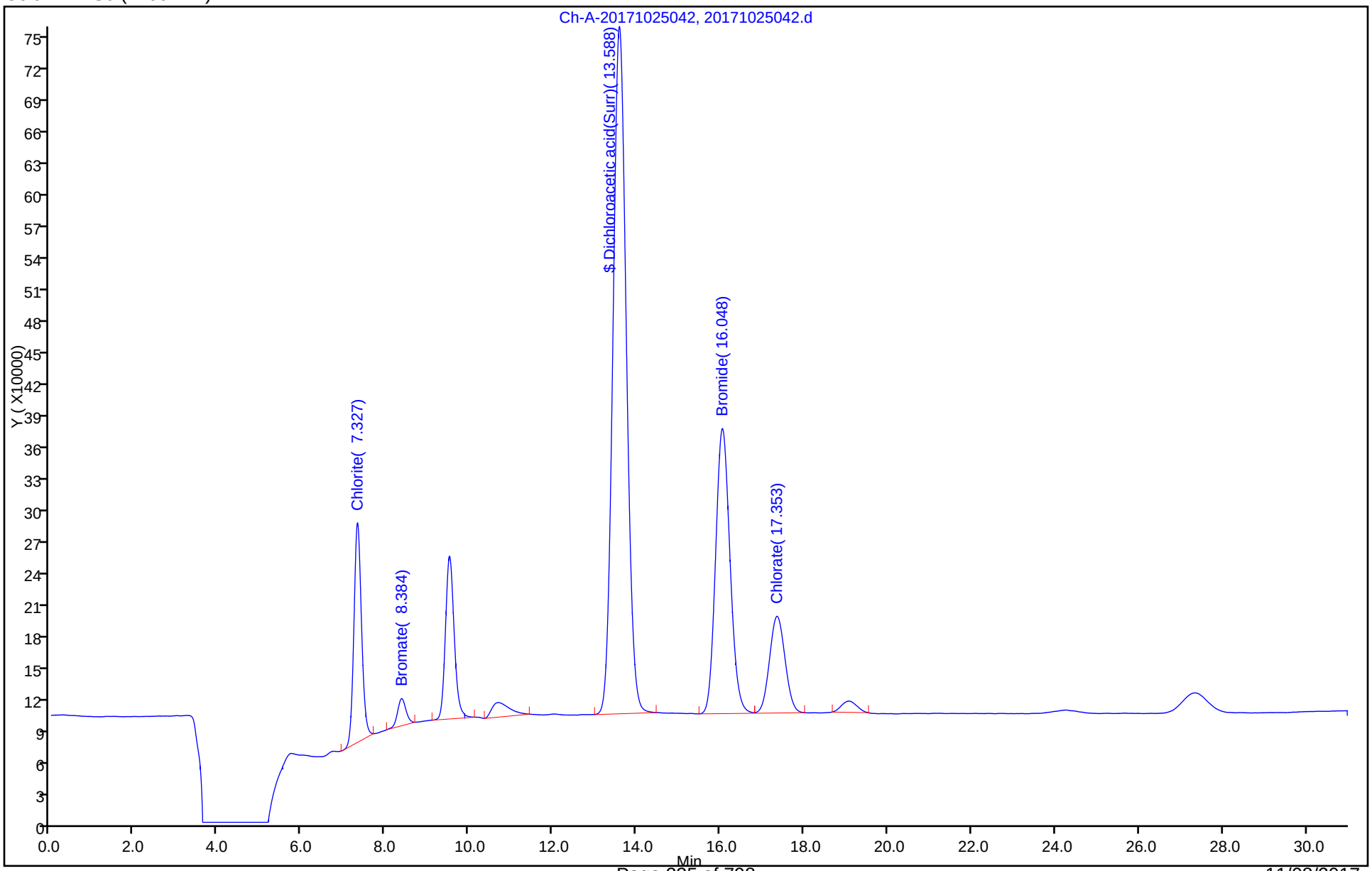
Report Date: 26-Oct-2017 10:12:36 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025042.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 09:33:17 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 42 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-437272/42  Calibration Date: 10/26/2017 09:33

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171025042.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 26285 | | 95.5 | 100 | -4.5 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14191 | 14578 | | 1020 | 994 | 2.7 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-437272/42 Calibration Date: 10/26/2017 09:33

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171025042.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.33 | 6.82 | 7.85 |
| Dichloroacetic acid(Surr) | 13.59 | 12.61 | 14.51 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025042.d | | | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 26-Oct-2017 09:33:17 | ALS Bottle#: | 0 | Worklist Smp#: | 42 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-042 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Sublist: | chrom-300.1_C11*sub2 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 10:12:36 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 10:12:36 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.327 | 7.332 | -0.005 | 2628463 | 100.0 | 95.5 | |
| 3 Bromate | 8.384 | 8.378 | 0.006 | 358852 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.588 | 13.557 | 0.031 | 14486199 | 993.7 | 1020.8 | |
| 4 Bromide | 16.048 | 15.991 | 0.057 | 6458862 | NC | NC | |
| 2 Chlorate | 17.353 | 17.362 | -0.009 | 2356983 | NC | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

| | | |
|---|---|---|
| WCDCA_00050 | Amount Added: 10.00 | Units: uL |
| WC3001LCS_00054 | Amount Added: 125.00 | Units: uL |

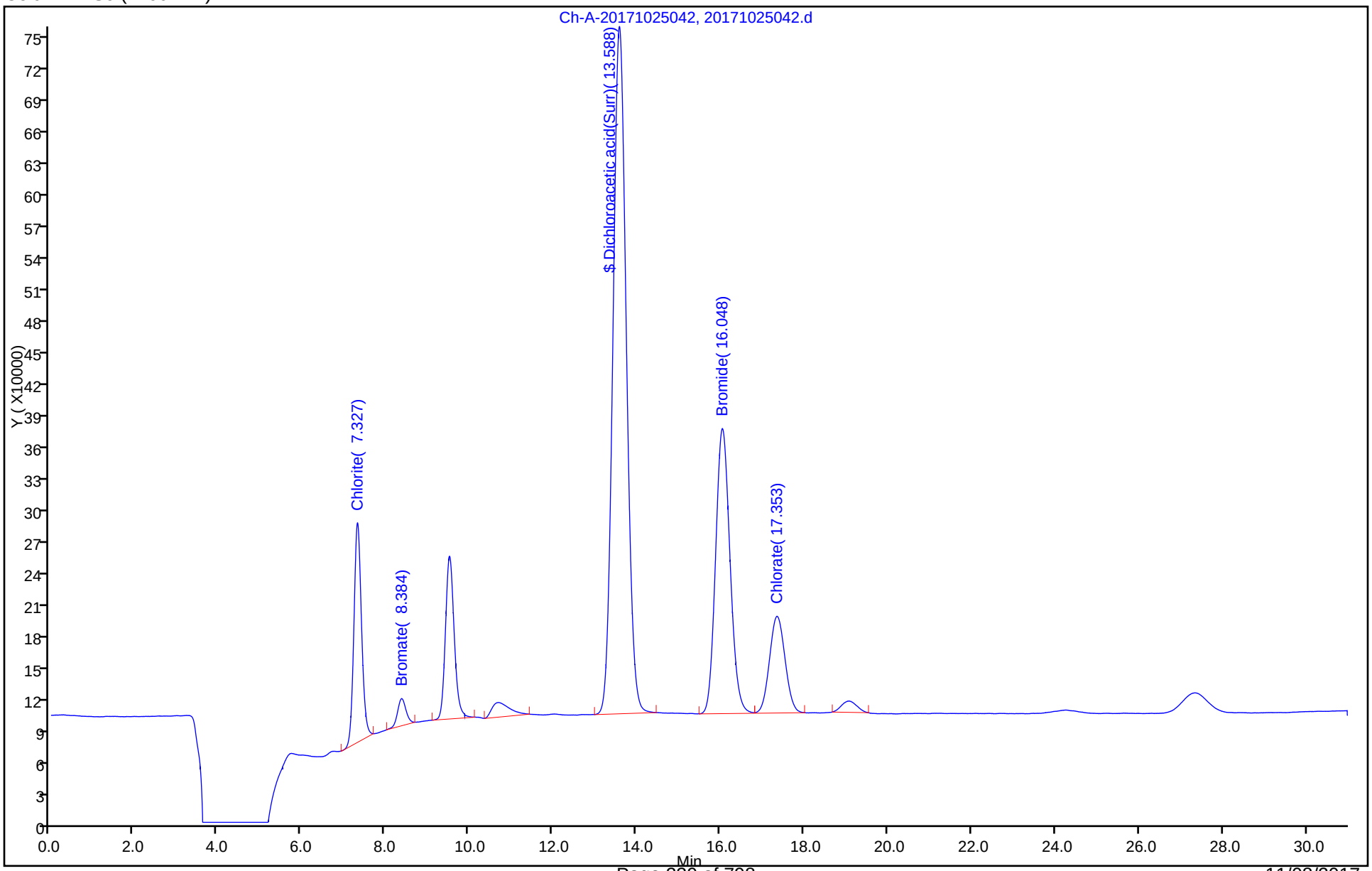
Report Date: 26-Oct-2017 10:12:36 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025042.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 09:33:17 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCV | | | Worklist Smp#: | 42 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-436671/2-A

Matrix: Solid (Soluble) | Lab File ID: 20171023012.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 11:19

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436780 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 200 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 99 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023012.d | | | | |
| Lims ID: | MB 440-436671/2-A | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 23-Oct-2017 11:19:54 | ALS Bottle#: | 0 | Worklist Smp#: | 12 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-012 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 13:25:06 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 12:47:17 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.262 | 13.557 | -0.295 | 13881198 | 993.7 | 980.7 | |
| $ 1 Dichloroacetic acid | 13.262 | 14.113 | -0.851 | 13881198 | | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

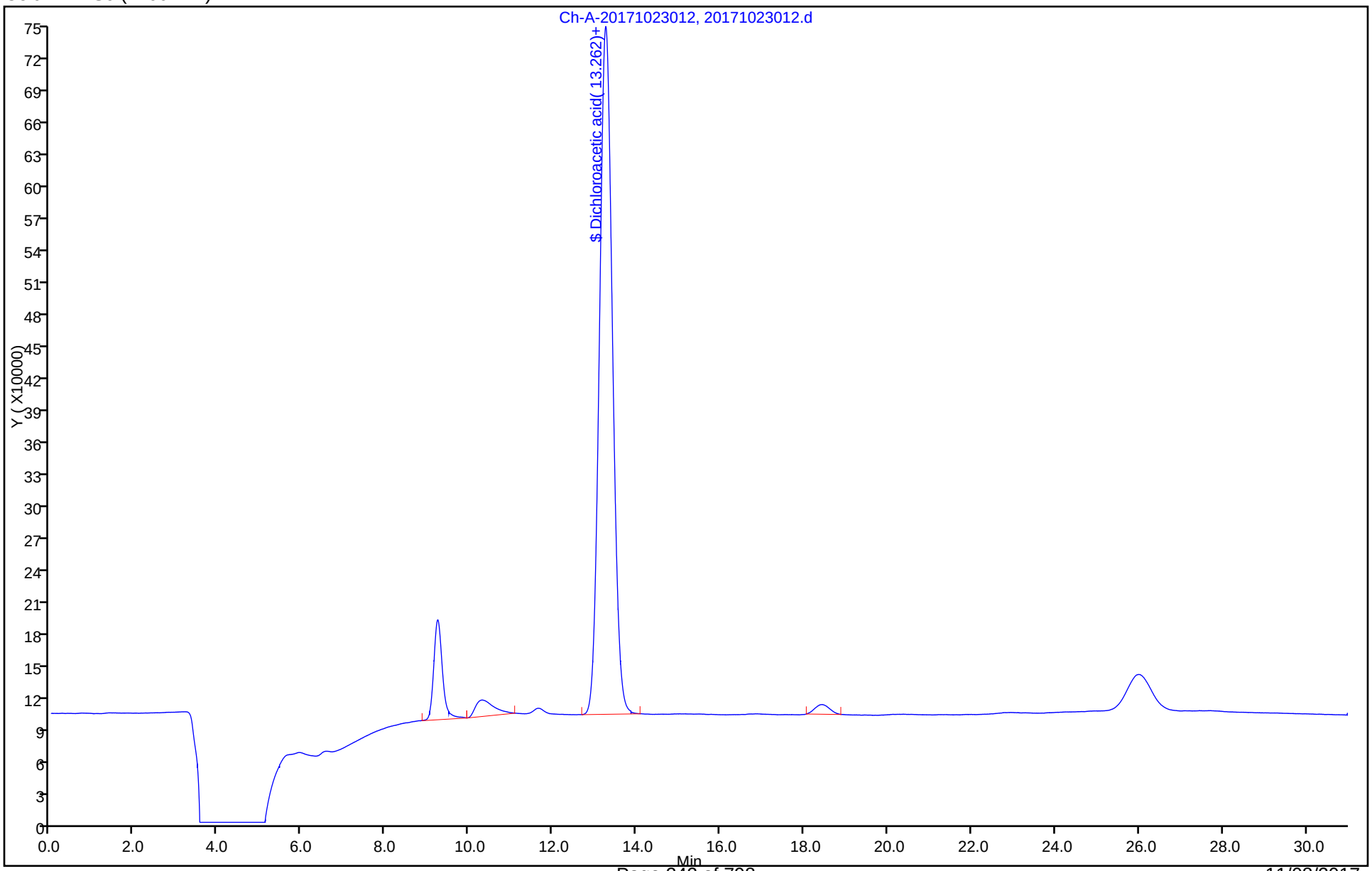
Report Date: 23-Oct-2017 12:47:31 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023012.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 11:19:54 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | MB 440-436671/2-A | | | Worklist Smp#: | 12 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023012.d | | | | |
| Lims ID: | MB 440-436671/2-A | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 23-Oct-2017 11:19:54 | ALS Bottle#: | 0 | Worklist Smp#: | 12 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-012 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 13:25:06 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 12:47:17 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 980.7 | 98.69 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-436671/2-A

Matrix: Solid (Soluble) | Lab File ID: 20171023012.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 11:19

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 200 | 40 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 440-436671/2-A

Matrix: Solid (Soluble) Lab File ID: 20171023012.d

Analysis Method: 300.1B Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 10/23/2017 11:19

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: AS14 ID: 4(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 98 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023012.d | | | | |
| Lims ID: | MB 440-436671/2-A | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 23-Oct-2017 11:19:54 | ALS Bottle#: | 0 | Worklist Smp#: | 12 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-012 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 13:25:06 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 12:47:17 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.262 | 13.557 | -0.295 | 13881198 | 993.7 | 978.2 | |
| $ 1 Dichloroacetic acid | 13.262 | 14.113 | -0.851 | 13881198 | | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

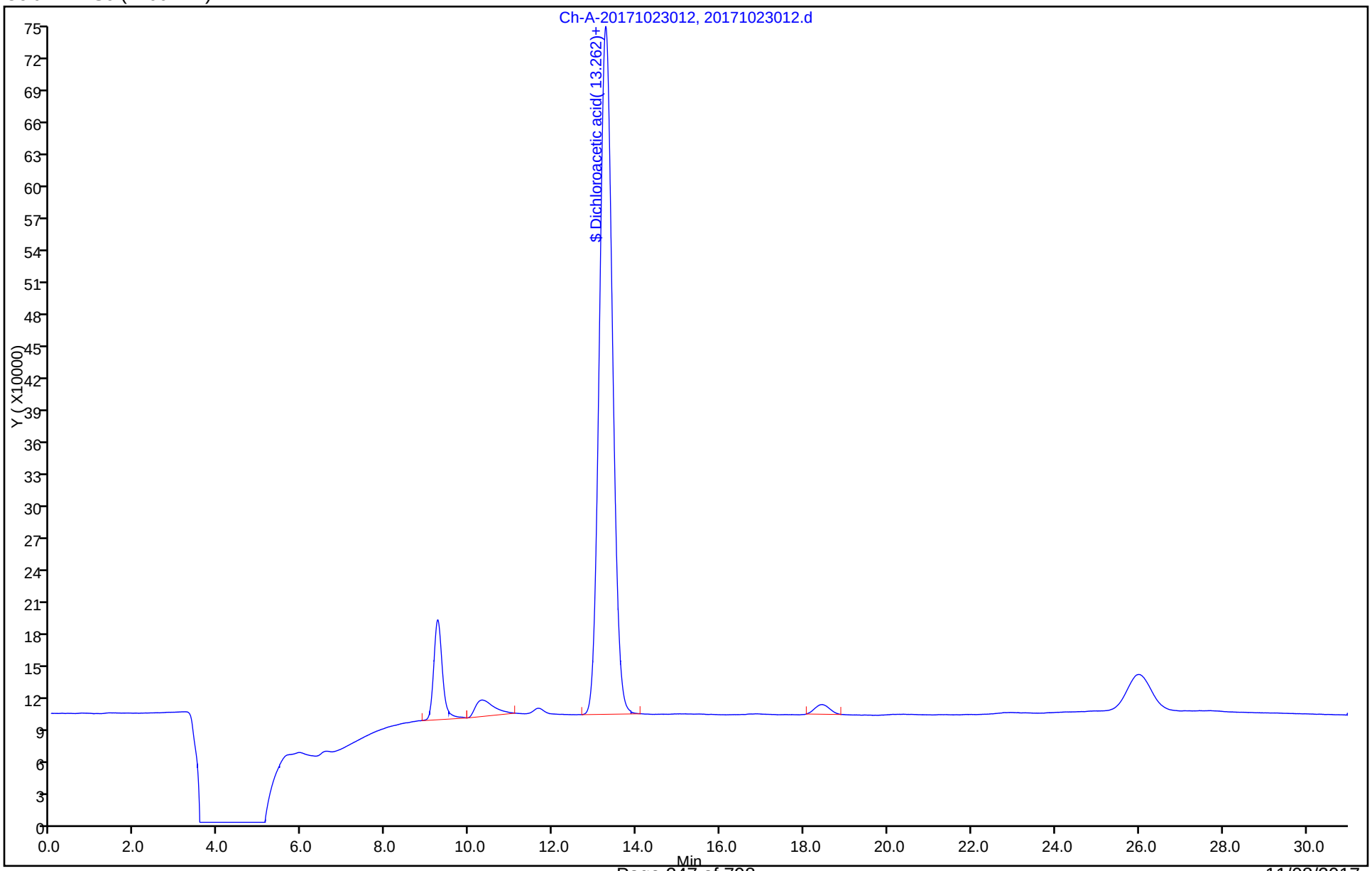
Report Date: 23-Oct-2017 12:47:31 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023012.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 11:19:54 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | MB 440-436671/2-A | | | Worklist Smp#: | 12 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023012.d | | | | |
| Lims ID: | MB 440-436671/2-A | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 23-Oct-2017 11:19:54 | ALS Bottle#: | 0 | Worklist Smp#: | 12 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-012 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 13:25:06 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 12:47:17 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 978.2 | 98.44 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-436780/9

Matrix: Solid  Lab File ID: 20171023009.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 10/23/2017 09:40

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 436780  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023009.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 23-Oct-2017 09:40:20 | ALS Bottle#: | 0 | Worklist Smp#: | 9 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-009 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 10:54:14 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.364 | 13.557 | -0.193 | 14030516 | 993.7 | 991.2 | |
| $ 1 Dichloroacetic acid | 13.364 | 14.113 | -0.749 | 14030516 | | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

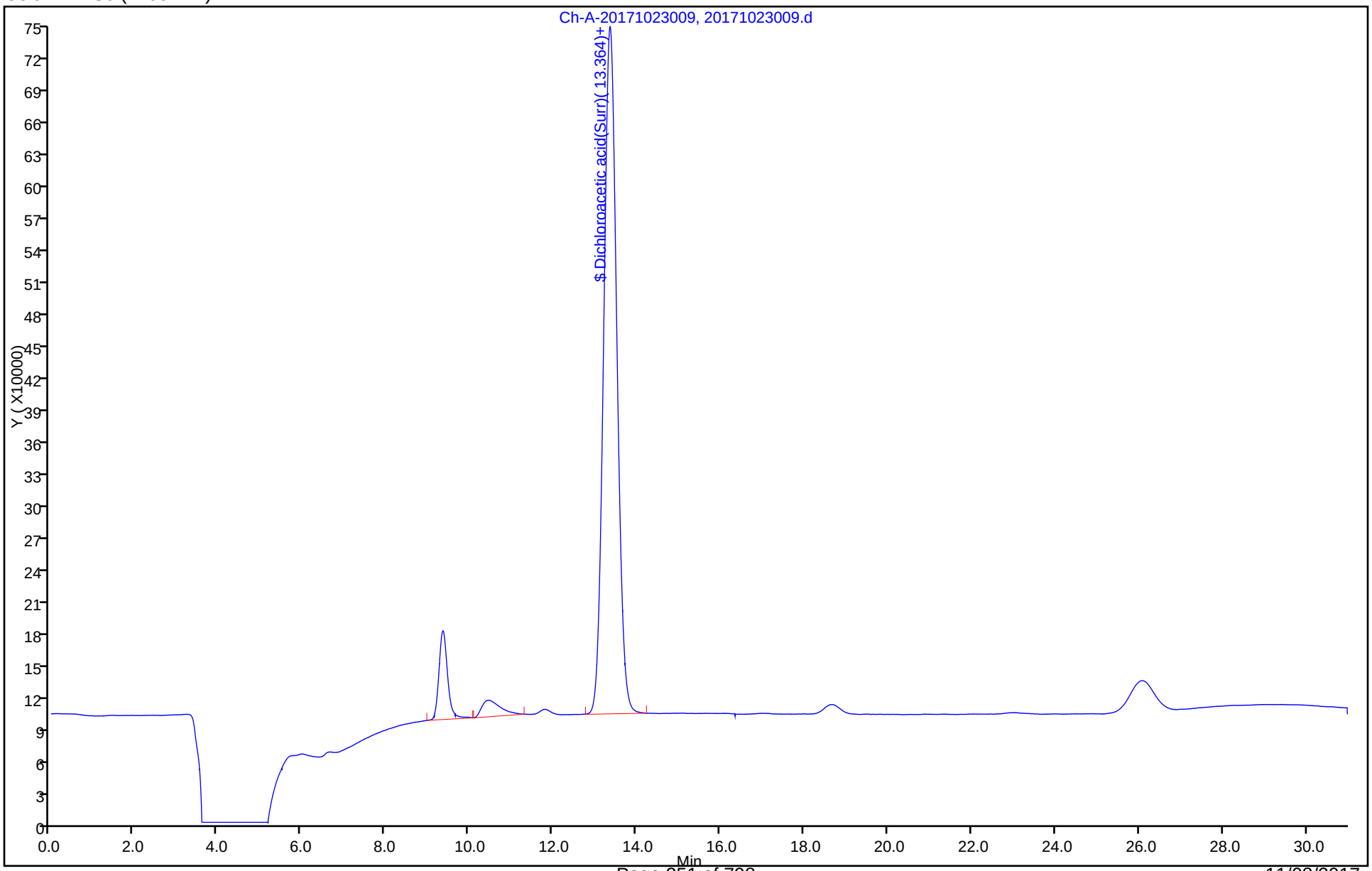
Report Date: 23-Oct-2017 10:54:16 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023009.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 09:40:20 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023009.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 23-Oct-2017 09:40:20 | ALS Bottle#: | 0 | Worklist Smp#: | 9 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-009 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 10:54:14 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 991.2 | 99.75 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-436780/21

Matrix: Solid | Lab File ID: 20171023021.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 16:18

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436780 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023021.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 23-Oct-2017 16:18:36 | ALS Bottle#: | 0 | Worklist Smp#: | 21 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-021 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 06:57:18 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 05:18:06 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.404 | 13.557 | -0.153 | 14251667 | 993.7 | 1006.8 | M |
| $ 1 Dichloroacetic acid | 13.404 | 14.113 | -0.709 | 14251667 | | NC | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

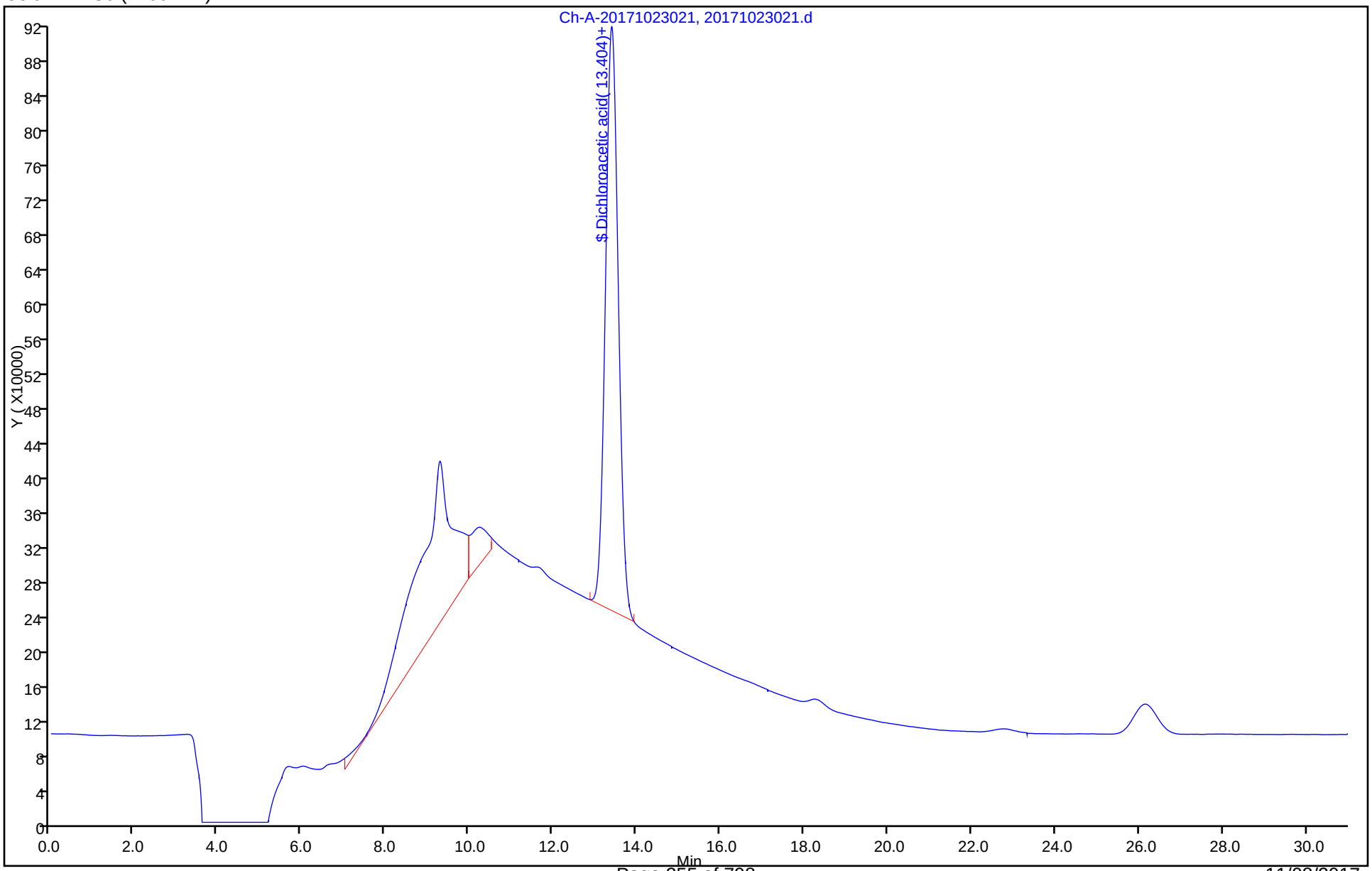
Report Date: 24-Oct-2017 06:27:56 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023021.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 16:18:36 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 21 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023021.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 23-Oct-2017 16:18:36 | ALS Bottle#: | 0 | Worklist Smp#: | 21 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-021 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 06:57:18 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 05:18:06 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1006.8 | 101.32 |

Manual Integration/User Assign Peak Report

TestAmerica Irvine

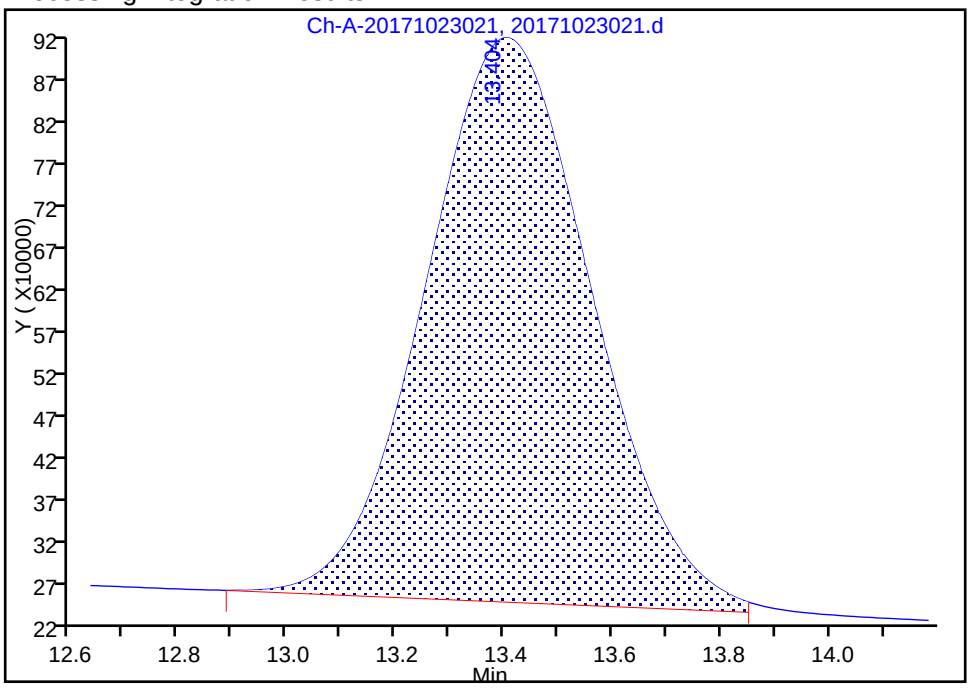
Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023021.d
Injection Date: 23-Oct-2017 16:18:36 Instrument ID: IC-11
Lims ID: CCB
Client ID:
Operator ID: IRVINSTWET4 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C11 Limit Group: IC-300.1_28D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## $ 6 Dichloroacetic acid(Surr), CAS: 79-43-6

Signal: 1

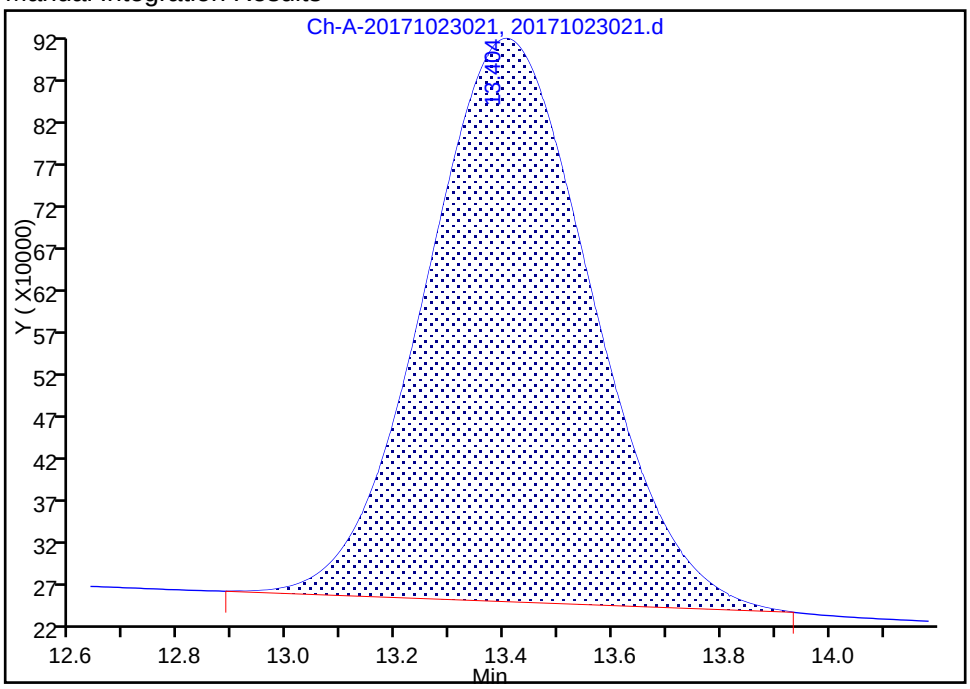
Processing Integration Results

RT: 13.40
Area: 14320851
Amount: 1009.1711
Amount Units: ug/l




Manual Integration Results

RT: 13.40
Area: 14251667
Amount: 1006.8276
Amount Units: ug/l




Reviewer: zakhrabovy, 24-Oct-2017 04:47:12
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 440-436781/9

Matrix: Solid Lab File ID: 20171023009.d

Analysis Method: 300.1B Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 10/23/2017 09:40

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: AS14 ID: 4(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 99 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023009.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 23-Oct-2017 09:40:20 | ALS Bottle#: | 0 | Worklist Smp#: | 9 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-009 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 10:54:14 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.364 | 13.557 | -0.193 | 14030516 | 993.7 | 988.7 | |
| $ 1 Dichloroacetic acid | 13.364 | 14.113 | -0.749 | 14030516 | | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

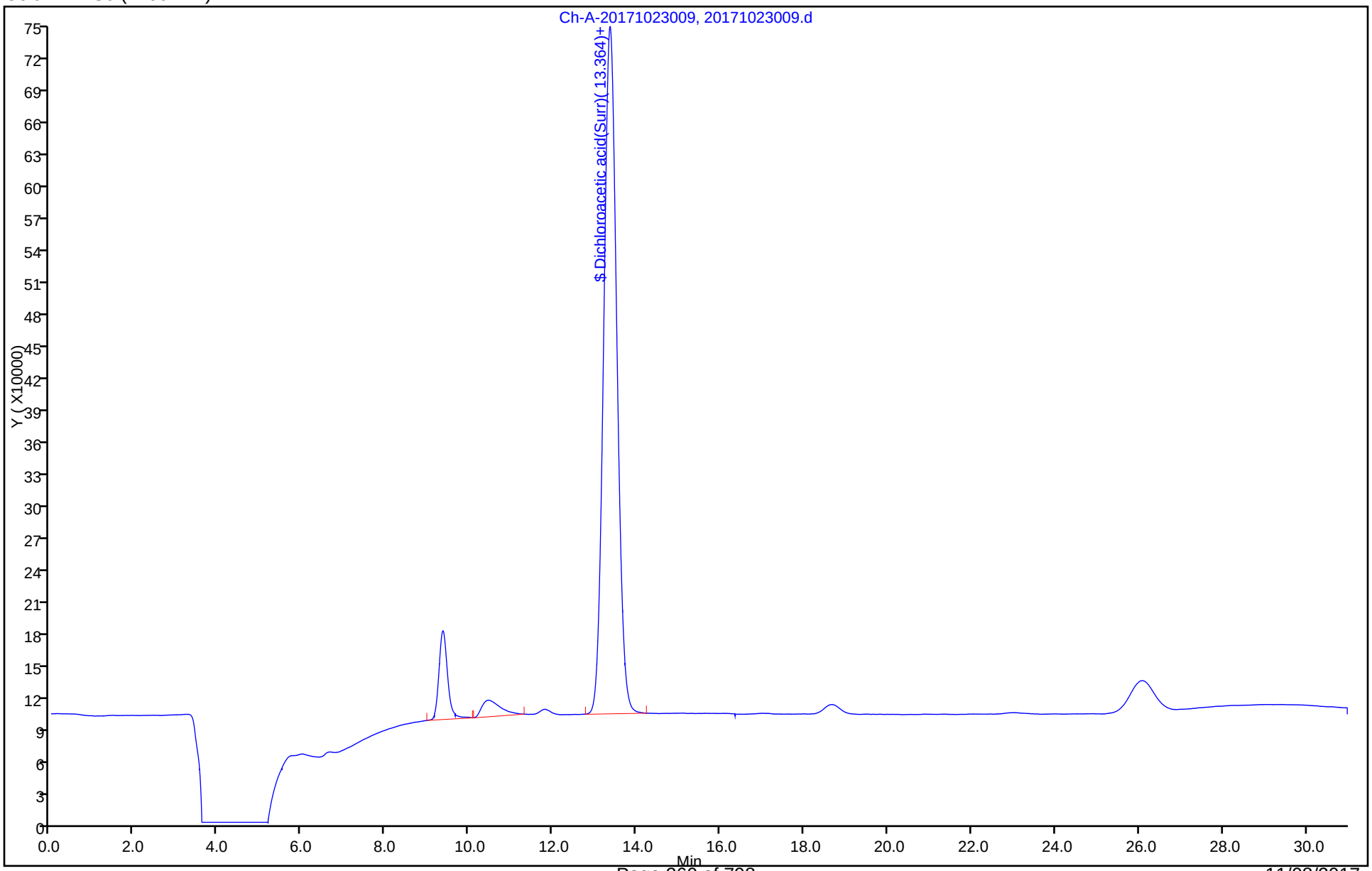
Report Date: 23-Oct-2017 10:54:16 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023009.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 09:40:20 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023009.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 23-Oct-2017 09:40:20 | ALS Bottle#: | 0 | Worklist Smp#: | 9 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-009 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 10:54:14 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 988.7 | 99.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 440-436781/21

Matrix: Solid Lab File ID: 20171023021.d

Analysis Method: 300.1B Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 10/23/2017 16:18

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: AS14 ID: 4(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023021.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 23-Oct-2017 16:18:36 | ALS Bottle#: | 0 | Worklist Smp#: | 21 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-021 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 06:57:18 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 05:18:06 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.404 | 13.557 | -0.153 | 14251667 | 993.7 | 1004.3 | M |
| $ 1 Dichloroacetic acid | 13.404 | 14.113 | -0.709 | 14251667 | | NC | M |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

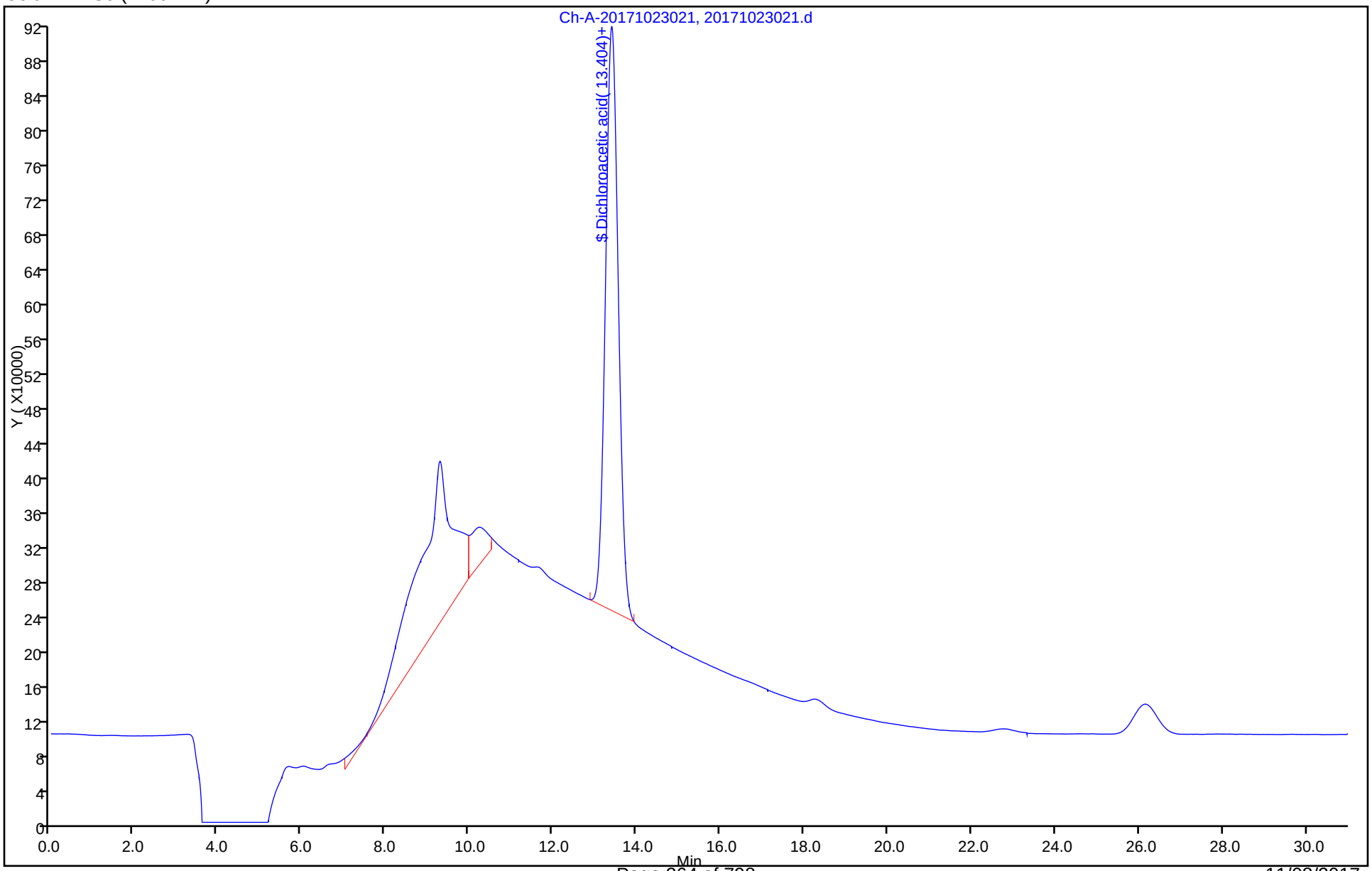
Report Date: 24-Oct-2017 06:27:56 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023021.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 16:18:36 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 21 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023021.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 23-Oct-2017 16:18:36 | ALS Bottle#: | 0 | Worklist Smp#: | 21 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-021 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 24-Oct-2017 06:57:18 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK049 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 24-Oct-2017 05:18:06 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1004.3 | 101.07 |

TestAmerica Irvine

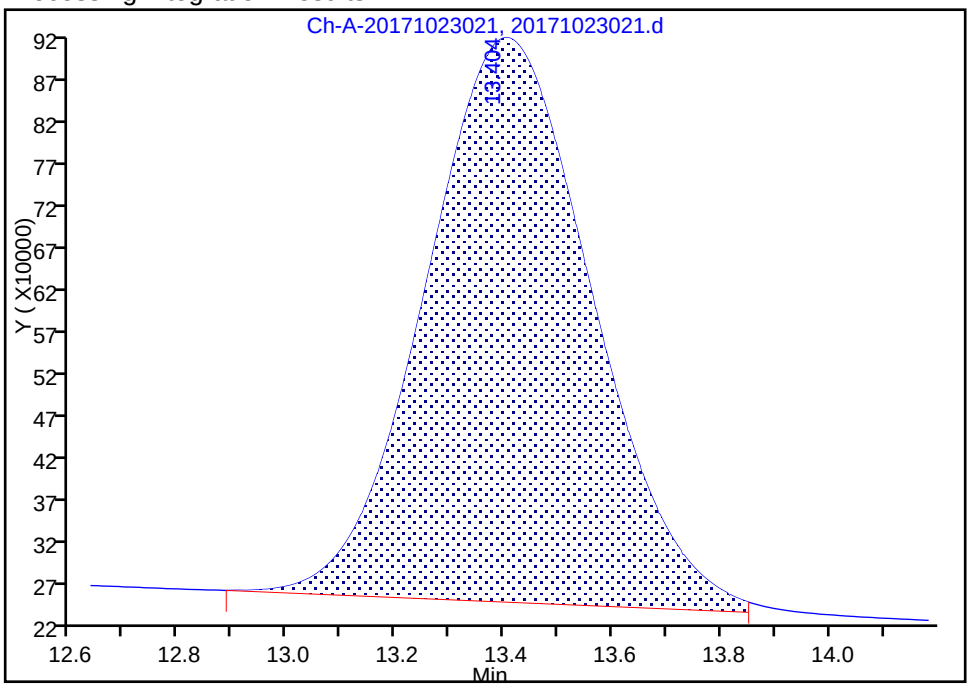
Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023021.d
Injection Date: 23-Oct-2017 16:18:36 Instrument ID: IC-11
Lims ID: CCB
Client ID:
Operator ID: IRVINSTWET4 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 300.1_C11 Limit Group: IC-300.1_14D
Column: AS9 ( 4.00 mm) Detector Ch-A-20110816009

## $ 6 Dichloroacetic acid(Surr), CAS: 79-43-6

Signal: 1

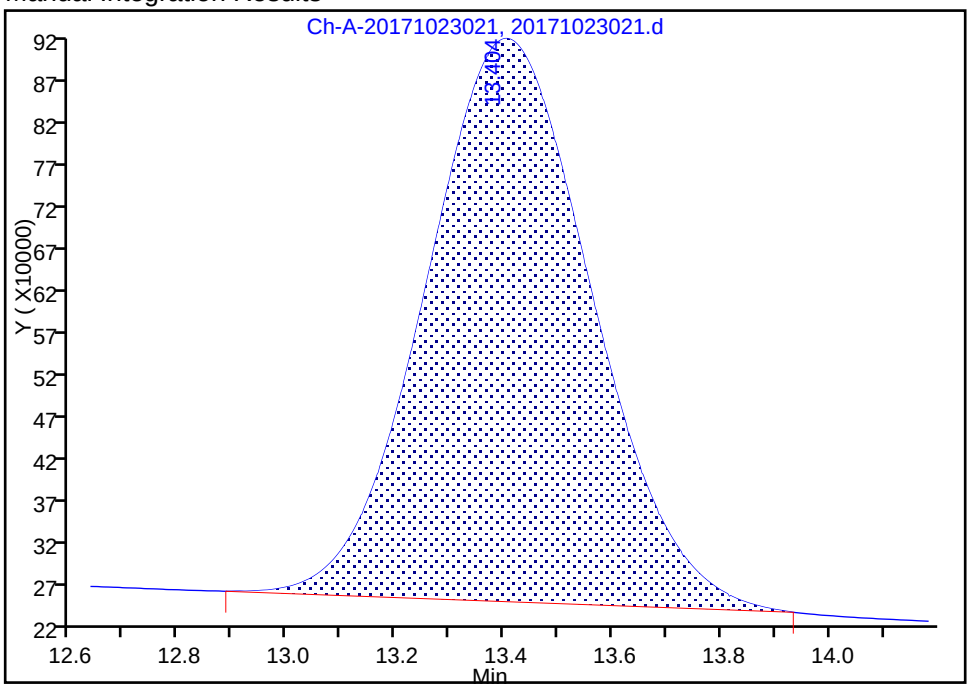
Processing Integration Results

RT: 13.40
Area: 14320851
Amount: 1009.1711
Amount Units: ug/l




Manual Integration Results

RT: 13.40
Area: 14251667
Amount: 1004.2958
Amount Units: ug/l




Reviewer: zakhrabovy, 24-Oct-2017 04:47:12
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-437271/35

Matrix: Solid  Lab File ID: 20171025035.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 10/26/2017 05:40

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 437271  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025035.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 26-Oct-2017 05:40:57 | ALS Bottle#: | 0 | Worklist Smp#: | 35 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-023 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 08:29:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 06:23:10 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.589 | 13.557 | 0.032 | 14310484 | 993.7 | 1011.0 | |
| $ 1 Dichloroacetic acid | 13.589 | 14.113 | -0.524 | 14310484 | | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

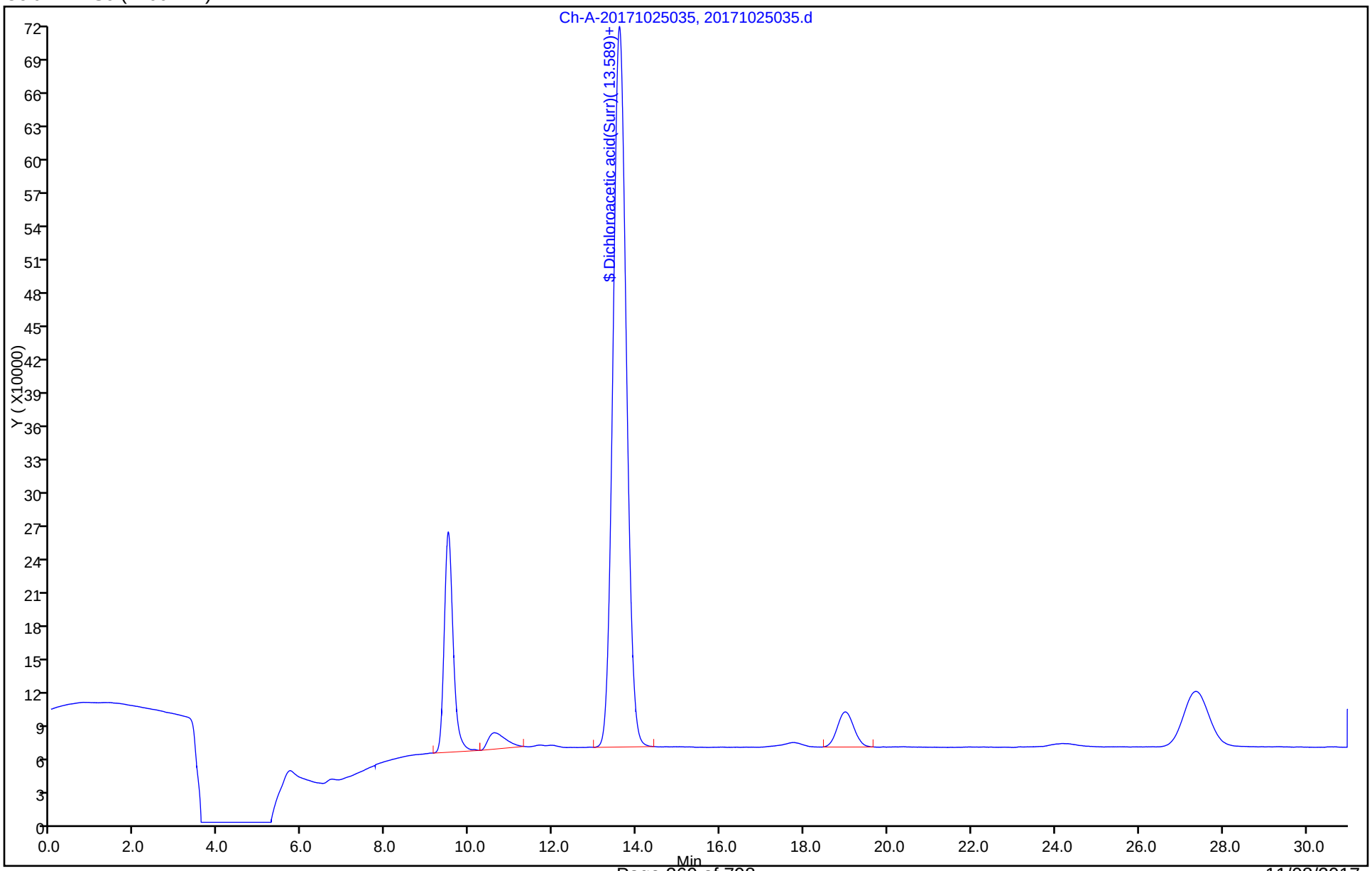
Report Date: 26-Oct-2017 08:29:45 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025035.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 05:40:57 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 35 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025035.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 26-Oct-2017 05:40:57 | ALS Bottle#: | 0 | Worklist Smp#: | 35 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-023 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 08:29:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 06:23:10 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1011.0 | 101.74 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 440-437271/43

Matrix: Solid Lab File ID: 20171025043.d

Analysis Method: 300.1B Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 10/26/2017 10:06

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: AS14 ID: 4(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 437271 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025043.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 26-Oct-2017 10:06:28 | ALS Bottle#: | 0 | Worklist Smp#: | 43 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-043 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 11:39:14 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 10:47:51 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.624 | 13.557 | 0.067 | 14451954 | 993.7 | 1021.0 | |
| $ 1 Dichloroacetic acid | 13.624 | 14.113 | -0.489 | 14451954 | | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

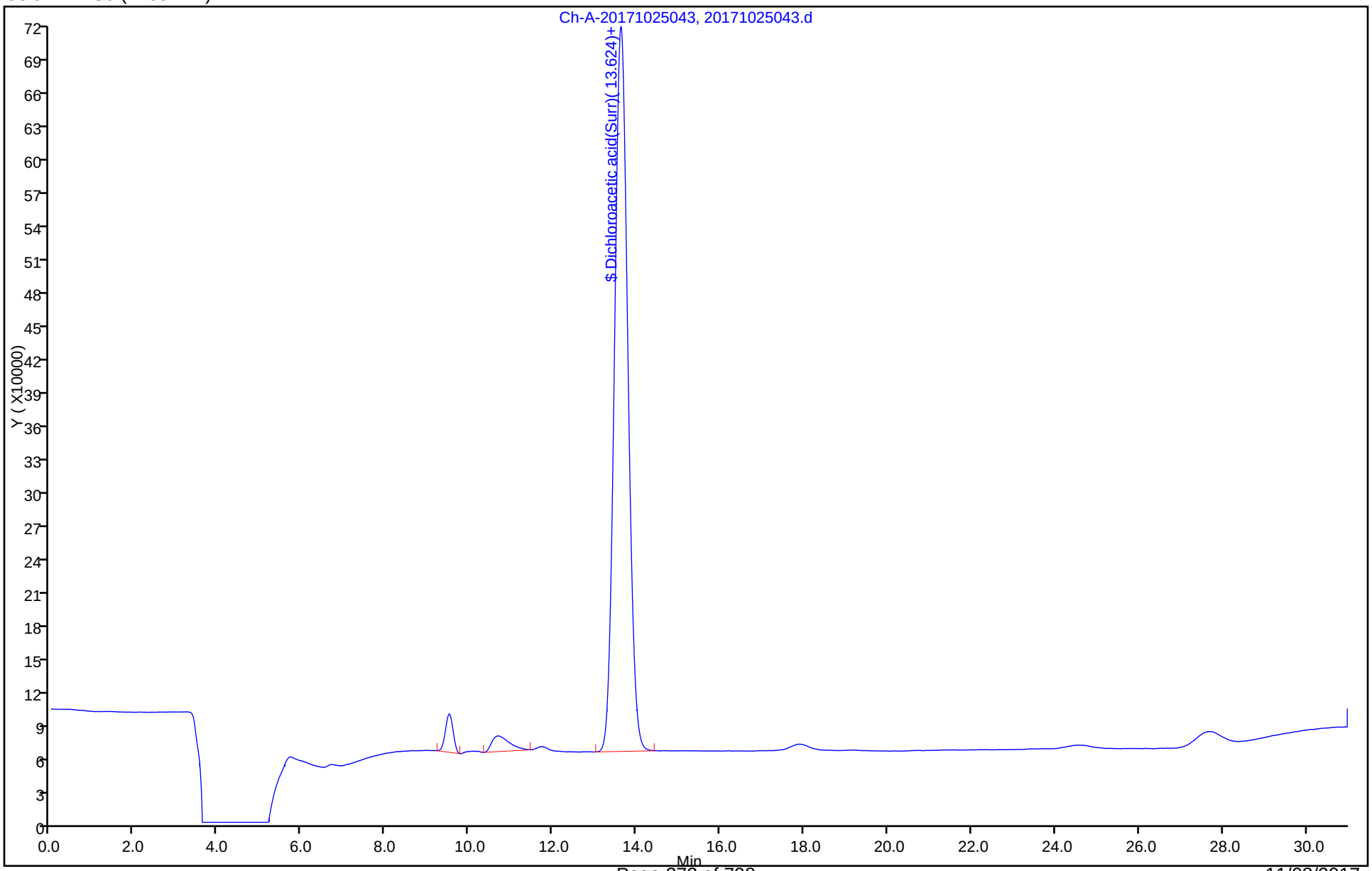
Report Date: 26-Oct-2017 10:47:52 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025043.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 10:06:28 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 43 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025043.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 26-Oct-2017 10:06:28 | ALS Bottle#: | 0 | Worklist Smp#: | 43 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-043 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 11:39:14 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 10:47:51 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1021.0 | 102.74 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437272/35

Matrix: Solid | Lab File ID: 20171025035.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/26/2017 05:40

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437272 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025035.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 26-Oct-2017 05:40:57 | ALS Bottle#: | 0 | Worklist Smp#: | 35 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-023 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 08:29:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 06:23:10 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.589 | 13.557 | 0.032 | 14310484 | 993.7 | 1008.4 | |
| $ 1 Dichloroacetic acid | 13.589 | 14.113 | -0.524 | 14310484 | | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

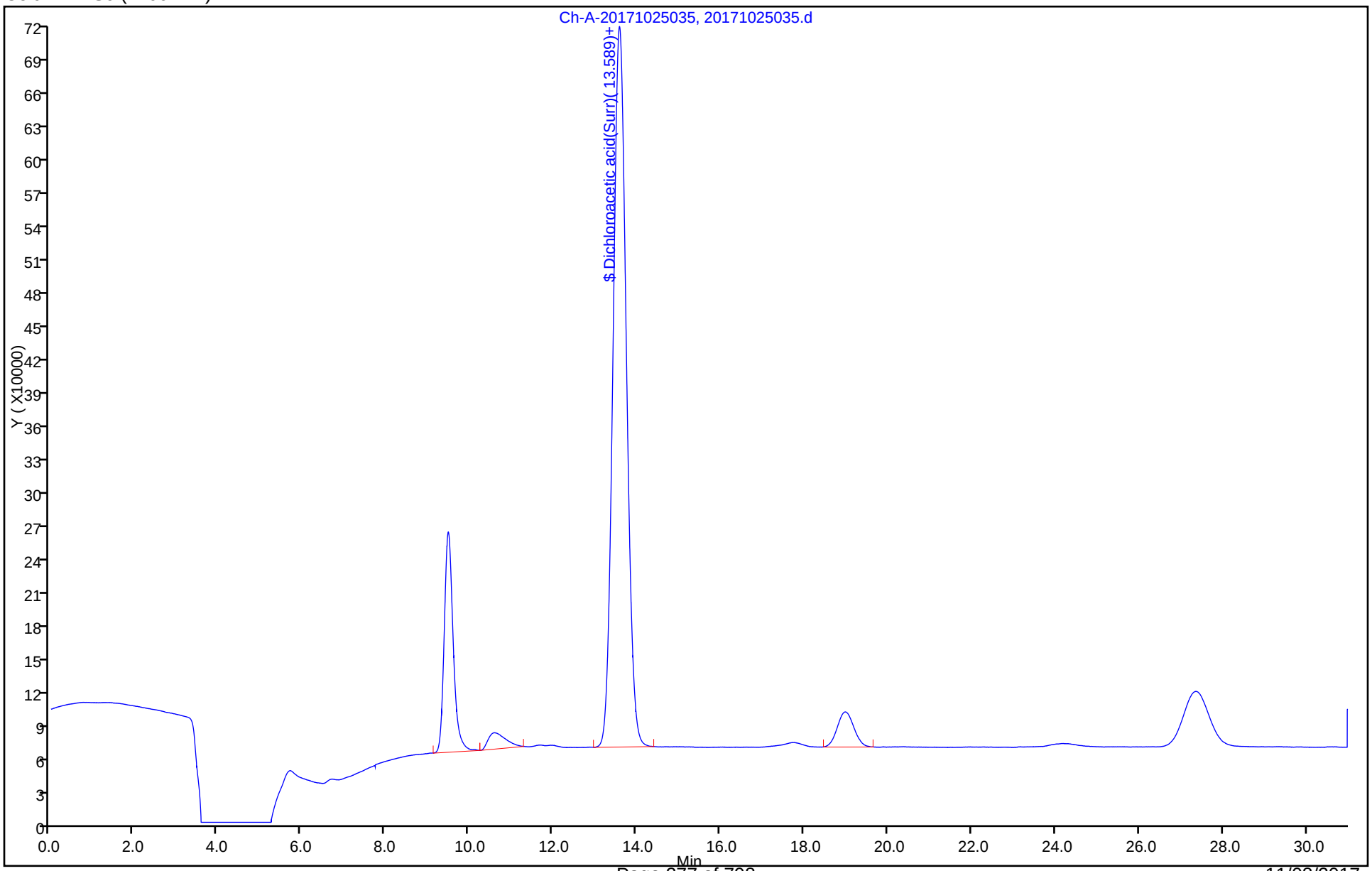
Report Date: 26-Oct-2017 08:29:45 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025035.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 05:40:57 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 35 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025035.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 26-Oct-2017 05:40:57 | ALS Bottle#: | 0 | Worklist Smp#: | 35 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-023 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 08:29:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 06:23:10 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1008.4 | 101.48 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 440-437272/43

Matrix: Solid Lab File ID: 20171025043.d

Analysis Method: 300.1B Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 10/26/2017 10:06

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: AS14 ID: 4(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 437272 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025043.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 26-Oct-2017 10:06:28 | ALS Bottle#: | 0 | Worklist Smp#: | 43 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-043 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 11:39:14 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 10:47:51 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 13.624 | 13.557 | 0.067 | 14451954 | 993.7 | 1018.4 | |
| $ 1 Dichloroacetic acid | 13.624 | 14.113 | -0.489 | 14451954 | | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

WCDCA_00050 Amount Added: 10.00 Units: uL

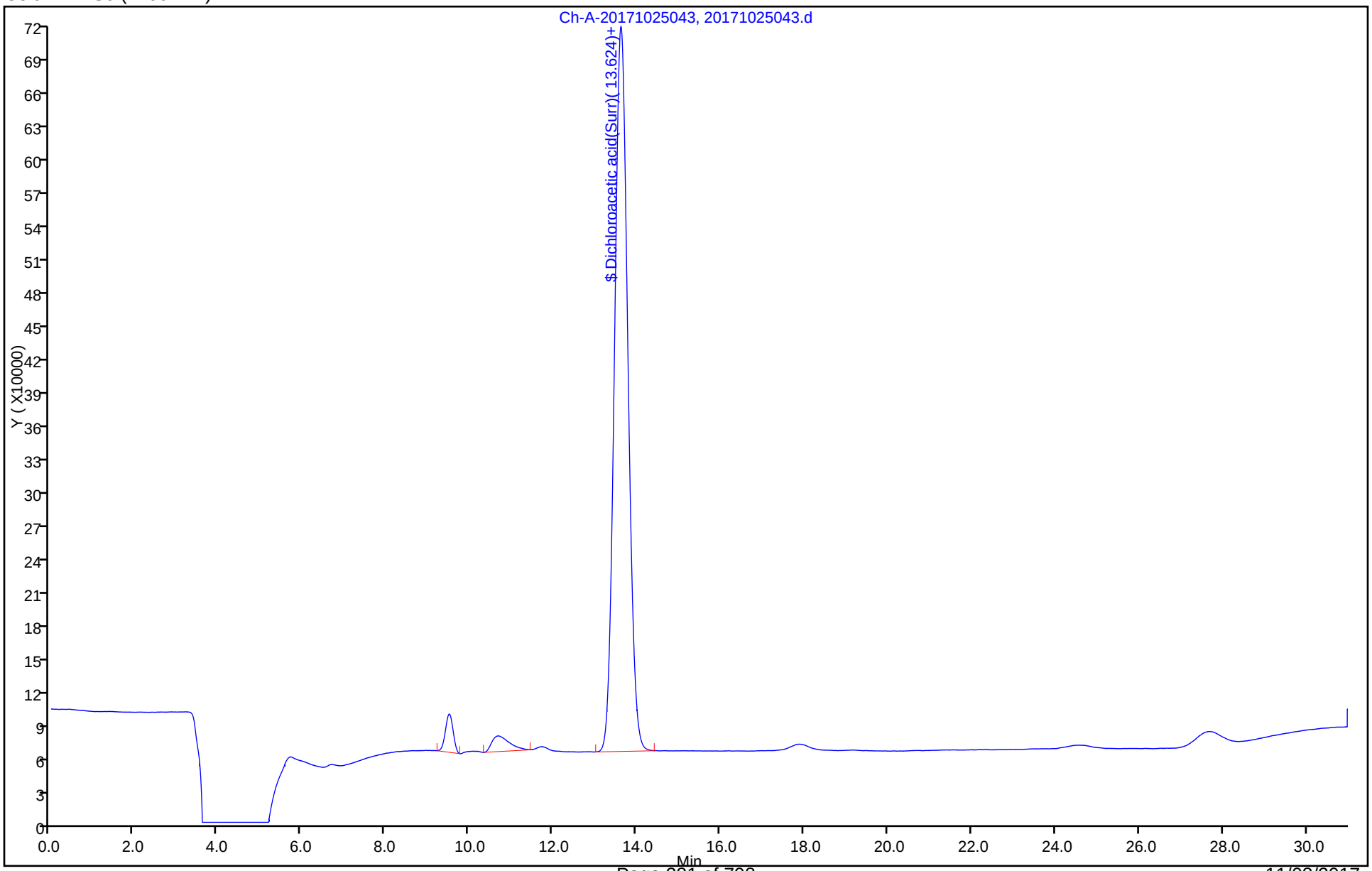
Report Date: 26-Oct-2017 10:47:52 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025043.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 10:06:28 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | CCB | | | Worklist Smp#: | 43 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025043.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 26-Oct-2017 10:06:28 | ALS Bottle#: | 0 | Worklist Smp#: | 43 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-043 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 11:39:14 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 10:47:51 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1018.4 | 102.49 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-436671/1-A

Matrix: Solid (Soluble) | Lab File ID: 20171023011.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 10:46

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436780 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 1000 | | 200 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023011.d | | | | |
| Lims ID: | LCS 440-436671/1-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 23-Oct-2017 10:46:43 | ALS Bottle#: | 0 | Worklist Smp#: | 11 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-011 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 14:31:28 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 13:04:48 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.233 | 7.332 | -0.100 | 2631236 | NC | NC | |
| 3 Bromate | 8.253 | 8.378 | -0.125 | 363680 | 25.0 | 23.4 | |
| $ 6 Dichloroacetic acid(Surr) | 13.371 | 13.557 | -0.186 | 13996524 | 993.7 | 988.8 | |
| 4 Bromide | 15.651 | 15.991 | -0.340 | 6528406 | 250.0 | 250.0 | |
| 2 Chlorate | 16.952 | 17.362 | -0.410 | 2441359 | 100.0 | 100.2 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

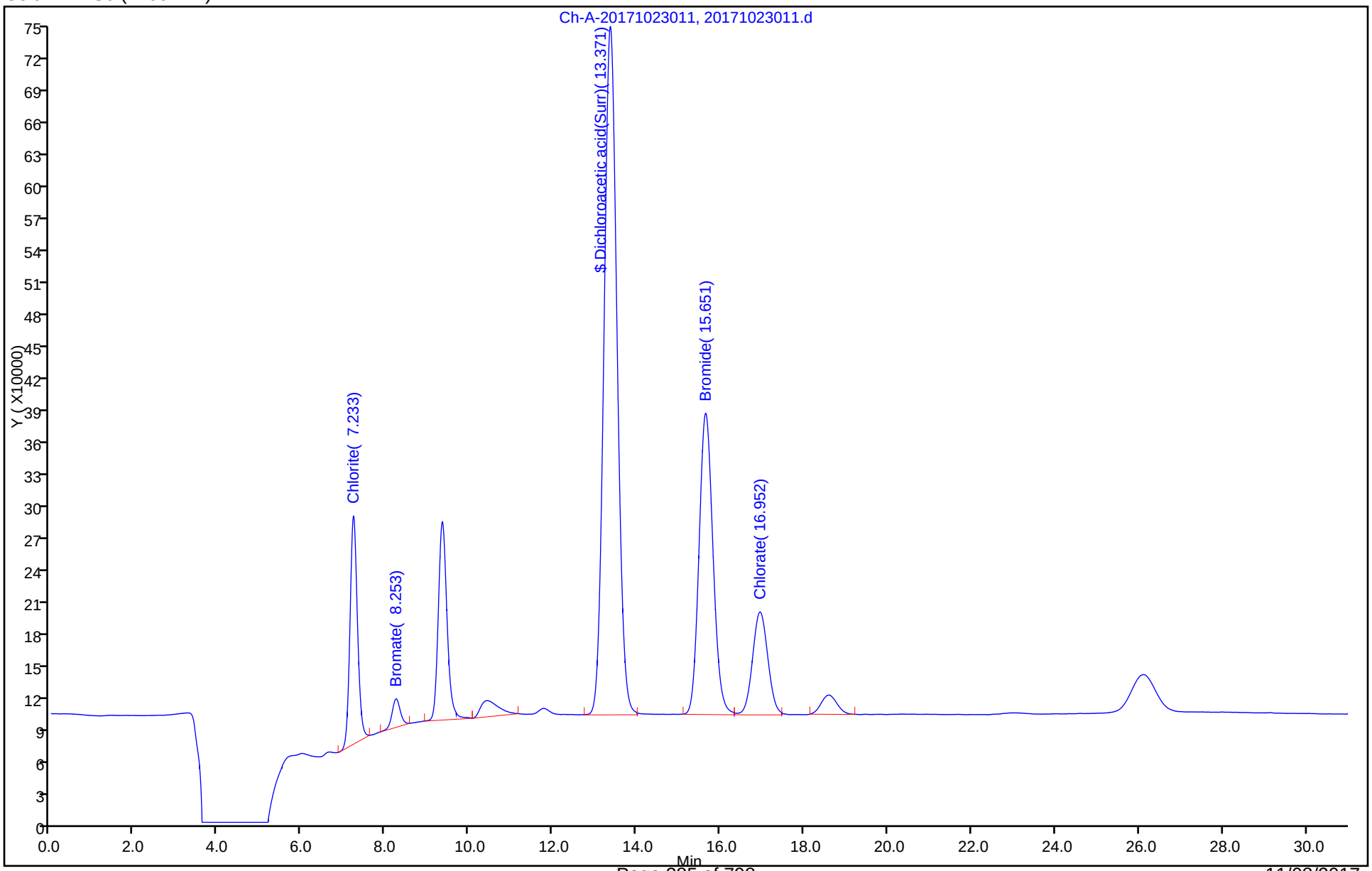
Report Date: 23-Oct-2017 13:48:11 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023011.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 10:46:43 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | LCS 440-436671/1-A | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023011.d | | | | |
| Lims ID: | LCS 440-436671/1-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 23-Oct-2017 10:46:43 | ALS Bottle#: | 0 | Worklist Smp#: | 11 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-011 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 14:31:28 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 13:04:48 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 988.8 | 99.51 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-436671/1-A

Matrix: Solid (Soluble) | Lab File ID: 20171023011.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 10:46

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 954 | | 200 | 40 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-436671/1-A

Matrix: Solid (Soluble) | Lab File ID: 20171023011.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 10:46

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 | Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 99 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023011.d | | | | |
| Lims ID: | LCS 440-436671/1-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 23-Oct-2017 10:46:43 | ALS Bottle#: | 0 | Worklist Smp#: | 11 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-011 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 14:31:28 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 13:04:48 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.233 | 7.332 | -0.100 | 2631236 | 100.0 | 95.6 | |
| 3 Bromate | 8.253 | 8.378 | -0.125 | 363680 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.371 | 13.557 | -0.186 | 13996524 | 993.7 | 986.3 | |
| 4 Bromide | 15.651 | 15.991 | -0.340 | 6528406 | NC | NC | |
| 2 Chlorate | 16.952 | 17.362 | -0.410 | 2441359 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

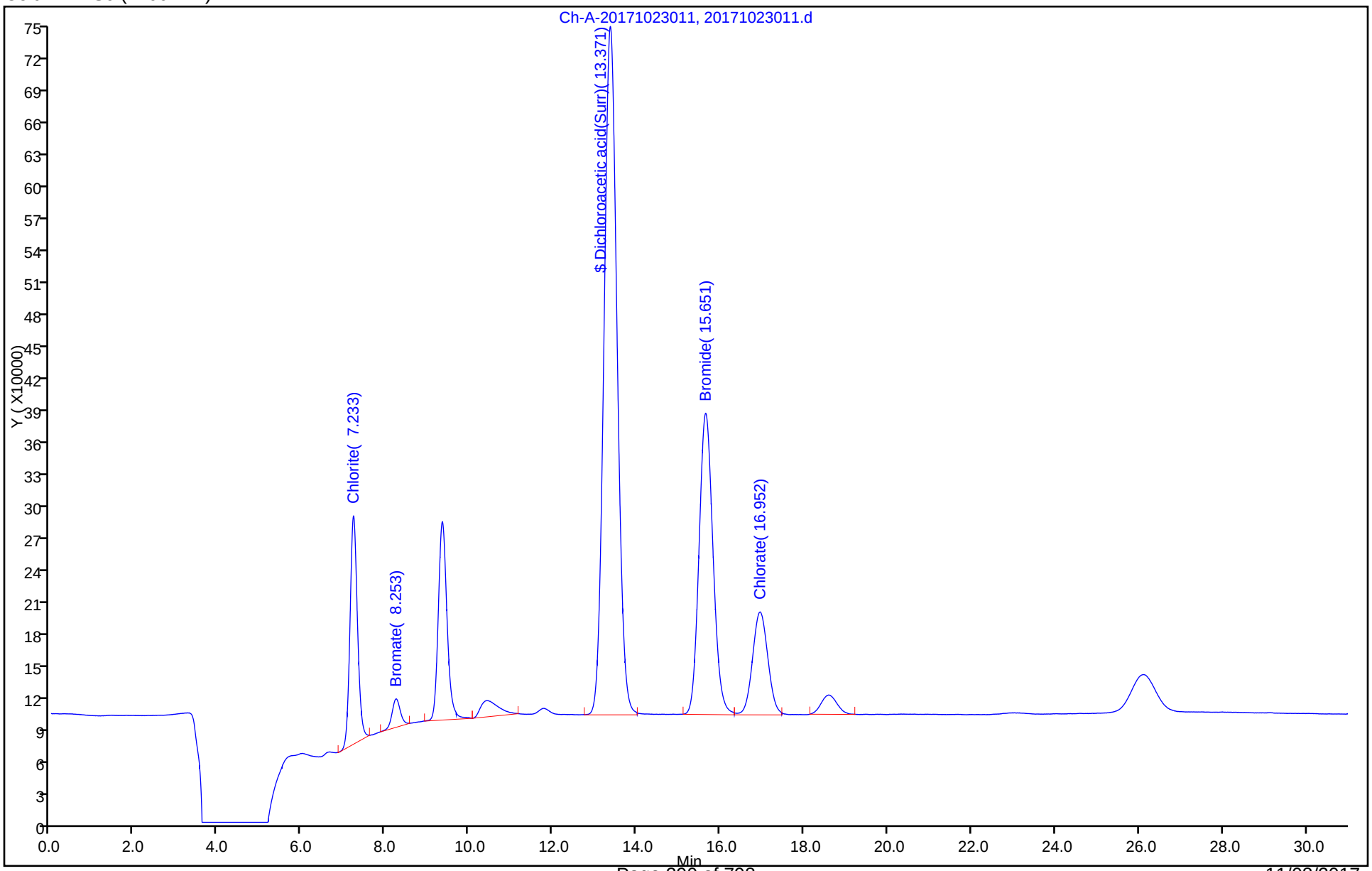
Report Date: 23-Oct-2017 13:48:10 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023011.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 10:46:43 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | LCS 440-436671/1-A | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023011.d | | | | |
| Lims ID: | LCS 440-436671/1-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 23-Oct-2017 10:46:43 | ALS Bottle#: | 0 | Worklist Smp#: | 11 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-011 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 14:31:28 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 13:04:48 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 986.3 | 99.26 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-437271/36

Matrix: Solid | Lab File ID: 20171025036.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/26/2017 06:14

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437271 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 21.5 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025036.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 26-Oct-2017 06:14:08 ALS Bottle#: 0 Worklist Smp#: 36
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095227-024
Misc. Info.: Study: 95227 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11

Method: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m
Limit Group: IC-300.1_28D
Method Label: 300.1
Last Update: 26-Oct-2017 08:29:43 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK034

First Level Reviewer: zakhrabovy Date: 26-Oct-2017 08:28:16

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.246 | 7.332 | -0.086 | 455269 | NC | NC | |
| 3 Bromate | 8.291 | 8.378 | -0.087 | 72683 | 5.00 | 4.17 | M |
| $ 6 Dichloroacetic acid(Surr) | 13.497 | 13.557 | -0.060 | 14303010 | 993.7 | 1010.5 | |
| $ 1 Dichloroacetic acid | 13.497 | 14.113 | -0.616 | 14303010 | | NC | |
| 4 Bromide | 15.899 | 15.991 | -0.092 | 1216753 | 50.0 | 35.0 | |
| 2 Chlorate | 17.213 | 17.362 | -0.149 | 534364 | 20.0 | 21.5 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00054 Amount Added: 25.00 Units: uL
WCDCA_00050 Amount Added: 10.00 Units: uL

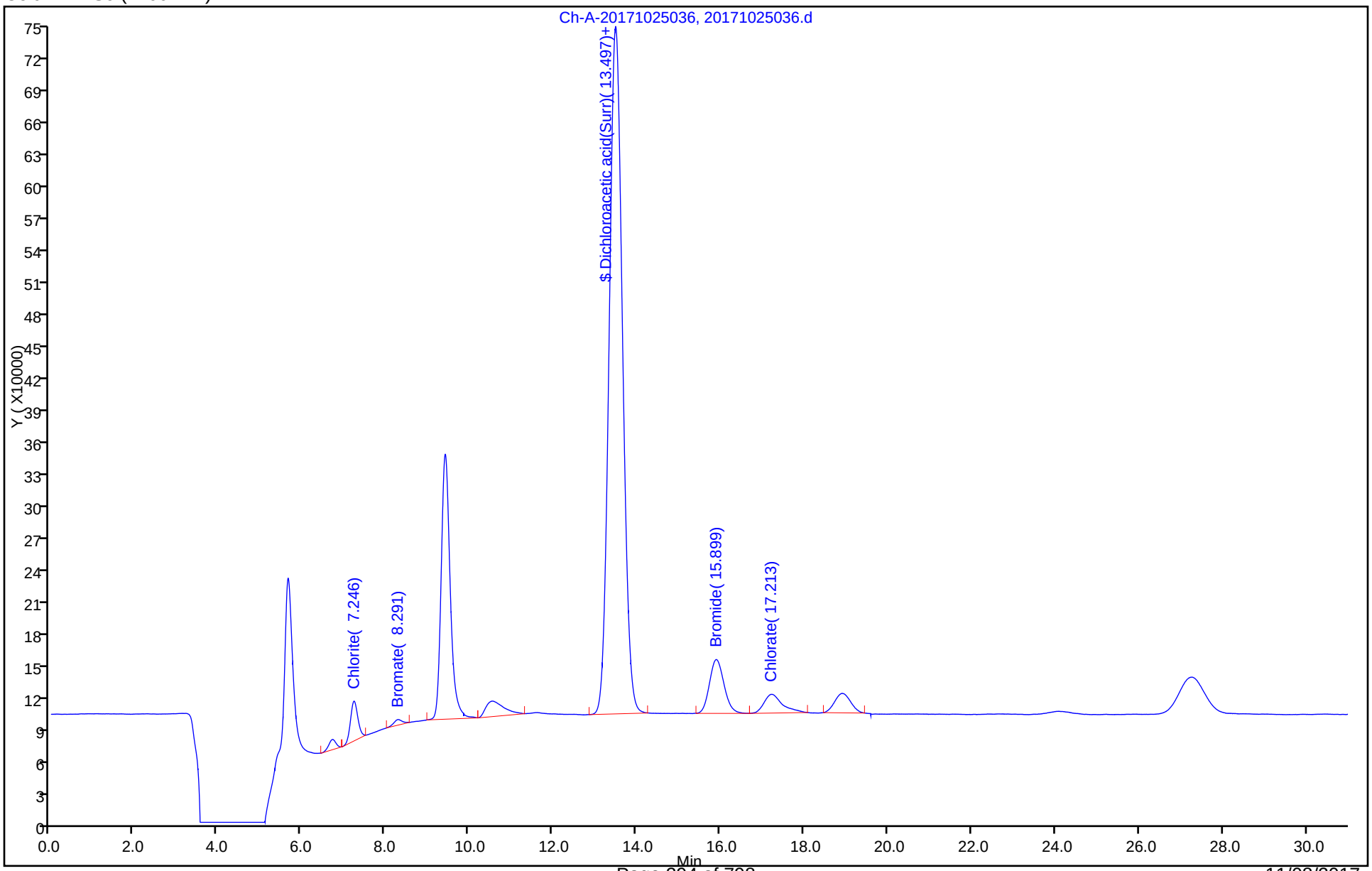
Report Date: 26-Oct-2017 08:29:46 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025036.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 06:14:08 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | MRL | | | Worklist Smp#: | 36 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025036.d | | | | |
| Lims ID: | MRL | | | | |
| Client ID: | | | | | |
| Sample Type: | MRL | | | | |
| Inject. Date: | 26-Oct-2017 06:14:08 | ALS Bottle#: | 0 | Worklist Smp#: | 36 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-024 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 08:29:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 08:28:16 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1010.5 | 101.69 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-437272/36

Matrix: Solid | Lab File ID: 20171025036.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/26/2017 06:14

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437272 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 17.8 | J | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025036.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 26-Oct-2017 06:14:08 ALS Bottle#: 0 Worklist Smp#: 36
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001A Name: 440-0095227-024
Misc. Info.: Study: 95227 Channel A: I/F Serial#, 1051573146
Operator ID: IRVINSTWET4 Instrument ID: IC-11

Method: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m
Limit Group: IC-300.1_14D
Method Label: 300.1
Last Update: 26-Oct-2017 08:29:43 Calib Date: 26-Sep-2017 11:48:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d

Column 1 : AS9 ( 4.00 mm) Det: Ch-A-20110816009
Process Host: XAWRK034

First Level Reviewer: zakhrabovy Date: 26-Oct-2017 08:28:16

| | Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| | 5 Chlorite | 7.246 | 7.332 | -0.086 | 455269 | 20.0 | 17.8 | |
| | 3 Bromate | 8.291 | 8.378 | -0.087 | 72683 | NC | NC | M |
| $ | 6 Dichloroacetic acid(Surr) | 13.497 | 13.557 | -0.060 | 14303010 | 993.7 | 1007.9 | |
| $ | 1 Dichloroacetic acid | 13.497 | 14.113 | -0.616 | 14303010 | | NC | |
| | 4 Bromide | 15.899 | 15.991 | -0.092 | 1216753 | NC | NC | |
| | 2 Chlorate | 17.213 | 17.362 | -0.149 | 534364 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

## Reagents:

WC3001LCS_00054 Amount Added: 25.00 Units: uL
WCDCA_00050 Amount Added: 10.00 Units: uL

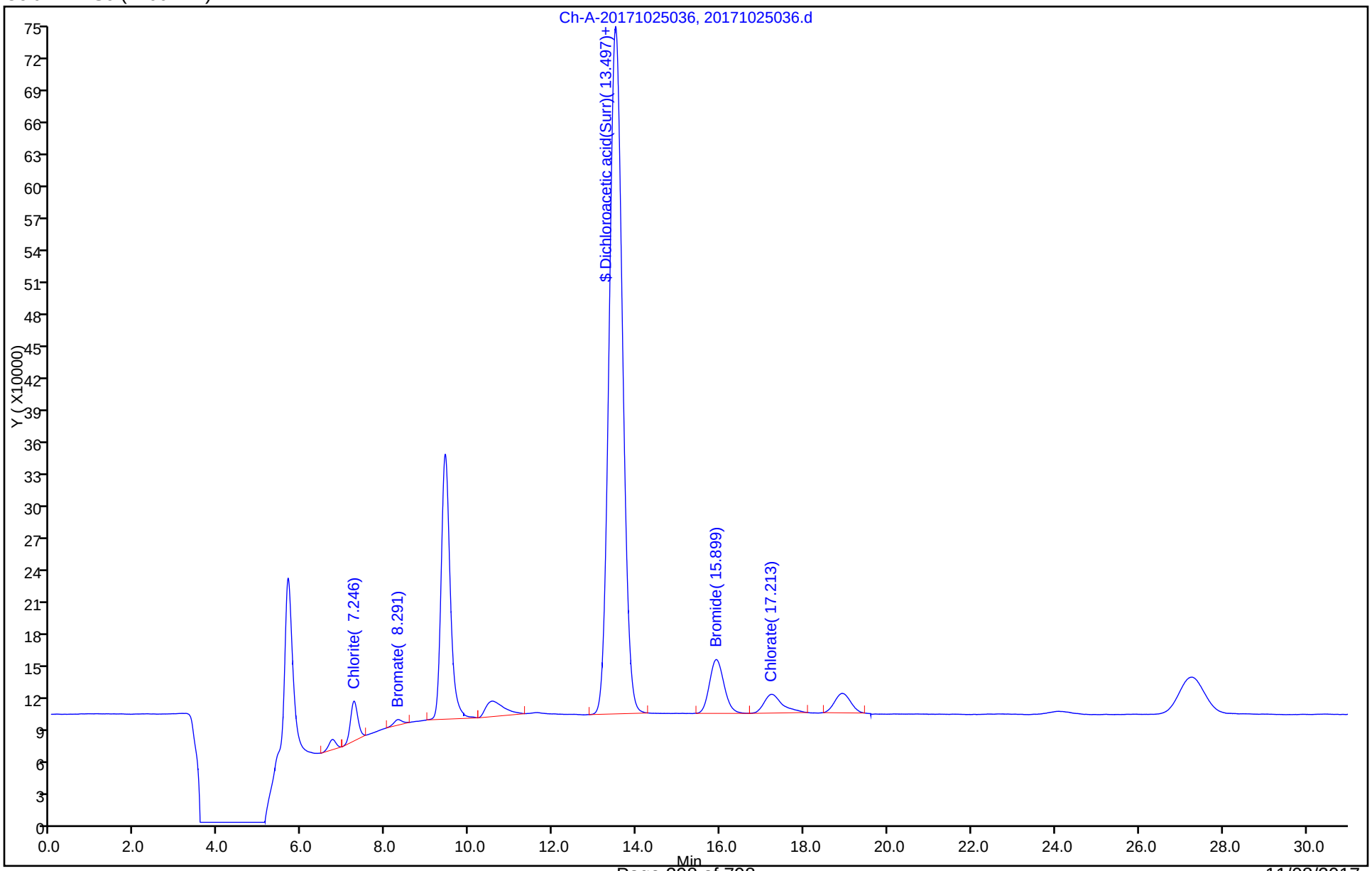
Report Date: 26-Oct-2017 08:29:47 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025036.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 06:14:08 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | MRL | | | Worklist Smp#: | 36 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\20171025036.d | | | | |
| Lims ID: | MRL | | | | |
| Client ID: | | | | | |
| Sample Type: | MRL | | | | |
| Inject. Date: | 26-Oct-2017 06:14:08 | ALS Bottle#: | 0 | Worklist Smp#: | 36 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095227-024 | | | | |
| Misc. Info.: | Study: 95227 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171025-95227.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 26-Oct-2017 08:29:43 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK034 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 26-Oct-2017 08:28:16 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1007.9 | 101.43 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-194754-A-6-B MS

Matrix: Solid (Soluble) | Lab File ID: 20171023014.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 07:55

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 12:26

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436780 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 2460 | | 220 | 56 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023014.d | | | | |
| Lims ID: | 440-194754-A-6-B MS | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 23-Oct-2017 12:26:17 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-014 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 07:11:45 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 07:11:44 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.218 | 7.332 | -0.114 | 2041555 | NC | NC | M |
| 3 Bromate | 8.240 | 8.378 | -0.138 | 371337 | 25.0 | 23.9 | |
| $ 6 Dichloroacetic acid(Surr) | 13.385 | 13.557 | -0.172 | 14243685 | 993.7 | 1006.3 | |
| $ 1 Dichloroacetic acid | 13.385 | 14.113 | -0.728 | 14243685 | | NC | |
| 4 Bromide | 15.597 | 15.991 | -0.394 | 5897357 | 250.0 | 224.4 | |
| 2 Chlorate | 16.911 | 17.362 | -0.451 | 5318924 | 100.0 | 219.0 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

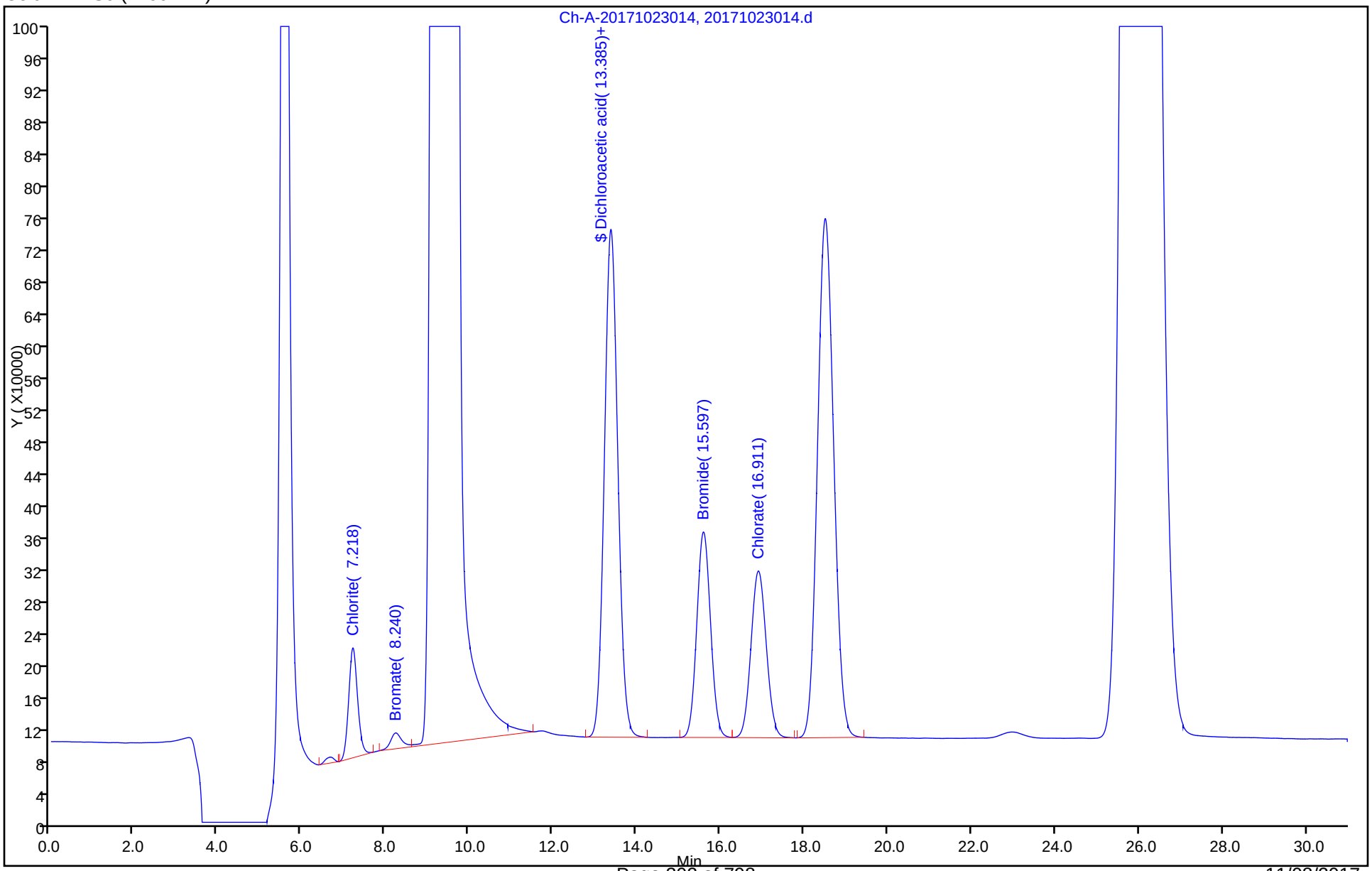
Report Date: 25-Oct-2017 07:11:46 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023014.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 12:26:17 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-6-B MS | | | Worklist Smp#: | 14 |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023014.d | | | | |
| Lims ID: | 440-194754-A-6-B MS | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 23-Oct-2017 12:26:17 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-014 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 07:11:45 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 07:11:44 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1006.3 | 101.26 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-194754-A-6-B MS

Matrix: Solid (Soluble) | Lab File ID: 20171023014.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 07:55

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 12:26

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 837 | | 220 | 45 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-194754-A-6-B MS

Matrix: Solid (Soluble) | Lab File ID: 20171023014.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 07:55

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 12:26

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 | Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023014.d | | | | |
| Lims ID: | 440-194754-A-6-B MS | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 23-Oct-2017 12:26:17 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-014 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 07:11:45 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 07:11:44 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.218 | 7.332 | -0.114 | 2041555 | 100.0 | 74.5 | M |
| 3 Bromate | 8.240 | 8.378 | -0.138 | 371337 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.385 | 13.557 | -0.172 | 14243685 | 993.7 | 1003.7 | |
| $ 1 Dichloroacetic acid | 13.385 | 14.113 | -0.728 | 14243685 | | NC | |
| 4 Bromide | 15.597 | 15.991 | -0.394 | 5897357 | NC | NC | |
| 2 Chlorate | 16.911 | 17.362 | -0.451 | 5318924 | NC | NC | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

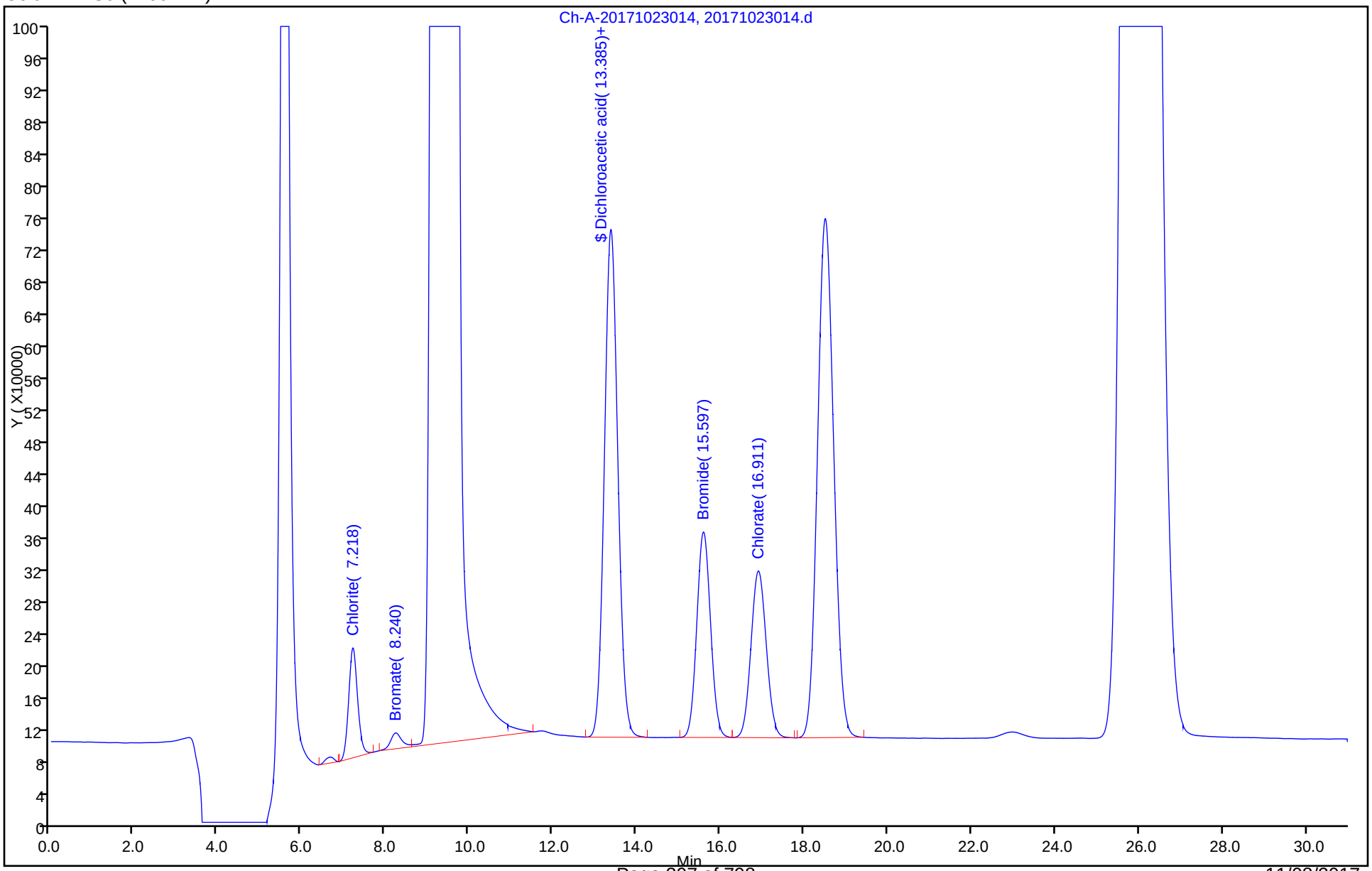
Report Date: 25-Oct-2017 07:11:46 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023014.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 12:26:17 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-6-B MS | | | Worklist Smp#: | 14 |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023014.d | | | | |
| Lims ID: | 440-194754-A-6-B MS | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 23-Oct-2017 12:26:17 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-014 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 25-Oct-2017 07:11:45 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK047 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 25-Oct-2017 07:11:44 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 1003.7 | 101.01 |

Manual Integration/User Assign Peak Report

TestAmerica Irvine

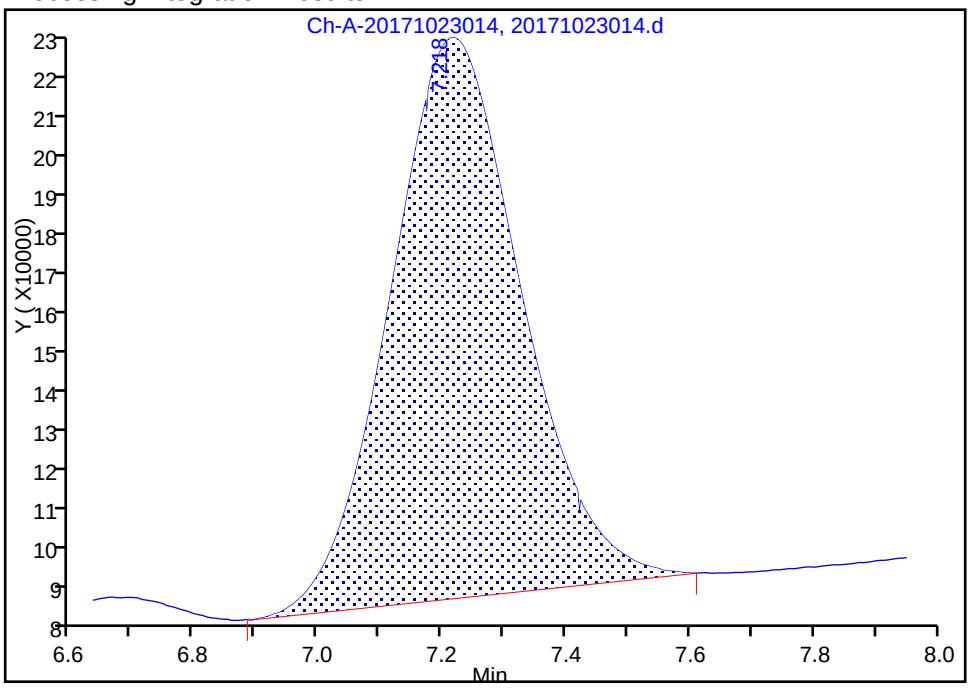
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023014.d | | | | |
| Injection Date: | 23-Oct-2017 12:26:17 | Instrument ID: | IC-11 | | |
| Lims ID: | 440-194754-A-6-B MS | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Operator ID: | IRVINSTWET4 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |
| Column: | AS9 ( 4.00 mm) | Detector | Ch-A-20110816009 | | |

## 5 Chlorite, CAS: 14998-27-7

Signal: 1

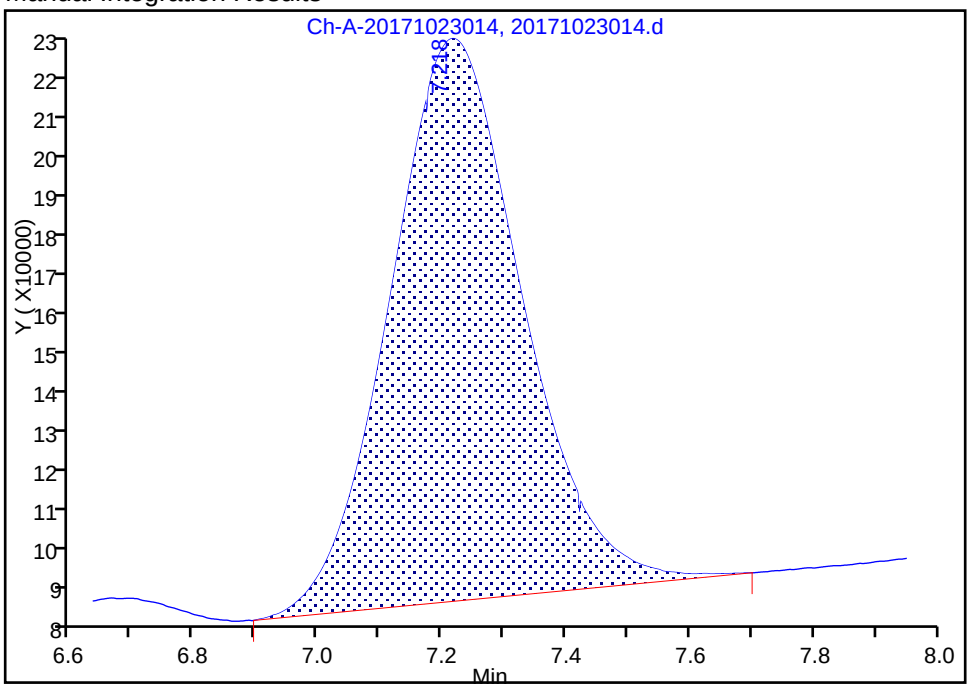
Processing Integration Results

RT: 7.22
Area: 2019250
Amount: 73.741041
Amount Units: ug/l




Manual Integration Results

RT: 7.22
Area: 2041555
Amount: 74.538518
Amount Units: ug/l




Reviewer: zakhrabovy, 25-Oct-2017 07:11:39

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-194754-A-6-C MSD

Matrix: Solid (Soluble) | Lab File ID: 20171023015.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 07:55

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 12:59

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436780 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 2700 | | 220 | 56 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023015.d | | | | |
| Lims ID: | 440-194754-A-6-C MSD | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 23-Oct-2017 12:59:28 | ALS Bottle#: | 0 | Worklist Smp#: | 15 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-015 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 14:31:28 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 13:48:23 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.181 | 7.332 | -0.151 | 2301862 | NC | NC | |
| 3 Bromate | 8.194 | 8.378 | -0.184 | 406350 | 25.0 | 26.2 | |
| $ 6 Dichloroacetic acid(Surr) | 13.338 | 13.557 | -0.219 | 14122435 | 993.7 | 997.7 | |
| $ 1 Dichloroacetic acid | 13.338 | 14.113 | -0.775 | 14122435 | | NC | |
| 4 Bromide | 15.440 | 15.991 | -0.551 | 6686725 | 250.0 | 256.4 | |
| 2 Chlorate | 16.766 | 17.362 | -0.596 | 5851413 | 100.0 | 241.0 | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

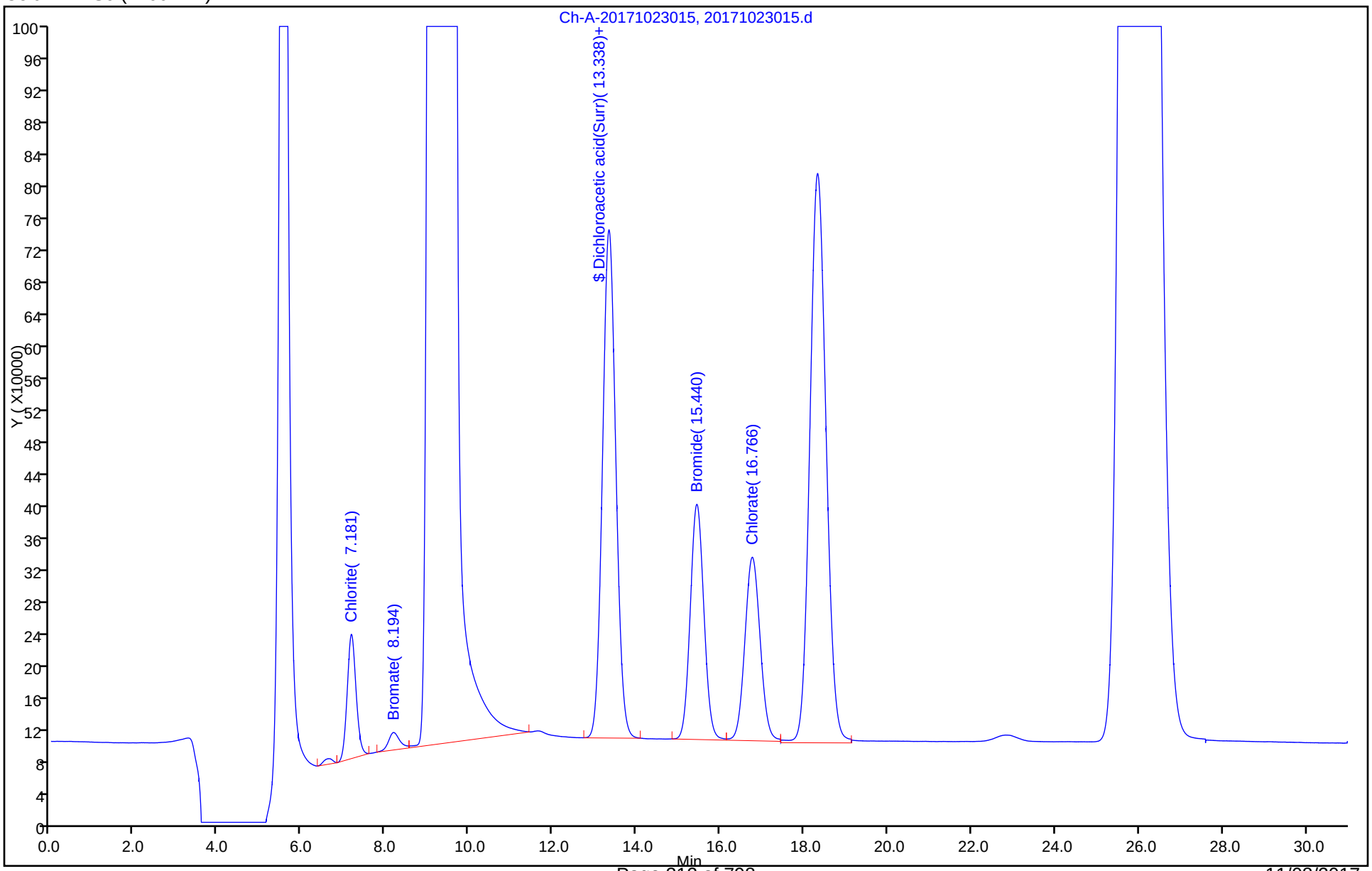
Report Date: 23-Oct-2017 13:48:25 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023015.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 12:59:28 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-6-C MSD | | | Worklist Smp#: | 15 |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_28D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023015.d | | | | |
| Lims ID: | 440-194754-A-6-C MSD | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 23-Oct-2017 12:59:28 | ALS Bottle#: | 0 | Worklist Smp#: | 15 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-015 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_28D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 14:31:28 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 13:48:23 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 997.7 | 100.40 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-194754-A-6-C MSD

Matrix: Solid (Soluble) | Lab File ID: 20171023015.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 07:55

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 12:59

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 | Units: ug/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 939 | | 220 | 45 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-194754-A-6-C MSD

Matrix: Solid (Soluble) | Lab File ID: 20171023015.d

Analysis Method: 300.1B | Date Collected: 10/20/2017 07:55

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 10/23/2017 12:59

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: 11.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 436781 | Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023015.d | | | | |
| Lims ID: | 440-194754-A-6-C MSD | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 23-Oct-2017 12:59:28 | ALS Bottle#: | 0 | Worklist Smp#: | 15 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-015 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 14:31:28 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 13:48:23 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 5 Chlorite | 7.181 | 7.332 | -0.151 | 2301862 | 100.0 | 83.8 | |
| 3 Bromate | 8.194 | 8.378 | -0.184 | 406350 | NC | NC | |
| $ 6 Dichloroacetic acid(Surr) | 13.338 | 13.557 | -0.219 | 14122435 | 993.7 | 995.2 | |
| $ 1 Dichloroacetic acid | 13.338 | 14.113 | -0.775 | 14122435 | | NC | |
| 4 Bromide | 15.440 | 15.991 | -0.551 | 6686725 | NC | NC | |
| 2 Chlorate | 16.766 | 17.362 | -0.596 | 5851413 | NC | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

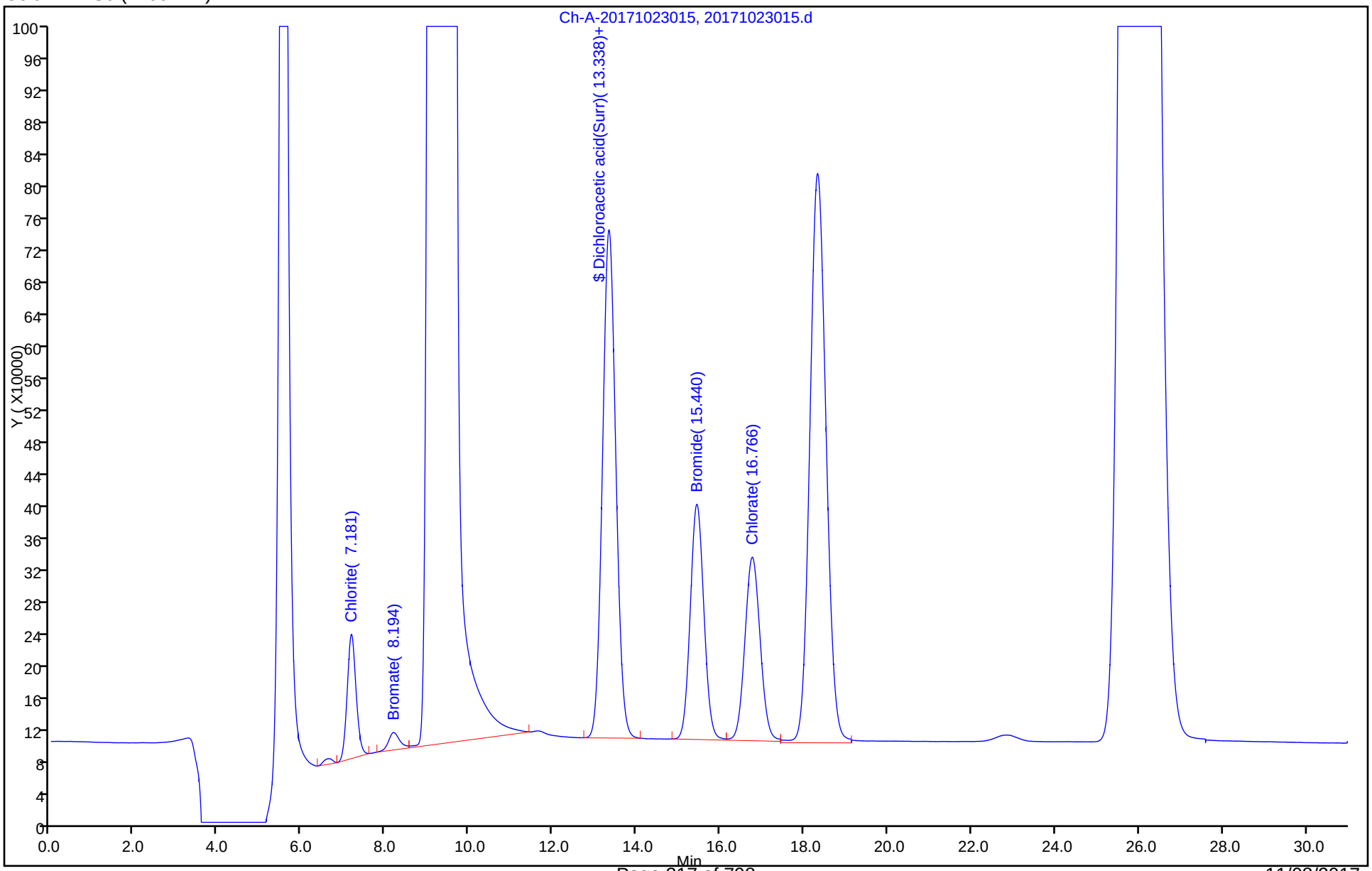
Report Date: 23-Oct-2017 13:48:24 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023015.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Oct-2017 12:59:28 | Instrument ID: | IC-11 | Operator ID: | IRVINSTWET4 |
| Lims ID: | 440-194754-A-6-C MSD | | | Worklist Smp#: | 15 |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 300.1_C11 | Limit Group: | IC-300.1_14D | | |

Column: AS9 ( 4.00 mm)



TestAmerica Irvine
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\20171023015.d | | | | |
| Lims ID: | 440-194754-A-6-C MSD | | | | |
| Client ID: | VER-01D-20.0-20171020 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 23-Oct-2017 12:59:28 | ALS Bottle#: | 0 | Worklist Smp#: | 15 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | #: 001A Name: 440-0095116-015 | | | | |
| Misc. Info.: | Study: 95116 Channel A: I/F Serial#, 1051573146 | | | | |
| Operator ID: | IRVINSTWET4 | Instrument ID: | IC-11 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC11\20171023-95116.b\300.1_C11.m | | | | |
| Limit Group: | IC-300.1_14D | | | | |
| Method Label: | 300.1 | | | | |
| Last Update: | 23-Oct-2017 14:31:28 | Calib Date: | 26-Sep-2017 11:48:55 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC11\20170926-93892.b\20170926007.d | | | | |
| Column 1 : | AS9 ( 4.00 mm) | | Det: Ch-A-20110816009 | | |
| Process Host: | XAWRK052 | | | | |
| First Level Reviewer: zakhrabovy | | Date: | 23-Oct-2017 13:48:23 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 6 Dichloroacetic acid(Surr) | 993.7 | 995.2 | 100.15 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-11 Start Date: 09/26/2017 08:29

Analysis Batch Number: 431296 End Date: 09/27/2017 13:43

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 09/26/2017 08:29 | 1 | | AS14 4(mm) |
| STD0 440-431296/2 IC | | 09/26/2017 09:02 | 1 | 20170926002.d | AS14 4(mm) |
| STD1 440-431296/3 IC | | 09/26/2017 09:36 | 1 | 20170926003.d | AS14 4(mm) |
| STD2 440-431296/4 IC | | 09/26/2017 10:09 | 1 | 20170926004.d | AS14 4(mm) |
| STD3 440-431296/5 IC | | 09/26/2017 10:42 | 1 | 20170926005.d | AS14 4(mm) |
| STD4 440-431296/6 IC | | 09/26/2017 11:15 | 1 | 20170926006.d | AS14 4(mm) |
| STD5 440-431296/7 IC | | 09/26/2017 11:48 | 1 | 20170926007.d | AS14 4(mm) |
| ICV 440-431296/8 | | 09/26/2017 12:33 | 1 | 20170926008.d | AS14 4(mm) |
| ICB 440-431296/9 | | 09/26/2017 13:06 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 13:39 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 14:12 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 14:46 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 15:19 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 15:52 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 16:25 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 16:58 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 17:32 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 18:05 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 18:38 | 1 | | AS14 4(mm) |
| CCV 440-431296/20 | | 09/26/2017 19:11 | 1 | | AS14 4(mm) |
| CCB 440-431296/21 | | 09/26/2017 19:44 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 20:18 | 5 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 20:51 | 5 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 21:24 | 5 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 21:57 | 5 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 22:30 | 5 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 23:03 | 5 | | AS14 4(mm) |
| ZZZZZ | | 09/26/2017 23:37 | 5 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 00:10 | 5 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 00:43 | 5 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 01:16 | 5 | | AS14 4(mm) |
| CCV 440-431296/32 | | 09/27/2017 01:49 | 1 | | AS14 4(mm) |
| CCB 440-431296/33 | | 09/27/2017 02:23 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 02:56 | 5 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 04:53 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 05:26 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 05:59 | 1 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 06:32 | 50 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 07:38 | 100 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 08:11 | 100 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 08:44 | 100 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 09:17 | 100 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 09:50 | 100 | | AS14 4(mm) |
| CCV 440-431296/44 | | 09/27/2017 10:24 | 1 | | AS14 4(mm) |
| CCB 440-431296/45 | | 09/27/2017 10:57 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-11 Start Date: 09/26/2017 08:29

Analysis Batch Number: 431296 End Date: 09/27/2017 13:43

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 09/27/2017 11:30 | 100 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 12:03 | 100 | | AS14 4(mm) |
| ZZZZZ | | 09/27/2017 12:36 | 100 | | AS14 4(mm) |
| CCV 440-431296/49 | | 09/27/2017 13:10 | 1 | | AS14 4(mm) |
| CCB 440-431296/50 | | 09/27/2017 13:43 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-11 Start Date: 09/26/2017 08:29

Analysis Batch Number: 431297 End Date: 09/27/2017 10:57

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 09/26/2017 08:29 | 1 | | AS14 4(mm) |
| STD0 440-431297/2 IC | | 09/26/2017 09:02 | 1 | 20170926002.d | AS14 4(mm) |
| STD1 440-431297/3 IC | | 09/26/2017 09:36 | 1 | 20170926003.d | AS14 4(mm) |
| STD2 440-431297/4 IC | | 09/26/2017 10:09 | 1 | 20170926004.d | AS14 4(mm) |
| STD3 440-431297/5 IC | | 09/26/2017 10:42 | 1 | 20170926005.d | AS14 4(mm) |
| STD4 440-431297/6 IC | | 09/26/2017 11:15 | 1 | 20170926006.d | AS14 4(mm) |
| STD5 440-431297/7 IC | | 09/26/2017 11:48 | 1 | 20170926007.d | AS14 4(mm) |
| ICV 440-431297/8 | | 09/26/2017 12:33 | 1 | 20170926008.d | AS14 4(mm) |
| ICB 440-431297/9 | | 09/26/2017 13:06 | 1 | | AS14 4(mm) |
| CCV 440-431297/44 | | 09/27/2017 10:24 | 1 | | AS14 4(mm) |
| CCB 440-431297/45 | | 09/27/2017 10:57 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-11 Start Date: 10/23/2017 05:14

Analysis Batch Number: 436780 End Date: 10/24/2017 21:35

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-436780/1 | | 10/23/2017 05:14 | 1 | | AS14 4(mm) |
| CCB 440-436780/2 | | 10/23/2017 05:48 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 06:21 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 06:54 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 07:27 | 500 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 08:00 | 500 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 08:33 | 500 | | AS14 4(mm) |
| CCV 440-436780/8 | | 10/23/2017 09:07 | 1 | 20171023008.d | AS14 4(mm) |
| CCB 440-436780/9 | | 10/23/2017 09:40 | 1 | 20171023009.d | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 10:13 | 1 | | AS14 4(mm) |
| LCS 440-436671/1-A | | 10/23/2017 10:46 | 1 | 20171023011.d | AS14 4(mm) |
| MB 440-436671/2-A | | 10/23/2017 11:19 | 1 | 20171023012.d | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 11:53 | 1 | | AS14 4(mm) |
| 440-194754-A-6-B MS | | 10/23/2017 12:26 | 1 | 20171023014.d | AS14 4(mm) |
| 440-194754-A-6-C MSD | | 10/23/2017 12:59 | 1 | 20171023015.d | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 13:32 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 14:05 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 14:39 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 15:12 | 50 | | AS14 4(mm) |
| CCV 440-436780/20 | | 10/23/2017 15:45 | 1 | 20171023020.d | AS14 4(mm) |
| CCB 440-436780/21 | | 10/23/2017 16:18 | 1 | 20171023021.d | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 16:51 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 17:24 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 17:58 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 18:31 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 19:04 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 19:37 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 20:10 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 20:44 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 21:17 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 21:50 | 50 | | AS14 4(mm) |
| CCV 440-436780/32 | | 10/23/2017 22:23 | 1 | | AS14 4(mm) |
| CCB 440-436780/33 | | 10/23/2017 22:56 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 23:30 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 00:03 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 00:36 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 01:09 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 01:42 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 02:16 | 1 | | AS14 4(mm) |
| CCV 440-436780/40 | | 10/24/2017 05:23 | 1 | | AS14 4(mm) |
| CCB 440-436780/41 | | 10/24/2017 05:56 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 06:30 | 500 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 07:03 | 500 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 07:36 | 2 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 08:09 | 2 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-11 Start Date: 10/23/2017 05:14

Analysis Batch Number: 436780 End Date: 10/24/2017 21:35

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 10/24/2017 08:42 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 09:16 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 09:49 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 10:22 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 11:04 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 11:38 | 10 | | AS14 4(mm) |
| CCV 440-436780/52 | | 10/24/2017 12:11 | 1 | | AS14 4(mm) |
| CCB 440-436780/53 | | 10/24/2017 12:44 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 13:17 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 13:50 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 14:24 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 14:57 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 15:30 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 16:03 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 16:36 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 17:10 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 17:43 | 5 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 18:16 | 500 | | AS14 4(mm) |
| CCV 440-436780/64 | | 10/24/2017 18:49 | 1 | | AS14 4(mm) |
| CCB 440-436780/65 | | 10/24/2017 19:22 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 19:55 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 20:29 | 1000 | | AS14 4(mm) |
| CCV 440-436780/68 | | 10/24/2017 21:02 | 1 | | AS14 4(mm) |
| CCB 440-436780/69 | | 10/24/2017 21:35 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-11 Start Date: 10/23/2017 05:14

Analysis Batch Number: 436781 End Date: 10/24/2017 19:22

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-436781/1 | | 10/23/2017 05:14 | 1 | | AS14 4(mm) |
| CCB 440-436781/2 | | 10/23/2017 05:48 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 06:21 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 06:54 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 08:33 | 500 | | AS14 4(mm) |
| CCV 440-436781/8 | | 10/23/2017 09:07 | 1 | 20171023008.d | AS14 4(mm) |
| CCB 440-436781/9 | | 10/23/2017 09:40 | 1 | 20171023009.d | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 10:13 | 1 | | AS14 4(mm) |
| LCS 440-436671/1-A | | 10/23/2017 10:46 | 1 | 20171023011.d | AS14 4(mm) |
| MB 440-436671/2-A | | 10/23/2017 11:19 | 1 | 20171023012.d | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 11:53 | 1 | | AS14 4(mm) |
| 440-194754-A-6-B MS | | 10/23/2017 12:26 | 1 | 20171023014.d | AS14 4(mm) |
| 440-194754-A-6-C MSD | | 10/23/2017 12:59 | 1 | 20171023015.d | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 13:32 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 14:05 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 14:39 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 15:12 | 50 | | AS14 4(mm) |
| CCV 440-436781/20 | | 10/23/2017 15:45 | 1 | 20171023020.d | AS14 4(mm) |
| CCB 440-436781/21 | | 10/23/2017 16:18 | 1 | 20171023021.d | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 17:24 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 17:58 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 18:31 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 19:37 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 20:10 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 20:44 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 21:17 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 21:50 | 50 | | AS14 4(mm) |
| CCV 440-436781/32 | | 10/23/2017 22:23 | 1 | | AS14 4(mm) |
| CCB 440-436781/33 | | 10/23/2017 22:56 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/23/2017 23:30 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 00:03 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 00:36 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 01:09 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 01:42 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 02:16 | 1 | | AS14 4(mm) |
| CCV 440-436781/40 | | 10/24/2017 05:23 | 1 | | AS14 4(mm) |
| CCB 440-436781/41 | | 10/24/2017 05:56 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 06:30 | 500 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 07:03 | 500 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 07:36 | 2 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 08:09 | 2 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 11:38 | 10 | | AS14 4(mm) |
| CCV 440-436781/52 | | 10/24/2017 12:11 | 1 | | AS14 4(mm) |
| CCB 440-436781/53 | | 10/24/2017 12:44 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 13:17 | 1 | | AS14 4(mm) |

# HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-11 Start Date: 10/23/2017 05:14

Analysis Batch Number: 436781 End Date: 10/24/2017 19:22

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 10/24/2017 13:50 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 14:24 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 14:57 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 15:30 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 16:03 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 16:36 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 17:10 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/24/2017 17:43 | 5 | | AS14 4(mm) |
| CCV 440-436781/64 | | 10/24/2017 18:49 | 1 | | AS14 4(mm) |
| CCB 440-436781/65 | | 10/24/2017 19:22 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-11 Start Date: 10/25/2017 05:18

Analysis Batch Number: 437271 End Date: 10/27/2017 07:25

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-437271/1 | | 10/25/2017 05:18 | 1 | | AS14 4(mm) |
| CCB 440-437271/2 | | 10/25/2017 05:51 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 06:24 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 06:58 | 200 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 07:31 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 08:04 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 08:44 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 09:18 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 09:51 | 5 | | AS14 4(mm) |
| CCV 440-437271/10 | | 10/25/2017 10:24 | 1 | | AS14 4(mm) |
| CCV 440-437271/11 | | 10/25/2017 10:57 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 11:30 | 1 | | AS14 4(mm) |
| CCB 440-437271/13 | | 10/25/2017 12:04 | 1 | | AS14 4(mm) |
| CCB 440-437271/14 | | 10/25/2017 12:37 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 13:10 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 13:43 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 14:16 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 14:50 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 15:23 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 15:56 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 16:29 | 1 | | AS14 4(mm) |
| CCV 440-437271/22 | | 10/25/2017 20:26 | 1 | | AS14 4(mm) |
| CCB 440-437271/23 | | 10/25/2017 20:59 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 22:05 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 22:38 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 23:11 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 23:45 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 00:18 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 00:51 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 01:24 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 01:57 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 02:31 | 1 | | AS14 4(mm) |
| CCV 440-437271/34 | | 10/26/2017 05:03 | 1 | 20171025034.d | AS14 4(mm) |
| CCB 440-437271/35 | | 10/26/2017 05:40 | 1 | 20171025035.d | AS14 4(mm) |
| MRL 440-437271/36 | | 10/26/2017 06:14 | 1 | 20171025036.d | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 06:47 | 200 | | AS14 4(mm) |
| 440-194764-1 | | 10/26/2017 09:00 | 5 | 20171025041.d | AS14 4(mm) |
| CCV 440-437271/42 | | 10/26/2017 09:33 | 1 | 20171025042.d | AS14 4(mm) |
| CCB 440-437271/43 | | 10/26/2017 10:06 | 1 | 20171025043.d | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 10:39 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 11:12 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 11:46 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 13:30 | 2000 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 14:03 | 2000 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 14:37 | 2000 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-11 Start Date: 10/25/2017 05:18

Analysis Batch Number: 437271 End Date: 10/27/2017 07:25

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 10/26/2017 15:10 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 15:43 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 16:16 | 50 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 16:49 | 50 | | AS14 4(mm) |
| CCV 440-437271/54 | | 10/26/2017 17:23 | 1 | | AS14 4(mm) |
| CCB 440-437271/55 | | 10/26/2017 17:56 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 18:29 | 20 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 19:02 | 20 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 19:35 | 20 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 20:08 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 20:42 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 21:15 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 21:48 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 22:21 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 22:54 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 23:28 | 20 | | AS14 4(mm) |
| CCV 440-437271/66 | | 10/27/2017 00:01 | 1 | | AS14 4(mm) |
| CCB 440-437271/67 | | 10/27/2017 00:34 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 01:07 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 01:40 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 02:14 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 02:47 | 10 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 04:07 | 100 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 04:40 | 100 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 05:13 | 100 | | AS14 4(mm) |
| ZZZZZ | | 10/27/2017 06:18 | 20 | | AS14 4(mm) |
| CCV 440-437271/76 | | 10/27/2017 06:51 | 1 | | AS14 4(mm) |
| CCB 440-437271/77 | | 10/27/2017 07:25 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-11 Start Date: 10/25/2017 05:18

Analysis Batch Number: 437272 End Date: 10/26/2017 10:06

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-437272/1 | | 10/25/2017 05:18 | 1 | | AS14 4(mm) |
| CCB 440-437272/2 | | 10/25/2017 05:51 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 06:24 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 07:31 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 08:04 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 08:44 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 09:18 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 09:51 | 5 | | AS14 4(mm) |
| CCV 440-437272/10 | | 10/25/2017 10:24 | 1 | | AS14 4(mm) |
| CCV 440-437272/11 | | 10/25/2017 10:57 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/25/2017 11:30 | 1 | | AS14 4(mm) |
| CCB 440-437272/13 | | 10/25/2017 12:04 | 1 | | AS14 4(mm) |
| CCB 440-437272/14 | | 10/25/2017 12:37 | 1 | | AS14 4(mm) |
| CCV 440-437272/34 | | 10/26/2017 05:03 | 1 | 20171025034.d | AS14 4(mm) |
| CCB 440-437272/35 | | 10/26/2017 05:40 | 1 | 20171025035.d | AS14 4(mm) |
| MRL 440-437272/36 | | 10/26/2017 06:14 | 1 | 20171025036.d | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 07:20 | 1 | | AS14 4(mm) |
| ZZZZZ | | 10/26/2017 07:53 | 1 | | AS14 4(mm) |
| 440-194764-1 | | 10/26/2017 08:26 | 1 | 20171025040.d | AS14 4(mm) |
| CCV 440-437272/42 | | 10/26/2017 09:33 | 1 | 20171025042.d | AS14 4(mm) |
| CCB 440-437272/43 | | 10/26/2017 10:06 | 1 | 20171025043.d | AS14 4(mm) |

# HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Batch Number: 436671  Batch Start Date: 10/21/17 12:56  Batch Analyst: Zakhrabov, Yuriy

Batch Method: DI Leach  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | WC3001LCS 00054 | WCDCA 00050 | | |
|---|---|---|---|---|---|---|---|---|---|
| LCS 440-436671/1 | | DI Leach, 300.1B | | 4.01 g | 40 mL | 1000 uL | 80 uL | | |
| MB 440-436671/2 | | DI Leach, 300.1B | | 4.01 g | 40 mL | | 80 uL | | |
| 440-194754-A-6 MS | | DI Leach, 300.1B | S | 4.01 g | 40 mL | 1000 uL | 80 uL | | |
| 440-194754-A-6 MSD | | DI Leach, 300.1B | S | 4.02 g | 40 mL | 1000 uL | 80 uL | | |
| 440-194764-A-1 | VER-01D-90.0-20171020 | DI Leach, 300.1B | S | 4.01 g | 40 mL | | 80 uL | | |

| Batch Notes | |
|---|---|
| Balance ID | 67 |
| Blank Soil Lot Number | D1069103 |
| Final Room Temperature | 24 Degrees C |
| Initial Room Temperature | 24 Degrees C |
| Room Temperature Thermometer ID | P-121 |
| Uncorrected Final Room Temperature | 23 Degrees C |
| Uncorrected Initial Room Temperature | 23 Degrees C |

| Basis | Basis Description |
|---|---|
| S | Soluble |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Method 314

## Perchlorate (IC) by Method 314

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Matrix: Solid (Soluble) Level: Low Lab File ID: 440-0095301-053_53_ECD_1.d

Lab ID: LCS 440-437240/2-A Client ID:

| COMPOUND | SPIKE ADDED (mg/Kg) | LCS CONCENTRATION (mg/Kg) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 0.499 | 0.455 | 91 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0095301-007_7_ECD_1.d

Lab ID: MRL 440-437568/7 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 4.00 | 3.99 J | 100 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Matrix: Solid (Soluble) Level: Low Lab File ID: 440-0095301-084_84_ECD_1.d

Lab ID: 440-194623-A-4-H MS Client ID:

| COMPOUND | SPIKE ADDED (mg/Kg) | SAMPLE CONCENTRATION (mg/Kg) | MS CONCENTRATION (mg/Kg) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Perchlorate | 0.550 | 0.21 | 0.629 | 76 | 80-120 | F1 |

# Column to be used to flag recovery and RPD values

FORM III 314.0

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Matrix: Solid (Soluble) Level: Low Lab File ID: 440-0095301-085_85_ECD_1.d

Lab ID: 440-194623-A-4-I MSD Client ID:

| COMPOUND | SPIKE ADDED (mg/Kg) | MSD CONCENTRATION (mg/Kg) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Perchlorate | 0.551 | 0.661 | 82 | 5 | 20 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0

FORM III
HPLC/IC LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0095301-006_6_ECD_1.d

Lab ID: INF 440-437568/6 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | INF CONCENTRATION (ug/L) | INF % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 25.0 | 25.0 | 100 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab File ID: 440-0095301-052_52_ECD_1.d Lab Sample ID: MB 440-437240/1-A

Matrix: Solid (Soluble) Date Extracted:

Instrument ID: IC-25 Date Analyzed: 10/26/2017 23:32

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-437568/3 | 440-0095301-003_3_ECD_1.d | 10/26/2017 09:21 |
| | CCB 440-437568/15 | 440-0095301-015_15_ECD_1.d | 10/26/2017 12:54 |
| | CCB 440-437568/51 | 440-0095301-051_51_ECD_1.d | 10/26/2017 23:15 |
| | LCS 440-437240/2-A | 440-0095301-053_53_ECD_1.d | 10/26/2017 23:48 |
| | CCB 440-437568/63 | 440-0095301-063_63_ECD_1.d | 10/27/2017 02:37 |
| | CCB 440-437568/82 | 440-0095301-082_82_ECD_1.d | 10/27/2017 08:04 |
| | 440-194623-A-4-H MS | 440-0095301-084_84_ECD_1.d | 10/27/2017 09:00 |
| | 440-194623-A-4-I MSD | 440-0095301-085_85_ECD_1.d | 10/27/2017 09:17 |
| VER- 01D-90.0-20171020 | 440-194764-1 | 440-0095301-089_89_ECD_1.d | 10/27/2017 10:29 |
| | CCB 440-437568/93 | 440-0095301-093_93_ECD_1.d | 10/27/2017 11:51 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: VER- 01D-90.0-20171020 | Lab Sample ID: 440-194764-1

Matrix: Solid (Soluble) | Lab File ID: 440-0095301-089_89_ECD_1.d

Analysis Method: 314.0 | Date Collected: 10/20/2017 11:50

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 10:29

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: 25.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 2.6 | | 0.27 | 0.064 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-089_89_ECD_1.d | | | | |
| Lims ID: | 440-194764-A-1-D | | | | |
| Client ID: | VER- 01D-90.0-20171020 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 27-Oct-2017 10:29:00 | ALS Bottle#: | 0 | Worklist Smp#: | 89 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 5.0000 | | |
| Sample Info: | 440-0095301-089 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 12:47:11 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK007 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.541 | 11.527 | 0.014 | 5031839 | 39.3 | |

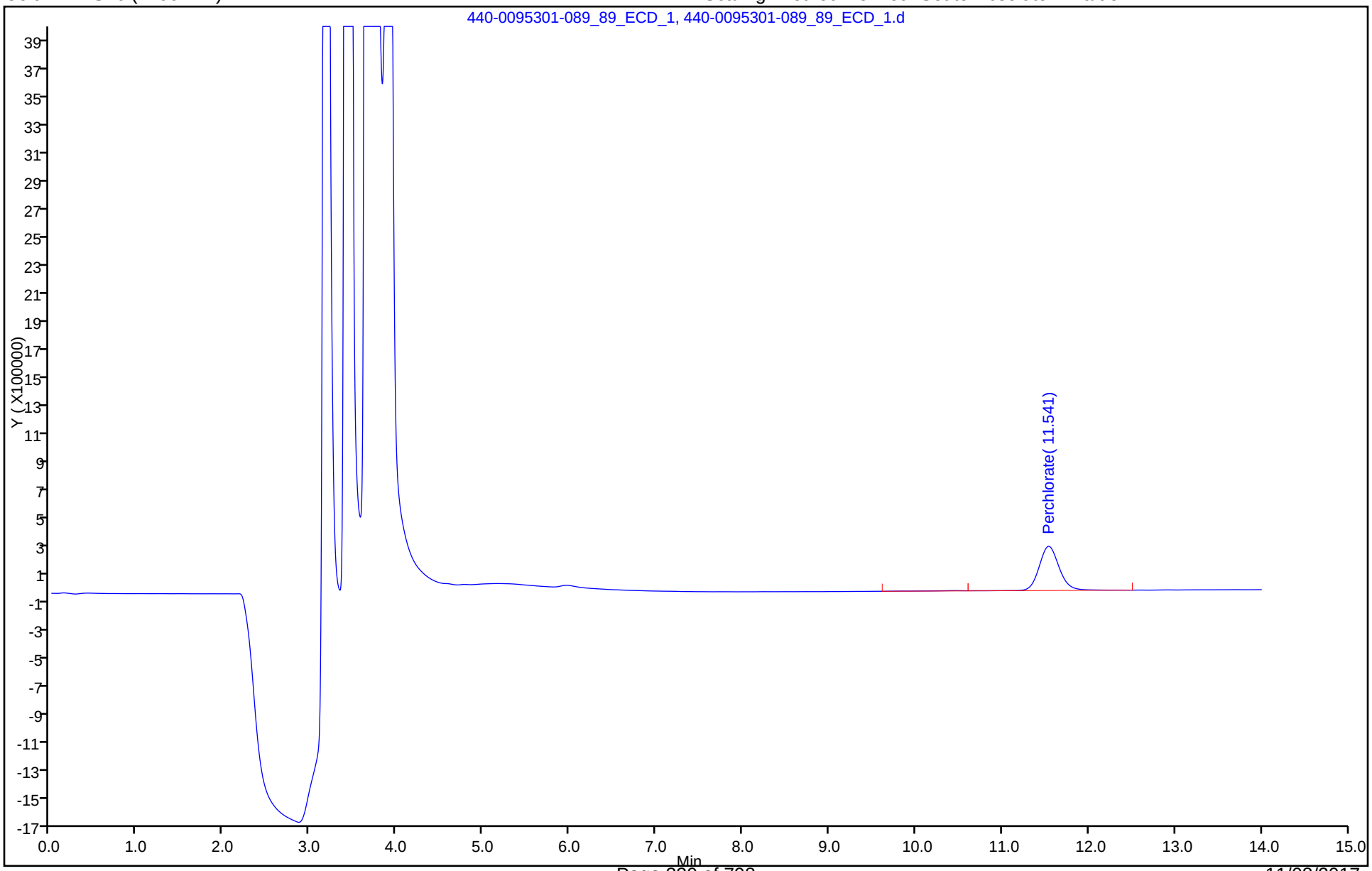
Report Date: 27-Oct-2017 11:47:30 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-089_89_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 10:29:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | 440-194764-A-1-D | Lab Sample ID: | 440-194764-1 | Worklist Smp#: | 89 |
| Client ID: | VER- 01D-90.0-20171020 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 5.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1 Analy Batch No.: 437218

SDG No.:

Instrument ID: IC-25 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/24/2017 16:48 Calibration End Date: 10/24/2017 18:45 Calibration ID: 17777

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-437218/2 | 440-0095217-002_2_ECD_1.d |
| Level 2 | STD2 440-437218/3 | 440-0095217-003_3_ECD_1.d |
| Level 3 | STD3 440-437218/4 | 440-0095217-004_4_ECD_1.d |
| Level 4 | STD4 440-437218/5 | 440-0095217-005_5_ECD_1.d |
| Level 5 | STD5 440-437218/6 | 440-0095217-006_6_ECD_1.d |
| Level 6 | STD6 440-437218/7 | 440-0095217-007_7_ECD_1.d |
| Level 7 | STD7 440-437218/8 | 440-0095217-008_8_ECD_1.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 11.894 | 11.877 | 11.877 | 11.867 | 11.857 | 11.844 | 11.824 | | | | 11.299 - 12.489 | 11.863 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-194764-1 Analy Batch No.: 437218

SDG No.:

Instrument ID: IC-25 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/24/2017 16:48 Calibration End Date: 10/24/2017 18:45 Calibration ID: 17777

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-437218/2 | 440-0095217-002_2_ECD_1.d |
| Level 2 | STD2 440-437218/3 | 440-0095217-003_3_ECD_1.d |
| Level 3 | STD3 440-437218/4 | 440-0095217-004_4_ECD_1.d |
| Level 4 | STD4 440-437218/5 | 440-0095217-005_5_ECD_1.d |
| Level 5 | STD5 440-437218/6 | 440-0095217-006_6_ECD_1.d |
| Level 6 | STD6 440-437218/7 | 440-0095217-007_7_ECD_1.d |
| Level 7 | STD7 440-437218/8 | 440-0095217-008_8_ECD_1.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Perchlorate | 123900<br>127102 | 114557<br>129691 | 130512<br>137810 | 117285 | Qua | -4087.8031 | 122012.044 | 158.345383 | | | | | | 1.0000 | | 0.9950 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-194764-1 Analy Batch No.: 437218

SDG No.:

Instrument ID: IC-25 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/24/2017 16:48 Calibration End Date: 10/24/2017 18:45 Calibration ID: 17777

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-437218/2 | 440-0095217-002_2_ECD_1.d |
| Level 2 | STD2 440-437218/3 | 440-0095217-003_3_ECD_1.d |
| Level 3 | STD3 440-437218/4 | 440-0095217-004_4_ECD_1.d |
| Level 4 | STD4 440-437218/5 | 440-0095217-005_5_ECD_1.d |
| Level 5 | STD5 440-437218/6 | 440-0095217-006_6_ECD_1.d |
| Level 6 | STD6 440-437218/7 | 440-0095217-007_7_ECD_1.d |
| Level 7 | STD7 440-437218/8 | 440-0095217-008_8_ECD_1.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| Perchlorate | Qua | 123900<br>6484558 | 229114<br>13781040 | 522047 | 1172852 | 3177542 | 1.00<br>50.0 | 2.00<br>100 | 4.00 | 10.0 | 25.0 |

Curve Type Legend:
Qua = Quadratic

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-002_2_ECD_1.d
Lims ID: std1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 24-Oct-2017 17:04:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095217-002
Misc. Info.: ch
Operator ID: Instrument ID: IC-25
Sublist: chrom-314_25perchlorate*sub1

Method: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\314_25perchlorate.m
Limit Group: IC-314
Method Label: PERCHLORATE
Last Update: 25-Oct-2017 08:18:11 Calib Date: 24-Oct-2017 18:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d

Column 1 : AS16 ( 4.00 mm) Det: Ch-A-20111003029
Process Host: XAWRK006

First Level Reviewer: hoangch Date: 25-Oct-2017 08:13:09

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.894 | 11.894 | 0.000 | 123900 | 1.00 | 1.05 | M |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

WCCLO41st-10_00011 Amount Added: 10.00 Units: uL

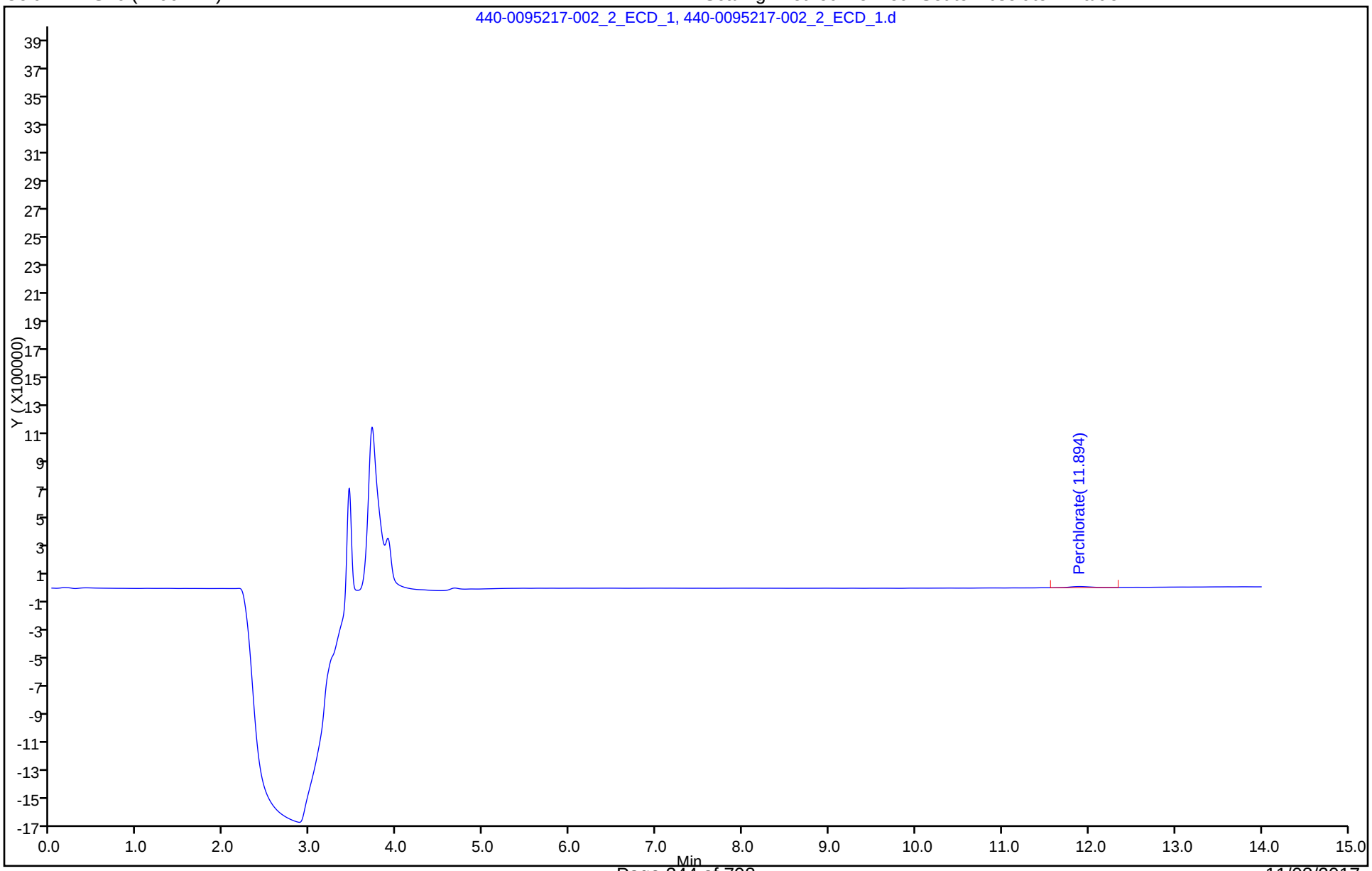
Report Date: 25-Oct-2017 08:18:11 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-002_2_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 17:04:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | std1 | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

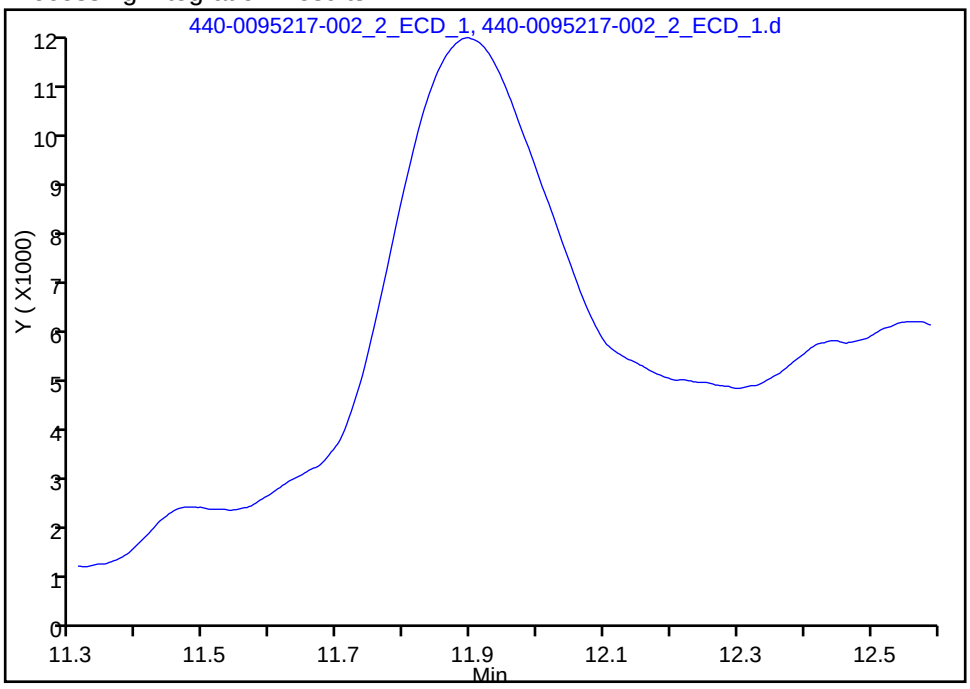
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-002_2_ECD_1.d | | | | |
| Injection Date: | 24-Oct-2017 17:04:00 | Instrument ID: | IC-25 | | |
| Lims ID: | std1 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |
| Column: | AS16 ( 4.00 mm) | Detector | Ch-A-20111003029 | | |

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

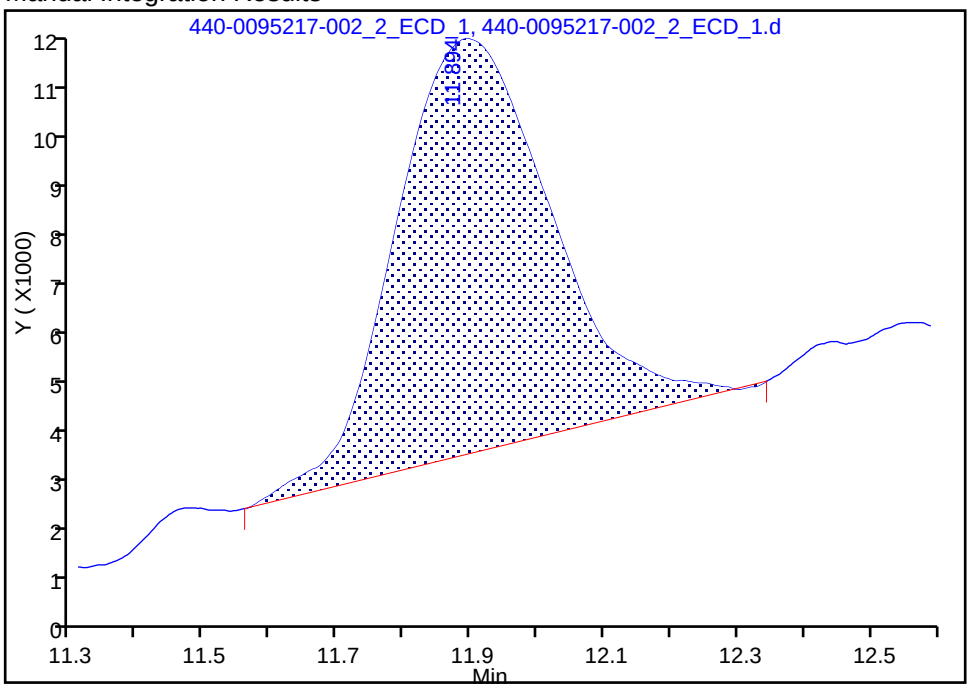
Not Detected
Expected RT: 11.89

Processing Integration Results




Manual Integration Results

RT: 11.89
Area: 123900
Amount: 1.047553
Amount Units: ug/l




Reviewer: hoangch, 25-Oct-2017 08:13:07
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Irvine

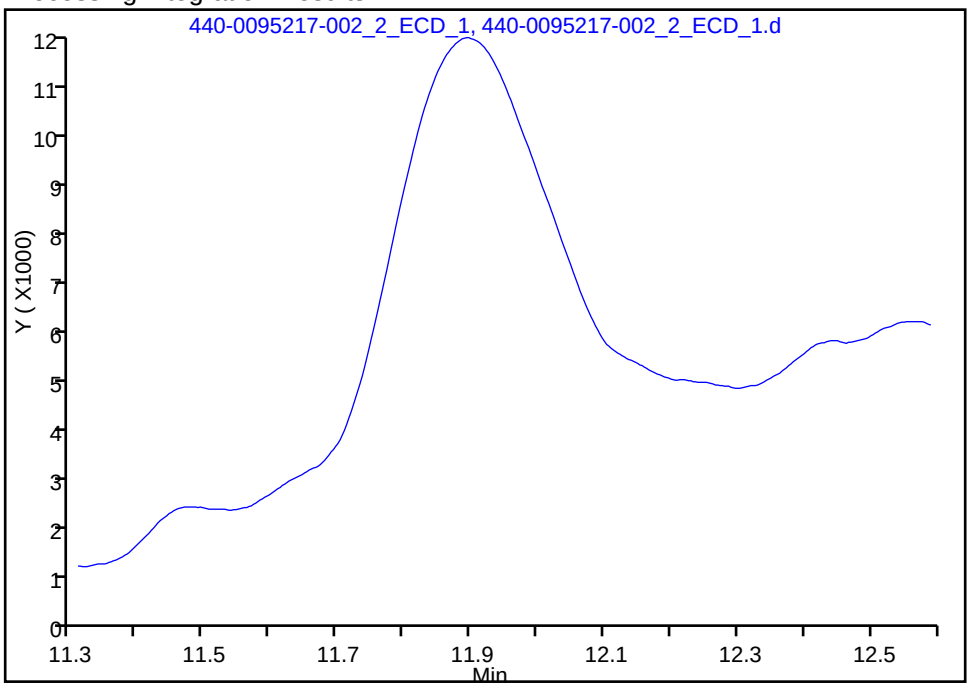
Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-002_2_ECD_1.d
Injection Date: 24-Oct-2017 17:04:00 Instrument ID: IC-25
Lims ID: std1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 314_25perchlorate Limit Group: IC-314
Column: AS16 ( 4.00 mm) Detector Ch-A-20111003029

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

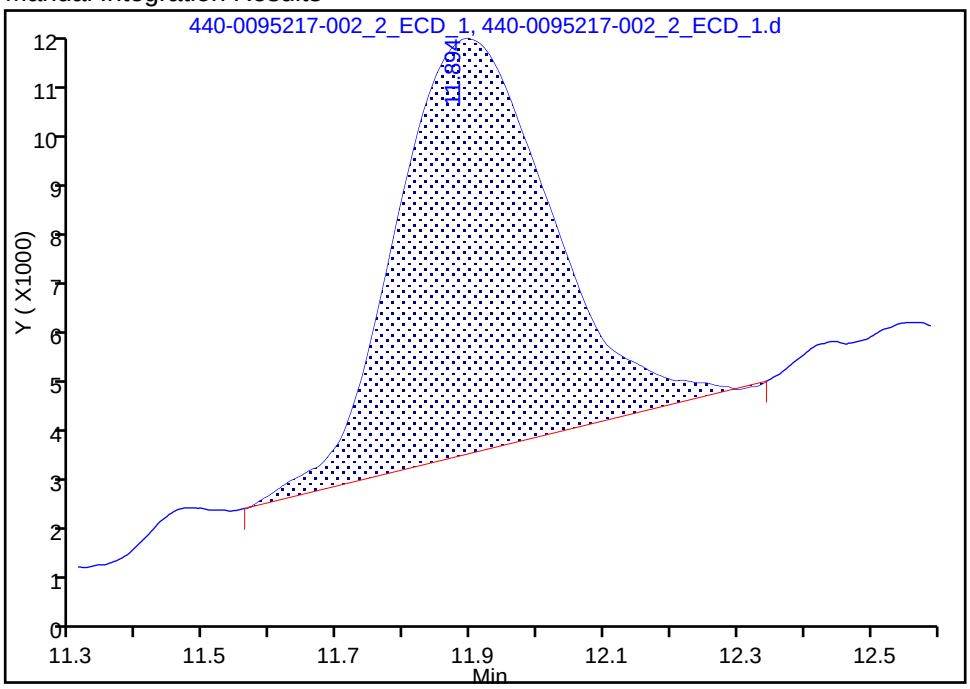
Not Detected
Expected RT: 11.89

Processing Integration Results




Manual Integration Results

RT: 11.89
Area: 123900
Amount: 1.047553
Amount Units: ug/l




Reviewer: hoangch, 25-Oct-2017 08:14:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-003_3_ECD_1.d
Lims ID: std2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 24-Oct-2017 17:21:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095217-003
Misc. Info.: ch
Operator ID: Instrument ID: IC-25
Sublist: chrom-314_25perchlorate*sub1

Method: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\314_25perchlorate.m
Limit Group: IC-314
Method Label: PERCHLORATE
Last Update: 25-Oct-2017 08:18:12 Calib Date: 24-Oct-2017 18:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d

Column 1 : AS16 ( 4.00 mm) Det: Ch-A-20111003029
Process Host: XAWRK006

First Level Reviewer: hoangch Date: 25-Oct-2017 08:11:46

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.877 | 11.894 | -0.017 | 229114 | 2.00 | 1.91 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 20.00 Units: uL

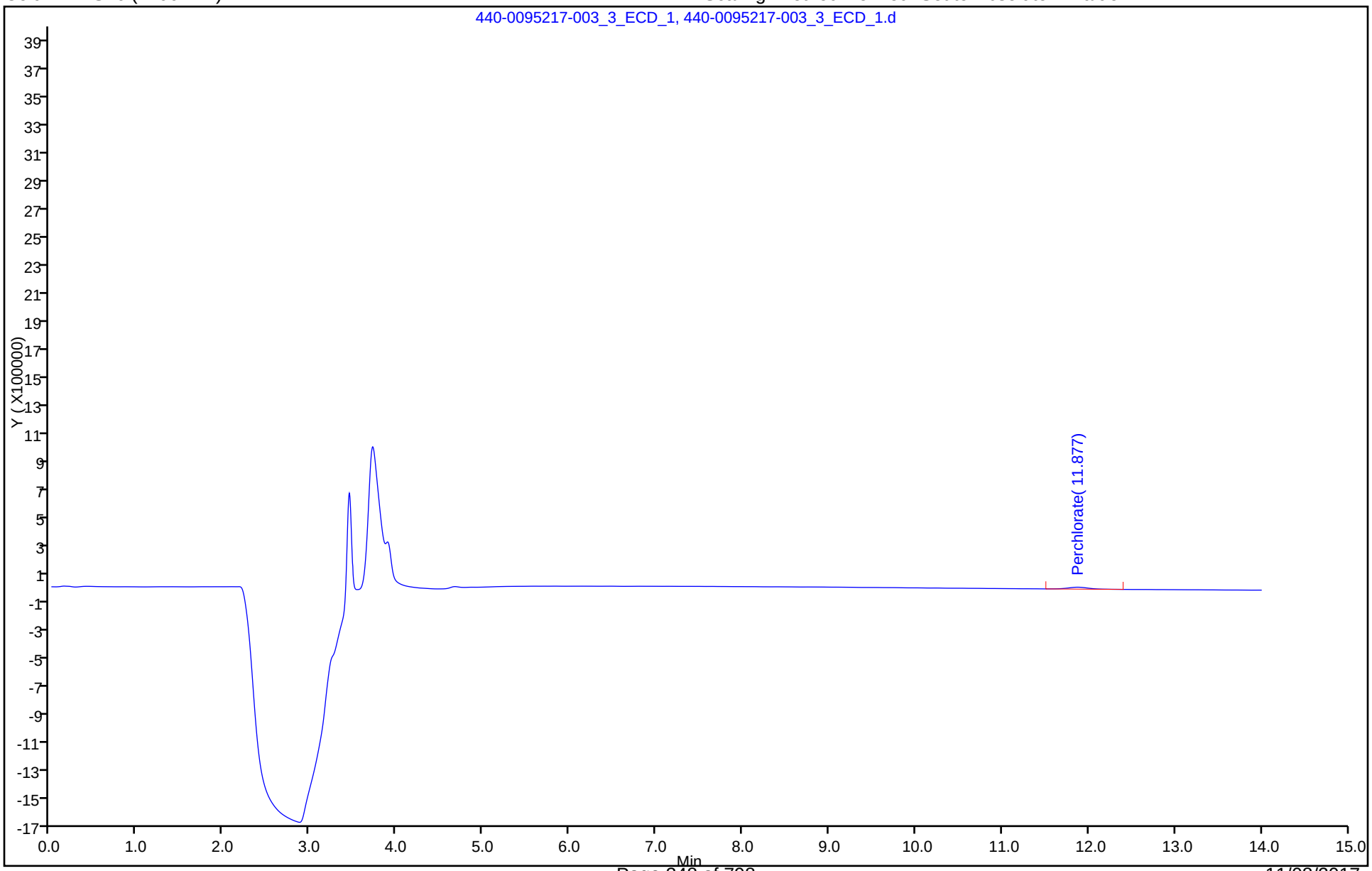
Report Date: 25-Oct-2017 08:18:13 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-003_3_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 17:21:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | std2 | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-004_4_ECD_1.d
Lims ID: std3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 24-Oct-2017 17:38:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095217-004
Misc. Info.: ch
Operator ID: Instrument ID: IC-25
Sublist: chrom-314_25perchlorate*sub1

Method: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\314_25perchlorate.m
Limit Group: IC-314
Method Label: PERCHLORATE
Last Update: 25-Oct-2017 08:18:14 Calib Date: 24-Oct-2017 18:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d

Column 1 : AS16 ( 4.00 mm) Det: Ch-A-20111003029
Process Host: XAWRK006

First Level Reviewer: hoangch Date: 25-Oct-2017 08:13:29

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.877 | 11.894 | -0.017 | 522047 | 4.00 | 4.29 | M |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

WCCLO41st-10_00011 Amount Added: 40.00 Units: uL

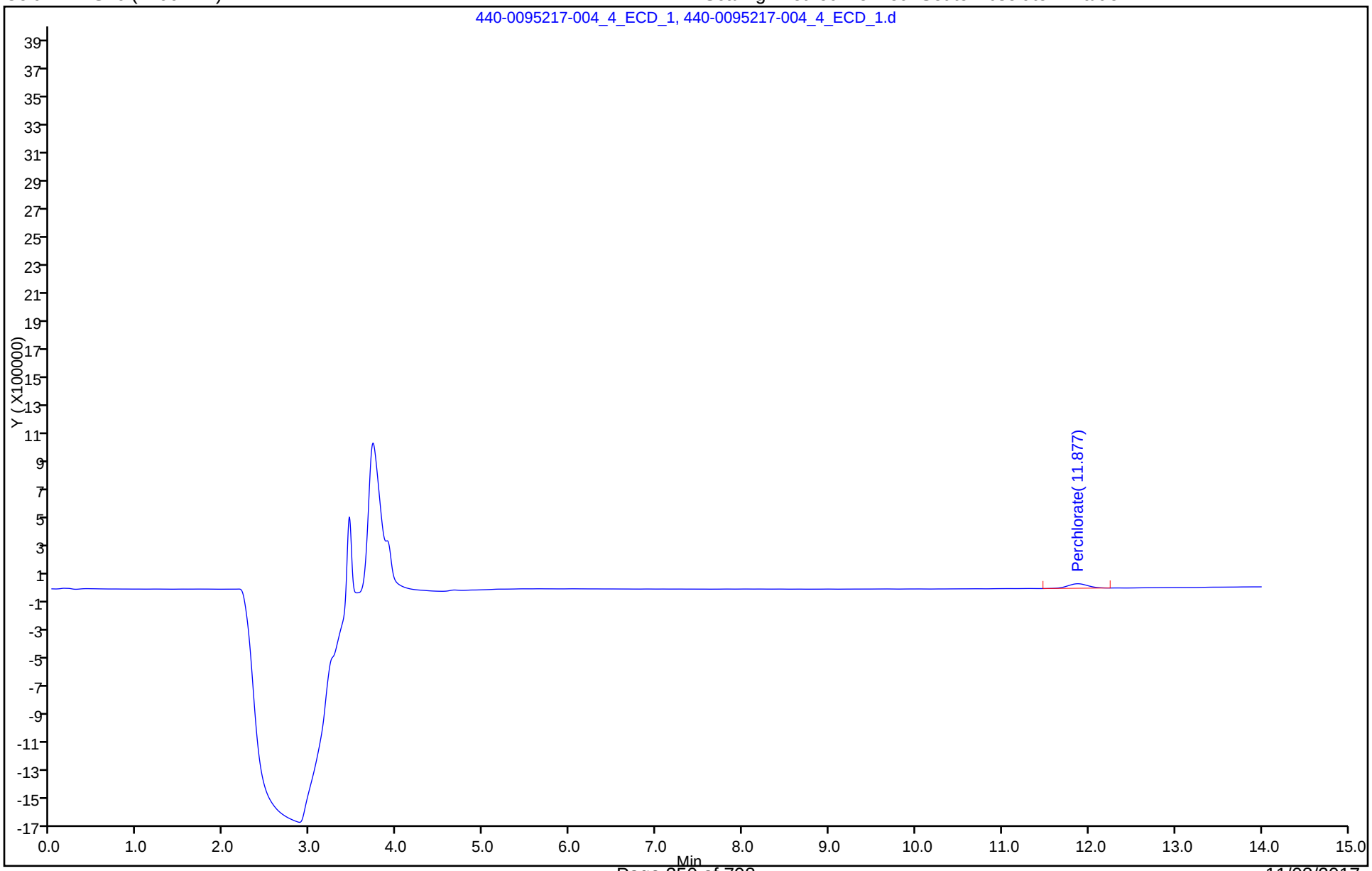
Report Date: 25-Oct-2017 08:18:14 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-004_4_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 17:38:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | std3 | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

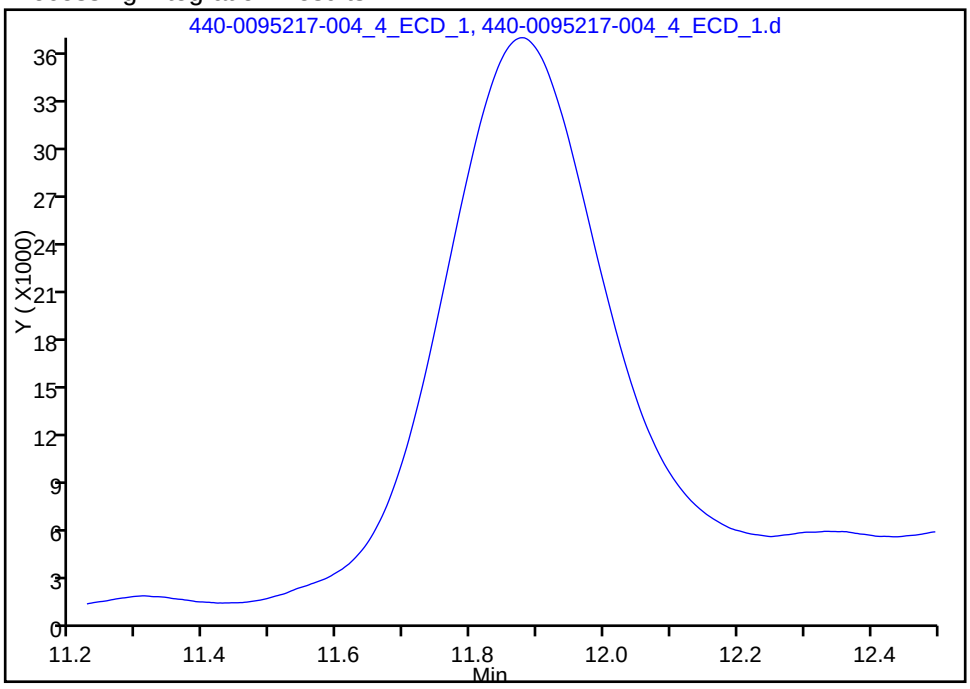
Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-004_4_ECD_1.d
Injection Date: 24-Oct-2017 17:38:00 Instrument ID: IC-25
Lims ID: std3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 314_25perchlorate Limit Group: IC-314
Column: AS16 ( 4.00 mm) Detector Ch-A-20111003029

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

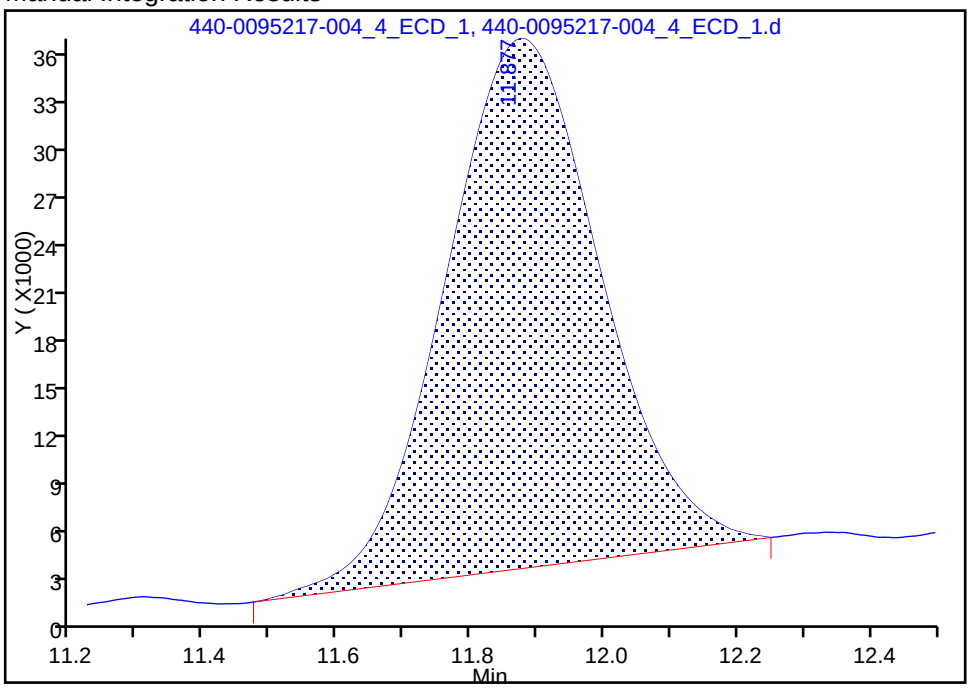
Not Detected
Expected RT: 11.89

Processing Integration Results




Manual Integration Results

RT: 11.88
Area: 522047
Amount: 4.288289
Amount Units: ug/l




Reviewer: hoangch, 25-Oct-2017 08:13:27
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Irvine

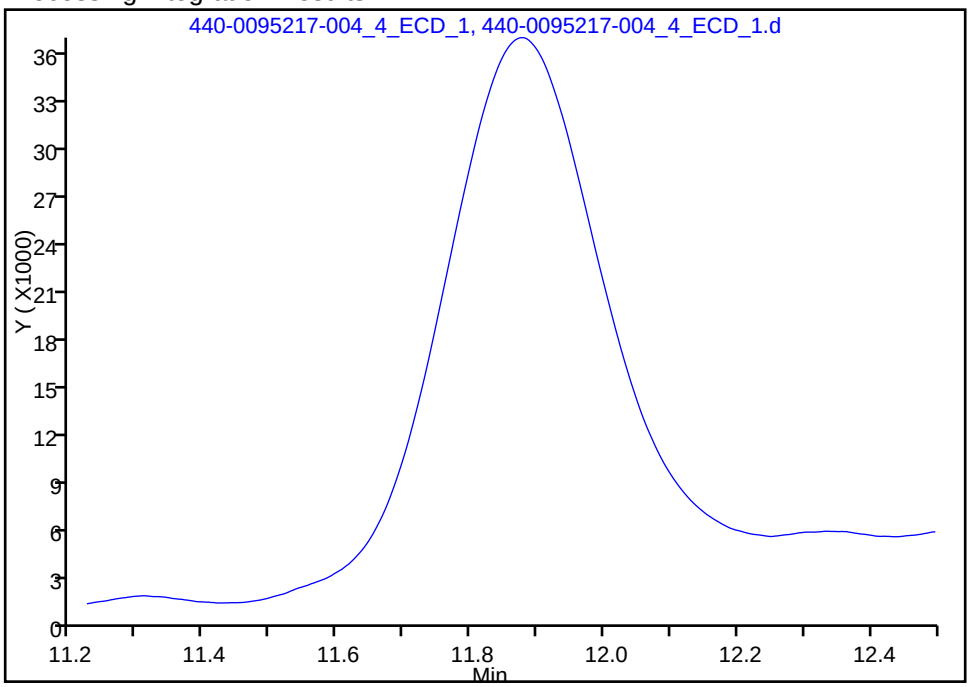
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-004_4_ECD_1.d | | | | |
| Injection Date: | 24-Oct-2017 17:38:00 | Instrument ID: | IC-25 | | |
| Lims ID: | std3 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 0 | Worklist Smp#: | 4 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |
| Column: | AS16 ( 4.00 mm) | Detector | Ch-A-20111003029 | | |

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

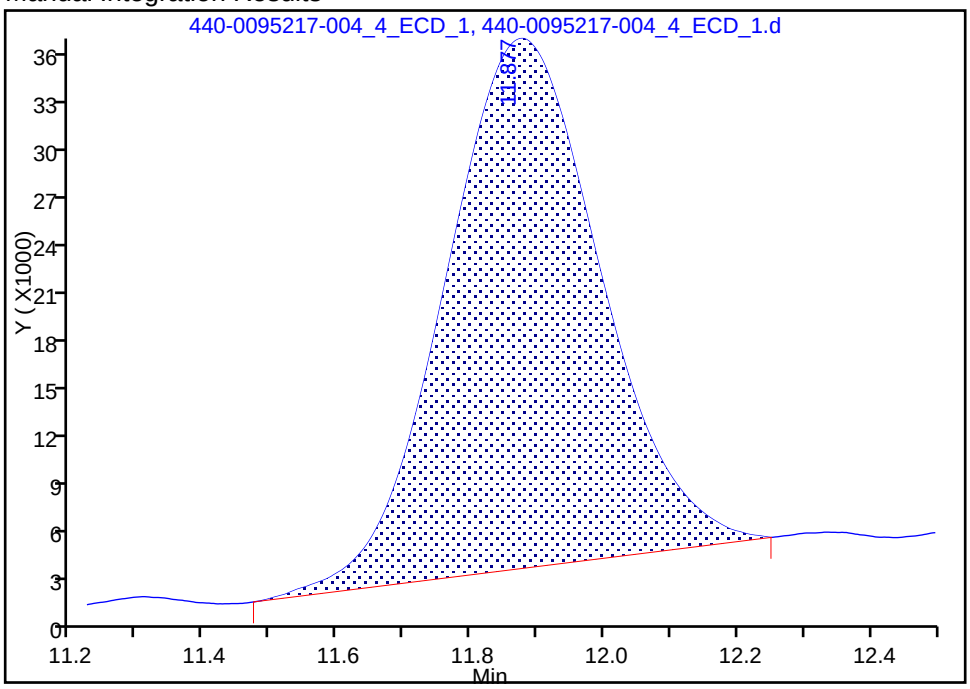
Processing Integration Results

Not Detected
Expected RT: 11.89




Manual Integration Results

RT: 11.88
Area: 522047
Amount: 4.288289
Amount Units: ug/l




Reviewer: hoangch, 25-Oct-2017 08:15:10
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-005_5_ECD_1.d | | | | |
| Lims ID: | std4 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 4 | | |
| Inject. Date: | 24-Oct-2017 17:54:00 | ALS Bottle#: | 0 | Worklist Smp#: | 5 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095217-005 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | chrom-314_25perchlorate*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 25-Oct-2017 08:18:15 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK006 | | | | |
| First Level Reviewer: hoangch | | Date: | 25-Oct-2017 08:12:13 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.867 | 11.894 | -0.027 | 1172852 | 10.0 | 9.53 | M |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

WCCLO41st-10_00011 Amount Added: 100.00 Units: uL

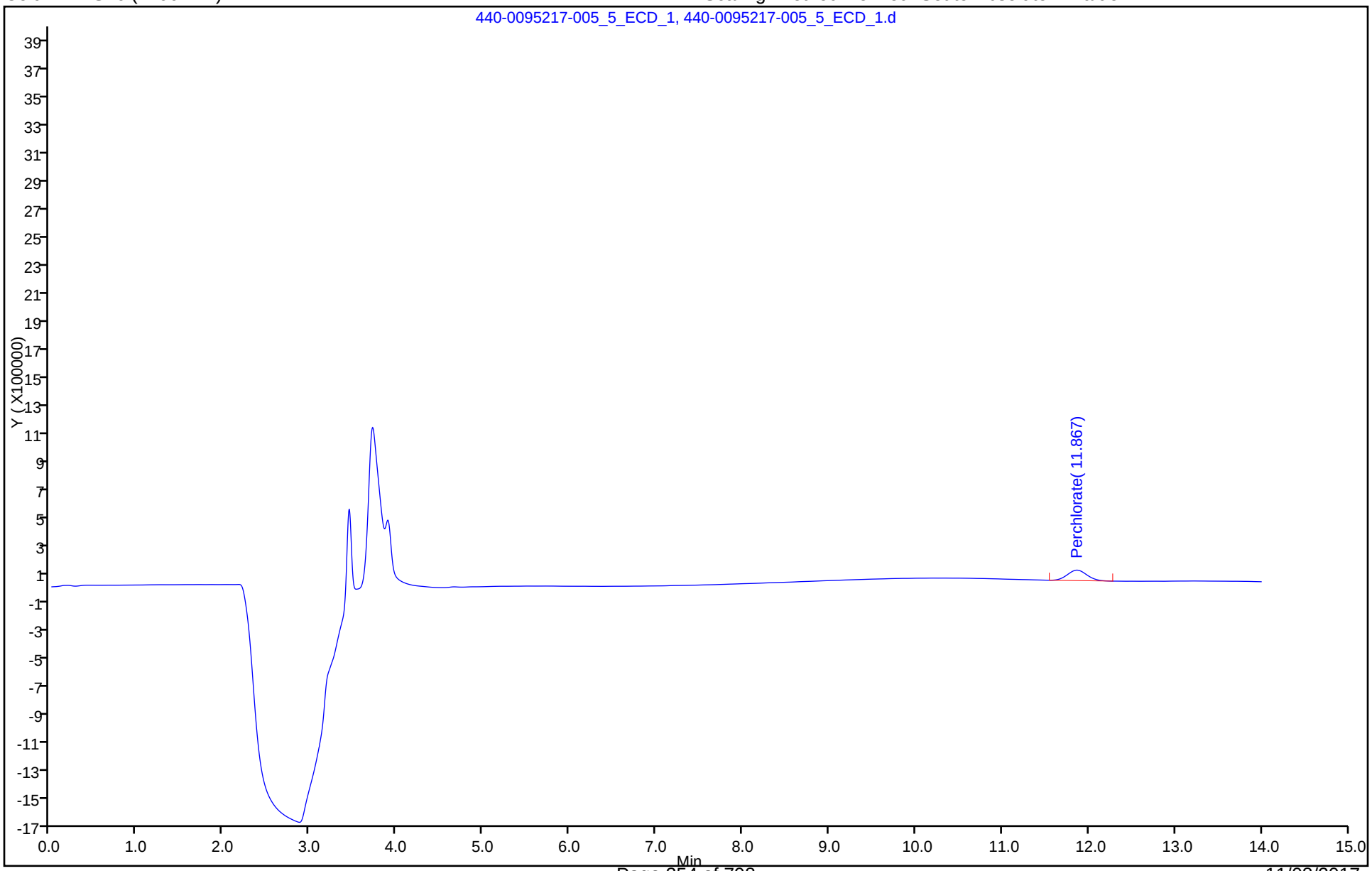
Report Date: 25-Oct-2017 08:18:15 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-005_5_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 17:54:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | std4 | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

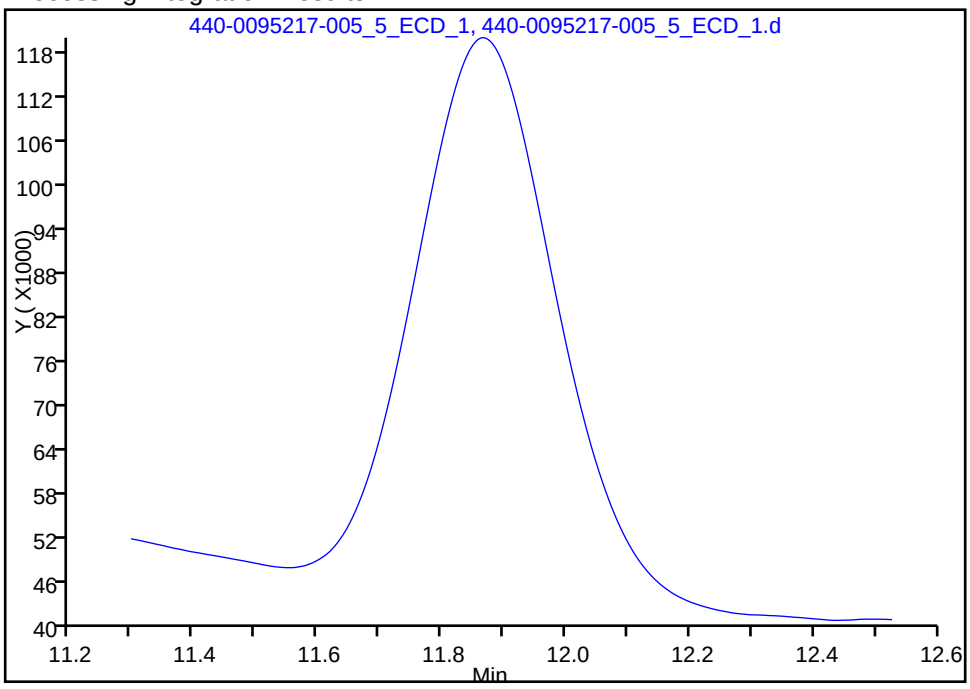
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-005_5_ECD_1.d | | | | |
| Injection Date: | 24-Oct-2017 17:54:00 | Instrument ID: | IC-25 | | |
| Lims ID: | std4 | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 0 | Worklist Smp#: | 5 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |
| Column: | AS16 ( 4.00 mm) | Detector | Ch-A-20111003029 | | |

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

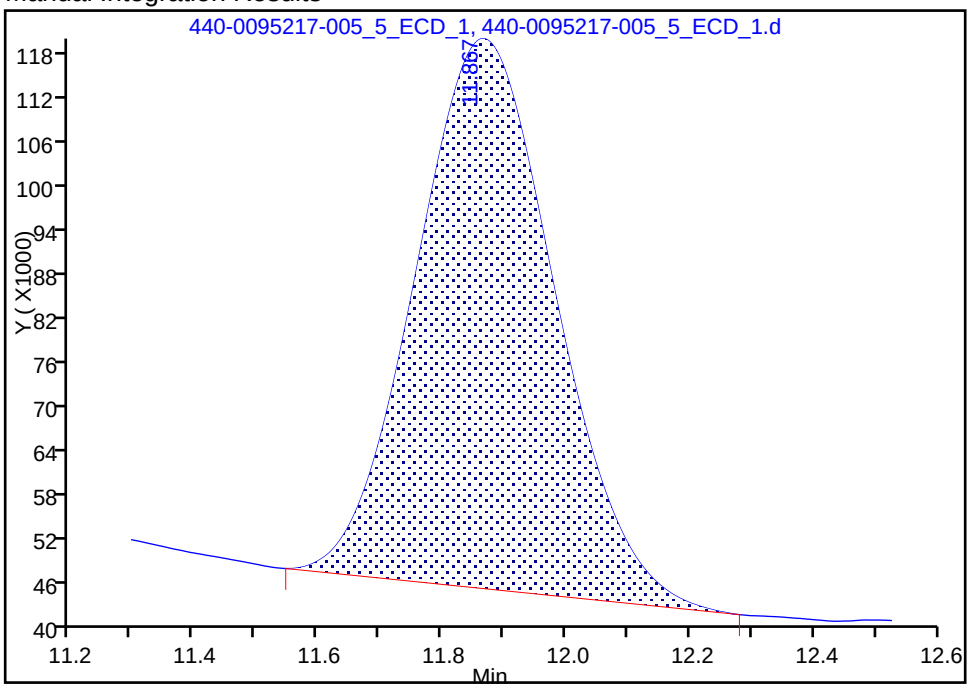
Not Detected
Expected RT: 11.89

Processing Integration Results




Manual Integration Results

RT: 11.87
Area: 1172852
Amount: 9.528272
Amount Units: ug/l




Reviewer: hoangch, 25-Oct-2017 08:11:54
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Irvine

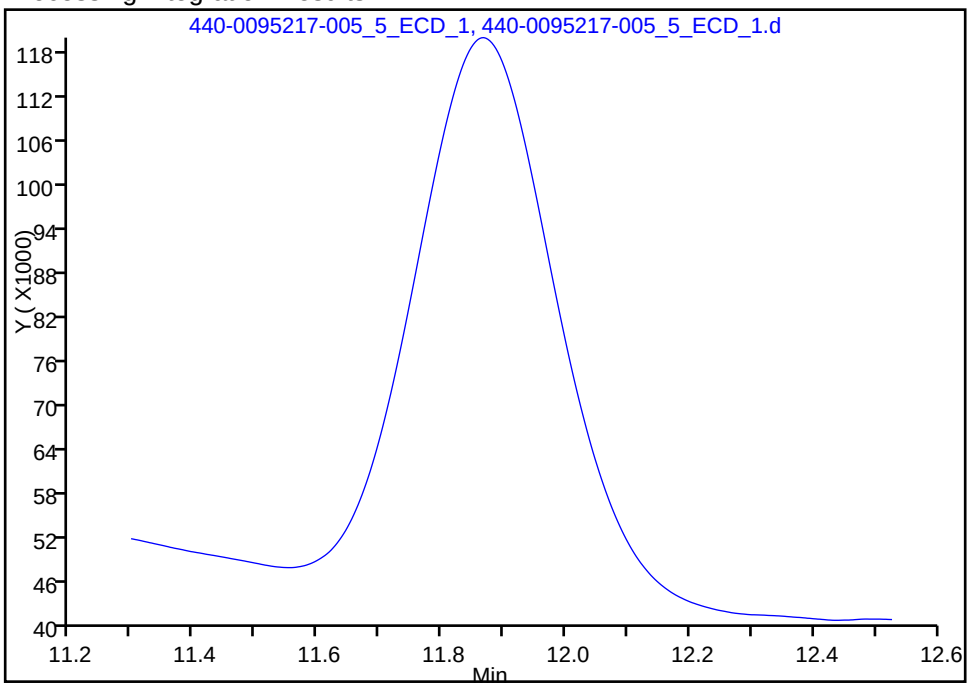
Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-005_5_ECD_1.d
Injection Date: 24-Oct-2017 17:54:00 Instrument ID: IC-25
Lims ID: std4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 314_25perchlorate Limit Group: IC-314
Column: AS16 ( 4.00 mm) Detector Ch-A-20111003029

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

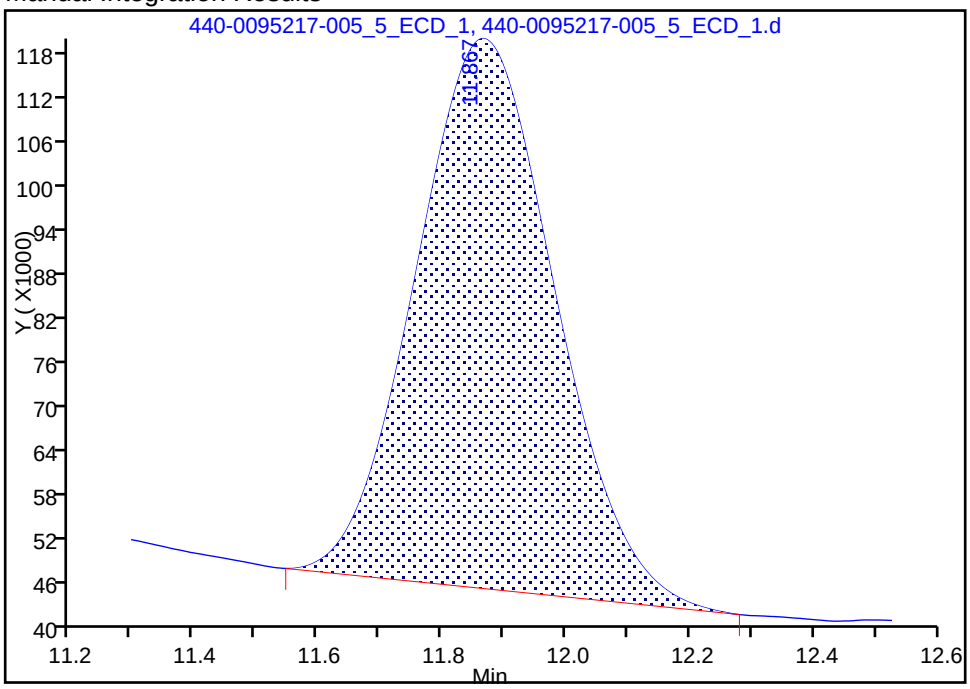
Not Detected
Expected RT: 11.89

Processing Integration Results




Manual Integration Results

RT: 11.87
Area: 1172852
Amount: 9.528272
Amount Units: ug/l




Reviewer: hoangch, 25-Oct-2017 08:12:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-006_6_ECD_1.d
Lims ID: std5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 24-Oct-2017 18:11:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095217-006
Misc. Info.: ch
Operator ID: Instrument ID: IC-25
Sublist: chrom-314_25perchlorate*sub1

Method: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\314_25perchlorate.m
Limit Group: IC-314
Method Label: PERCHLORATE
Last Update: 25-Oct-2017 08:18:16 Calib Date: 24-Oct-2017 18:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d

Column 1 : AS16 ( 4.00 mm) Det: Ch-A-20111003029
Process Host: XAWRK006

First Level Reviewer: hoangch Date: 25-Oct-2017 08:12:35

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.857 | 11.894 | -0.037 | 3177542 | 25.0 | 25.2 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 250.00 Units: uL

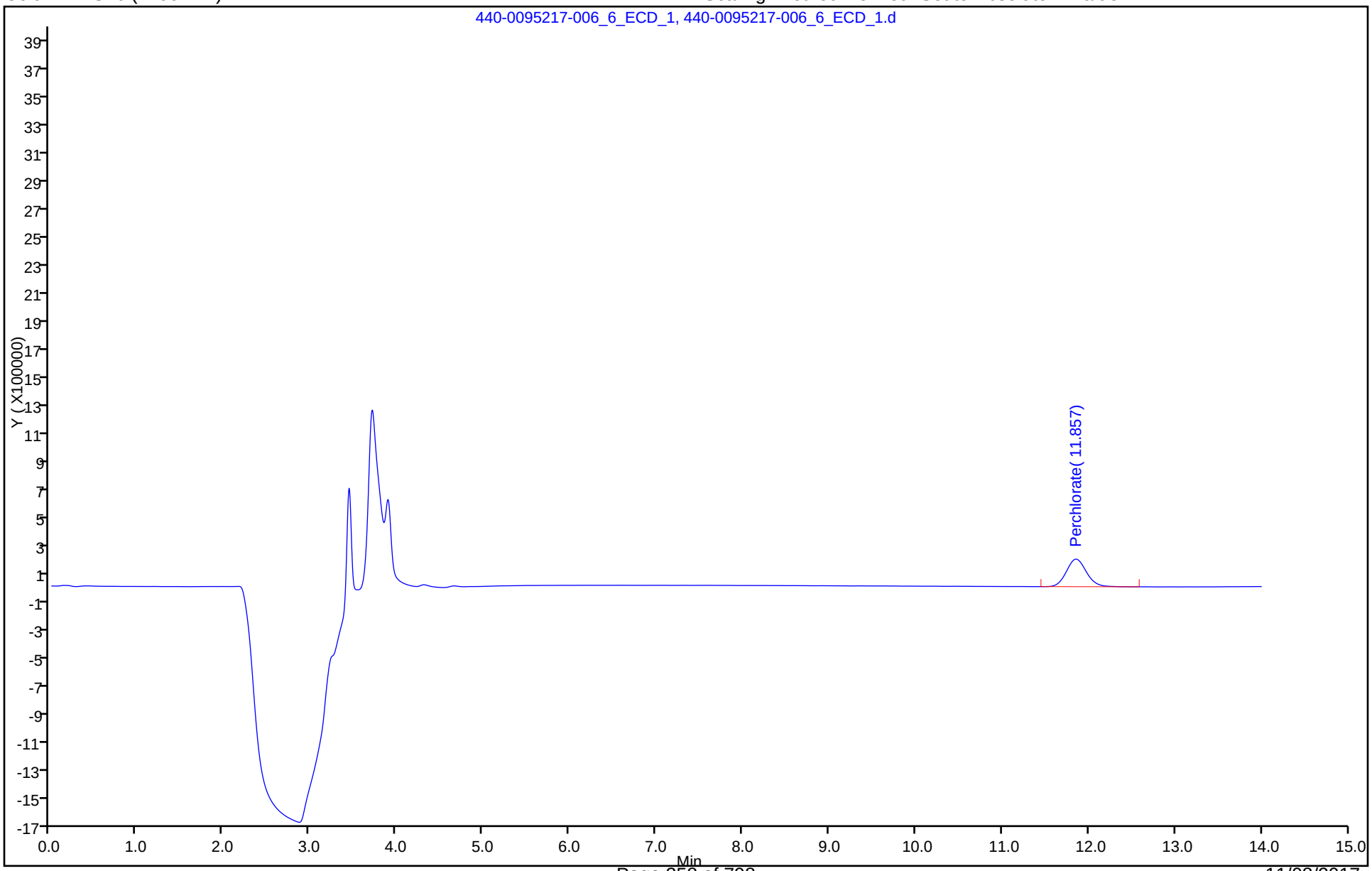
Report Date: 25-Oct-2017 08:18:17 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-006_6_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 18:11:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | std5 | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-007_7_ECD_1.d | | | | |
| Lims ID: | std6 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 6 | | |
| Inject. Date: | 24-Oct-2017 18:28:00 | ALS Bottle#: | 0 | Worklist Smp#: | 7 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095217-007 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | chrom-314_25perchlorate*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 25-Oct-2017 08:18:18 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK006 | | | | |
| First Level Reviewer: hoangch | | Date: | 25-Oct-2017 08:12:42 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.844 | 11.894 | -0.050 | 6484558 | 50.0 | 49.9 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 500.00 Units: uL

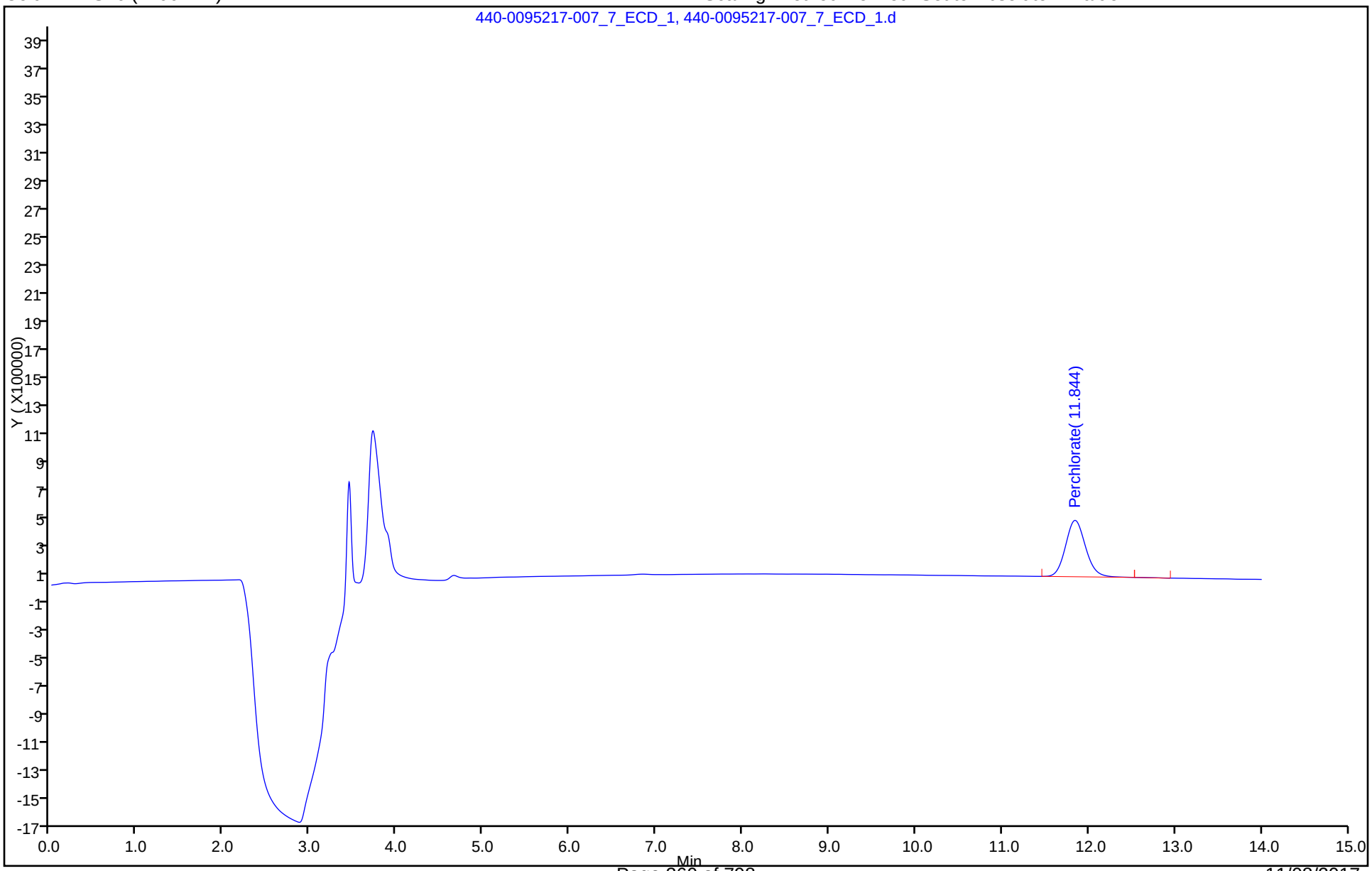
Report Date: 25-Oct-2017 08:18:18 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-007_7_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 18:28:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | std6 | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Lims ID: | std7 | | | | |
| Client ID: | | | | | |
| Sample Type: | IC | Calib Level: | 7 | | |
| Inject. Date: | 24-Oct-2017 18:45:00 | ALS Bottle#: | 0 | Worklist Smp#: | 8 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095217-008 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | chrom-314_25perchlorate*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 25-Oct-2017 08:18:21 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK006 | | | | |
| First Level Reviewer: hoangch | | Date: | 25-Oct-2017 08:12:49 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.824 | 11.894 | -0.070 | 13781040 | 100.0 | 100.0 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 1000.00 Units: uL

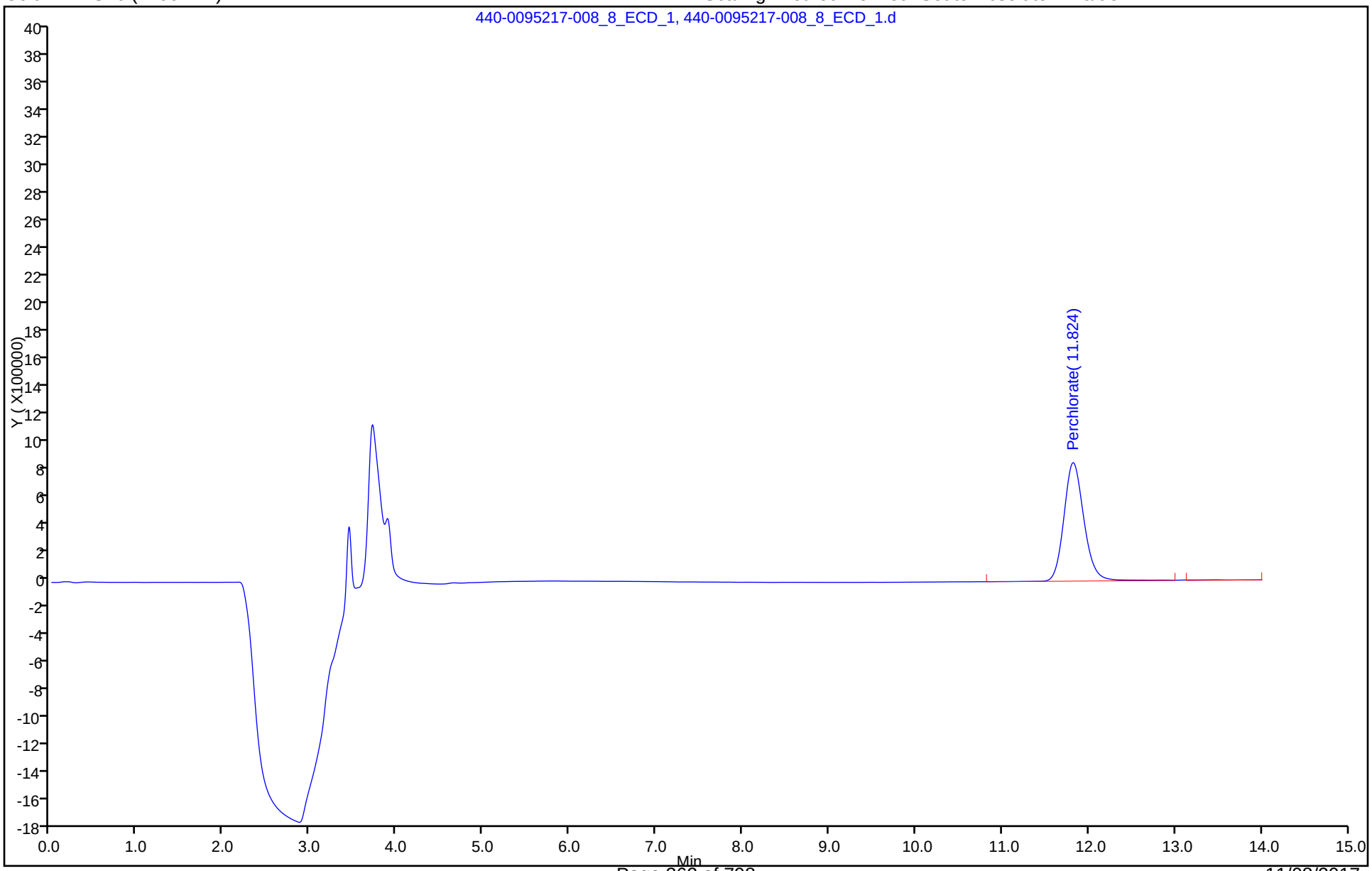
Report Date: 25-Oct-2017 08:18:22 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 18:45:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | std7 | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: ICV 440-437218/9 Calibration Date: 10/24/2017 19:02

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095217-009_9_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 50.4 | 50.0 | 101 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: ICV 440-437218/9 Calibration Date: 10/24/2017 19:02

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095217-009_9_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.84 | 11.30 | 12.49 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-009_9_ECD_1.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 24-Oct-2017 19:02:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095217-009
Misc. Info.: ch
Operator ID: Instrument ID: IC-25
Sublist:

Method: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\314_25perchlorate.m
Limit Group: IC-314
Method Label: PERCHLORATE
Last Update: 25-Oct-2017 08:18:21 Calib Date: 24-Oct-2017 18:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d

Column 1 : AS16 ( 4.00 mm) Det: Ch-A-20111003029
Process Host: XAWRK006

First Level Reviewer: hoangch Date: 25-Oct-2017 08:12:56

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.841 | 11.894 | -0.053 | 6549225 | 50.0 | 50.4 | |

## Reagents:

WCCLO4ICV10_00028 Amount Added: 500.00 Units: uL

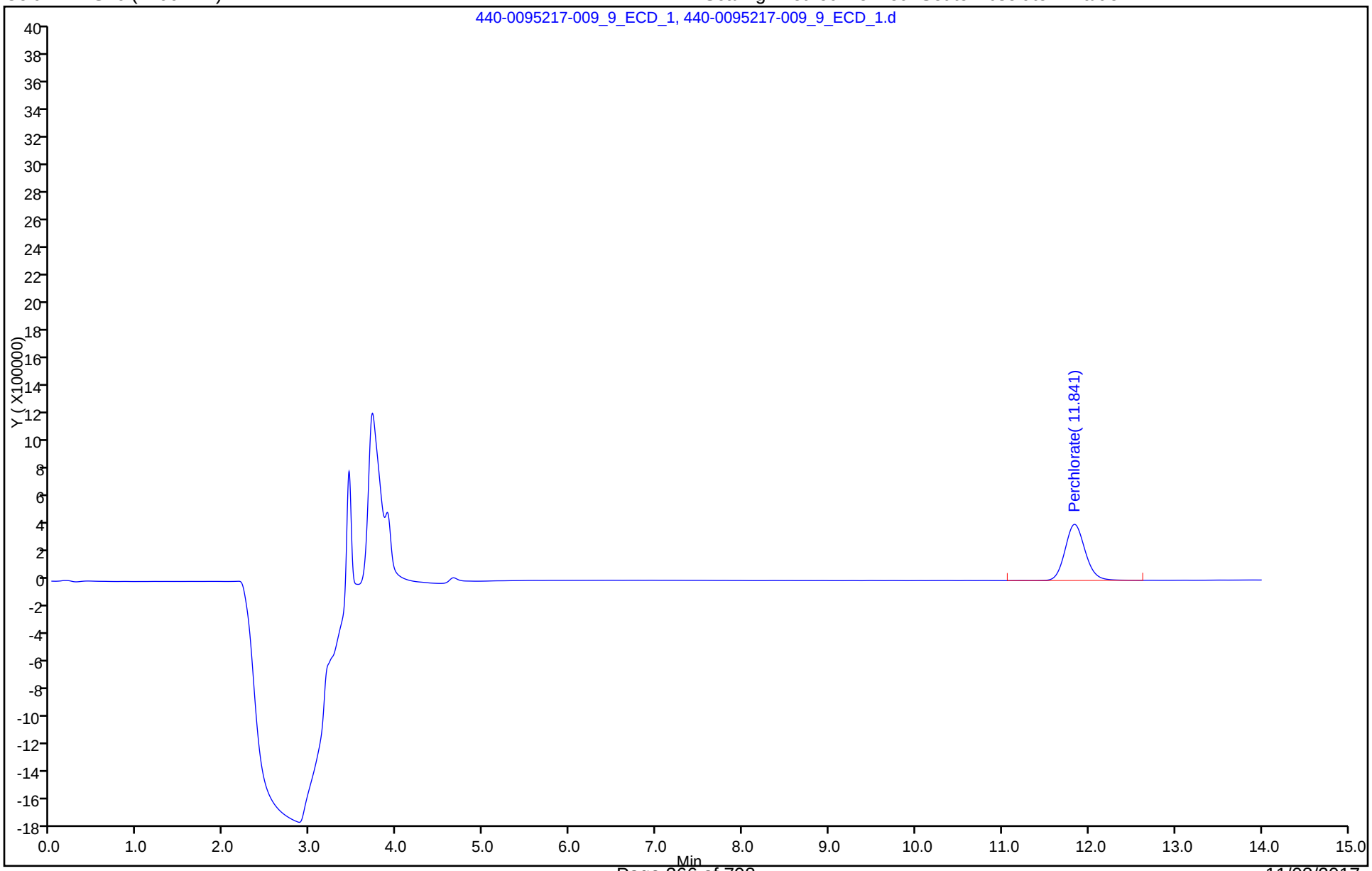
Report Date: 25-Oct-2017 08:18:23 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-009_9_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Oct-2017 19:02:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ICV | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-437568/2 Calibration Date: 10/26/2017 08:40

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-002_2_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 23.1 | 25.0 | 92 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-437568/2 Calibration Date: 10/26/2017 08:40

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-002_2_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 10.82 | 10.28 | 11.36 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-002_2_ECD_1.d | | | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 26-Oct-2017 08:40:00 | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-002 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | chrom-314_25perchlorate*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 26-Oct-2017 10:37:02 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK016 | | | | |
| First Level Reviewer: hoangch | | Date: | 26-Oct-2017 09:21:02 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.821 | 10.821 | 0.000 | 2897013 | 25.0 | 23.1 | M |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

WCCLO41st-10_00011 Amount Added: 250.00 Units: uL

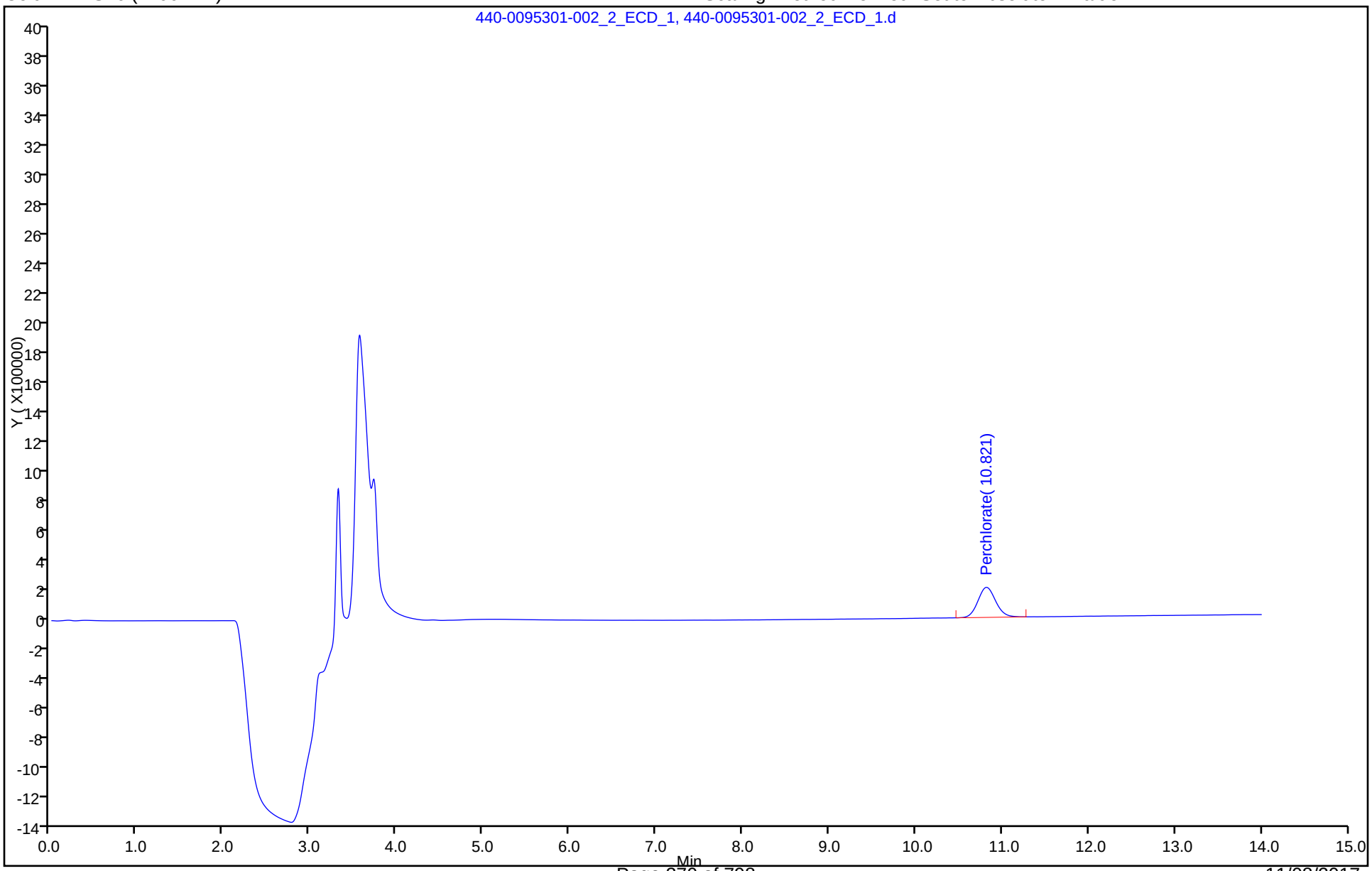
Report Date: 26-Oct-2017 10:37:02 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-002_2_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 08:40:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | CCV | | | Worklist Smp#: | 2 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

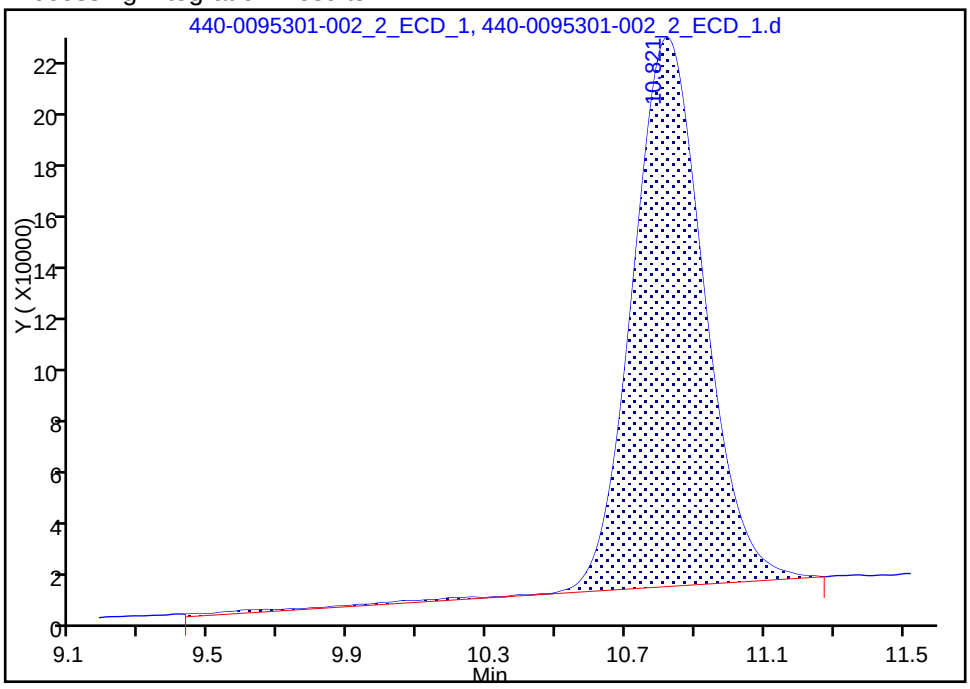
Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-002_2_ECD_1.d
Injection Date: 26-Oct-2017 08:40:00 Instrument ID: IC-25
Lims ID: CCV
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 314_25perchlorate Limit Group: IC-314
Column: AS16 ( 4.00 mm) Detector Ch-A-20111003029

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

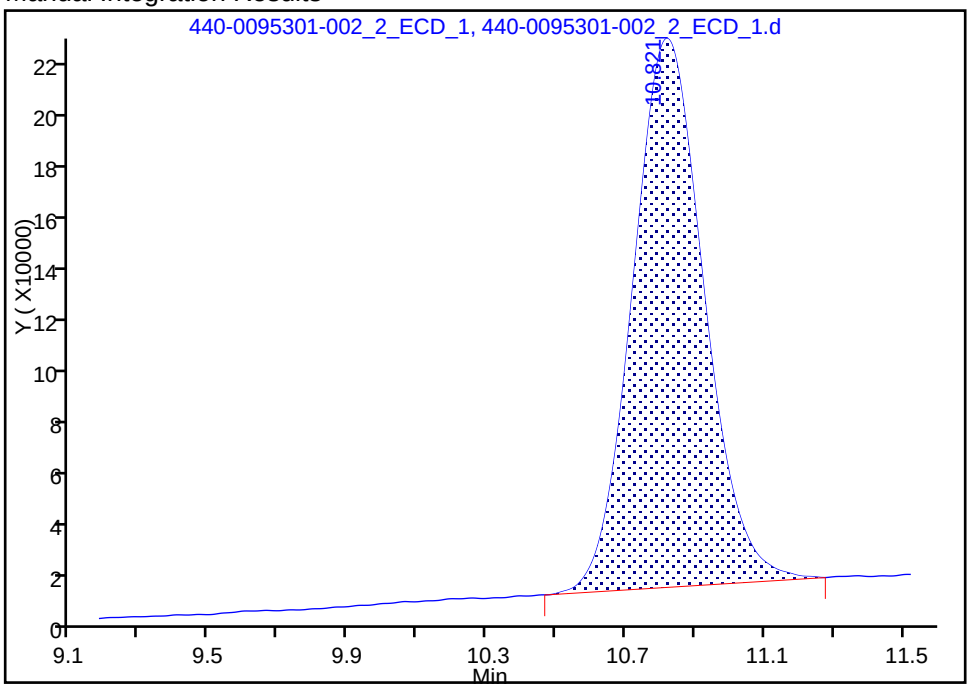
Processing Integration Results

RT: 10.82
Area: 2930202
Amount: 23.342080
Amount Units: ug/l




Manual Integration Results

RT: 10.82
Area: 2897013
Amount: 23.085524
Amount Units: ug/l




Reviewer: hoangch, 26-Oct-2017 10:06:58
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Irvine

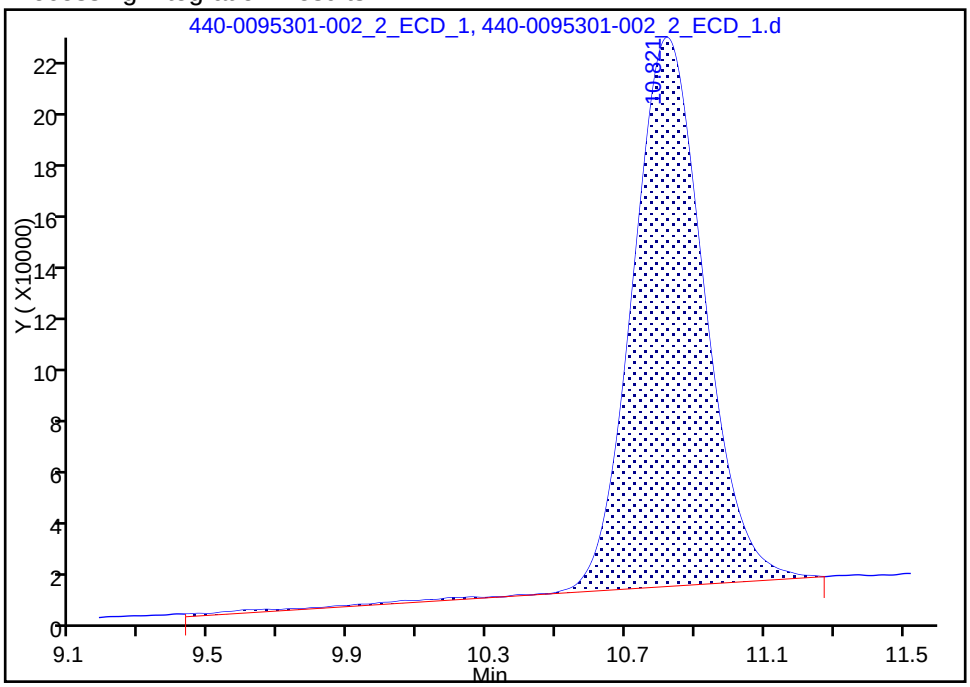
Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-002_2_ECD_1.d
Injection Date: 26-Oct-2017 08:40:00 Instrument ID: IC-25
Lims ID: CCV
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 314_25perchlorate Limit Group: IC-314
Column: AS16 ( 4.00 mm) Detector Ch-A-20111003029

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

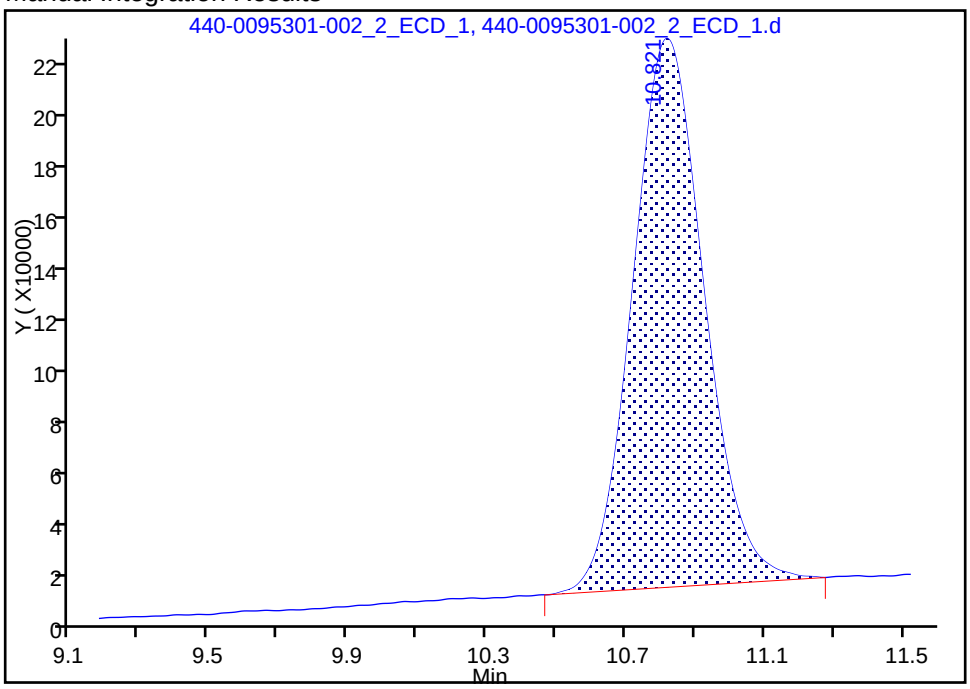
Processing Integration Results

RT: 10.82
Area: 2930202
Amount: 23.342080
Amount Units: ug/l




Manual Integration Results

RT: 10.82
Area: 2897013
Amount: 23.085524
Amount Units: ug/l




Reviewer: hoangch, 26-Oct-2017 10:36:13
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-437568/14 Calibration Date: 10/26/2017 12:34

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-014_14_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 23.3 | 25.0 | 93 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-437568/14 Calibration Date: 10/26/2017 12:34

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-014_14_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 10.35 | 9.84 | 10.87 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-014_14_ECD_1.d | | | | |
| Lims ID: | ccv 25 | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 26-Oct-2017 12:34:00 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-014 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | chrom-314_25perchlorate*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 26-Oct-2017 13:19:15 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK016 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.354 | 10.354 | 0.000 | 2928237 | 25.0 | 23.3 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 250.00 Units: uL

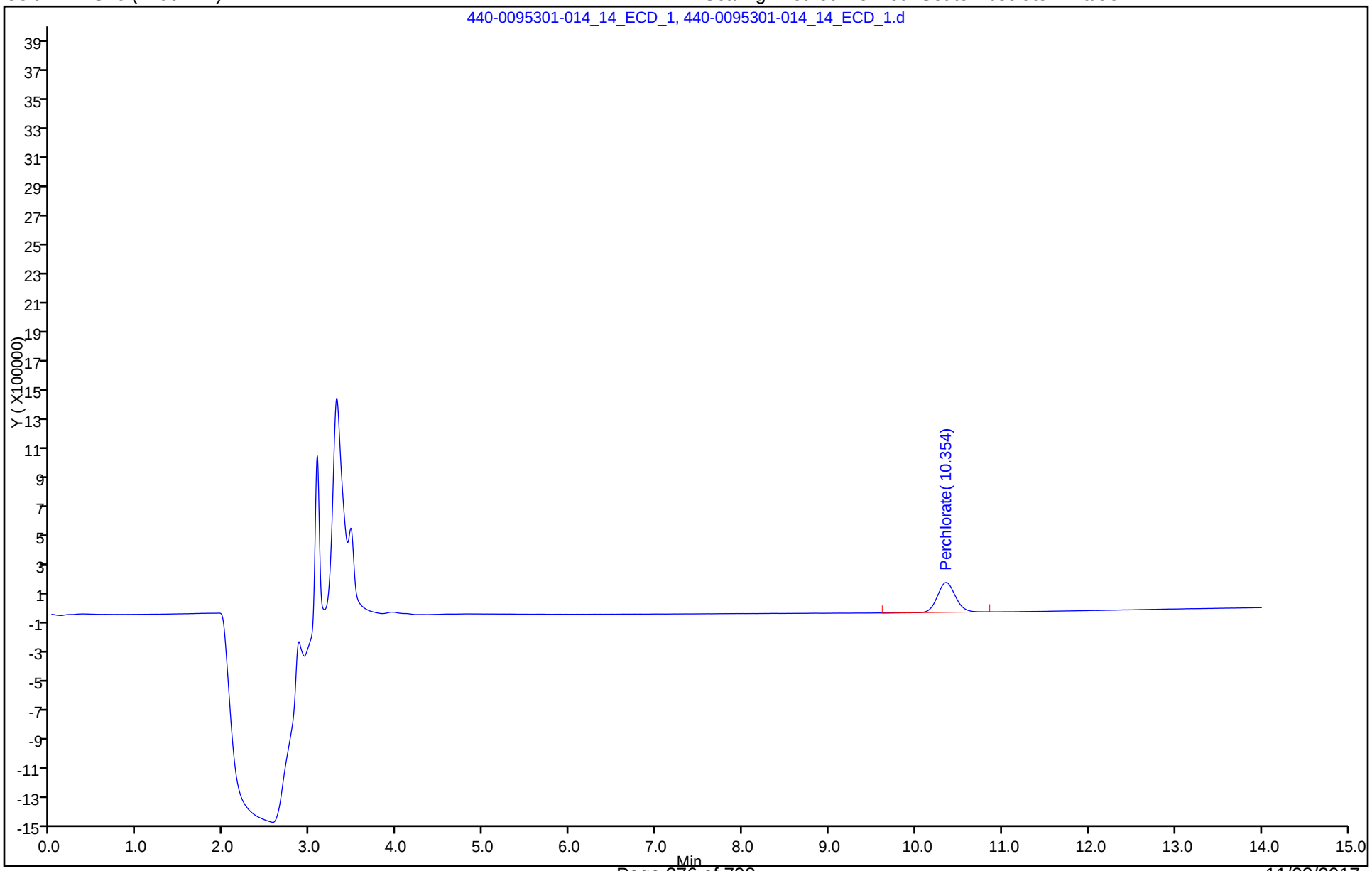
Report Date: 26-Oct-2017 13:19:15 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-014_14_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 12:34:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccv 25 | | | Worklist Smp#: | 14 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-437568/50 Calibration Date: 10/26/2017 22:58

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-050_50_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 72.0 | 75.0 | 96 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-437568/50 Calibration Date: 10/26/2017 22:58

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-050_50_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 10.33 | 9.81 | 10.85 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-050_50_ECD_1.d
Lims ID: ccv 75
Client ID:
Sample Type: CCV
Inject. Date: 26-Oct-2017 22:58:00 ALS Bottle#: 0 Worklist Smp#: 50
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095301-050
Misc. Info.: ch
Operator ID: Instrument ID: IC-25
Sublist: chrom-314_25perchlorate*sub1

Method: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m
Limit Group: IC-314
Method Label: PERCHLORATE
Last Update: 27-Oct-2017 15:06:36 Calib Date: 24-Oct-2017 18:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d

Column 1 : AS16 ( 4.00 mm) Det: Ch-A-20111003029
Process Host: XAWRK009

First Level Reviewer: saraubonp Date: 27-Oct-2017 15:06:36

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.331 | 10.331 | 0.000 | 9608875 | 75.0 | 72.0 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 750.00 Units: uL

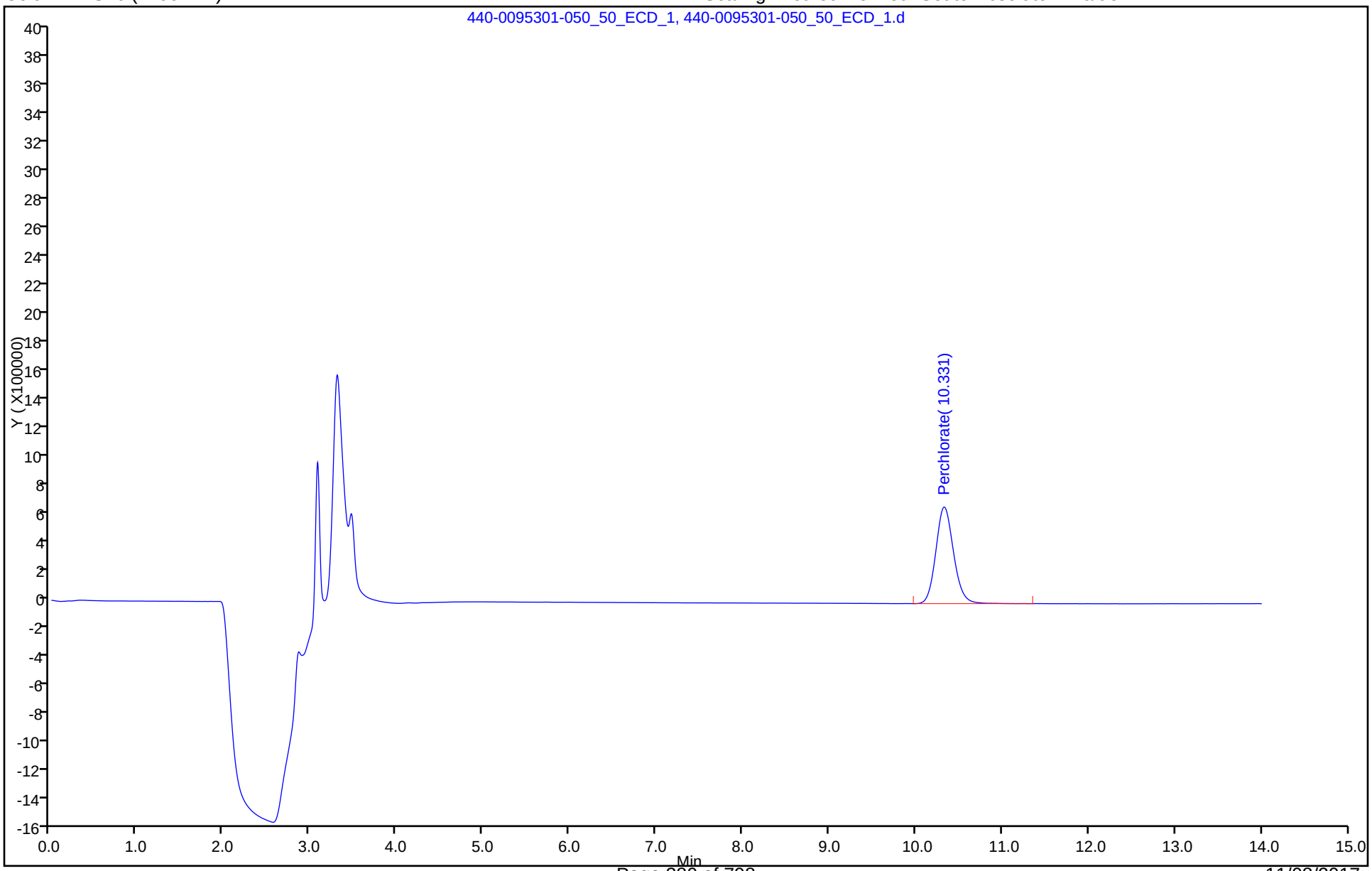
Report Date: 27-Oct-2017 15:06:37 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-050_50_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 22:58:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccv 75 | | | Worklist Smp#: | 50 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-437568/62 Calibration Date: 10/27/2017 02:20

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-062_62_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 23.5 | 25.0 | 94 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-437568/62 Calibration Date: 10/27/2017 02:20

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-062_62_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 10.34 | 9.82 | 10.86 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-062_62_ECD_1.d | | | | |
| Lims ID: | ccv 25 | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 27-Oct-2017 02:20:00 | ALS Bottle#: | 0 | Worklist Smp#: | 62 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-062 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | chrom-314_25perchlorate*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 08:33:13 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK033 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.341 | 10.341 | 0.000 | 2950516 | 25.0 | 23.5 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 250.00 Units: uL

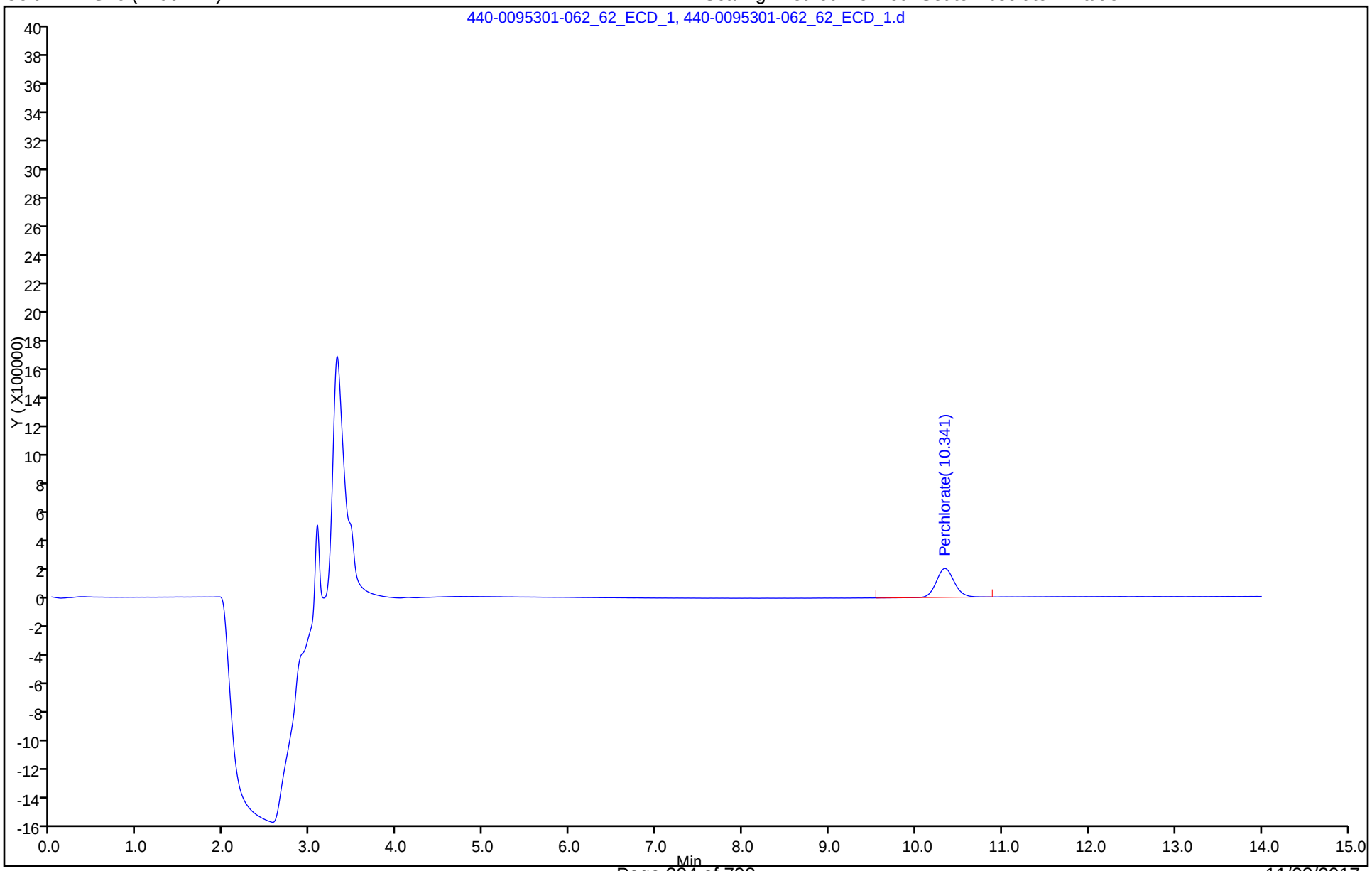
Report Date: 27-Oct-2017 08:33:15 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-062_62_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 02:20:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccv 25 | | | Worklist Smp#: | 62 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-437568/80 Calibration Date: 10/27/2017 07:23

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-080_80_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 23.1 | 25.0 | 92 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-437568/80 Calibration Date: 10/27/2017 07:23

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-080_80_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 10.34 | 9.83 | 10.86 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-080_80_ECD_1.d | | | | |
| Lims ID: | ccv 25 | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 27-Oct-2017 07:23:00 | ALS Bottle#: | 0 | Worklist Smp#: | 80 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-080 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | chrom-314_25perchlorate*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 08:33:42 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK033 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.344 | 10.344 | 0.000 | 2895823 | 25.0 | 23.1 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 250.00 Units: uL

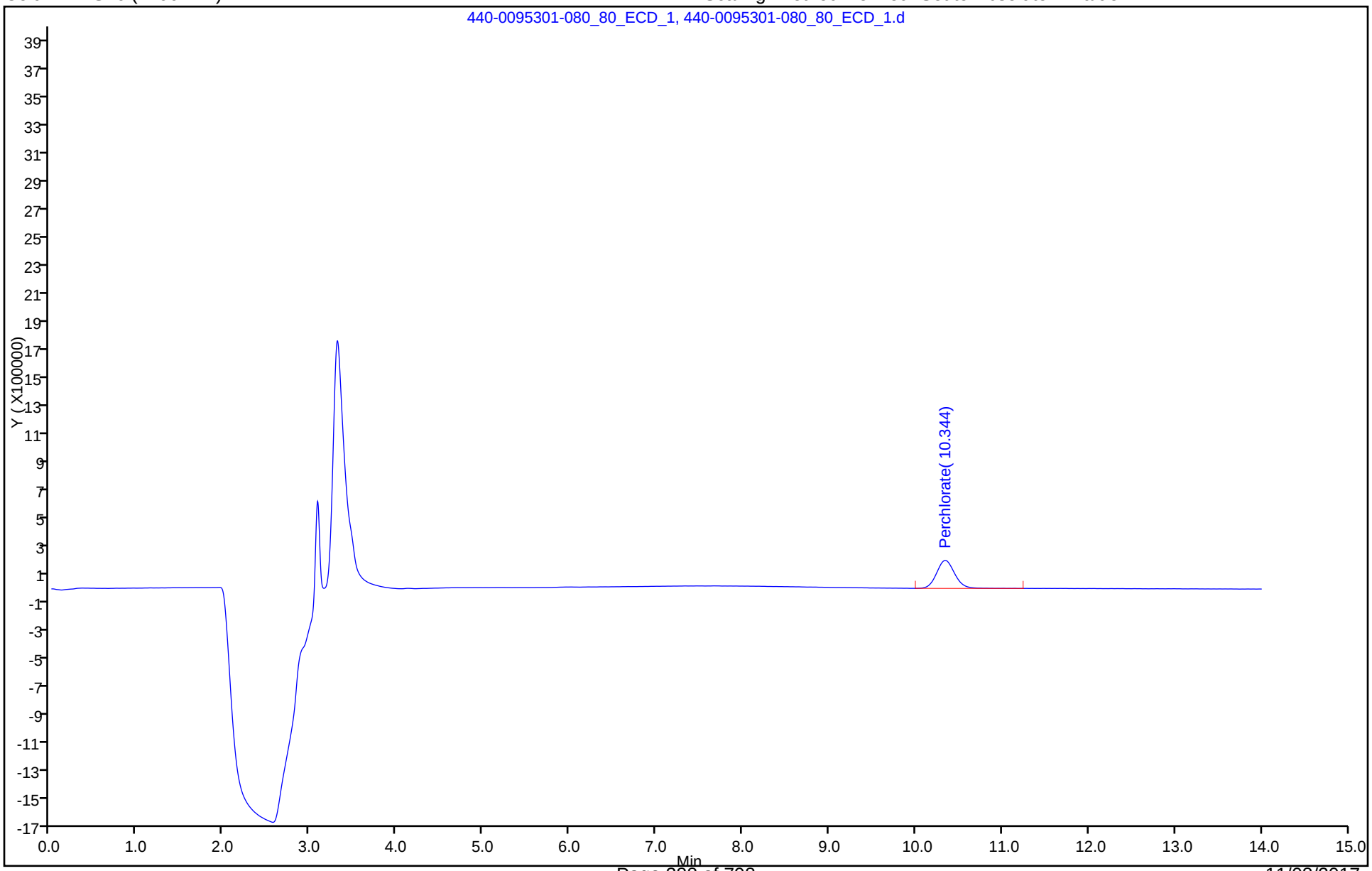
Report Date: 27-Oct-2017 08:33:42 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-080_80_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 07:23:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccv 25 | | | Worklist Smp#: | 80 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-437568/92 Calibration Date: 10/27/2017 11:20

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-092_92_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 74.5 | 75.0 | 99 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Lab Sample ID: CCV 440-437568/92 Calibration Date: 10/27/2017 11:20

Instrument ID: IC-25 Calib Start Date: 10/24/2017 16:48

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/24/2017 18:45

Lab File ID: 440-0095301-092_92_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.53 | 10.95 | 12.10 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-092_92_ECD_1.d | | | | |
| Lims ID: | ccv 75 | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 27-Oct-2017 11:20:00 | ALS Bottle#: | 0 | Worklist Smp#: | 92 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-092 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Sublist: | chrom-314_25perchlorate*sub1 | | | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 12:25:37 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK007 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.527 | 11.527 | 0.000 | 9967631 | 75.0 | 74.5 | |

## Reagents:

WCCLO41st-10_00011 Amount Added: 750.00 Units: uL

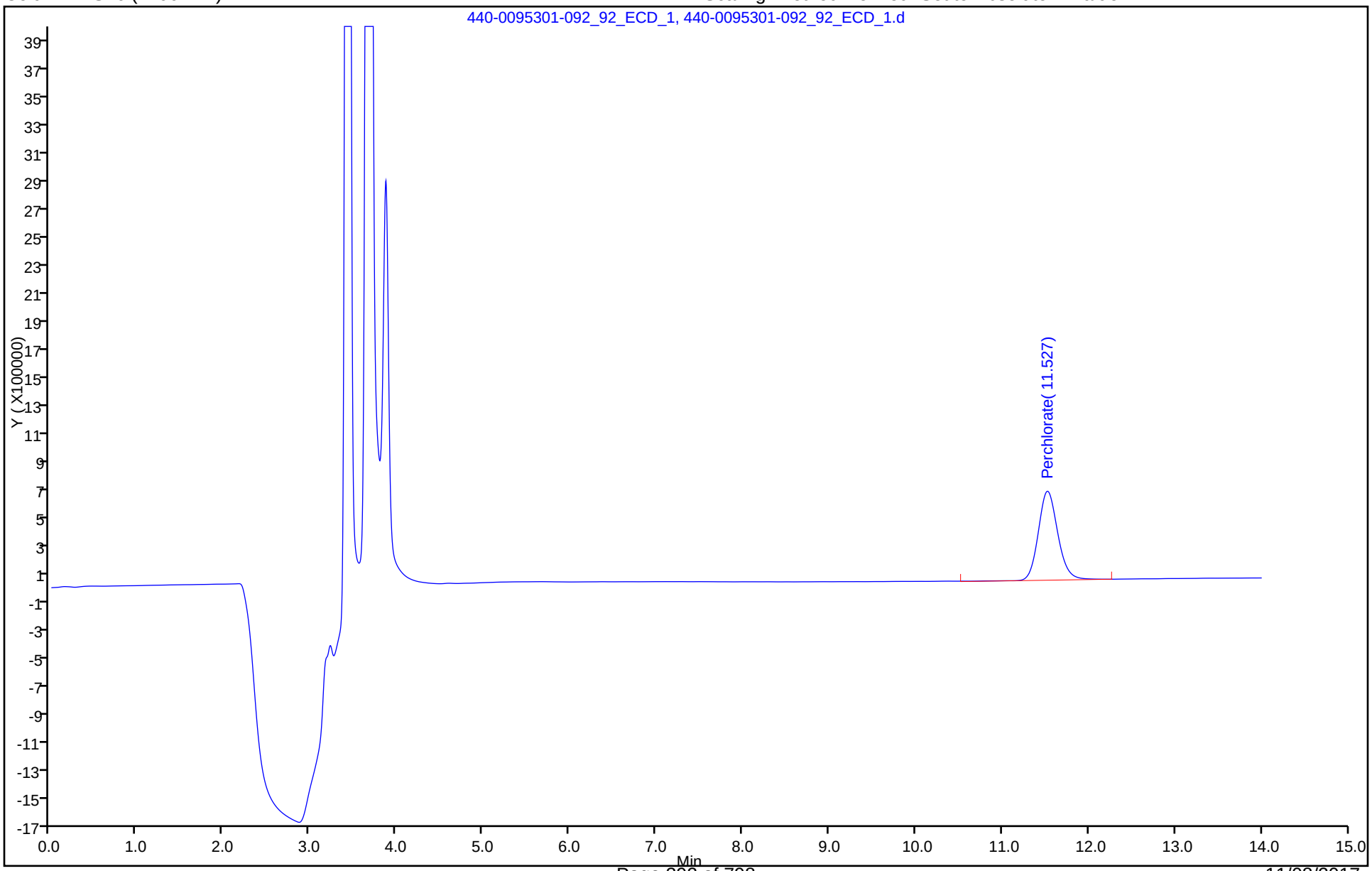
Report Date: 27-Oct-2017 12:25:38 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-092_92_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 11:20:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccv 75 | | | Worklist Smp#: | 92 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-437240/1-A

Matrix: Solid (Soluble) | Lab File ID: 440-0095301-052_52_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/26/2017 23:32

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 0.040 | 0.0095 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-052_52_ECD_1.d | | | | |
| Lims ID: | MB 440-437240/1-A | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 26-Oct-2017 23:32:00 | ALS Bottle#: | 0 | Worklist Smp#: | 52 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-052 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 15:06:36 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK009 | | | | |
| First Level Reviewer: saraubonp | | Date: | 27-Oct-2017 15:06:54 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

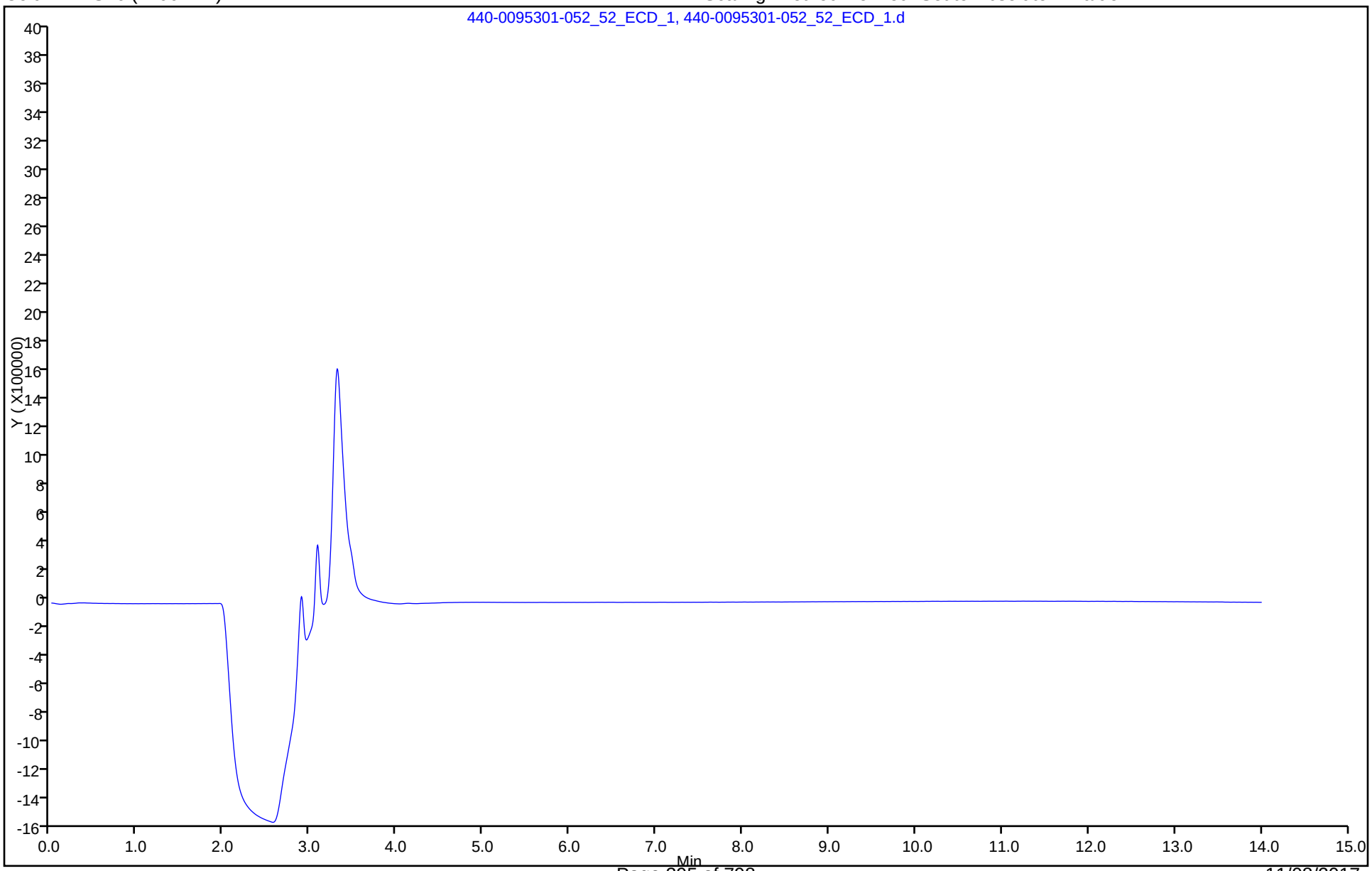
Report Date: 27-Oct-2017 15:06:55 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-052_52_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 23:32:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | MB 440-437240/1-A | | | Worklist Smp#: | 52 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437568/3

Matrix: Solid | Lab File ID: 440-0095301-003_3_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/26/2017 09:21

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-003_3_ECD_1.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 26-Oct-2017 09:21:00 | ALS Bottle#: | 0 | Worklist Smp#: | 3 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-003 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 26-Oct-2017 10:37:02 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK016 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

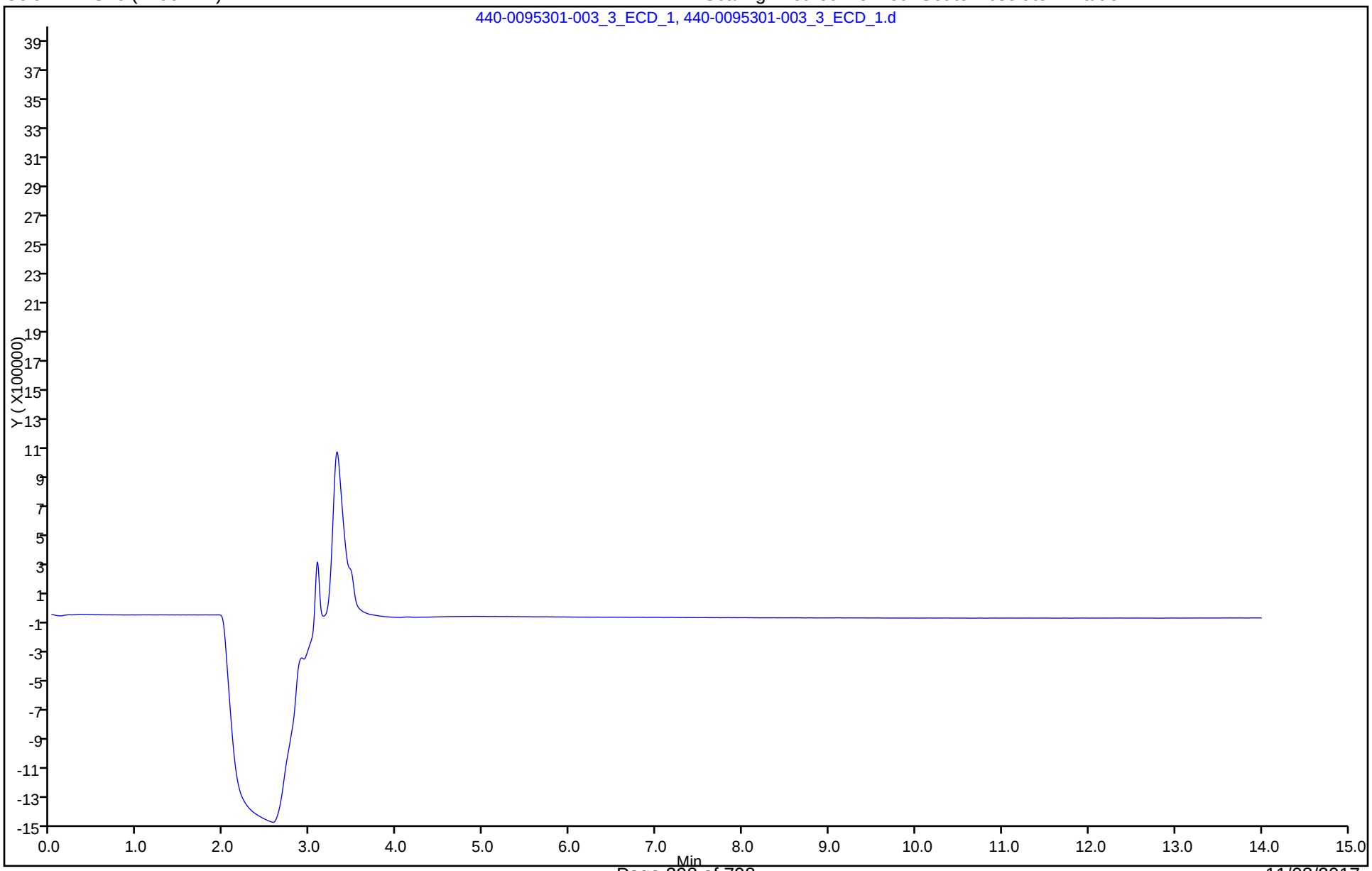
Report Date: 26-Oct-2017 10:37:03 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-003_3_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 09:21:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | CCB | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437568/15

Matrix: Solid | Lab File ID: 440-0095301-015_15_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/26/2017 12:54

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-015_15_ECD_1.d | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 26-Oct-2017 12:54:00 | ALS Bottle#: | 0 | Worklist Smp#: | 15 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-015 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 26-Oct-2017 14:14:24 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK016 | | | | |
| First Level Reviewer: hoangch | | Date: | 26-Oct-2017 13:19:21 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

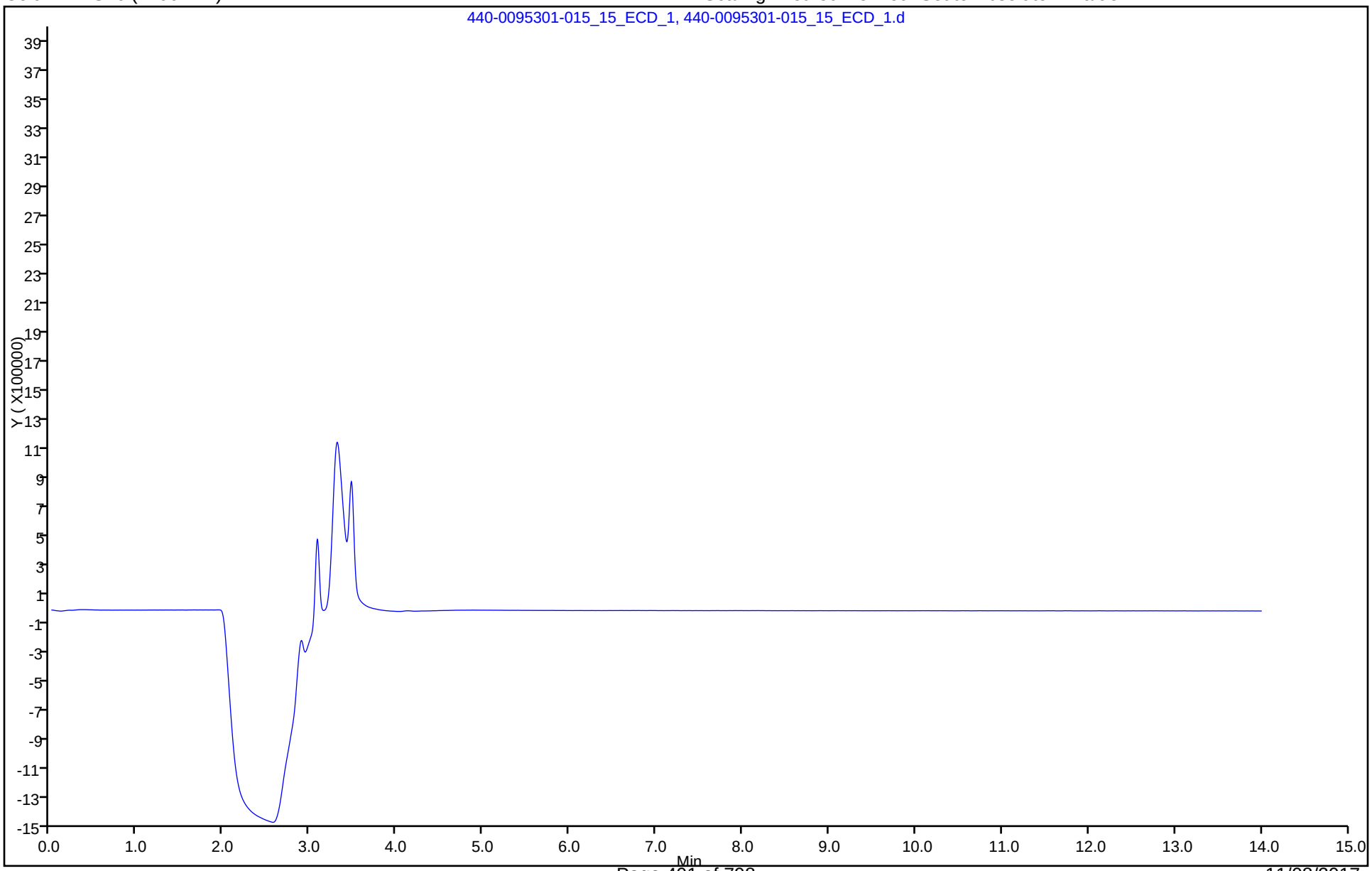
Report Date: 26-Oct-2017 14:14:29 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-015_15_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 12:54:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccb | | | Worklist Smp#: | 15 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437568/51

Matrix: Solid | Lab File ID: 440-0095301-051_51_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/26/2017 23:15

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-051_51_ECD_1.d | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 26-Oct-2017 23:15:00 | ALS Bottle#: | 0 | Worklist Smp#: | 51 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-051 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 15:06:36 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK009 | | | | |
| First Level Reviewer: saraubonp | | Date: | 27-Oct-2017 15:06:44 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

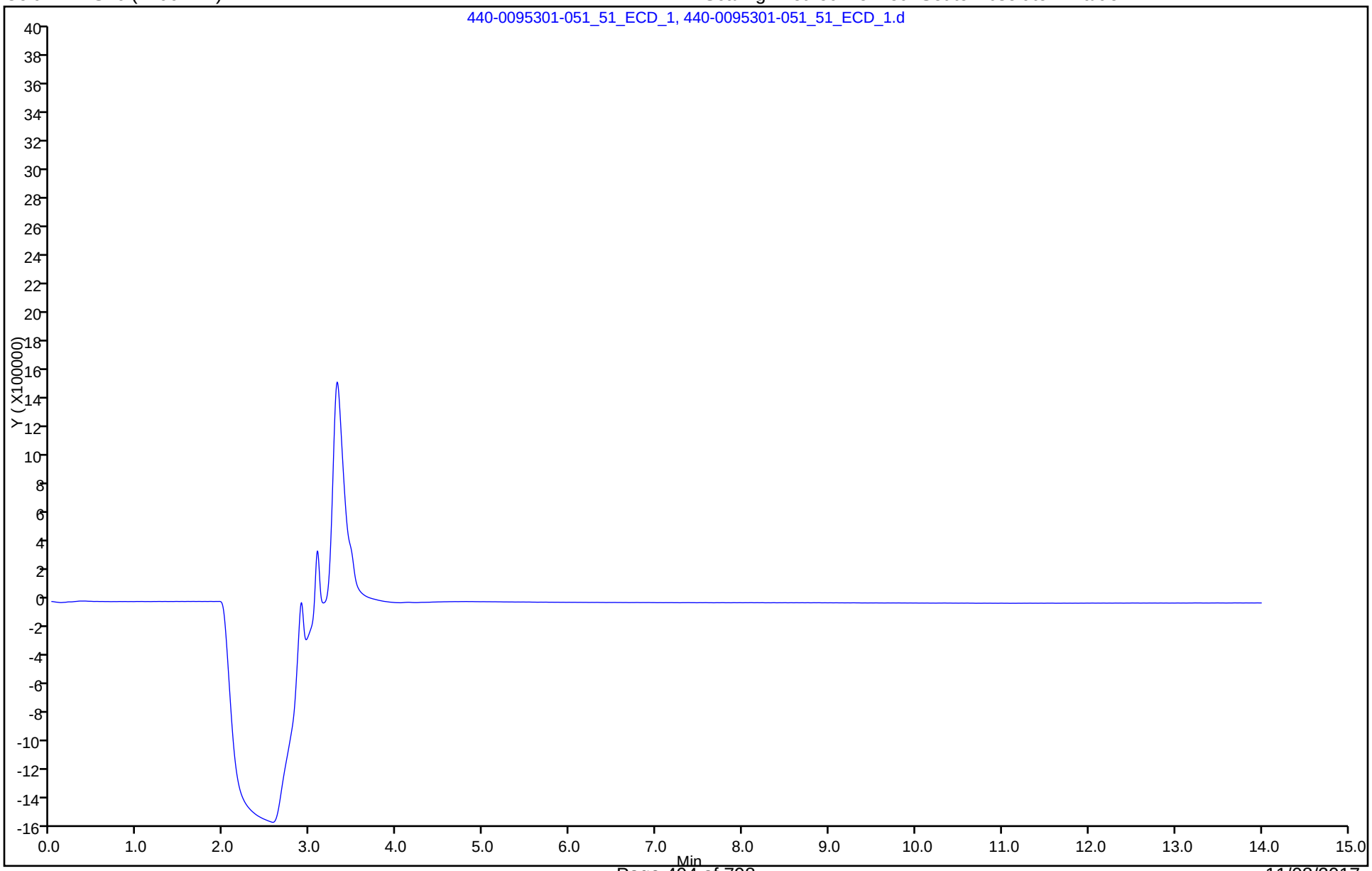
Report Date: 27-Oct-2017 15:06:44 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-051_51_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 23:15:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccb | | | Worklist Smp#: | 51 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437568/63

Matrix: Solid | Lab File ID: 440-0095301-063_63_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 02:37

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-063_63_ECD_1.d | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 27-Oct-2017 02:37:00 | ALS Bottle#: | 0 | Worklist Smp#: | 63 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-063 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 08:33:13 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK033 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

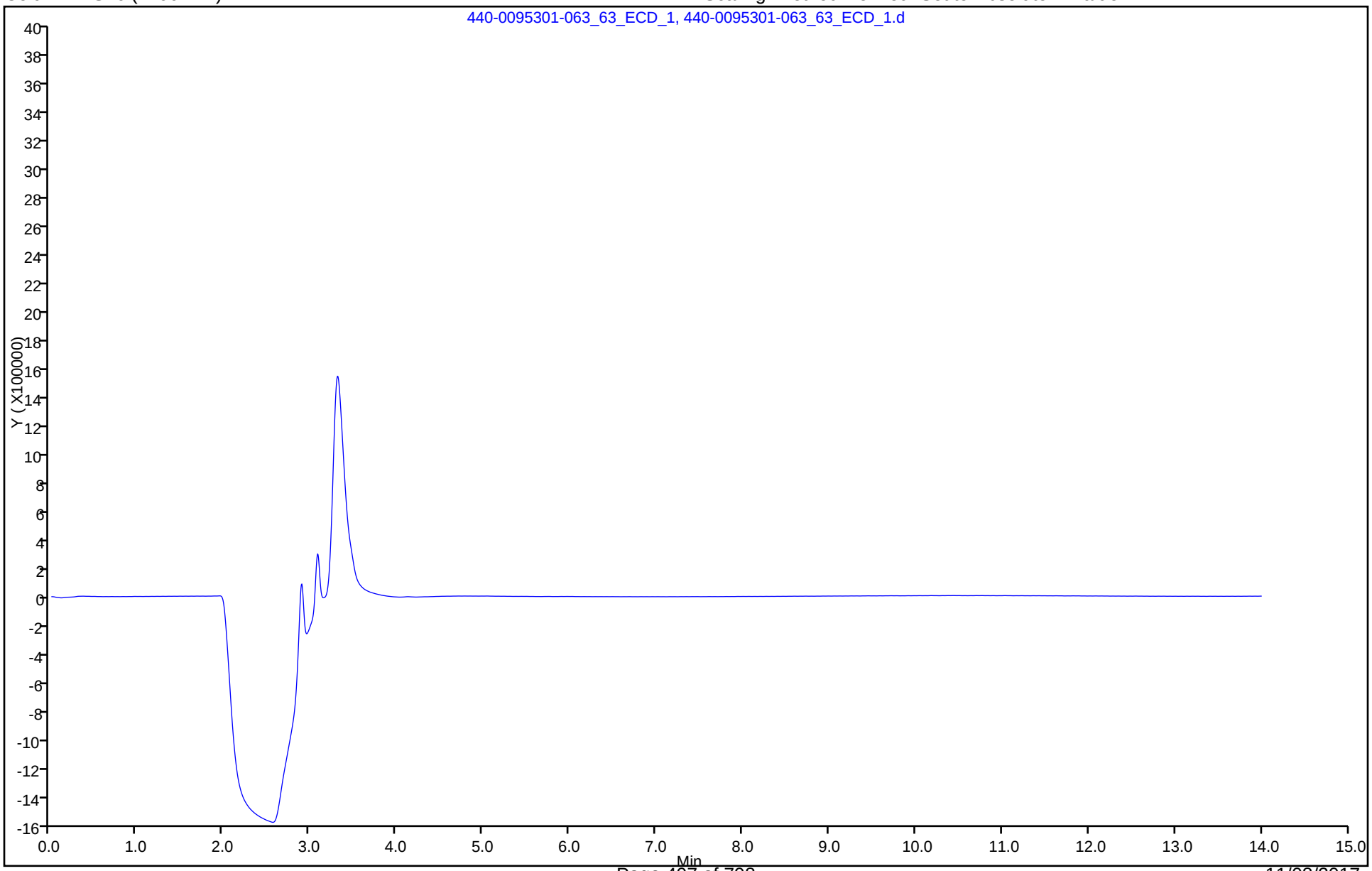
Report Date: 27-Oct-2017 08:33:16 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-063_63_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 02:37:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccb | | | Worklist Smp#: | 63 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437568/82

Matrix: Solid | Lab File ID: 440-0095301-082_82_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 08:04

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-082_82_ECD_1.d | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 27-Oct-2017 08:04:00 | ALS Bottle#: | 0 | Worklist Smp#: | 82 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-082 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 08:34:21 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK007 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

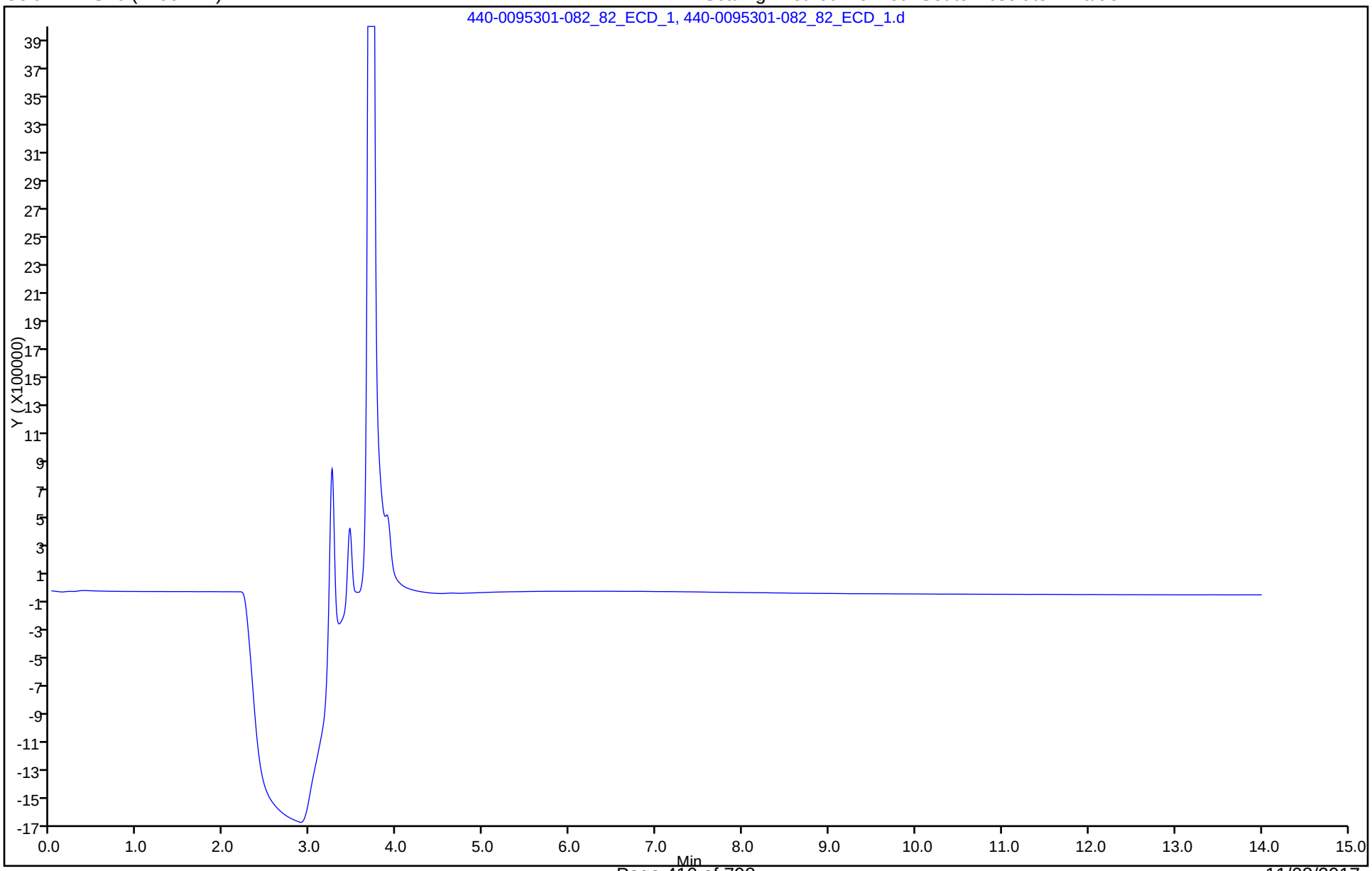
Report Date: 27-Oct-2017 08:39:03 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-082_82_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 08:04:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccb | | | Worklist Smp#: | 82 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-437568/93

Matrix: Solid | Lab File ID: 440-0095301-093_93_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 11:51

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-093_93_ECD_1.d | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 27-Oct-2017 11:51:00 | ALS Bottle#: | 0 | Worklist Smp#: | 93 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-093 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 12:25:37 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK007 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|

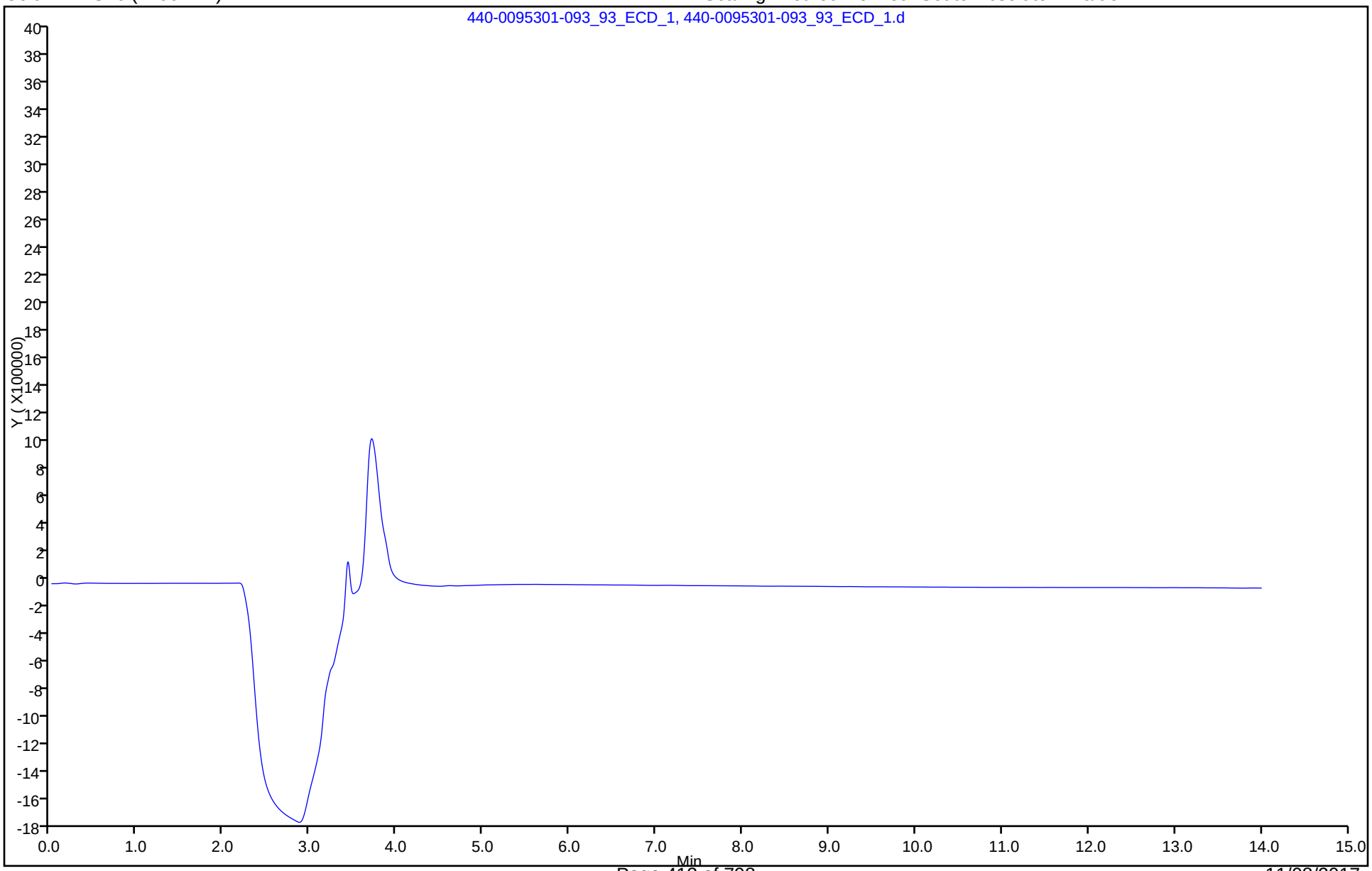
Report Date: 27-Oct-2017 12:25:38 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-093_93_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 11:51:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | ccb | | | Worklist Smp#: | 93 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 440-437240/2-A

Matrix: Solid (Soluble) Lab File ID: 440-0095301-053_53_ECD_1.d

Analysis Method: 314.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 10/26/2017 23:48

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: AS7 A ID: 4(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 0.455 | | 0.040 | 0.0095 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-053_53_ECD_1.d
Lims ID: LCS 440-437240/2-A
Client ID:
Sample Type: LCS
Inject. Date: 26-Oct-2017 23:48:00 ALS Bottle#: 0 Worklist Smp#: 53
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095301-053
Misc. Info.: ch
Operator ID: Instrument ID: IC-25

Method: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m
Limit Group: IC-314
Method Label: PERCHLORATE
Last Update: 27-Oct-2017 15:06:36 Calib Date: 24-Oct-2017 18:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d

Column 1 : AS16 ( 4.00 mm) Det: Ch-A-20111003029
Process Host: XAWRK009

First Level Reviewer: saraubonp Date: 27-Oct-2017 15:07:32

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.337 | 10.331 | 0.006 | 5887541 | 50.0 | 45.6 | |

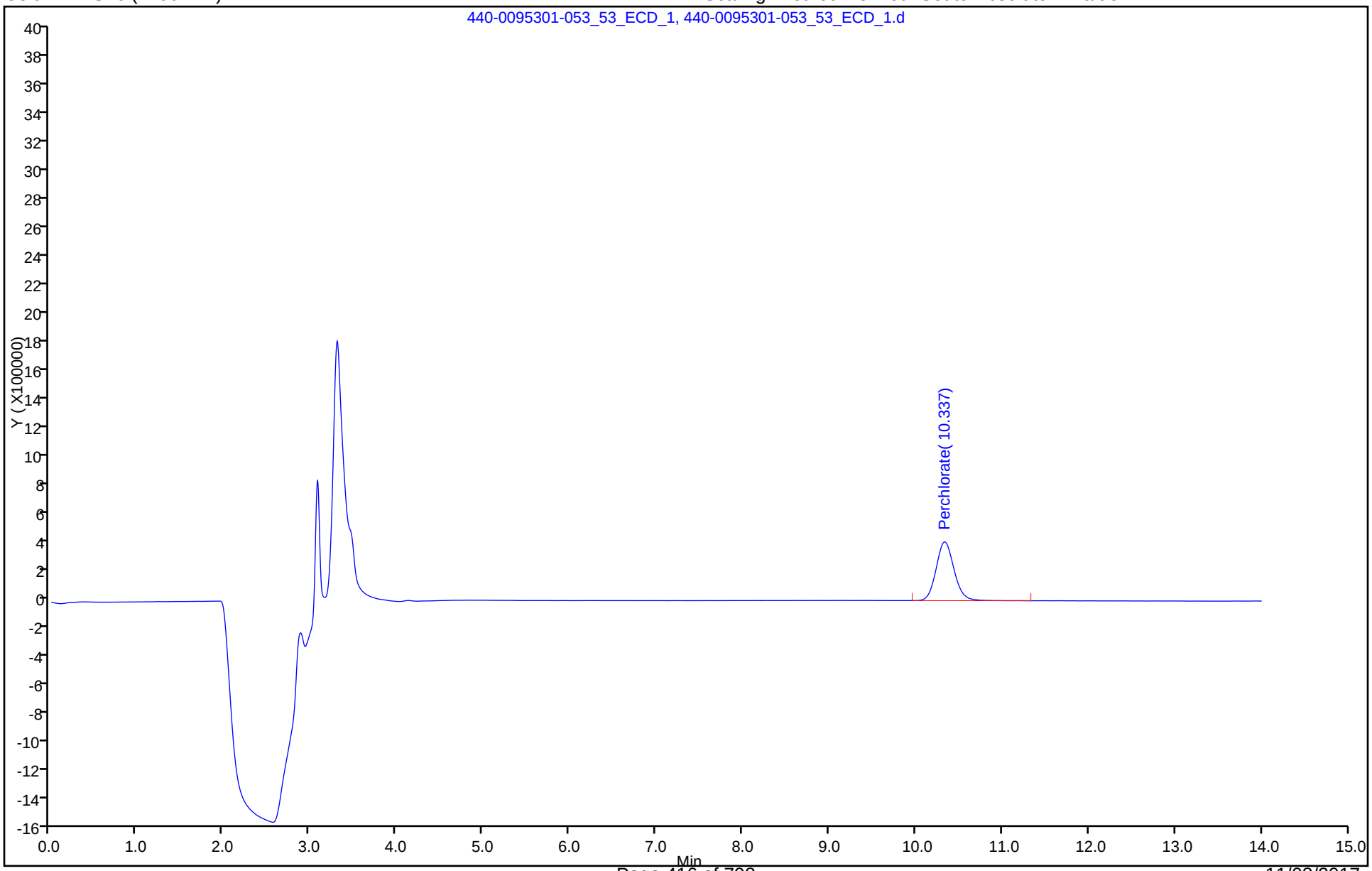
Report Date: 27-Oct-2017 15:07:32 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-053_53_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 23:48:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | LCS 440-437240/2-A | | | Worklist Smp#: | 53 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-437568/7

Matrix: Solid | Lab File ID: 440-0095301-007_7_ECD_1.d

Analysis Method: 314.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/26/2017 10:29

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 3.99 | J | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-007_7_ECD_1.d | | | | |
| Lims ID: | MRL | | | | |
| Client ID: | | | | | |
| Sample Type: | MRL | | | | |
| Inject. Date: | 26-Oct-2017 10:29:00 | ALS Bottle#: | 0 | Worklist Smp#: | 7 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-007 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 26-Oct-2017 11:32:14 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK016 | | | | |
| First Level Reviewer: nikbakhtm | | Date: | 26-Oct-2017 11:32:14 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.364 | 10.821 | -0.457 | 485121 | 4.00 | 3.99 | M |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

WCCLO41st-10_00011 Amount Added: 40.00 Units: uL

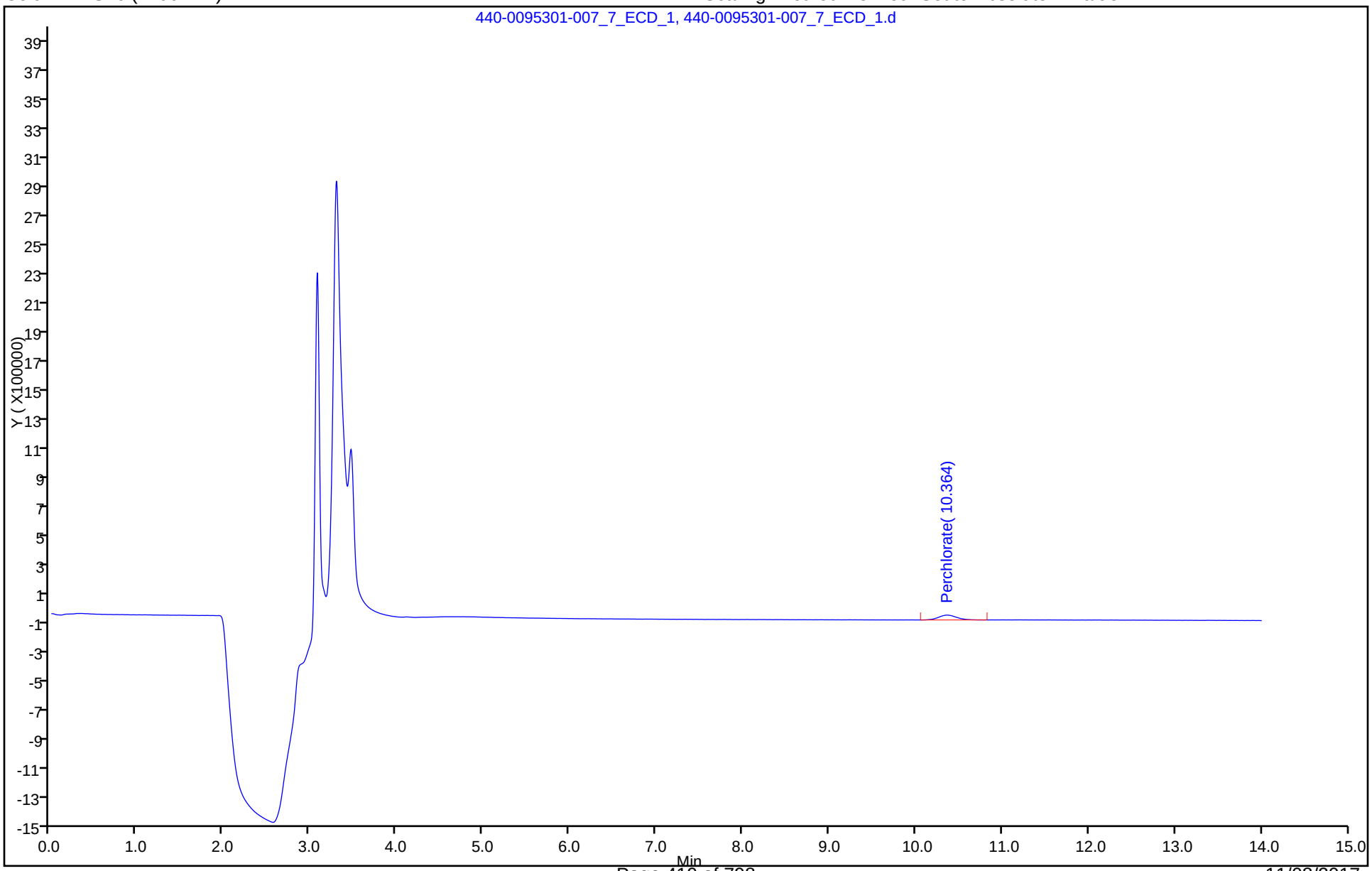
Report Date: 26-Oct-2017 11:36:57 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-007_7_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 10:29:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | MRL | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

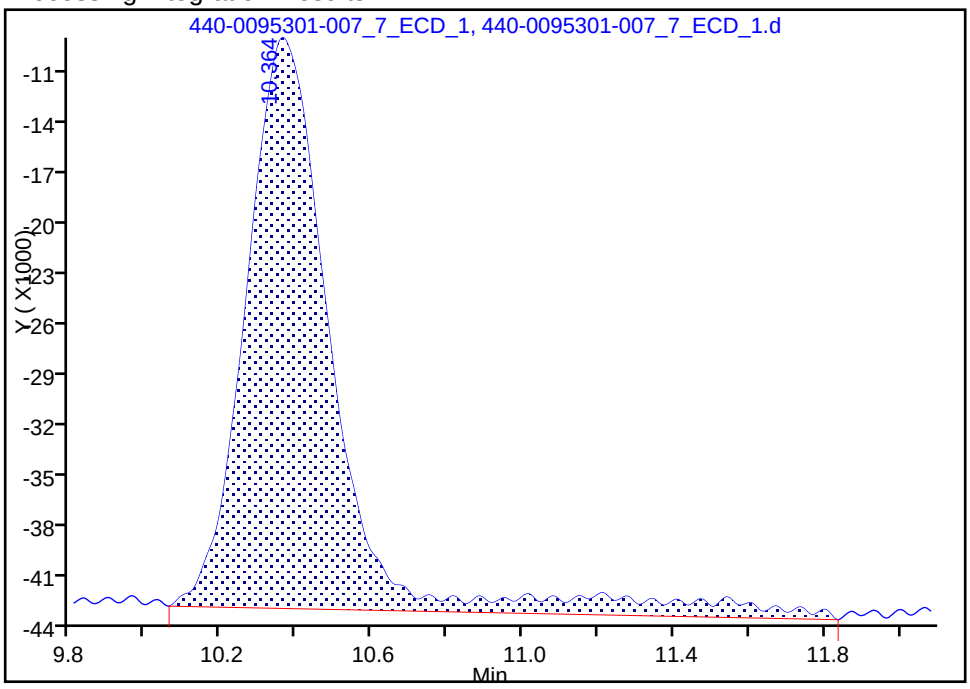
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-007_7_ECD_1.d | | | | |
| Injection Date: | 26-Oct-2017 10:29:00 | Instrument ID: | IC-25 | | |
| Lims ID: | MRL | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 0 | Worklist Smp#: | 7 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |
| Column: | AS16 ( 4.00 mm) | Detector | Ch-A-20111003029 | | |

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

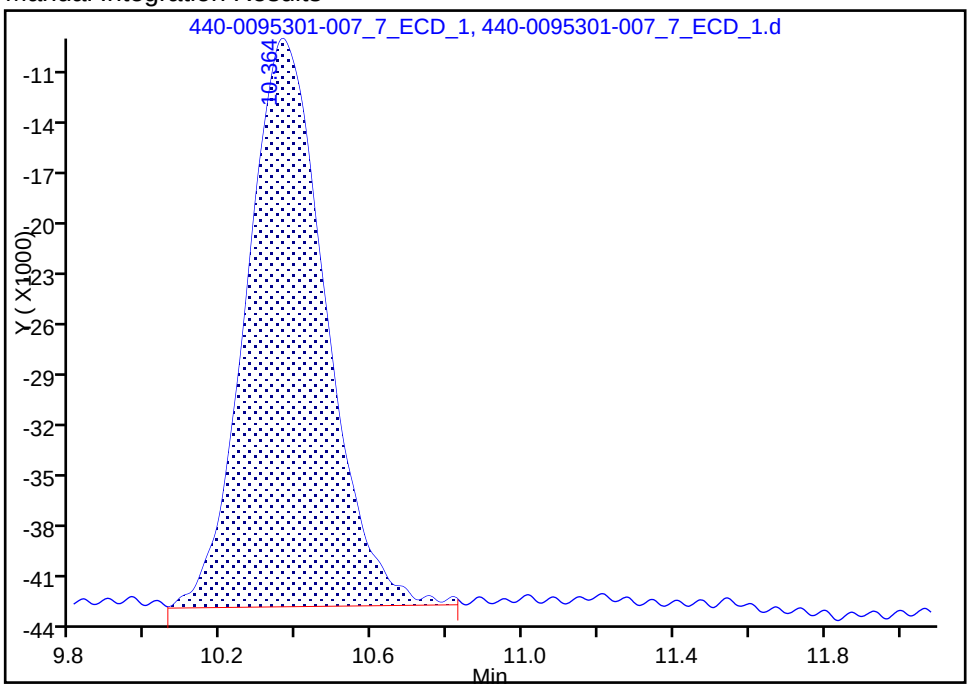
Processing Integration Results

RT: 10.36
Area: 541465
Amount: 4.445654
Amount Units: ug/l




Manual Integration Results

RT: 10.36
Area: 485121
Amount: 3.988863
Amount Units: ug/l




Reviewer: nikbakhtm, 26-Oct-2017 11:32:12

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Client Sample ID: Lab Sample ID: INF 440-437568/6

Matrix: Solid Lab File ID: 440-0095301-006_6_ECD_1.d

Analysis Method: 314.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 10/26/2017 10:12

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: AS7 A ID: 4(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 25.0 | | 4.0 | 0.95 |

TestAmerica Irvine
Target Compound Quantitation Report

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-006_6_ECD_1.d
Lims ID: INF
Client ID:
Sample Type: INF
Inject. Date: 26-Oct-2017 10:12:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 440-0095301-006
Misc. Info.: ch
Operator ID: Instrument ID: IC-25
Sublist:

Method: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m
Limit Group: IC-314
Method Label: PERCHLORATE
Last Update: 26-Oct-2017 10:37:02 Calib Date: 24-Oct-2017 18:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d

Column 1 : AS16 ( 4.00 mm) Det: Ch-A-20111003029
Process Host: XAWRK016

First Level Reviewer: hoangch Date: 26-Oct-2017 10:36:55

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 10.291 | 10.821 | -0.530 | 3139547 | 25.0 | 25.0 | |

## Reagents:

WC314.INF_00252 Amount Added: 5.00 Units: mL

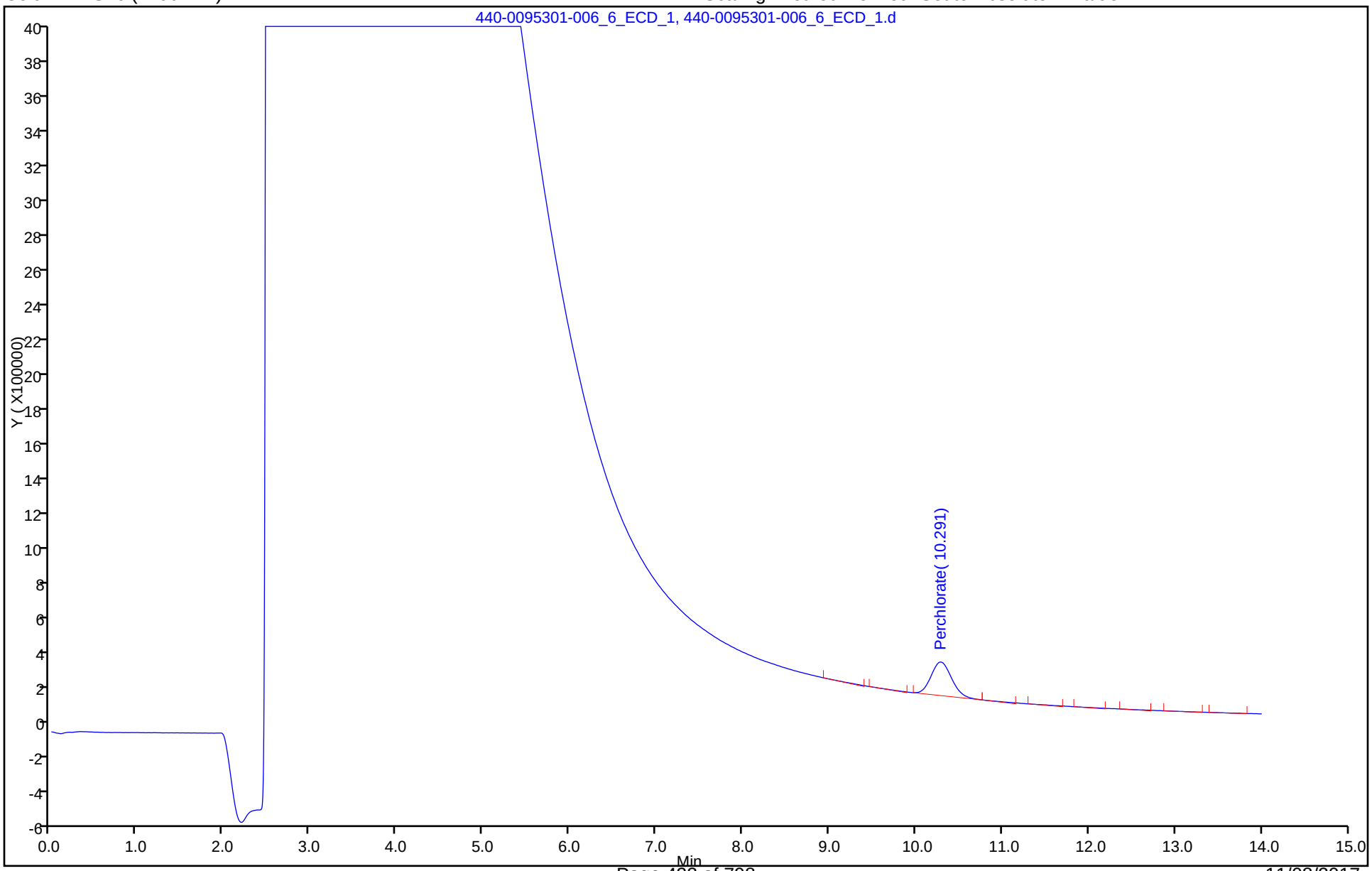
Report Date: 26-Oct-2017 10:37:05 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-006_6_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 26-Oct-2017 10:12:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | INF | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-194623-A-4-H MS

Matrix: Solid (Soluble) | Lab File ID: 440-0095301-084_84_ECD_1.d

Analysis Method: 314.0 | Date Collected: 10/19/2017 08:35

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 09:00

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: 9.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 0.629 | | 0.044 | 0.010 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-084_84_ECD_1.d | | | | |
| Lims ID: | 440-194623-A-4-H MS | | | | |
| Client ID: | VER-01I-10.0-20171019 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 27-Oct-2017 09:00:00 | ALS Bottle#: | 0 | Worklist Smp#: | 84 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-084 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 11:31:00 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK007 | | | | |
| First Level Reviewer: hoangch | | Date: | 27-Oct-2017 09:35:06 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.517 | 11.524 | -0.007 | 7489379 | 50.0 | 57.2 | M |

## QC Flag Legend

Review Flags

M - Manually Integrated

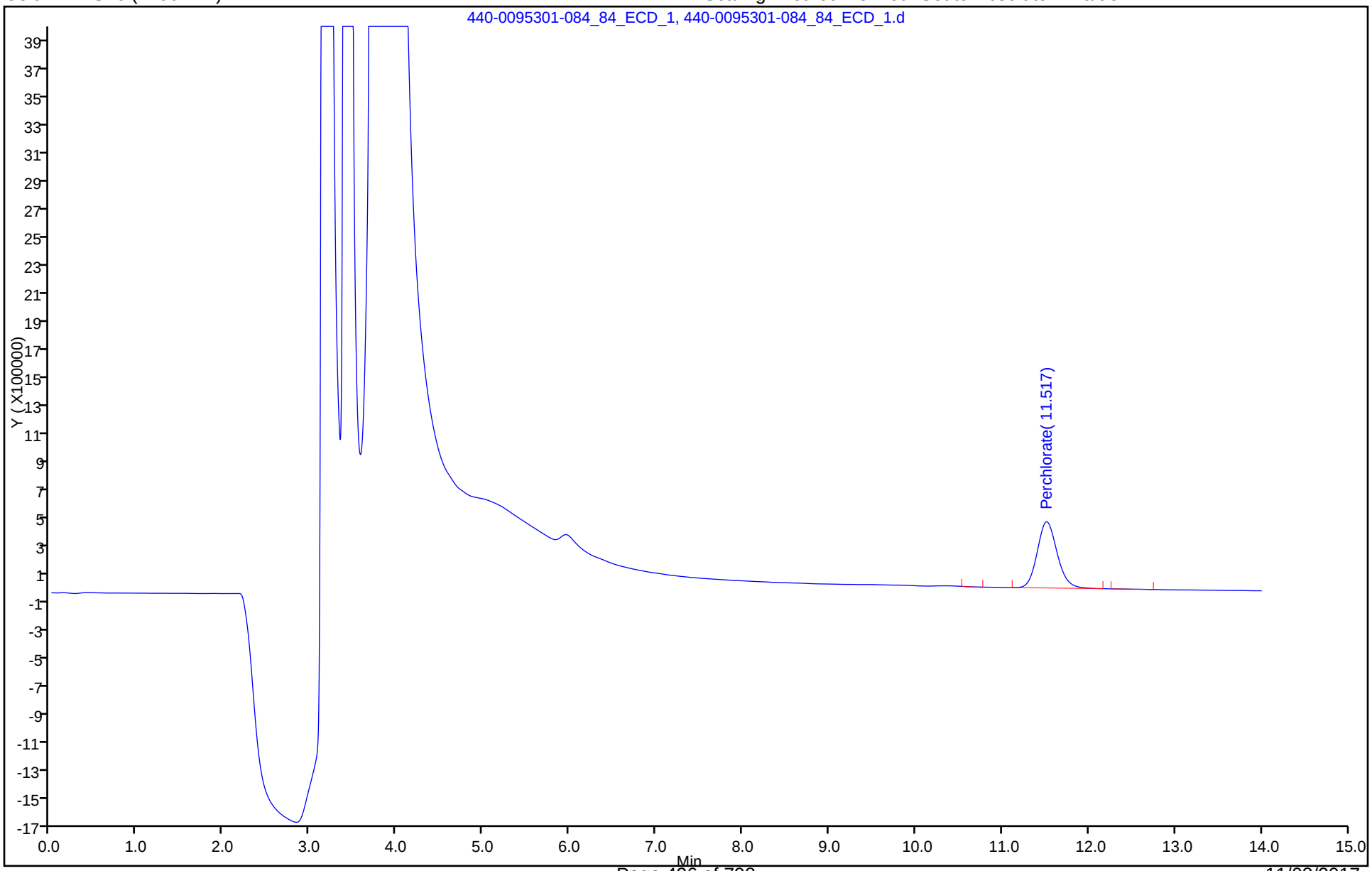
Report Date: 27-Oct-2017 10:40:54 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-084_84_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 09:00:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | 440-194623-A-4-H MS | | | Worklist Smp#: | 84 |
| Client ID: | VER-01I-10.0-20171019 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



Manual Integration/User Assign Peak Report

TestAmerica Irvine

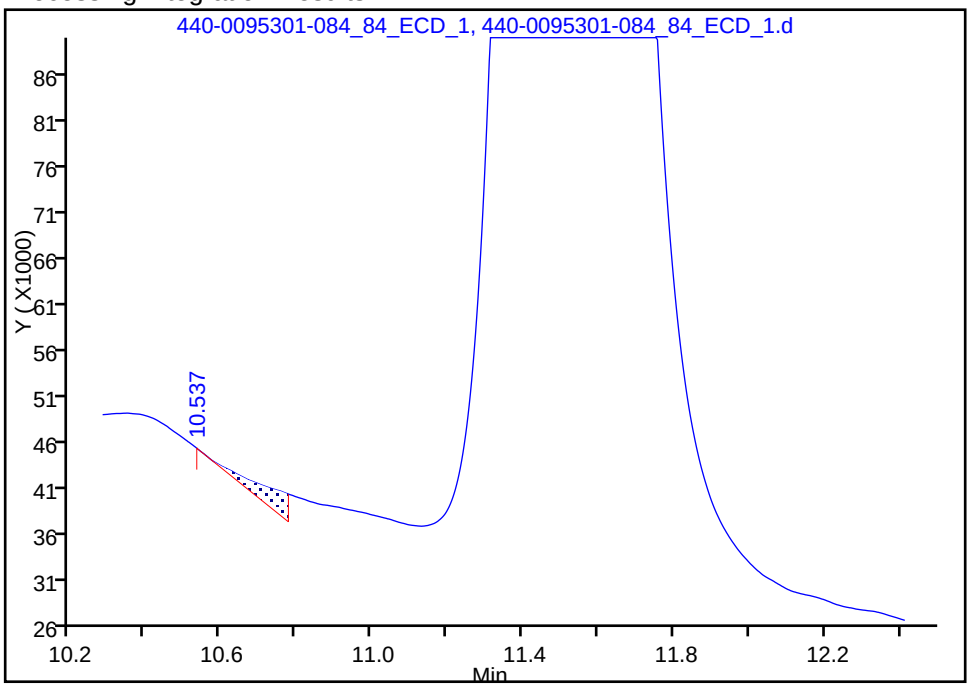
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-084_84_ECD_1.d | | | | |
| Injection Date: | 27-Oct-2017 09:00:00 | Instrument ID: | IC-25 | | |
| Lims ID: | 440-194623-A-4-H MS | | | | |
| Client ID: | VER-01I-10.0-20171019 | | | | |
| Operator ID: | | ALS Bottle#: | 0 | Worklist Smp#: | 84 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |
| Column: | AS16 ( 4.00 mm) | Detector | Ch-A-20111003029 | | |

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

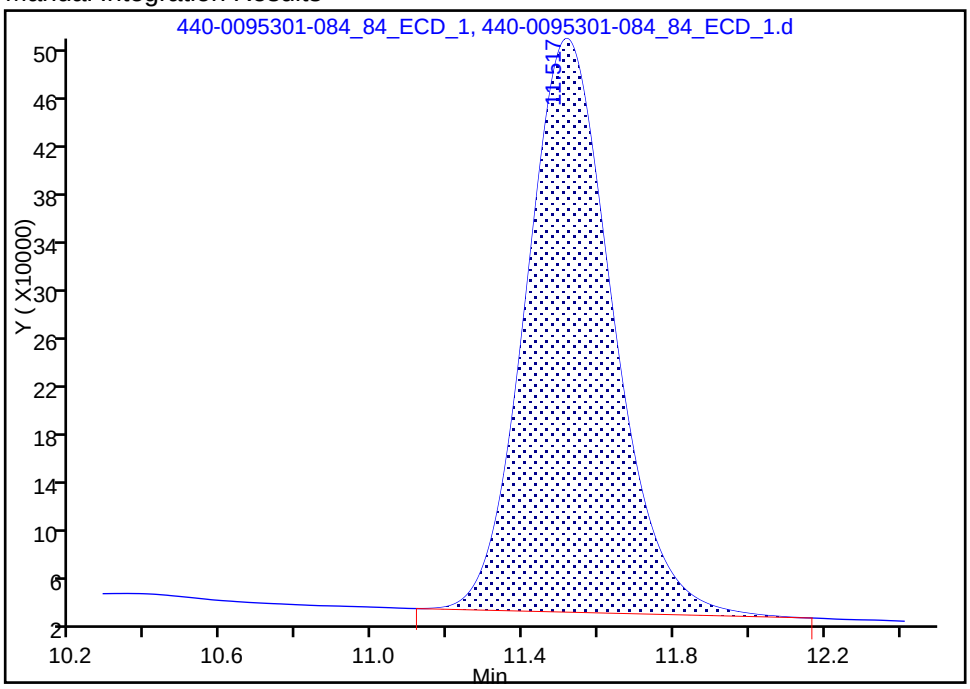
Processing Integration Results

RT: 10.54
Area: 16007
Amount: 0.164660
Amount Units: ug/l




Manual Integration Results

RT: 11.52
Area: 7489379
Amount: 57.173574
Amount Units: ug/l




Reviewer: hoangch, 27-Oct-2017 09:34:52

Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Irvine

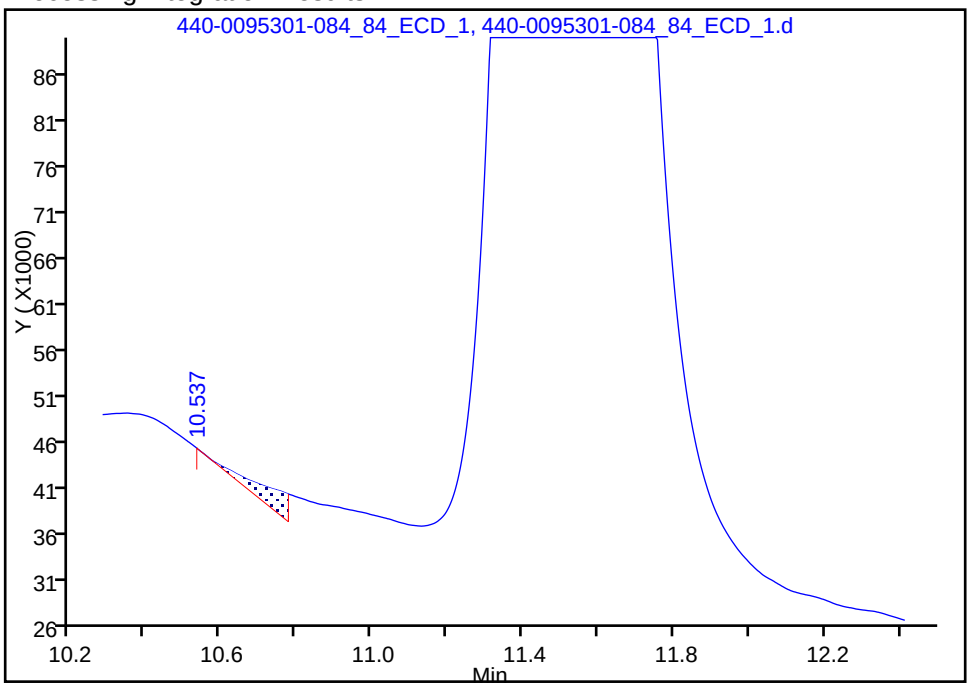
Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-084_84_ECD_1.d
Injection Date: 27-Oct-2017 09:00:00 Instrument ID: IC-25
Lims ID: 440-194623-A-4-H MS
Client ID: VER-01I-10.0-20171019
Operator ID: ALS Bottle#: 0 Worklist Smp#: 84
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 314_25perchlorate Limit Group: IC-314
Column: AS16 ( 4.00 mm) Detector Ch-A-20111003029

## 2 Perchlorate, CAS: 14797-73-0

Signal: 1

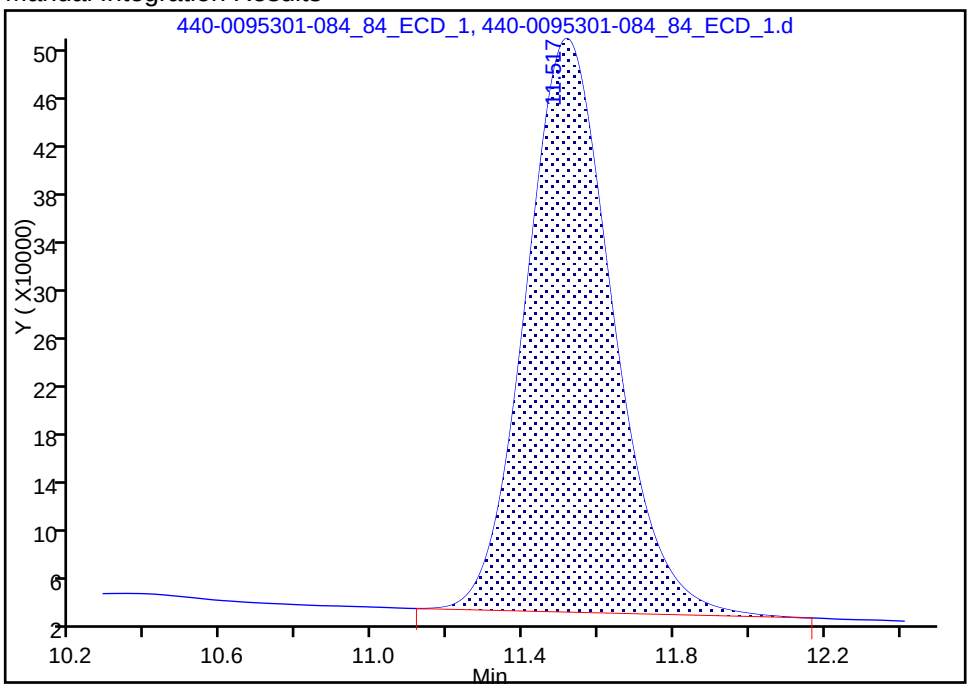
Processing Integration Results

RT: 10.54
Area: 16007
Amount: 0.164660
Amount Units: ug/l




Manual Integration Results

RT: 11.52
Area: 7489379
Amount: 57.173574
Amount Units: ug/l




Reviewer: hoangch, 27-Oct-2017 09:35:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-194764-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-194623-A-4-I MSD

Matrix: Solid (Soluble) | Lab File ID: 440-0095301-085_85_ECD_1.d

Analysis Method: 314.0 | Date Collected: 10/19/2017 08:35

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 10/27/2017 09:17

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: 9.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 437568 | Units: mg/Kg

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 0.661 | | 0.044 | 0.010 |

TestAmerica Irvine
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-085_85_ECD_1.d | | | | |
| Lims ID: | 440-194623-A-4-I MSD | | | | |
| Client ID: | VER-01I-10.0-20171019 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 27-Oct-2017 09:17:00 | ALS Bottle#: | 0 | Worklist Smp#: | 85 |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 440-0095301-085 | | | | |
| Misc. Info.: | ch | | | | |
| Operator ID: | | Instrument ID: | IC-25 | | |
| Method: | \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\314_25perchlorate.m | | | | |
| Limit Group: | IC-314 | | | | |
| Method Label: | PERCHLORATE | | | | |
| Last Update: | 27-Oct-2017 11:31:00 | Calib Date: | 24-Oct-2017 18:45:00 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\ChromNA\Irvine\ChromData\IC25\20171024-95217.b\440-0095217-008_8_ECD_1.d | | | | |
| Column 1 : | AS16 ( 4.00 mm) | | Det: Ch-A-20111003029 | | |
| Process Host: | XAWRK007 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 2 Perchlorate | 11.517 | 11.524 | -0.007 | 7882561 | 50.0 | 60.0 | |

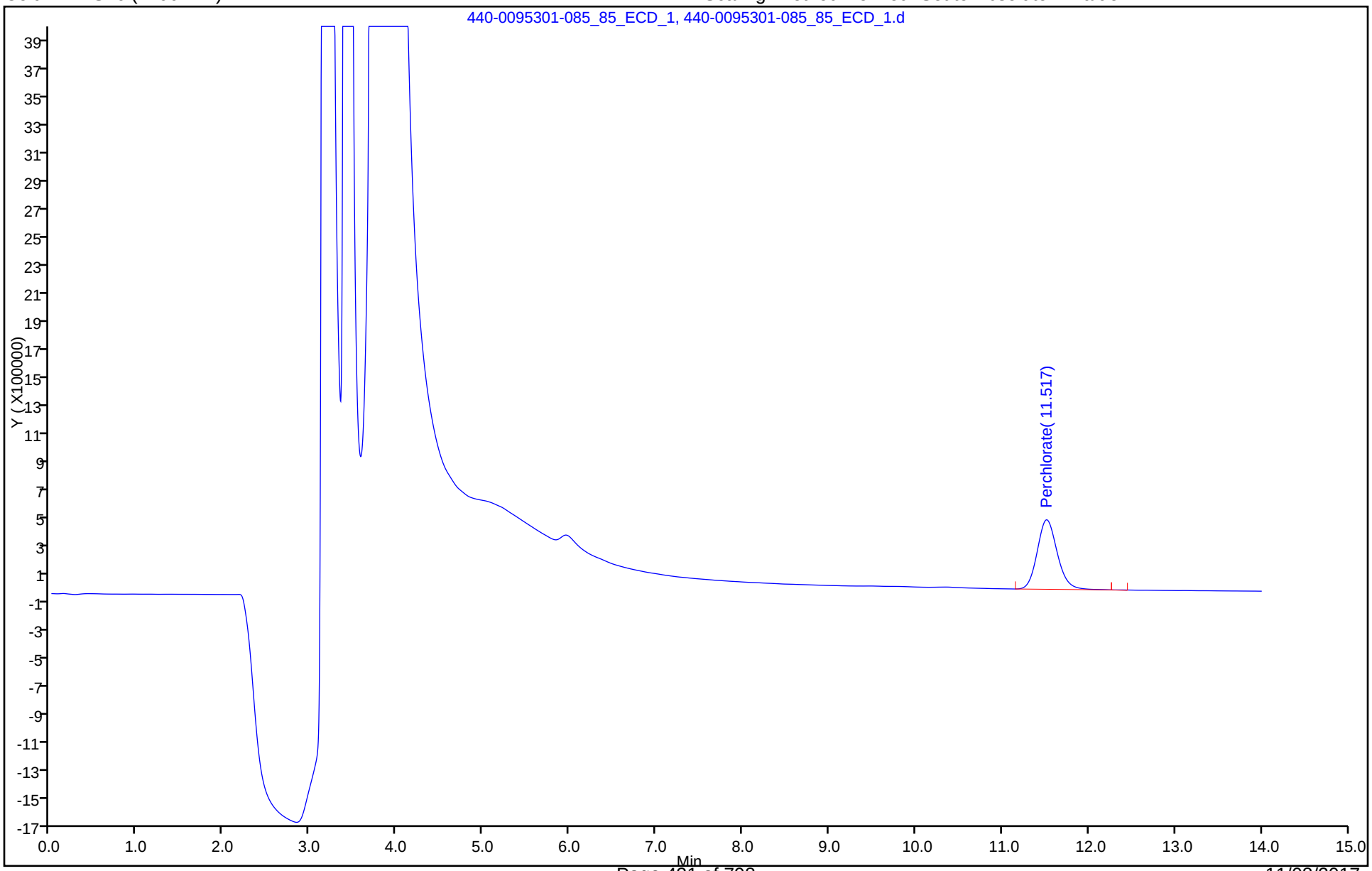
Report Date: 27-Oct-2017 10:40:55 Chrom Revision: 2.2 16-Aug-2017 16:24:46

TestAmerica Irvine

Data File: \\ChromNA\Irvine\ChromData\IC25\20171026-95301.b\440-0095301-085_85_ECD_1.d

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 27-Oct-2017 09:17:00 | Instrument ID: | IC-25 | Operator ID: | |
| Lims ID: | 440-194623-A-4-I MSD | | | Worklist Smp#: | 85 |
| Client ID: | VER-01I-10.0-20171019 | | | | |
| Injection Vol: | 1.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 0 |
| Method: | 314_25perchlorate | Limit Group: | IC-314 | | |

Column: AS16 ( 4.00 mm) Y Scaling: Method Defined: Set to Absolute Y Value



HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-25 Start Date: 10/24/2017 16:48

Analysis Batch Number: 437218 End Date: 10/24/2017 19:02

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| STD0 440-437218/1 IC | | 10/24/2017 16:48 | 1 | | AS7 A 4(mm) |
| STD1 440-437218/2 IC | | 10/24/2017 17:04 | 1 | 440-0095217-002 2_ECD_1.d | AS7 A 4(mm) |
| STD2 440-437218/3 IC | | 10/24/2017 17:21 | 1 | 440-0095217-003 3_ECD_1.d | AS7 A 4(mm) |
| STD3 440-437218/4 IC | | 10/24/2017 17:38 | 1 | 440-0095217-004 4_ECD_1.d | AS7 A 4(mm) |
| STD4 440-437218/5 IC | | 10/24/2017 17:54 | 1 | 440-0095217-005 5_ECD_1.d | AS7 A 4(mm) |
| STD5 440-437218/6 IC | | 10/24/2017 18:11 | 1 | 440-0095217-006 6_ECD_1.d | AS7 A 4(mm) |
| STD6 440-437218/7 IC | | 10/24/2017 18:28 | 1 | 440-0095217-007 7_ECD_1.d | AS7 A 4(mm) |
| STD7 440-437218/8 IC | | 10/24/2017 18:45 | 1 | 440-0095217-008 8_ECD_1.d | AS7 A 4(mm) |
| ICV 440-437218/9 | | 10/24/2017 19:02 | 1 | 440-0095217-009 9_ECD_1.d | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-25 Start Date: 10/26/2017 08:24

Analysis Batch Number: 437568 End Date: 10/27/2017 14:46

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 10/26/2017 08:24 | 1 | | AS7 A 4(mm) |
| CCV 440-437568/2 | | 10/26/2017 08:40 | 1 | 440-0095301-002 2 ECD 1.d | AS7 A 4(mm) |
| CCB 440-437568/3 | | 10/26/2017 09:21 | 1 | 440-0095301-003 3 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 09:38 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 09:55 | 1 | | AS7 A 4(mm) |
| INF 440-437568/6 | | 10/26/2017 10:12 | 1 | 440-0095301-006 6 ECD 1.d | AS7 A 4(mm) |
| MRL 440-437568/7 | | 10/26/2017 10:29 | 1 | 440-0095301-007 7 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 10:53 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 11:10 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 11:27 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 11:44 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 12:00 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 12:17 | 1 | | AS7 A 4(mm) |
| CCV 440-437568/14 | | 10/26/2017 12:34 | 1 | 440-0095301-014 14 ECD 1.d | AS7 A 4(mm) |
| CCB 440-437568/15 | | 10/26/2017 12:54 | 1 | 440-0095301-015 15 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 13:11 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 13:28 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 13:44 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 14:01 | 200 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 14:18 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 14:35 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 14:52 | 20 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 15:09 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 15:26 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 15:42 | 10 | | AS7 A 4(mm) |
| CCV 440-437568/26 | | 10/26/2017 15:59 | 1 | | AS7 A 4(mm) |
| CCB 440-437568/27 | | 10/26/2017 16:25 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 16:47 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 17:04 | 50000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 17:21 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 17:38 | 50000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 17:54 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 18:11 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 18:28 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 18:45 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 19:02 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 19:19 | 1 | | AS7 A 4(mm) |
| CCV 440-437568/38 | | 10/26/2017 19:36 | 1 | | AS7 A 4(mm) |
| CCB 440-437568/39 | | 10/26/2017 19:52 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 20:09 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 20:26 | 50000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 20:43 | 1000 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-25 Start Date: 10/26/2017 08:24

Analysis Batch Number: 437568 End Date: 10/27/2017 14:46

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 10/26/2017 21:00 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 21:17 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 21:34 | 20 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 21:50 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 22:07 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 22:24 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/26/2017 22:41 | 20 | | AS7 A 4(mm) |
| CCV 440-437568/50 | | 10/26/2017 22:58 | 1 | 440-0095301-050 50 ECD 1.d | AS7 A 4(mm) |
| CCB 440-437568/51 | | 10/26/2017 23:15 | 1 | 440-0095301-051 51 ECD 1.d | AS7 A 4(mm) |
| MB 440-437240/1-A | | 10/26/2017 23:32 | 1 | 440-0095301-052 52 ECD 1.d | AS7 A 4(mm) |
| LCS 440-437240/2-A | | 10/26/2017 23:48 | 1 | 440-0095301-053 53 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 00:05 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 00:22 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 00:39 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 00:56 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 01:13 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 01:29 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 01:46 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 02:03 | 50 | | AS7 A 4(mm) |
| CCV 440-437568/62 | | 10/27/2017 02:20 | 1 | 440-0095301-062 62 ECD 1.d | AS7 A 4(mm) |
| CCB 440-437568/63 | | 10/27/2017 02:37 | 1 | 440-0095301-063 63 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 02:54 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 03:11 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 03:27 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 03:44 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 04:01 | 50 | | AS7 A 4(mm) |
| CCV 440-437568/69 | | 10/27/2017 04:18 | 1 | | AS7 A 4(mm) |
| CCB 440-437568/70 | | 10/27/2017 04:35 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 04:52 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 05:09 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 05:25 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 05:42 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 05:59 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 06:16 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 06:33 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 06:50 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 07:07 | 50 | | AS7 A 4(mm) |
| CCV 440-437568/80 | | 10/27/2017 07:23 | 1 | 440-0095301-080 80 ECD 1.d | AS7 A 4(mm) |
| CCB 440-437568/82 | | 10/27/2017 08:04 | 1 | 440-0095301-082 82 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 08:44 | 1 | | AS7 A 4(mm) |
| 440-194623-A-4-H MS | | 10/27/2017 09:00 | 1 | 440-0095301-084 84 ECD 1.d | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Instrument ID: IC-25 Start Date: 10/26/2017 08:24

Analysis Batch Number: 437568 End Date: 10/27/2017 14:46

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| 440-194623-A-4-I MSD | | 10/27/2017 09:17 | 1 | 440-0095301-085 85 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 09:39 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 09:56 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 10:12 | 1 | | AS7 A 4(mm) |
| 440-194764-1 | | 10/27/2017 10:29 | 5 | 440-0095301-089 89 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 10:46 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 11:03 | 200 | | AS7 A 4(mm) |
| CCV 440-437568/92 | | 10/27/2017 11:20 | 1 | 440-0095301-092 92 ECD 1.d | AS7 A 4(mm) |
| CCB 440-437568/93 | | 10/27/2017 11:51 | 1 | 440-0095301-093 93 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 12:26 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 12:43 | 500 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 13:00 | 500 | | AS7 A 4(mm) |
| ZZZZZ | | 10/27/2017 13:17 | 500 | | AS7 A 4(mm) |
| CCV 440-437568/98 | | 10/27/2017 13:34 | 1 | | AS7 A 4(mm) |
| CCB 440-437568/99 | | 10/27/2017 14:46 | 1 | | AS7 A 4(mm) |

# HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Batch Number: 437240  Batch Start Date: 10/24/17 18:03  Batch Analyst: Mancini, Catherine M

Batch Method: DI Leach  Batch End Date: 10/24/17 18:39

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | WCCLO41st-10 00011 | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-437240/1 | | DI Leach, 314.0 | | 3.99 g | 40 mL | | | | |
| LCS 440-437240/2 | | DI Leach, 314.0 | | 4.01 g | 40 mL | 0.2 mL | | | |
| 440-194623-A-4 MS | | DI Leach, 314.0 | S | 4.00 g | 40 mL | 0.2 mL | | | |
| 440-194623-A-4 MSD | | DI Leach, 314.0 | S | 3.99 g | 40 mL | 0.2 mL | | | |
| 440-194764-A-1 | VER-01D-90.0-20171020 | DI Leach, 314.0 | S | 4.00 g | 40 mL | | | | |

| Batch Notes | |
|---|---|
| Balance ID | BAL63 |

| Basis | Basis Description |
|---|---|
| S | Soluble |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# METALS

COVER PAGE
METALS

Lab Name: TestAmerica Irvine Job Number: 440-194764-1

SDG No.:

Project: NERT VER M16

| Client Sample ID | Lab Sample ID |
| --- | --- |
| VER- 01D-90.0-20171020 | 440-194764-1 |

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: VER- 01D-90.0-20171020 Lab Sample ID: 440-194764-1

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG ID.:

Matrix: Solid Date Sampled: 10/20/2017 11:50

Reporting Basis: DRY Date Received: 10/21/2017 10:40

% Solids: 74.1

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 26 | 1.3 | 0.67 | mg/Kg | | | 5 | 6010B |

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

ICV Source: ME ICP ICV2_01701  Concentration Units: mg/L

CCV Source: ME ICP STD3_01726

| Analyte | ICV 440-439119/5 11/02/2017 09:01 | | | | CCV 440-439119/15 11/02/2017 13:53 | | | | CCV 440-439119/26 11/02/2017 14:20 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Found | C | True | %R | Found | C | True | %R | Found | C | True | %R |
| **Chromium** | 1.02 | | 1.00 | 102 | 0.998 | | 1.00 | 100 | 0.993 | | 1.00 | 99 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Method: 6010B Instrument ID: ICP8

Lab Sample ID: CRI 440-439119/14 Concentration Units: mg/L

CRQL Check Standard Source: ME ICP CRI 2x_00369

| Analyte | CRQL Check Standard | | | | |
|---|---|---|---|---|---|
| | True | Found | Qualifiers | %R(1) | Limits |
| Chromium | 0.0100 | 0.0103 | | 103 | 50-150 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Concentration Units: mg/L

| Analyte | RL | ICB 440-439119/7 11/02/2017 09:07 | | CCB 440-439119/16 11/02/2017 13:55 | | CCB 440-439119/27 11/02/2017 14:22 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Found | C | Found | C | Found | C | Found | C |
| **Chromium** | 0.0050 | ND | | ND | | ND | | | |

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 440-438571/1-A ^5

Instrument Code: ICP8 Batch No.: 439119

| CAS No. | Analyte | Concentration | C | Q | Method |
|---|---|---|---|---|---|
| 7440-47-3 | Chromium | ND | | | 6010B |

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Lab Sample ID: ICSAB 440-439119/9  Instrument ID: ICP8

Lab File ID: 171102-1G.csv  ICS Source: ME ICP IFB_01750

Concentration Units: mg/L

| Analyte | True Solution AB | Found Solution AB | Percent Recovery |
|---|---|---|---|
| **Chromium** | **0.500** | **0.507** | **101** |
| *Aluminum* | *601* | *617* | *103* |
| *Antimony* | *0.500* | *0.524* | *105* |
| *Arsenic* | *0.500* | *0.528* | *106* |
| *Barium* | *0.500* | *0.489* | *98* |
| *Beryllium* | *0.500* | *0.546* | *109* |
| *Boron* | *0.500* | *0.530* | *106* |
| *Cadmium* | *0.500* | *0.479* | *96* |
| *Calcium* | *603* | *634* | *105* |
| *Cobalt* | *0.500* | *0.471* | *94* |
| *Copper* | *0.500* | *0.559* | *112* |
| *Iron* | *601* | *570* | *95* |
| *Lead* | *0.500* | *0.483* | *97* |
| *Lithium* | *0.500* | *0.497* | *99* |
| *Magnesium* | *603* | *593* | *98* |
| *Manganese* | *0.500* | *0.494* | *99* |
| *Molybdenum* | *0.500* | *0.522* | *104* |
| *Nickel* | *0.500* | *0.472* | *94* |
| *Phosphorus* | *0.500* | *0.512* | *102* |
| *Potassium* | *10.0* | *11.5* | *115* |
| *Selenium* | *0.500* | *0.487* | *97* |
| *Silicon* | *2.50* | *2.75* | *110* |
| *Silver* | *0.250* | *0.285* | *114* |
| *Sodium* | *10.0* | *11.0* | *110* |
| *Strontium* | *0.500* | *0.513* | *103* |
| *Thallium* | *0.500* | *0.475* | *95* |
| *Tin* | *0.500* | *0.483* | *97* |
| *Titanium* | *0.500* | *0.540* | *108* |
| *Tungsten* | *0.500* | *0.508* | *102* |
| *Vanadium* | *0.500* | *0.519* | *104* |
| *Zinc* | *0.500* | *0.438* | *88* |
| *Zirconium* | *0.500* | *0.501* | *100* |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Lab Sample ID: ICSA 440-439119/10  Instrument ID: ICP8

Lab File ID: 171102-1G.csv  ICS Source: ME ICP IFA_01731

Concentration Units: mg/L

| Analyte | True Solution A | Found Solution A | Percent Recovery |
|---|---|---|---|
| **Chromium** | | **0.0004** | |
| *Aluminum* | *600* | *609* | *101* |
| *Antimony* | | *-0.0176* | |
| *Arsenic* | | *-0.0036* | |
| *Barium* | | *0.0036* | |
| *Beryllium* | | *-0.0003* | |
| *Boron* | | *-0.0097* | |
| *Cadmium* | | *0.0043* | |
| *Calcium* | *600* | *626* | *104* |
| *Cobalt* | | *-0.0046* | |
| *Copper* | | *-0.0035* | |
| *Iron* | *600* | *567* | *94* |
| *Lead* | | *-0.0005* | |
| *Lithium* | | *-0.0688* | |
| *Magnesium* | *600* | *585* | *98* |
| *Manganese* | | *-0.0109* | |
| *Molybdenum* | | *0.0003* | |
| *Nickel* | | *0.0016* | |
| *Phosphorus* | | *-0.0047* | |
| *Potassium* | | *-0.134* | |
| *Selenium* | | *0.0038* | |
| *Silicon* | | *-0.0178* | |
| *Silver* | | *0.0009* | |
| *Sodium* | | *0.257* | |
| *Strontium* | | *-0.0174* | |
| *Thallium* | | *0.0048* | |
| *Tin* | | *-0.0118* | |
| *Titanium* | | *0.0012* | |
| *Tungsten* | | *-0.0023* | |
| *Vanadium* | | *-0.0056* | |
| *Zinc* | | *-0.0202* | |
| *Zirconium* | | *0.0028* | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: _____ Lab ID: 440-195191-A-1-C MS ^5

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.: _____

Matrix: Solid Concentration Units: mg/Kg

% Solids: _____

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 50.0 | | 2.2 | | 49.3 | 97 | 75-125 | | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: _____ Lab ID: 440-195191-A-1-D MSD ^5

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.: _____

Matrix: Solid Concentration Units: mg/Kg

% Solids: _____

| Analyte | (SDR) C | | Spike Added (SA) | %R | Control Limit %R | RPD | RPD Limit | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 52.3 | | 50.0 | 100 | 75-125 | 4 | 20 | | 6010B |

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: Lab ID: 440-195191-A-1-B PDS ^5

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 53.4 | | 2.2 | | 49.5 | 103 | 75-125 | | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 440-438571/2-A ^5

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

Sample Matrix: Solid  LCS Source: ME ICP2 ICV1A_00051

| Analyte | Solid(mg/Kg) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | True | Found | C | %R | Limits | | Q | Method |
| Chromium | 49.8 | 47.5 | | 95 | 80 | 120 | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 440-195191-A-1-B SD ^25

SDG No:

Lab Name: TestAmerica Irvine Job No: 440-194764-1

Matrix: Solid Concentration Units: mg/Kg

| Analyte | Initial Sample Result (I) | C | Serial Dilution Result (S) | C | % Difference | Q | Method |
|---|---|---|---|---|---|---|---|
| Chromium | 2.2 | | 2.54 | J | NC | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Irvine  Job Number: 440-194764-1

SDG Number:

Matrix: Solid  Instrument ID: ICP8

Method: 6010B  MDL Date: 08/11/2017 12:45

Prep Method: 3050B

| Analyte | Wavelength/ Mass | RL (mg/Kg) | MDL (mg/Kg) |
|---|---|---|---|
| Chromium | 205.552 | 1 | 0.5 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Irvine  Job Number: 440-194764-1

SDG Number:

Matrix: Solid  Instrument ID: ICP8

Method: 6010B  XMDL Date: 06/15/2017 17:46

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Chromium | 205.552 | 0.005 | 0.0025 |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-194764-1

SDG No.:

ICP-AES Instrument ID: ICP8 Date: 11/02/2017

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 396.152 | | 0.000013 | -0.000018 | 0.000025 | 0.000008 | -0.000036 | 0.000046 | 0 | 0.02689 | -0.000079 | -0.000019 | -0.000203 | 0.000009 | 0.001073 |
| Antimony | 206.834 | 0.000009 | 0.000003 | 0.000006 | 0.010395 | 0.000062 | -0.000053 | -0.000002 | -0.000075 | -0.01878 | -0.000037 | 0.000237 | 0.000208 | 0.00005 | -0.000369 |
| Arsenic | 188.980 | 0.000011 | -0.000005 | -0.000018 | -0.012816 | 0.00004 | 0.000016 | 0.000008 | -0.000015 | 0.000025 | 0.000095 | -0.000094 | -0.000062 | -0.000062 | 0.000903 |
| Barium | 233.527 | 0 | 0 | -0.000006 | -0.000002 | 0.000001 | 0.000001 | 0.000001 | 0 | -0.000191 | -0.000007 | -0.000001 | 0.000003 | -0.000164 | 0.000137 |
| Beryllium | 234.861 | 0 | 0 | 0.000004 | 0 | 0 | 0.000130 | 0 | -0.000003 | -0.000013 | -0.000018 | 0.000001 | 0.000003 | 0.000001 | 0.000004 |
| Boron | 249.678 | 0 | 0.000001 | 0.00088 | 0.000452 | -0.00002 | -0.000089 | 0 | -0.00007 | -0.000017 | -0.000005 | -0.000014 | -0.00003 | -0.000018 | -0.010398 |
| Cadmium | 214.439 | -0.000001 | 0 | 0.000002 | -0.000009 | -0.000003 | 0.000011 | 0 | 0.000001 | -0.000006 | 0.000004 | 0.000001 | 0.000005 | 0.000002 | -0.000056 |
| Calcium | 422.673 | -0.000006 | | 0.000876 | 0.000377 | -0.000272 | -0.000064 | 0.000039 | -0.000053 | -0.000524 | -0.000396 | -0.000114 | -0.000132 | 0.000387 | -0.000193 |
| Chromium | 205.560 | 0.000001 | 0.000003 | -0.000007 | | 0.000042 | 0.000004 | 0 | 0.000025 | -0.000681 | -0.000317 | 0.000014 | 0.000028 | -0.000018 | 0.000386 |
| Cobalt | 228.615 | 0 | 0.000001 | | 0.000085 | 0.000016 | 0.000008 | 0.000002 | -0.000003 | 0.000019 | 0.000157 | 0.000002 | 0.001777 | -0.000007 | 0.000113 |
| Copper | 324.754 | 0.000001 | -0.000019 | 0.000014 | 0.000019 | | 0.000022 | 0.000002 | 0.000013 | 0.000217 | 0.000018 | 0.000014 | 0.000206 | -0.000092 | 0.00002 |
| Iron | 238.204 | -0.000007 | 0.000002 | -0.000338 | -0.000187 | -0.00013 | | 0.000024 | 0.000002 | -0.000162 | -0.000109 | -0.000119 | -0.000132 | -0.000188 | -0.000132 |
| Lead | 220.353 | -0.000039 | 0.000003 | -0.000498 | 0 | 0.000033 | -0.000015 | 0.000011 | 0.000209 | -0.000819 | -0.000019 | 0.000021 | -0.000428 | -0.000038 | -0.000096 |
| Lithium | 670.783 | 0.000054 | 0.000021 | -0.000148 | -0.00023 | -0.001097 | -0.000003 | 0.000057 | -0.000518 | -0.000367 | -0.000358 | -0.001101 | 0.000381 | -0.001377 | -0.000136 |
| Magnesium | 279.078 | -0.00001 | 0.000007 | -0.000382 | -0.000435 | -0.0001 | -0.000217 | | 0.000627 | -0.000188 | -0.000014 | -0.000068 | -0.000188 | 0.000112 | -0.00038 |
| Manganese | 259.372 | 0 | 0.000001 | 0.00001 | -0.000007 | -0.000001 | 0.001380 | 0.000036 | | 0.004715 | 0.000013 | 0.000005 | 0.000019 | 0.00001 | 0.000005 |
| Molybdenum | 204.598 | 0.000025 | 0 | 0.000039 | 0.000067 | 0.000001 | 0.000004 | 0 | 0.000022 | | 0.000085 | -0.000008 | 0.00005 | -0.000031 | 0.000033 |
| Nickel | 231.604 | 0.000001 | -0.000003 | -0.000756 | 0.000004 | -0.000028 | 0.000004 | -0.000002 | -0.000049 | -0.000042 | | 0.00006 | 0.000011 | -0.000001 | -0.000013 |
| Phosphorus | 213.618 | 0.000001 | -0.000013 | 0.000141 | 0.000127 | -0.03762 | -0.000018 | 0.000004 | -0.000139 | -0.020778 | 0.000094 | -0.000098 | 0.000151 | 0.00024 | -0.000573 |
| Potassium | 744.491 | 0.000095 | 0.000087 | 0.002408 | 0.001429 | -0.000339 | 0.000196 | 0.000277 | -0.000372 | -0.001987 | 0.001312 | 0.001861 | 0.001852 | 0.001103 | 0.001579 |
| Selenium | 196.026 | -0.000006 | -0.000007 | -0.00066 | -0.000051 | -0.000107 | -0.000175 | -0.000001 | 0.000565 | -0.000003 | -0.000241 | 0 | -0.000066 | -0.000483 | 0.009364 |
| Silicon | 251.611 | 0.000013 | 0.00002 | 0.000136 | 0.000095 | 0.000162 | -0.000038 | 0.000048 | 0.000255 | 0.010982 | 0.000192 | 0.000679 | 0.004127 | 0.000213 | 0.053502 |
| Silver | 328.068 | 0 | -0.000003 | -0.000013 | -0.000026 | -0.000003 | -0.000007 | -0.000002 | 0.000075 | 0.000029 | 0.000003 | -0.000009 | -0.000107 | 0.000009 | 0.000009 |
| Sodium | 589.592 | 0.00003 | 0.000041 | 0.000558 | 0.000239 | 0.000428 | 0.000025 | 0.000018 | 0.000127 | 0.002128 | 0.000479 | 0.000076 | 0.000228 | -0.00004 | 0.006467 |
| Strontium | 421.552 | 0 | 0.00003 | 0.000002 | 0.000003 | -0.000001 | 0.00000 | 0 | 0 | 0.000001 | 0.000002 | 0.000002 | 0.000001 | 0 | 0.000017 |
| Thallium | 190.794 | -0.000001 | -0.000005 | 0.003078 | 0.000156 | -0.000039 | 0 | 0.000005 | 0.001388 | 0.000096 | -0.000005 | -0.000043 | -0.010982 | -0.02142 | 0.000265 |
| Tin | 189.925 | 0.000001 | 0 | 0.000083 | 0.000021 | 0.000021 | 0.000006 | 0.000003 | 0.000047 | 0.000038 | 0.000039 | | -0.000119 | 0.000028 | 0.000028 |
| Titanium | 336.122 | 0 | -0.000008 | -0.000017 | -0.000029 | 0.000002 | 0.000001 | 0 | 0.000005 | -0.00012 | -0.000039 | 0.000005 | | -0.000364 | 0.000399 |
| Tungsten | 207.912 | -0.000006 | -0.000009 | -0.000082 | -0.000001 | -0.000042 | 0 | -0.000001 | -0.000021 | 0.000144 | -0.000024 | -0.000005 | -0.000009 | -0.000019 | |
| Vanadium | 292.401 | 0.000004 | 0.000038 | 0.000001 | 0.000214 | 0.000012 | 0.000007 | 0.000002 | 0.000014 | -0.008504 | 0.000003 | 0.000009 | 0.000907 | | 0.000183 |

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-194764-1

SDG No.:

ICP-AES Instrument ID: ICP8 Date: 11/02/2017

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | 0 | 0 | 0 | 0 | 0 | -0.000005 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Zinc | 202.548 | 0.000003 | 0.000003 | 0.000013 | -0.001604 | 0.0078 | -0.00000167 | 0.000028 | 0.000044 | 0.00007 | -0.000062 | 0.000012 | 0.000048 | 0.000036 | 0.000339 |
| Zirconium | 343.823 | 0 | 0.000002 | -0.000097 | 0.000005 | 0.000002 | 0.000012 | 0 | -0.000025 | -0.000012 | -0.000009 | 0.000007 | -0.000025 | 0.000005 | 0.000085 |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-194764-1

SDG No.:

ICP-AES Instrument ID: ICP8 Date: 11/02/2017

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 396.152 | -0.00005 | 0.008541 | | | | | | | | | | | | |
| Antimony | 206.834 | 0.000096 | -0.000086 | | | | | | | | | | | | |
| Arsenic | 188.980 | -0.000075 | 0.000125 | | | | | | | | | | | | |
| Barium | 233.527 | 0.000001 | -0.000001 | | | | | | | | | | | | |
| Beryllium | 234.861 | 0.000001 | 0.000006 | | | | | | | | | | | | |
| Boron | 249.678 | 0.00002 | 0.000445 | | | | | | | | | | | | |
| Cadmium | 214.439 | 0.000005 | 0.000001 | | | | | | | | | | | | |
| Calcium | 422.673 | -0.000066 | -0.000488 | | | | | | | | | | | | |
| Chromium | 205.560 | 0.000037 | 0.000101 | | | | | | | | | | | | |
| Cobalt | 228.615 | -0.000013 | -0.000003 | | | | | | | | | | | | |
| Copper | 324.754 | 0.000016 | 0.00004 | | | | | | | | | | | | |
| Iron | 238.204 | 0.00011 | 0.000622 | | | | | | | | | | | | |
| Lead | 220.353 | -0.000028 | -0.000005 | | | | | | | | | | | | |
| Lithium | 670.783 | -0.00073 | -0.000634 | | | | | | | | | | | | |
| Magnesium | 279.078 | -0.000119 | -0.000067 | | | | | | | | | | | | |
| Manganese | 259.372 | 0.000005 | 0.000048 | | | | | | | | | | | | |
| Molybdenum | 204.598 | 0.000052 | 0.000002 | | | | | | | | | | | | |
| Nickel | 231.604 | 0.000023 | 0.000028 | | | | | | | | | | | | |
| Phosphorus | 213.618 | -0.00009 | 0.000028 | | | | | | | | | | | | |
| Potassium | 744.491 | -0.001412 | 0.000491 | | | | | | | | | | | | |
| Selenium | 196.026 | -0.000101 | -0.000166 | | | | | | | | | | | | |
| Silicon | 251.611 | 0.001039 | 0.006759 | | | | | | | | | | | | |
| Silver | 328.068 | 0.000001 | 0.003947 | | | | | | | | | | | | |
| Sodium | 589.592 | -0.000112 | 0.000318 | | | | | | | | | | | | |
| Strontium | 421.552 | 0 | -0.00002 | | | | | | | | | | | | |
| Thallium | 190.794 | -0.000027 | 0.000028 | | | | | | | | | | | | |
| Tin | 189.925 | 0.000048 | 0.000557 | | | | | | | | | | | | |
| Titanium | 336.122 | 0.000006 | 0.000122 | | | | | | | | | | | | |
| Tungsten | 207.912 | 0.008281 | 0.000004 | | | | | | | | | | | | |
| Vanadium | 292.401 | 0.000024 | -0.000008 | | | | | | | | | | | | |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-194764-1

SDG No.:

ICP-AES Instrument ID: ICP8 Date: 11/02/2017

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | 0 | 0 | | | | | | | | | | | | |
| Zinc | 202.548 | | 0.000117 | | | | | | | | | | | | |
| Zirconium | 343.823 | 0.000003 | | | | | | | | | | | | | |

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Irvine Job No: 440-194764-1

SDG No.:

Instrument ID: ICP8 Date: 06/15/2017 18:16

| Analyte | Integ. Time (Sec.) | Concentration (mg/L) | Method |
|---|---|---|---|
| Chromium | | 30 | 6010B |

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Irvine Job No.: 440-194764-1

SDG No.:

Prep Method: 3050B

| Lab Sample ID | Preparation Date | Prep Batch | Initial Weight (g) | Initial Volume | Final Volume (mL) |
|---|---|---|---|---|---|
| MB 440-438571/1-A ^5 | 10/31/2017 13:22 | 438571 | 2.02 | | 50 |
| LCS 440-438571/2-A ^5 | 10/31/2017 13:22 | 438571 | 2.01 | | 50 |
| 440-195191-A-1-C MS ^5 | 10/31/2017 13:22 | 438571 | 2.03 | | 50 |
| 440-195191-A-1-D MSD ^5 | 10/31/2017 13:22 | 438571 | 2.00 | | 50 |
| 440-194764-1 | 10/31/2017 13:22 | 438571 | 2.02 | | 50 |

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Instrument ID: ICP8  Analysis Method: 6010B

Start Date: 11/02/2017 08:51  End Date: 11/02/2017 15:13

| Lab Sample Id | D/F | Type | Time | Analytes |
|---|---|---|---|---|
| | | | | Cr |
| ICIS 440-439119/1 | 1 | | 08:51 | X |
| STD1 440-439119/2 IC | | | 08:53 | X |
| STD2 440-439119/3 IC | | | 08:55 | X |
| STD3 440-439119/4 IC | | | 08:57 | X |
| ICV 440-439119/5 | 1 | | 09:01 | X |
| ZZZZZZ | | | 09:05 | |
| ICB 440-439119/7 | 1 | | 09:07 | X |
| ZZZZZZ | | | 09:09 | |
| ICSAB 440-439119/9 | 1 | | 09:14 | X |
| ICSA 440-439119/10 | 1 | | 09:19 | X |
| ZZZZZZ | | | 09:26 | |
| RINSE 440-439119/12 | | | 09:28 | |
| ZZZZZZ | | | 09:30 | |
| CRI 440-439119/14 | 1 | | 09:32 | X |
| CCV 440-439119/15 | 1 | | 13:53 | X |
| CCB 440-439119/16 | 1 | | 13:55 | X |
| MB 440-438571/1-A ^5 | 5 | T | 14:01 | X |
| LCS 440-438571/2-A ^5 | 5 | T | 14:03 | X |
| ZZZZZZ | | | 14:05 | |
| 440-195191-A-1-C MS ^5 | 5 | T | 14:07 | X |
| 440-195191-A-1-D MSD ^5 | 5 | T | 14:09 | X |
| 440-195191-A-1-B PDS ^5 | 5 | T | 14:11 | X |
| 440-195191-A-1-B SD ^25 | 25 | T | 14:13 | X |
| ZZZZZZ | | | 14:15 | |
| 440-194764-1 | 5 | T | 14:17 | X |
| CCV 440-439119/26 | 1 | | 14:20 | X |
| CCB 440-439119/27 | 1 | | 14:22 | X |
| ZZZZZZ | | | 14:24 | |
| ZZZZZZ | | | 14:26 | |
| ZZZZZZ | | | 14:28 | |
| ZZZZZZ | | | 14:30 | |
| ZZZZZZ | | | 14:32 | |
| ZZZZZZ | | | 14:34 | |
| ZZZZZZ | | | 14:36 | |
| ZZZZZZ | | | 14:38 | |
| ZZZZZZ | | | 14:40 | |
| ZZZZZZ | | | 14:42 | |
| CCV 440-439119/38 | | | 14:44 | |
| CCB 440-439119/39 | | | 14:46 | |
| ZZZZZZ | | | 14:50 | |
| ZZZZZZ | | | 14:52 | |
| ZZZZZZ | | | 14:54 | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Instrument ID: ICP8  Analysis Method: 6010B

Start Date: 11/02/2017 08:51  End Date: 11/02/2017 15:13

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Cr | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:56 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:58 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:00 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 440-439119/46 | | | 15:11 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 440-439119/47 | | | 15:13 | | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Batch Number: 438571  Batch Start Date: 10/31/17 13:22  Batch Analyst: Tolentino, Danilo

Batch Method: 3050B  Batch End Date: 11/01/17 15:42

| Lab Sample ID | Client Sample ID | Method Chain | Basis | CalcMsg | InitialAmount | FinalAmount | ME 1:1 HNO3 00252 | ME 30% H2O2 00067 | ME HCl 00382 |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-438571/1 | | 3050B, 6010B | | CALC NOT SET TO RUN | 2.02 g | 50 mL | 5 mL | 3 mL | 5 mL |
| LCS 440-438571/2 | | 3050B, 6010B | | CALC NOT SET TO RUN | 2.01 g | 50 mL | 5 mL | 3 mL | 5 mL |
| 440-195191-A-1 MS | | 3050B, 6010B | T | CALC NOT SET TO RUN | 2.03 g | 50 mL | 5 mL | 3 mL | 5 mL |
| 440-195191-A-1 MSD | | 3050B, 6010B | T | CALC NOT SET TO RUN | 2.00 g | 50 mL | 5 mL | 3 mL | 5 mL |
| 440-194764-A-1 | VER-01D-90.0-20171020 | 3050B, 6010B | T | CALC NOT SET TO RUN | 2.02 g | 50 mL | 5 mL | 3 mL | 5 mL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | ME HNO3 00399 | ME ICP2 ICV1A 00051 | ME ICP2 ICV1B 00045 | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-438571/1 | | 3050B, 6010B | | 5 mL | | | | | |
| LCS 440-438571/2 | | 3050B, 6010B | | 5 mL | 1 mL | 1 mL | | | |
| 440-195191-A-1 MS | | 3050B, 6010B | T | 5 mL | 1 mL | 1 mL | | | |
| 440-195191-A-1 MSD | | 3050B, 6010B | T | 5 mL | 1 mL | 1 mL | | | |
| 440-194764-A-1 | VER-01D-90.0-20171020 | 3050B, 6010B | T | 5 mL | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Batch Number: 438571  Batch Start Date: 10/31/17 13:22  Batch Analyst: Tolentino, Danilo

Batch Method: 3050B  Batch End Date: 11/01/17 15:42

| Batch Notes | |
|---|---|
| Balance ID | 57 |
| Batch Comment | Spike A & B = 1000 uL |
| Blank Soil Lot Number | 22569094 |
| First End time | 12:15 |
| Filter Paper ID | 17-048 Gr. 389 |
| Hydrogen Peroxide ID | 1722774 |
| Lot # of hydrochloric acid | 0000175648 |
| Logbook ID for diluted Nitric | 4400842 |
| Lot # of Nitric Acid | 0000166089 |
| Hot Block ID | 12 |
| Oven, Bath or Block Temperature 1 | 95 Degrees C |
| Oven, Bath or Block Temperature 2 | 95 Degrees C |
| Pipette/Syringe/Dispenser ID | #902 |
| Perform Calculation (0=No, 1=Yes) | 0 |
| First Start time | 08:45 (11/1/17) |
| Thermometer ID | P-122 (Loc A#43) CF = -1.00 |
| Digestion Tube/Cup ID | 17405110 |
| Uncorrected Temperature | 95 CF = 0.00 Celsius |
| Uncorrected Temperature 2 | 95 CF = 0.00 Degrees C |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Date created: 11/2/2017 8:46:37 AM

Sequence table:

| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| S1:5 | ICV 4461462 | 1.0 | 1.0 | 1.0 |
| S1:5 | IPC 4461462 | 1.0 | 1.0 | 1.0 |
| S1:1 | ICB 4461458 | 1.0 | 1.0 | 1.0 |
| S1:6 | ICSA 4461463 | 1.0 | 1.0 | 1.0 |
| S1:7 | ICSAB 4461464 | 1.0 | 1.0 | 1.0 |
| S1:6 | ICSA 4461463 | 1.0 | 1.0 | 1.0 |
| S1:8 | XICIS 4461467 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4461469 | 1.0 | 1.0 | 1.0 |
| S1:9 | XCRI 4461465 | 1.0 | 1.0 | 1.0 |
| S1:10 | CRI 4461466 | 1.0 | 1.0 | 1.0 |
| 1:1 | 440-194905-g-6-b | 1.0 | 1.0 | 1.0 |
| 1:2 | 440-194905-g-7-b | 1.0 | 1.0 | 1.0 |
| 1:3 | 440-194908-g-7-b | 1.0 | 1.0 | 1.0 |
| 1:4 | 440-194993-g-5-b | 1.0 | 1.0 | 1.0 |
| 1:5 | 440-194905-f-6-b | 1.0 | 1.0 | 1.0 |
| 1:6 | 440-194905-f-7-b | 1.0 | 1.0 | 1.0 |
| 1:7 | 440-194908-f-7-b | 1.0 | 1.0 | 1.0 |
| 1:8 | 440-194993-f-5-b | 1.0 | 1.0 | 1.0 |
| 1:9 | 440-194908-f-6-b | 1.0 | 1.0 | 1.0 |
| 1:10 | 440-194908-f-6-b@10 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| 1:11 | mb 440-438408/1-a@20 | 1.0 | 1.0 | 1.0 |
| 1:12 | lcs 440-438408/2-a@20 | 1.0 | 1.0 | 1.0 |
| 1:13 | 440-194881-a-1-g@20 | 1.0 | 1.0 | 1.0 |
| 1:14 | 440-194881-a-1-g ms@20 | 1.0 | 1.0 | 1.0 |
| 1:15 | 440-194881-a-1-g msd@20 | 1.0 | 1.0 | 1.0 |
| 1:16 | 440-194881-a-1-g sd@100 | 1.0 | 1.0 | 1.0 |
| 1:17 | mb 440-438811/1-a@5 | 1.0 | 1.0 | 1.0 |
| 1:18 | lcs 440-438811/2-a@5 | 1.0 | 1.0 | 1.0 |
| 1:19 | 440-195320-a-11-m@5 | 1.0 | 1.0 | 1.0 |
| 1:20 | 440-195320-a-11-n ms@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| 1:21 | 440-195320-a-11-o msd@5 | 1.0 | 1.0 | 1.0 |
| 1:22 | 440-195320-a-11-m pds@5 | 1.0 | 1.0 | 1.0 |
| 1:23 | 440-195320-a-11-m sd@25 | 1.0 | 1.0 | 1.0 |
| 1:24 | 440-195320-a-3-g@5 | 1.0 | 1.0 | 1.0 |
| 1:25 | 440-195320-a-4-d@5 | 1.0 | 1.0 | 1.0 |
| 1:26 | 440-195320-a-5-e@5 | 1.0 | 1.0 | 1.0 |

| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| 1:27 | 440-195320-a-6-d@5 | 1.0 | 1.0 | 1.0 |
| 1:28 | 440-195320-a-7-d@5 | 1.0 | 1.0 | 1.0 |
| 1:29 | 440-195320-a-8-d@5 | 1.0 | 1.0 | 1.0 |
| 1:30 | 440-195320-a-9-d@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| 1:31 | 440-195320-a-10-d@5 | 1.0 | 1.0 | 1.0 |
| 1:32 | 440-195320-a-12-c@5 | 1.0 | 1.0 | 1.0 |
| 1:33 | 440-195320-a-13-c@5 | 1.0 | 1.0 | 1.0 |
| 1:34 | 440-195320-a-14-c@5 | 1.0 | 1.0 | 1.0 |
| 1:35 | 440-195320-a-15-c@5 | 1.0 | 1.0 | 1.0 |
| 1:36 | 440-195320-a-16-c@5 | 1.0 | 1.0 | 1.0 |
| 1:37 | 440-195320-a-17-c@5 | 1.0 | 1.0 | 1.0 |
| 1:38 | 440-195320-a-18-c@5 | 1.0 | 1.0 | 1.0 |
| 1:39 | 440-195320-a-19-c@5 | 1.0 | 1.0 | 1.0 |
| 1:40 | 440-195320-a-20-e@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| 1:41 | 440-195320-a-21-b@5 | 1.0 | 1.0 | 1.0 |
| 1:42 | 440-195320-a-22-c@5 | 1.0 | 1.0 | 1.0 |
| 1:43 | mb 440-438829/1-a | 1.0 | 1.0 | 1.0 |
| 1:44 | lcs 440-438829/2-a | 1.0 | 1.0 | 1.0 |
| 1:45 | 440-195176-g-1-e | 1.0 | 1.0 | 1.0 |
| 1:46 | 440-195176-g-1-f ms | 1.0 | 1.0 | 1.0 |
| 1:47 | 440-195176-g-1-g msd | 1.0 | 1.0 | 1.0 |
| 1:48 | 440-195176-g-2-c | 1.0 | 1.0 | 1.0 |
| 1:49 | 440-195176-g-3-h@2 | 1.0 | 1.0 | 1.0 |
| 1:50 | 440-195095-h-1-g@2 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| 1:51 | 440-195095-h-2-c | 1.0 | 1.0 | 1.0 |
| 1:52 | 440-195095-h-3-c | 1.0 | 1.0 | 1.0 |
| 1:53 | 440-195095-h-4-c@2 | 1.0 | 1.0 | 1.0 |
| 1:54 | 440-195170-m-1-a | 1.0 | 1.0 | 1.0 |
| 1:55 | 440-195170-m-2-a | 1.0 | 1.0 | 1.0 |
| 1:56 | mb 440-438639/1-a@5 | 1.0 | 1.0 | 1.0 |
| 1:57 | lcs 440-438639/2-a@5 | 1.0 | 1.0 | 1.0 |
| 1:58 | 440-195269-a-1-a@5 | 1.0 | 1.0 | 1.0 |
| 1:59 | 440-195269-a-1-b ms@5 | 1.0 | 1.0 | 1.0 |
| 1:60 | 440-195269-a-1-c msd@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| 2:1 | 440-195269-a-1-a pds@5 | 1.0 | 1.0 | 1.0 |
| 2:2 | 440-195269-a-1-a sd@25 | 1.0 | 1.0 | 1.0 |
| 2:3 | 440-195269-a-2-a@5 | 1.0 | 1.0 | 1.0 |

| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| 2:4 | 440-195269-a-3-a@5 | 1.0 | 1.0 | 1.0 |
| 2:5 | 440-195269-a-4-a@5 | 1.0 | 1.0 | 1.0 |
| 2:6 | 440-195269-a-5-a@5 | 1.0 | 1.0 | 1.0 |
| 2:7 | 440-195269-a-6-a@5 | 1.0 | 1.0 | 1.0 |
| 2:8 | 440-195269-a-7-a@5 | 1.0 | 1.0 | 1.0 |
| 2:9 | 440-195269-a-8-a@5 | 1.0 | 1.0 | 1.0 |
| 2:10 | 440-195269-a-9-a@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| 2:11 | 440-195269-a-10-a@5 | 1.0 | 1.0 | 1.0 |
| 2:12 | 440-195269-a-11-a@5 | 1.0 | 1.0 | 1.0 |
| 2:13 | 440-195269-a-12-a@5 | 1.0 | 1.0 | 1.0 |
| 2:14 | 440-195269-a-13-a@5 | 1.0 | 1.0 | 1.0 |
| 2:15 | 440-195269-a-14-a@5 | 1.0 | 1.0 | 1.0 |
| 2:16 | 440-195269-a-15-a@5 | 1.0 | 1.0 | 1.0 |
| 2:17 | 440-195269-a-16-a@5 | 1.0 | 1.0 | 1.0 |
| 2:18 | 440-195269-a-17-a@5 | 1.0 | 1.0 | 1.0 |
| 2:19 | 440-195269-a-18-a@5 | 1.0 | 1.0 | 1.0 |
| 2:20 | 440-195269-a-19-a@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| 2:21 | 440-195269-a-20-a@5 | 1.0 | 1.0 | 1.0 |
| 2:22 | mb 440-438571/1-a@5 | 1.0 | 1.0 | 1.0 |
| 2:23 | lcs 440-438571/2-a@5 | 1.0 | 1.0 | 1.0 |
| 2:24 | 440-195191-a-1-b@5 | 1.0 | 1.0 | 1.0 |
| 2:25 | 440-195191-a-1-c ms@5 | 1.0 | 1.0 | 1.0 |
| 2:26 | 440-195191-a-1-d msd@5 | 1.0 | 1.0 | 1.0 |
| 2:27 | 440-195191-a-1-b pds@5 | 1.0 | 1.0 | 1.0 |
| 2:28 | 440-195191-a-1-b sd@25 | 1.0 | 1.0 | 1.0 |
| 2:29 | 440-195187-a-1-b@5 | 1.0 | 1.0 | 1.0 |
| 2:30 | 440-194764-a-1-e@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| 2:31 | 440-195119-e-2-b@5 | 1.0 | 1.0 | 1.0 |
| 2:32 | 440-195119-e-3-b@5 | 1.0 | 1.0 | 1.0 |
| 2:33 | 440-195119-e-4-b@5 | 1.0 | 1.0 | 1.0 |
| 2:34 | 440-195119-e-5-b@5 | 1.0 | 1.0 | 1.0 |
| 2:35 | 440-195119-e-6-b@5 | 1.0 | 1.0 | 1.0 |
| 2:36 | 440-195119-e-7-b@5 | 1.0 | 1.0 | 1.0 |
| 2:37 | 440-195119-e-8-b@5 | 1.0 | 1.0 | 1.0 |
| 2:38 | 440-195119-e-9-b@5 | 1.0 | 1.0 | 1.0 |
| 2:39 | 440-195119-e-10-b@5 | 1.0 | 1.0 | 1.0 |
| 2:40 | 440-195119-e-11-b@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |

| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| 2:41 | 440-195119-e-12-b@5 | 1.0 | 1.0 | 1.0 |
| 2:42 | 440-195119-e-13-b@5 | 1.0 | 1.0 | 1.0 |
| 2:43 | 440-195119-e-14-b@5 | 1.0 | 1.0 | 1.0 |
| 2:44 | 440-195119-e-15-b@5 | 1.0 | 1.0 | 1.0 |
| 2:45 | 440-195119-e-16-d@5 | 1.0 | 1.0 | 1.0 |
| 2:46 | 440-194886-a-1-b@5 | 1.0 | 1.0 | 1.0 |
| 2:47 | mb 440-439004/1-a | 1.0 | 1.0 | 1.0 |
| 2:48 | lcs 440-439004/2-a | 1.0 | 1.0 | 1.0 |
| 2:49 | lcsd 440-439004/3-a | 1.0 | 1.0 | 1.0 |
| 2:50 | 440-194014-c-1-b | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| 2:51 | 440-194014-c-2-b | 1.0 | 1.0 | 1.0 |
| 2:52 | mb 440-438851/1-a | 1.0 | 1.0 | 1.0 |
| 2:53 | lcs 440-438851/2-a | 1.0 | 1.0 | 1.0 |
| 2:54 | 580-72386-i-2-a | 1.0 | 1.0 | 1.0 |
| 2:55 | 580-72386-i-2-b ms | 1.0 | 1.0 | 1.0 |
| 2:56 | 580-72386-i-2-c msd | 1.0 | 1.0 | 1.0 |
| 2:57 | 580-72386-n-1-a | 1.0 | 1.0 | 1.0 |
| 2:58 | 440-195219-l-9-b | 1.0 | 1.0 | 1.0 |
| 2:59 | 440-195219-l-10-b | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| 2:60 | mb 440-438847/1-a | 1.0 | 1.0 | 1.0 |
| 3:1 | lcs 440-438847/2-a | 1.0 | 1.0 | 1.0 |
| 3:2 | 440-195132-e-7-a | 1.0 | 1.0 | 1.0 |
| 3:3 | 440-195132-e-7-b ms | 1.0 | 1.0 | 1.0 |
| 3:4 | 440-195132-e-7-c msd | 1.0 | 1.0 | 1.0 |
| 3:5 | 440-195132-e-7-a sd@5 | 1.0 | 1.0 | 1.0 |
| 3:6 | 440-195132-f-2-a | 1.0 | 1.0 | 1.0 |
| 3:7 | 440-195132-f-3-a | 1.0 | 1.0 | 1.0 |
| 3:8 | 440-195132-f-4-a | 1.0 | 1.0 | 1.0 |
| 3:9 | 440-195132-f-5-a | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| 3:45 | 440-195456-1 ICPMS SE | 1.0 | 1.0 | 1.0 |
| 3:10 | 440-195132-f-6-a | 1.0 | 1.0 | 1.0 |
| 3:11 | 440-195132-f-8-a | 1.0 | 1.0 | 1.0 |
| 3:12 | 440-195132-f-9-a | 1.0 | 1.0 | 1.0 |
| 3:13 | 440-194820-d-5-a@2 | 1.0 | 1.0 | 1.0 |
| 3:14 | 440-194820-d-6-a | 1.0 | 1.0 | 1.0 |
| 3:15 | 440-194889-d-2-a | 1.0 | 1.0 | 1.0 |
| 3:16 | 440-194889-d-3-a | 1.0 | 1.0 | 1.0 |
| 3:17 | 440-194889-d-4-a | 1.0 | 1.0 | 1.0 |

| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| 3:18 | mb 440-438849/1-a | 1.0 | 1.0 | 1.0 |
| 3:19 | lcs 440-438849/2-a | 1.0 | 1.0 | 1.0 |
| 3:20 | 440-195149-g-1-d | 1.0 | 1.0 | 1.0 |
| 3:21 | 440-195149-g-1-e ms | 1.0 | 1.0 | 1.0 |
| 3:22 | 440-195149-g-1-f msd | 1.0 | 1.0 | 1.0 |
| 3:23 | 440-195149-g-2-b@5 | 1.0 | 1.0 | 1.0 |
| 3:24 | 440-195149-g-2-b@10 | 1.0 | 1.0 | 1.0 |
| 3:25 | 440-195149-g-3-b@2 | 1.0 | 1.0 | 1.0 |
| 3:26 | 440-195149-g-4-b@2 | 1.0 | 1.0 | 1.0 |
| 3:27 | 440-195149-g-5-b@2 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| 3:28 | 440-195149-g-6-b | 1.0 | 1.0 | 1.0 |
| 3:29 | 440-195152-i-1-b | 1.0 | 1.0 | 1.0 |
| 3:30 | 440-195152-i-2-b | 1.0 | 1.0 | 1.0 |
| 3:31 | 440-195152-i-3-b | 1.0 | 1.0 | 1.0 |
| 3:32 | 440-195152-i-4-b | 1.0 | 1.0 | 1.0 |
| 3:33 | 440-195152-i-5-d | 1.0 | 1.0 | 1.0 |
| 3:34 | 440-195152-i-5-e ms | 1.0 | 1.0 | 1.0 |
| 3:35 | 440-195152-i-5-f msd | 1.0 | 1.0 | 1.0 |
| 3:36 | 440-195152-i-6-b | 1.0 | 1.0 | 1.0 |
| 3:37 | 440-195219-f-1-b | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| 3:38 | 440-195219-f-2-b | 1.0 | 1.0 | 1.0 |
| 3:39 | 440-195219-f-3-b | 1.0 | 1.0 | 1.0 |
| 3:40 | 440-195219-f-4-b | 1.0 | 1.0 | 1.0 |
| 3:41 | 440-195219-f-5-b | 1.0 | 1.0 | 1.0 |
| 3:42 | 440-195219-f-6-b | 1.0 | 1.0 | 1.0 |
| 3:43 | 440-195219-f-7-b | 1.0 | 1.0 | 1.0 |
| 3:44 | 440-195219-f-8-b | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4461469 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| 3:46 | mb 440-439097/1-a@5 | 1.0 | 1.0 | 1.0 |
| 3:47 | lcs 440-439097/2-a@5 | 1.0 | 1.0 | 1.0 |
| 3:48 | 440-195348-a-15-a@5 | 1.0 | 1.0 | 1.0 |
| 3:49 | 440-195348-a-15-b ms@5 | 1.0 | 1.0 | 1.0 |
| 3:50 | 440-195348-a-15-c msd@5 | 1.0 | 1.0 | 1.0 |

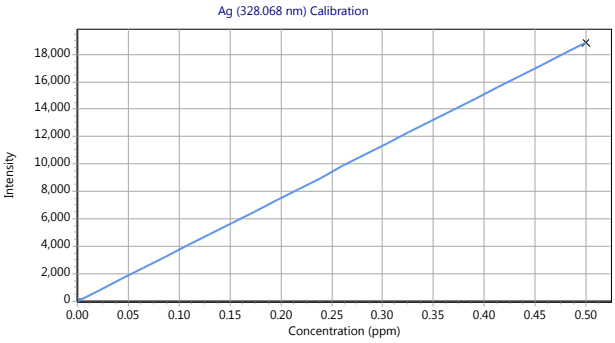
| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| 3:51 | 440-195348-a-15-aPDS@5 | 1.0 | 1.0 | 1.0 |
| 3:52 | 440-195348-a-15-aSD@25 | 1.0 | 1.0 | 1.0 |
| 3:53 | 440-195348-a-17-a@5 | 1.0 | 1.0 | 1.0 |
| 3:54 | 440-195348-a-19-a@5 | 1.0 | 1.0 | 1.0 |
| 3:55 | 440-195348-a-21-a@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| 3:56 | 440-195348-a-23-a@5 | 1.0 | 1.0 | 1.0 |
| 3:57 | 440-195348-a-25-a@5 | 1.0 | 1.0 | 1.0 |
| 3:58 | 440-195348-a-27-a@5 | 1.0 | 1.0 | 1.0 |
| 3:59 | 440-195348-a-29-a@5 | 1.0 | 1.0 | 1.0 |
| 3:60 | 440-195348-a-30-a@5 | 1.0 | 1.0 | 1.0 |
| 4:1 | 440-195348-a-31-a@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| 4:2 | mb 440-438849/1-a | 1.0 | 1.0 | 1.0 |
| 4:3 | lcs 440-438849/2-a | 1.0 | 1.0 | 1.0 |
| 4:4 | 440-195149-g-1-d@2 | 1.0 | 1.0 | 1.0 |
| 4:5 | 440-195149-g-1-e ms@2 | 1.0 | 1.0 | 1.0 |
| 4:6 | 440-195149-g-1-f msd@2 | 1.0 | 1.0 | 1.0 |
| 4:7 | 440-195149-g-2-b@10 | 1.0 | 1.0 | 1.0 |
| 4:8 | 440-195149-g-3-b@10 | 1.0 | 1.0 | 1.0 |
| 4:9 | 440-195149-g-4-b@10 | 1.0 | 1.0 | 1.0 |
| 4:10 | 440-195149-g-5-b@10 | 1.0 | 1.0 | 1.0 |
| 4:11 | 440-195149-g-6-b@5 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| 4:12 | 440-195152-i-1-b | 1.0 | 1.0 | 1.0 |
| 4:13 | 440-195152-i-2-b@2 | 1.0 | 1.0 | 1.0 |
| 4:14 | 440-195152-i-3-b@2 | 1.0 | 1.0 | 1.0 |
| 4:15 | 440-195152-i-4-b@2 | 1.0 | 1.0 | 1.0 |
| 4:16 | 440-195152-i-5-d@2 | 1.0 | 1.0 | 1.0 |
| 4:17 | 440-195152-i-5-e ms@2 | 1.0 | 1.0 | 1.0 |
| 4:18 | 440-195152-i-5-f msd@2 | 1.0 | 1.0 | 1.0 |
| 4:19 | 440-195152-i-6-b@2 | 1.0 | 1.0 | 1.0 |
| 4:20 | 440-195219-f-1-b | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| 4:21 | 440-195219-f-2-b | 1.0 | 1.0 | 1.0 |
| 4:22 | 440-195219-f-3-b@2 | 1.0 | 1.0 | 1.0 |
| 4:23 | 440-195219-f-4-b@10 | 1.0 | 1.0 | 1.0 |
| 4:24 | 440-195219-f-5-b@2 | 1.0 | 1.0 | 1.0 |
| 4:25 | 440-195219-f-6-b | 1.0 | 1.0 | 1.0 |
| 4:26 | 440-195219-f-7-b | 1.0 | 1.0 | 1.0 |
| 4:27 | 440-195219-f-8-b@2 | 1.0 | 1.0 | 1.0 |

| Rack:Tube | Sample Label | Weight (g) | Volume (mL) | Dilution |
|---|---|---|---|---|
| 4:20 | 440-195219-f-1-b@2 | 1.0 | 1.0 | 1.0 |
| S1:4 | CCV 4461459 | 1.0 | 1.0 | 1.0 |
| S1:1 | CCB 4461458 | 1.0 | 1.0 | 1.0 |
| S1:10 | CRI 4461466 | 1.0 | 1.0 | 1.0 |
| S1:6 | ICSA 4461463 | 1.0 | 1.0 | 1.0 |
| S1:13 | ICSAB 4461464 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4461469 | 1.0 | 1.0 | 1.0 |
| S1:7 | ICSAB 4461464 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4461469 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4461469 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4461469 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4461469 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4461469 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4461469 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4461469 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4461469 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4461469 | 1.0 | 1.0 | 1.0 |
| S1:8 | RINSE 4461469 | 1.0 | 1.0 | 1.0 |

Calibration Curves:

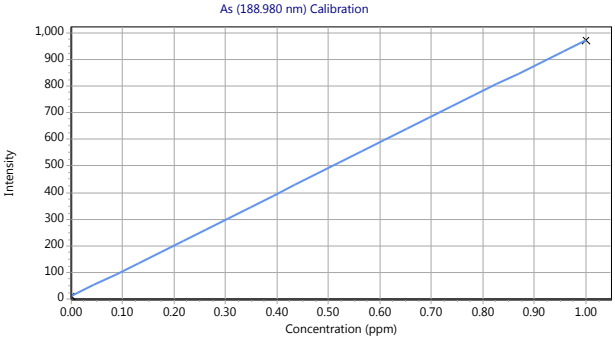
Ag (328.068 nm)
Intensity = 37801 * Concentration - 18

| Standards | Intensity |
|---|---|
| IEC Blank | -17.5600 |
| STD3 | 18880.0000 |



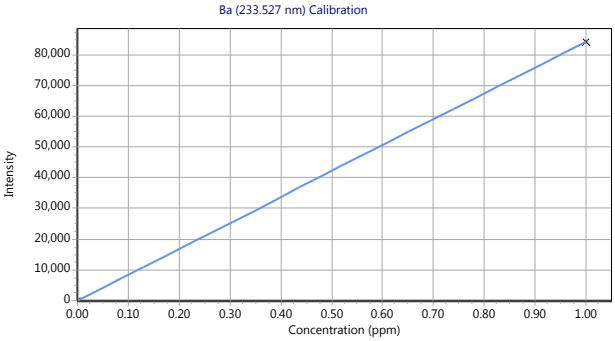

As (188.980 nm)
Intensity = 964 * Concentration + 10

| Standards | Intensity |
|---|---|
| IEC Blank | 9.8560 |
| STD3 | 973.9000 |



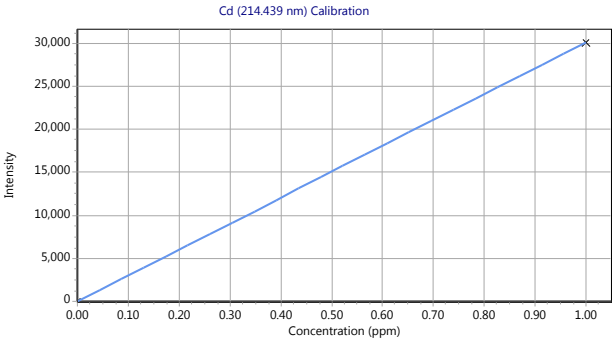

Ba (233.527 nm)
Intensity = 84304 * Concentration - 13

| Standards | Intensity |
|---|---|
| IEC Blank | -12.8900 |
| STD3 | 84290.0000 |



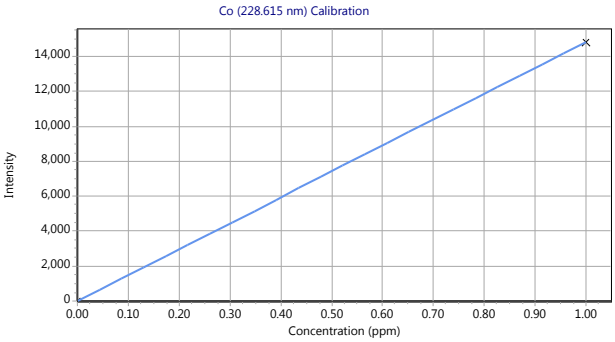

Cd (214.439 nm)
Intensity = 30108 * Concentration - 4

| Standards | Intensity |
|---|---|
| IEC Blank | -4.4850 |
| STD3 | 30100.0000 |



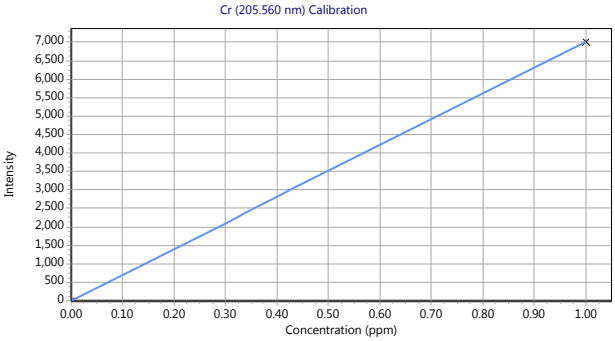

Co (228.615 nm)
Intensity = 14834 * Concentration - 3

| Standards | Intensity |
|---|---|
| IEC Blank | -2.8900 |
| STD3 | 14830.0000 |



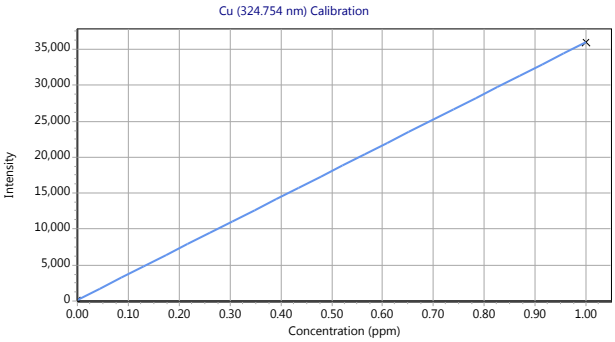

Cr (205.560 nm)
Intensity = 7017 * Concentration + 4

| Standards | Intensity |
|---|---|
| IEC Blank | 3.7230 |
| STD3 | 7020.0000 |



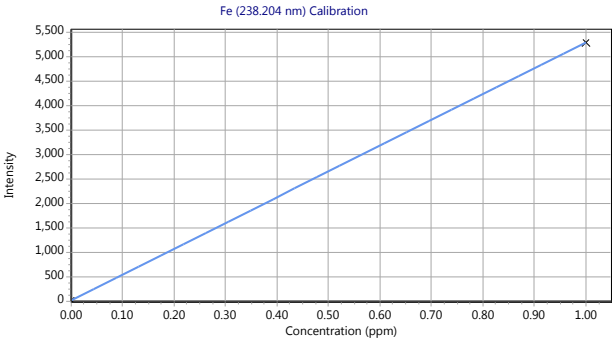

Cu (324.754 nm)
Intensity = 35890 * Concentration + 142

| Standards | Intensity |
|---|---|
| IEC Blank | 141.8000 |
| STD3 | 36030.0000 |



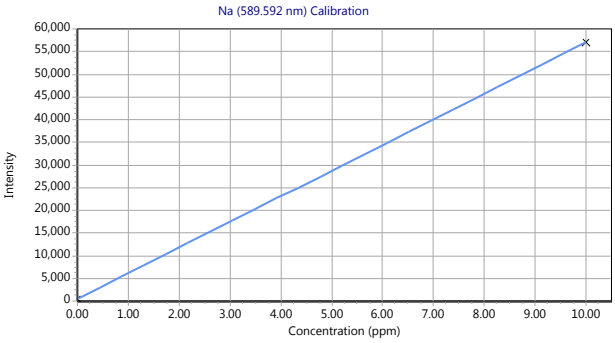

Fe (238.204 nm)
Intensity = 5267 * Concentration + 31

| Standards | Intensity |
|---|---|
| IEC Blank | 30.9700 |
| STD3 | 5298.0000 |



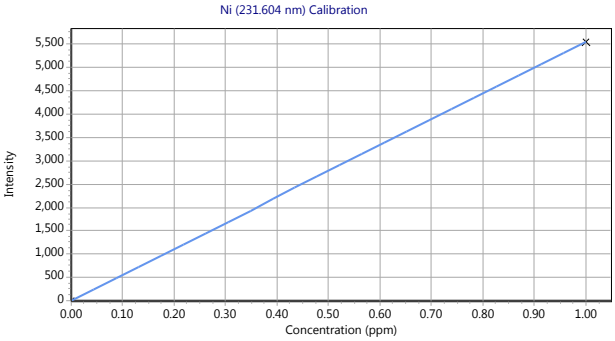

Na (589.592 nm)
Intensity = 5683 * Concentration + 369

| Standards | Intensity |
|---|---|
| IEC Blank | 368.6000 |
| STD3 | 57200.0000 |



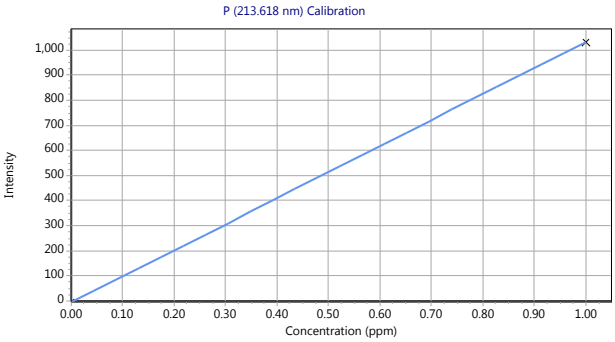

Ni (231.604 nm)
Intensity = 5561 * Concentration + 0

| Standards | Intensity |
|---|---|
| IEC Blank | 0.0688 |
| STD3 | 5561.0000 |



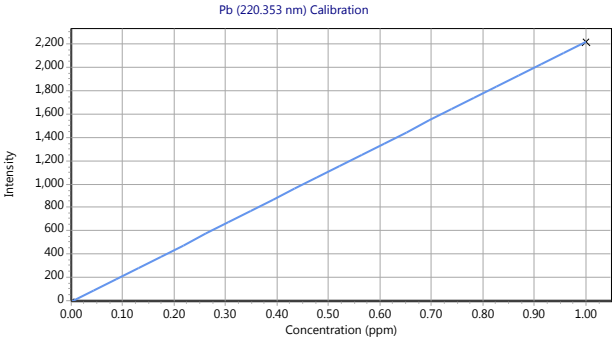

P (213.618 nm)
Intensity = 1038 * Concentration - 6

| Standards | Intensity |
|---|---|
| IEC Blank | -5.5350 |
| STD3 | 1032.0000 |



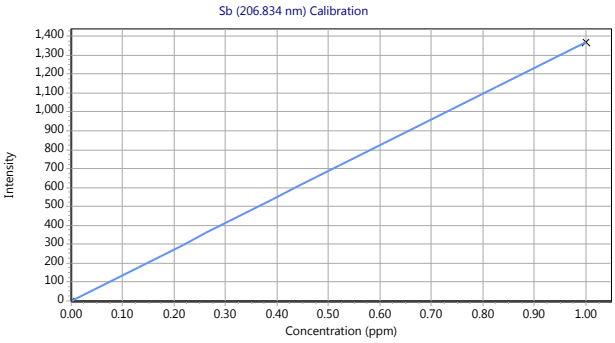

Pb (220.353 nm)
Intensity = 2232 * Concentration - 9

| Standards | Intensity |
|---|---|
| IEC Blank | -9.1450 |
| STD3 | 2222.0000 |



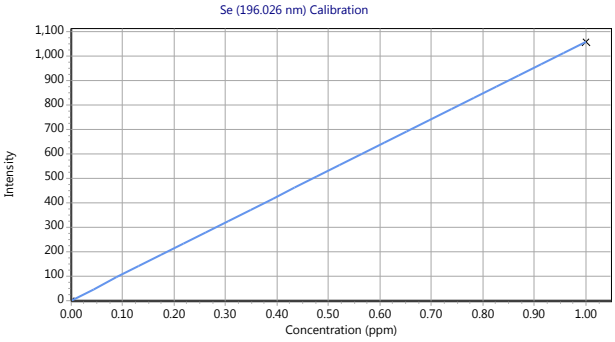

Sb (206.834 nm)
Intensity = 1369 * Concentration + 1

| Standards | Intensity |
|---|---|
| IEC Blank | 1.4010 |
| STD3 | 1370.0000 |



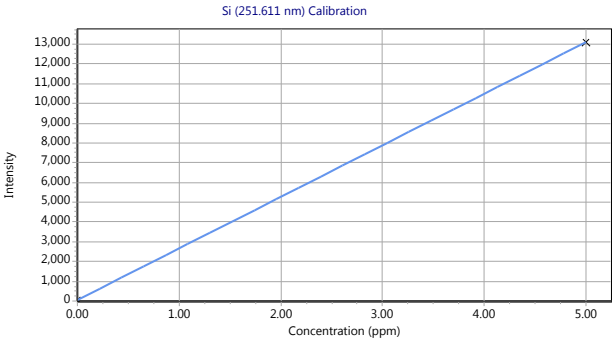

Se (196.026 nm)
Intensity = 1058 * Concentration + 2

| Standards | Intensity |
|---|---|
| IEC Blank | 1.9320 |
| STD3 | 1060.0000 |



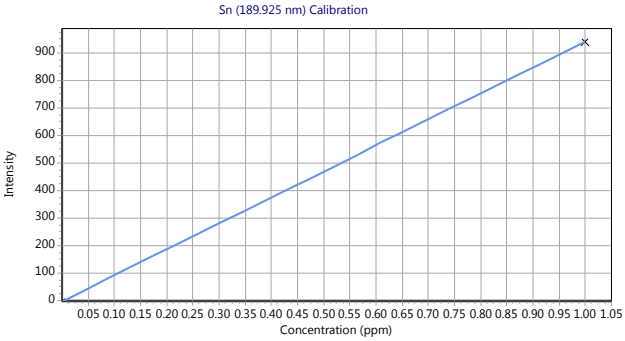

Si (251.611 nm)
Intensity = 2615 * Concentration + 45

| Standards | Intensity |
|---|---|
| IEC Blank | 44.9900 |
| STD3 | 13120.0000 |



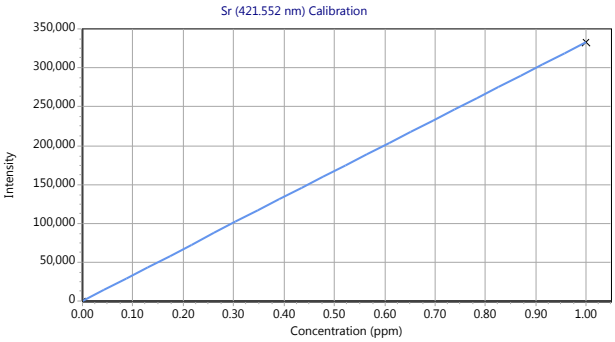

Sn (189.925 nm)
Intensity = 943 * Concentration - 2

| Standards | Intensity |
|---|---|
| IEC Blank | -2.2560 |
| STD3 | 940.4000 |



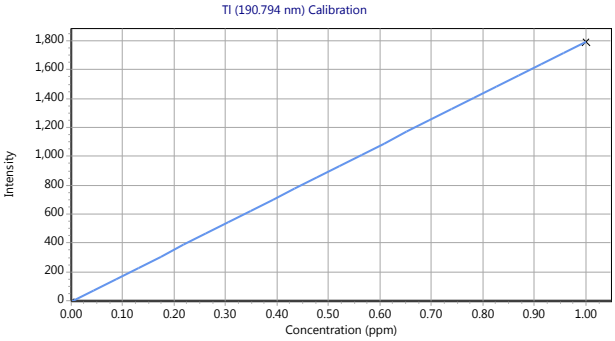

Sr (421.552 nm)
Intensity = 333367 * Concentration + 313

| Standards | Intensity |
|---|---|
| IEC Blank | 312.6000 |
| STD3 | 333700.0000 |



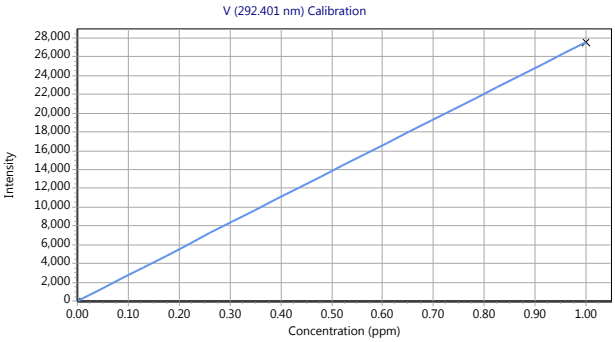

Tl (190.794 nm)
Intensity = 1801 * Concentration - 7

| Standards | Intensity |
|---|---|
| IEC Blank | -6.7290 |
| STD3 | 1794.0000 |



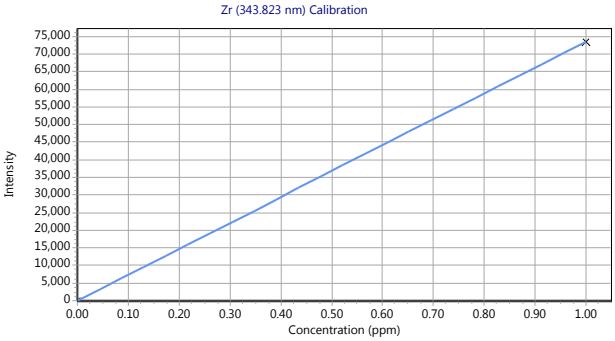

V (292.401 nm)
Intensity = 27558 * Concentration + 28

| Standards | Intensity |
|---|---|
| IEC Blank | 27.9500 |
| STD3 | 27590.0000 |



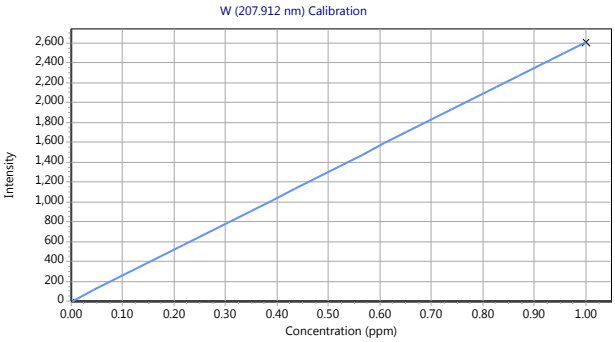

Zr (343.823 nm)
Intensity = 73556 * Concentration - 10

| Standards | Intensity |
|---|---|
| IEC Blank | -9.5530 |
| STD3 | 73550.0000 |



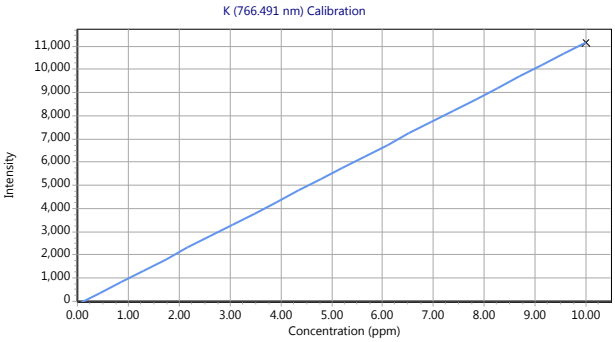

W (207.912 nm)
Intensity = 2614 * Concentration - 6

| Standards | Intensity |
|---|---|
| IEC Blank | -5.8860 |
| STD3 | 2608.0000 |



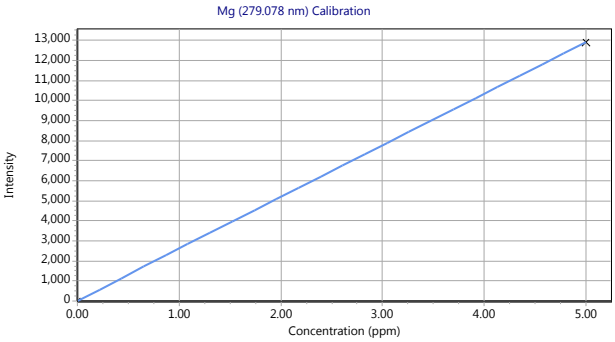

K (766.491 nm)
Intensity = 1132 * Concentration - 149

| Standards | Intensity |
|---|---|
| IEC Blank | -148.5000 |
| STD3 | 11170.0000 |



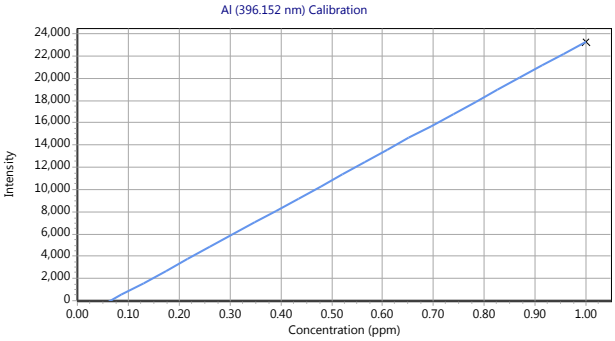

Mg (279.078 nm)
Intensity = 2581 * Concentration + 20

| Standards | Intensity |
|---|---|
| IEC Blank | 20.0500 |
| STD3 | 12930.0000 |



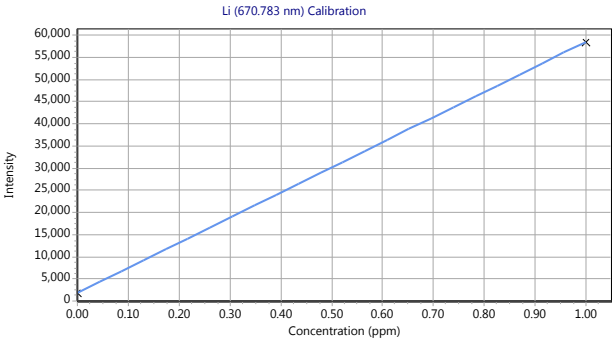

Al (396.152 nm)
Intensity = 24974 * Concentration - 1661

| Standards | Intensity |
|---|---|
| IEC Blank | -1661.0000 |
| STD3 | 23310.0000 |



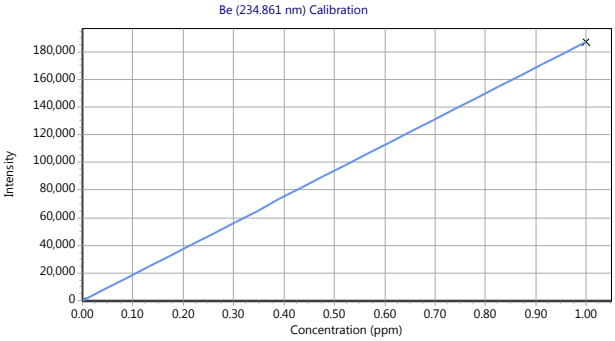

Li (670.783 nm)
Intensity = 56706 * Concentration + 1801

| Standards | Intensity |
|---|---|
| IEC Blank | 1801.0000 |
| STD3 | 58510.0000 |



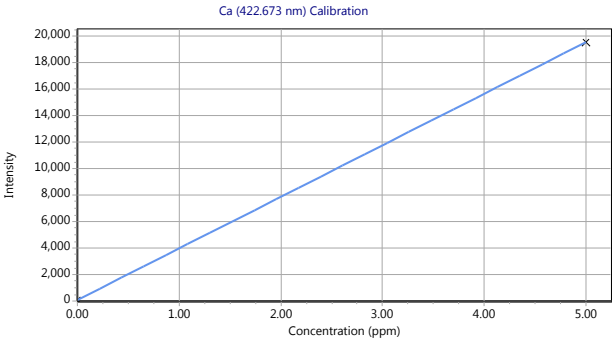

Be (234.861 nm)
Intensity = 187234 * Concentration + 1

| Standards | Intensity |
|---|---|
| IEC Blank | 0.5601 |
| STD3 | 187200.0000 |



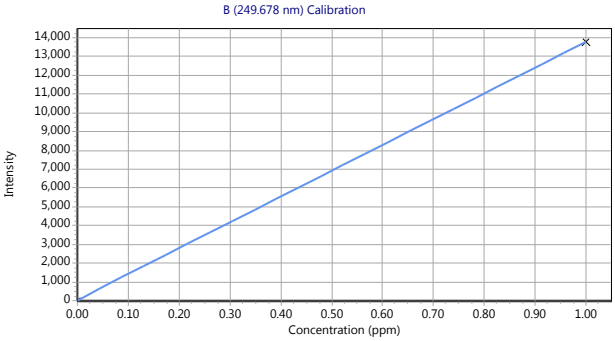

Ca (422.673 nm)
Intensity = 3899 * Concentration + 90

| Standards | Intensity |
|---|---|
| IEC Blank | 89.6400 |
| STD3 | 19590.0000 |



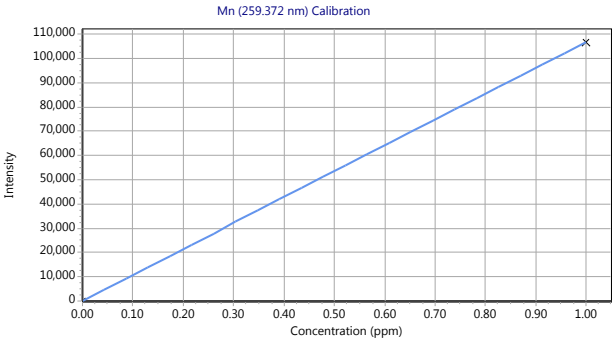

B (249.678 nm)
Intensity = 13775 * Concentration + 25

| Standards | Intensity |
|---|---|
| IEC Blank | 25.4900 |
| STD3 | 13800.0000 |



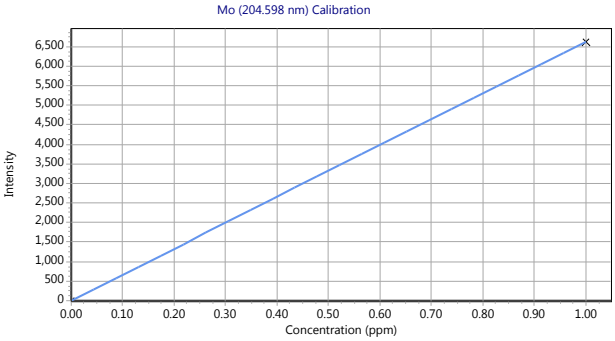

Mn (259.372 nm)
Intensity = 106786 * Concentration + 76

| Standards | Intensity |
|---|---|
| IEC Blank | 76.2600 |
| STD3 | 106900.0000 |



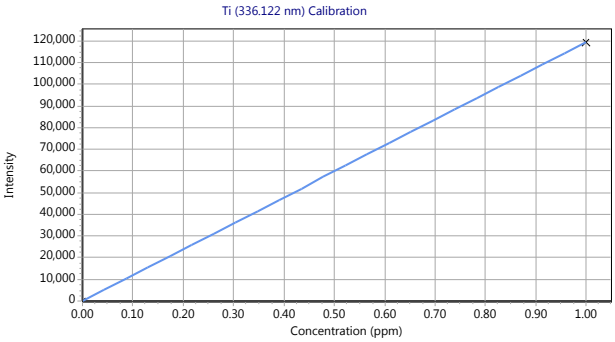

Mo (204.598 nm)
Intensity = 6623 * Concentration + 6

| Standards | Intensity |
|---|---|
| IEC Blank | 6.4530 |
| STD3 | 6629.0000 |



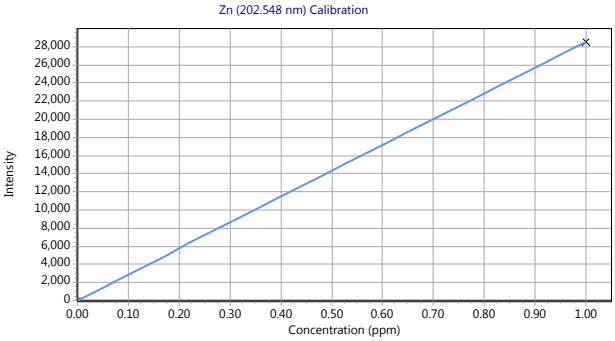

Ti (336.122 nm)
Intensity = 119615 * Concentration - 74

| Standards | Intensity |
|---|---|
| IEC Blank | -73.7000 |
| STD3 | 119500.0000 |



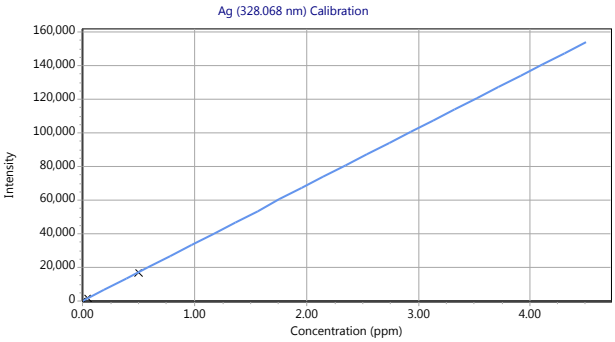

Zn (202.548 nm)
Intensity = 28533 * Concentration + 37

| Standards | Intensity |
|---|---|
| IEC Blank | 37.4200 |
| STD3 | 28570.0000 |



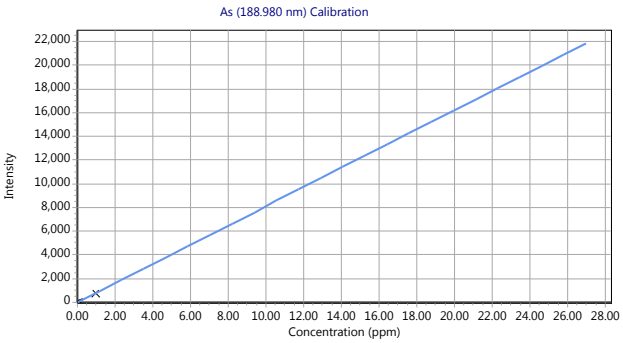

Ag (328.068 nm)
Intensity = 34279.51893672 * Concentration - 0.08373134
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | -0.0837 |
| STD1 4461461 | 92.1900 |
| STD2 4461460 | 1710.0000 |
| STD3 4461459 | 17140.0000 |



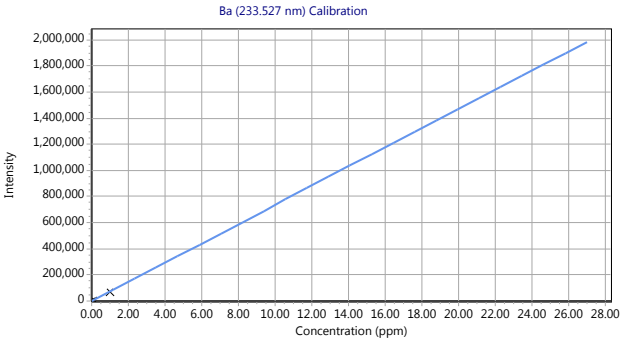

As (188.980 nm)
Intensity = 809.16405955 * Concentration + 6.34608905
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | 6.3460 |
| STD1 4461461 | 11.3900 |
| STD2 4461460 | 89.3800 |
| STD3 4461459 | 815.3000 |



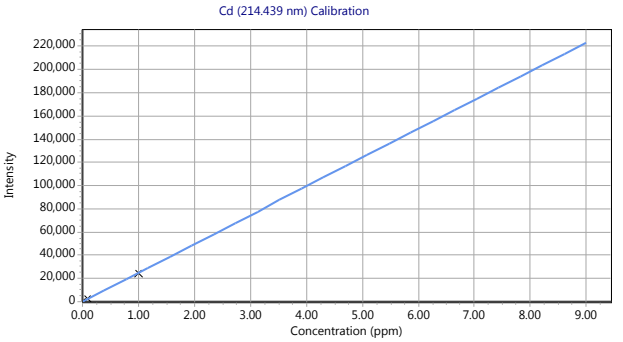

Ba (233.527 nm)
Intensity = 73495.40598955 * Concentration - 10.18577833
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | -10.1900 |
| STD1 4461461 | 366.7000 |
| STD2 4461460 | 7387.0000 |
| STD3 4461459 | 73480.0000 |



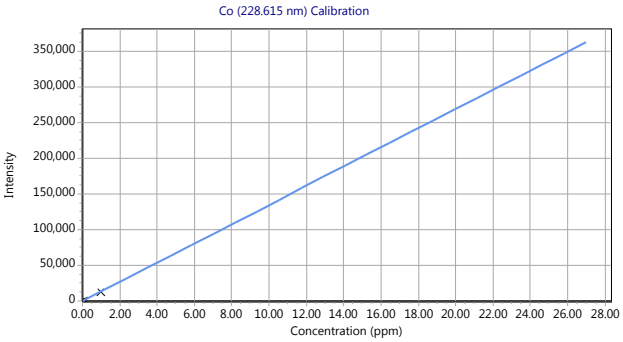

Cd (214.439 nm)
Intensity = 24803.53299192 * Concentration - 4.18174048
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | -4.1820 |
| STD1 4461461 | 118.7000 |
| STD2 4461460 | 2487.0000 |
| STD3 4461459 | 24800.0000 |



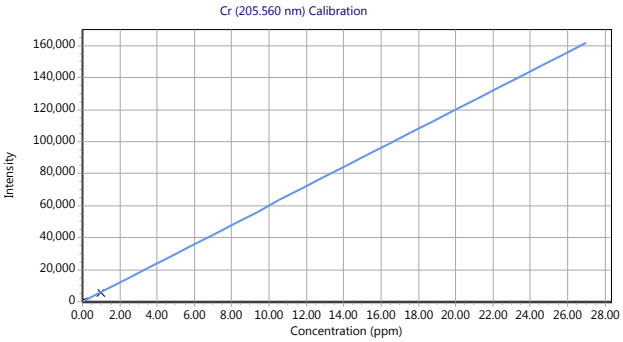

Co (228.615 nm)
Intensity = 13478.76635070 * Concentration - 10.82864714
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | -10.8300 |
| STD1 4461461 | 44.7300 |
| STD2 4461460 | 1326.0000 |
| STD3 4461459 | 13470.0000 |



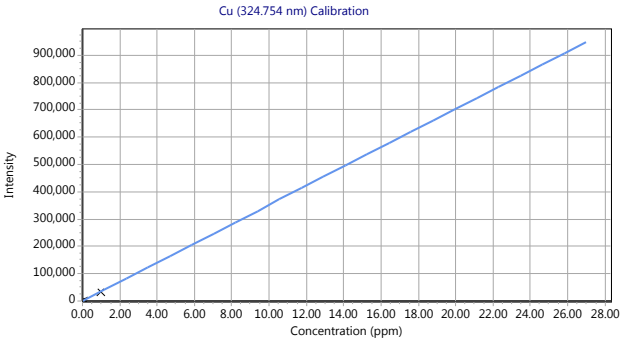

Cr (205.560 nm)
Intensity = 5998.32947939 * Concentration + 1.22067252
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | 1.2210 |
| STD1 4461461 | 32.8500 |
| STD2 4461460 | 602.0000 |
| STD3 4461459 | 5999.0000 |



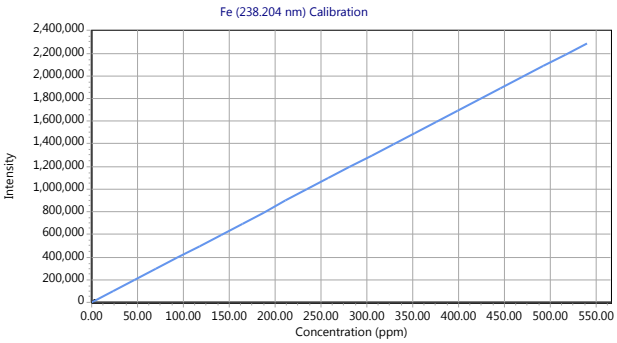

Cu (324.754 nm)
Intensity = 35144.41976699 * Concentration + 163.94011801
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | 163.9000 |
| STD1 4461461 | 340.2000 |
| STD2 4461460 | 3640.0000 |
| STD3 4461459 | 35310.0000 |



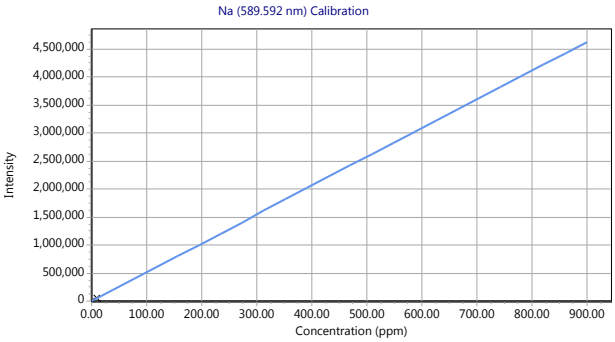

Fe (238.204 nm)
Intensity = 4237.55403236 * Concentration + 4.02201153
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | 4.0220 |
| STD2 4461460 | 419.5000 |
| STD3 4461459 | 4242.0000 |



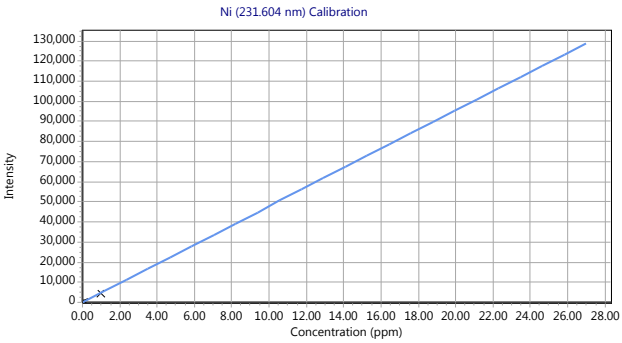

Na (589.592 nm)
Intensity = 5142.88223356 * Concentration + 1554.88370036
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | 1555.0000 |
| STD2 4461460 | 6722.0000 |
| STD3 4461459 | 52980.0000 |



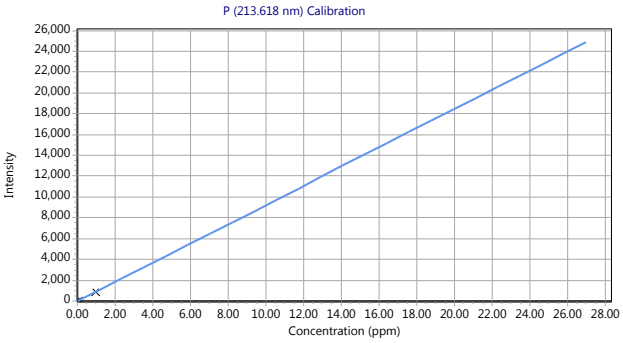

Ni (231.604 nm)
Intensity = 4774.60084459 * Concentration + 0.11118996
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | 0.1112 |
| STD1 4461461 | 23.9900 |
| STD2 4461460 | 476.6000 |
| STD3 4461459 | 4775.0000 |



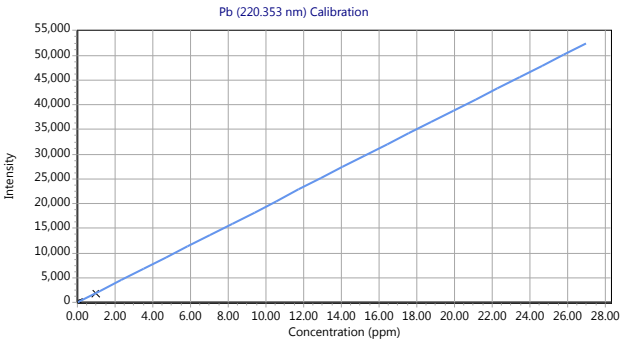

P (213.618 nm)
Intensity = 922.99348250 * Concentration - 13.83750839
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | -13.8400 |
| STD2 4461460 | 80.7500 |
| STD3 4461459 | 908.9000 |



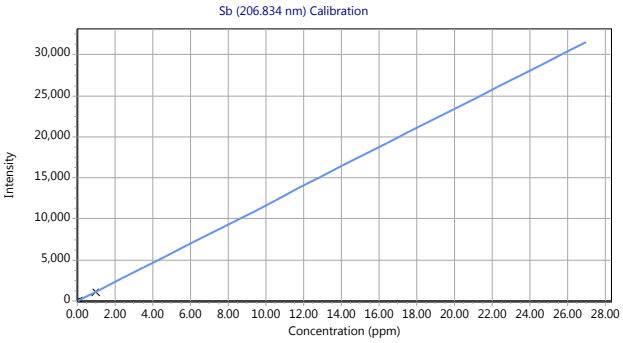

Pb (220.353 nm)
Intensity = 1942.83184823 * Concentration - 5.08713971
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | -5.0870 |
| STD1 4461461 | 3.7030 |
| STD2 4461460 | 189.5000 |
| STD3 4461459 | 1938.0000 |



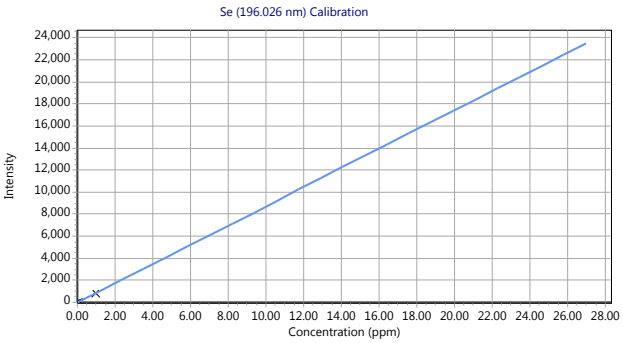

Sb (206.834 nm)
Intensity = 1169.17189024 * Concentration - 5.03649784
Correlation coefficient: 0.99995

| Standards | Intensity |
|---|---|
| STD0 4461458 | -5.0360 |
| STD1 4461461 | 6.1880 |
| STD2 4461460 | 103.7000 |
| STD3 4461459 | 1165.0000 |



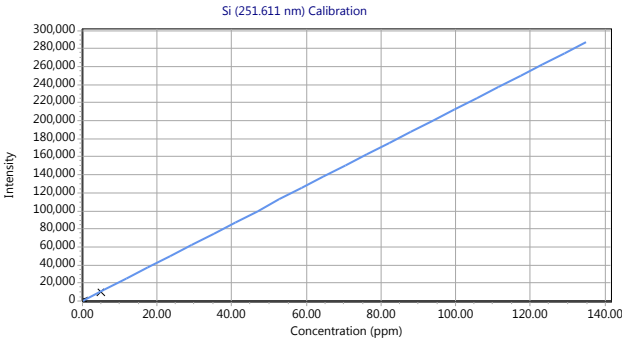

Se (196.026 nm)
Intensity = 870.63889897 * Concentration - 2.21443601
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | -2.2140 |
| STD1 4461461 | 3.2090 |
| STD2 4461460 | 85.2700 |
| STD3 4461459 | 868.4000 |



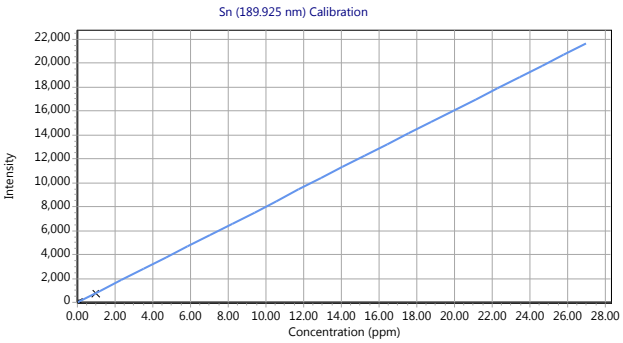

Si (251.611 nm)
Intensity = 2128.91654513 * Concentration + 17.83585197
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | 17.8400 |
| STD1 4461461 | 75.3300 |
| STD2 4461460 | 1075.0000 |
| STD3 4461459 | 10660.0000 |



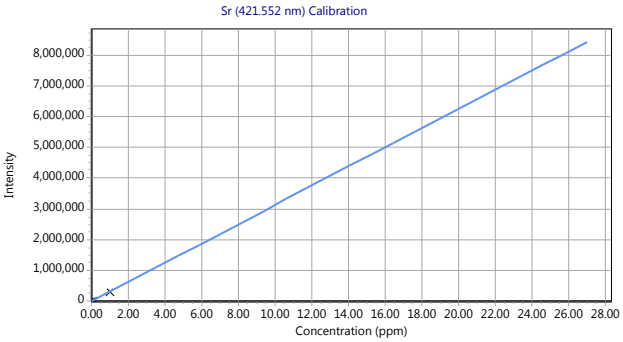

Sn (189.925 nm)
Intensity = 801.89035456 * Concentration - 3.44083838
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | -3.4410 |
| STD2 4461460 | 76.3900 |
| STD3 4461459 | 798.5000 |



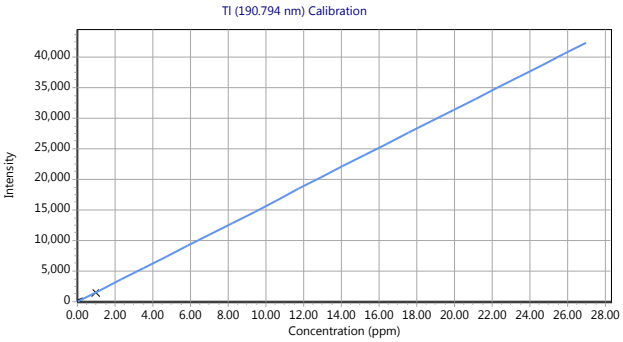

Sr (421.552 nm)
Intensity = 312615.90816757 * Concentration + 67.12145071
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | 67.1200 |
| STD1 4461461 | 1650.0000 |
| STD2 4461460 | 31260.0000 |
| STD3 4461459 | 312700.0000 |



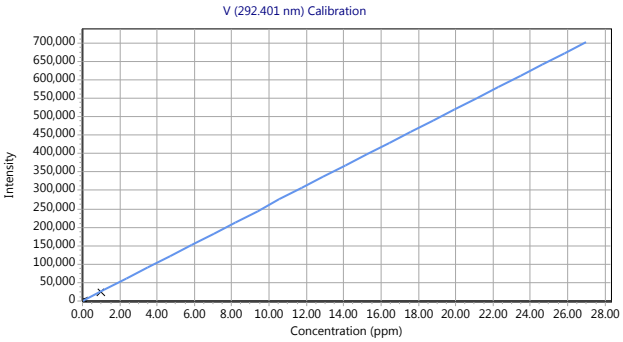

Tl (190.794 nm)
Intensity = 1567.80461995 * Concentration - 6.35021323
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | -6.3500 |
| STD1 4461461 | 2.6670 |
| STD2 4461460 | 152.2000 |
| STD3 4461459 | 1561.0000 |



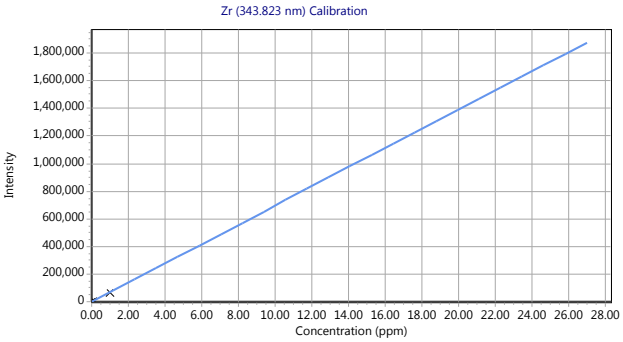

V (292.401 nm)
Intensity = 26023.70300556 * Concentration + 41.45154229
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | 41.4500 |
| STD1 4461461 | 181.6000 |
| STD2 4461460 | 2616.0000 |
| STD3 4461459 | 26070.0000 |



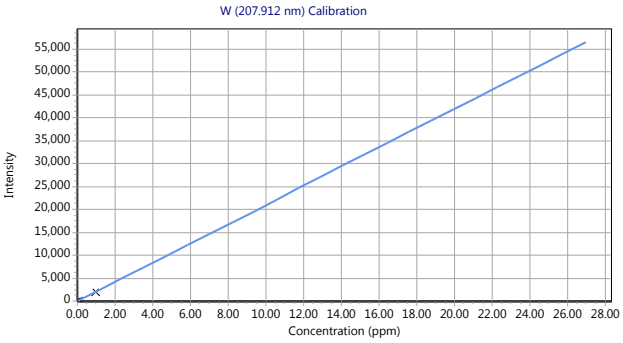

Zr (343.823 nm)
Intensity = 69534.06987309 * Concentration - 35.07407452
Correlation coefficient: 0.99999

| Standards | Intensity |
|---|---|
| STD0 4461458 | -35.0700 |
| STD1 4461461 | 106.9000 |
| STD2 4461460 | 6548.0000 |
| STD3 4461459 | 69540.0000 |



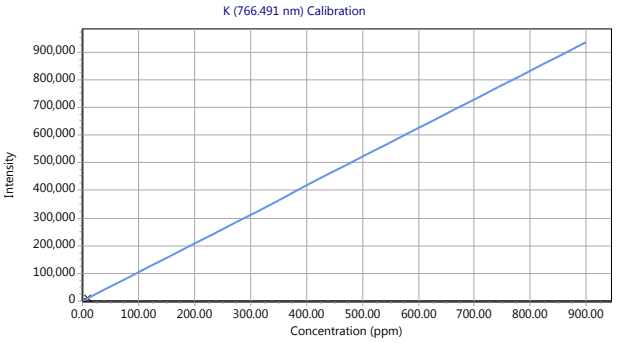

W (207.912 nm)
Intensity = 2096.66822190 * Concentration - 7.07591185
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | -7.0760 |
| STD1 4461461 | -0.2866 |
| STD2 4461460 | 196.2000 |
| STD3 4461459 | 2090.0000 |



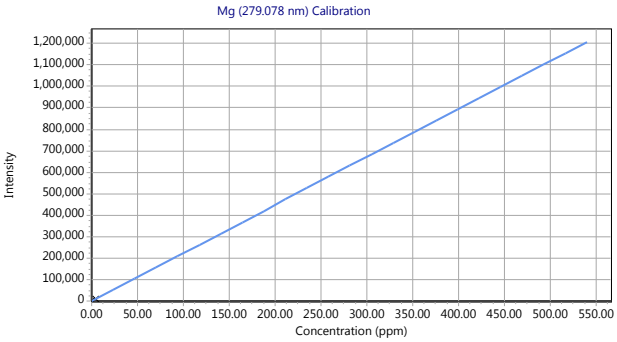

K (766.491 nm)
Intensity = 1040.80671233 * Concentration - 69.38942078
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | -69.3900 |
| STD2 4461460 | 996.9000 |
| STD3 4461459 | 10340.0000 |



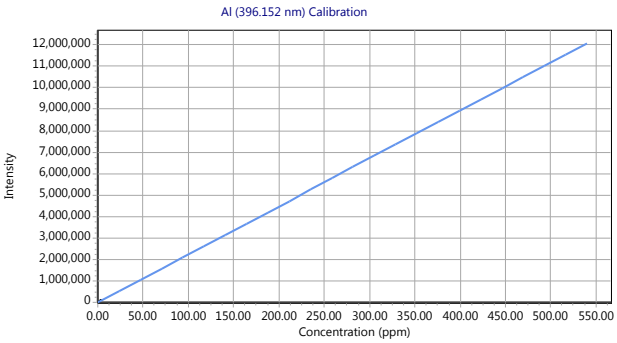

Mg (279.078 nm)
Intensity = 2235.90480966 * Concentration + 7.86406785
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | 7.8640 |
| STD1 4461461 | 65.7200 |
| STD2 4461460 | 1132.0000 |
| STD3 4461459 | 11190.0000 |



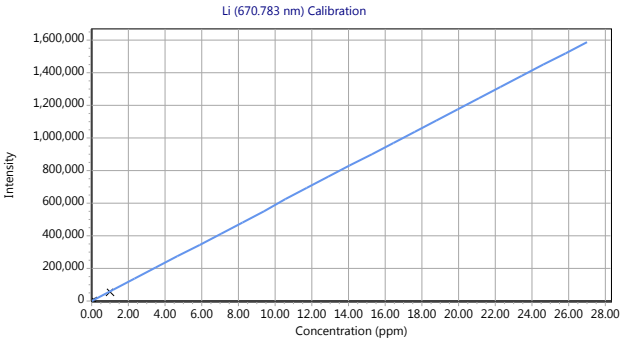

Al (396.152 nm)
Intensity = 22362.64903924 * Concentration - 1184.25541792
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | -1184.0000 |
| STD2 4461460 | 1012.0000 |
| STD3 4461459 | 21180.0000 |



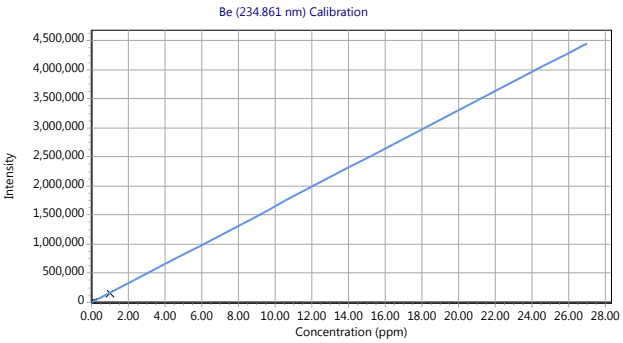

Li (670.783 nm)
Intensity = 58878.18497600 * Concentration + 13.19054377
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | 13.1900 |
| STD2 4461460 | 5919.0000 |
| STD3 4461459 | 58890.0000 |



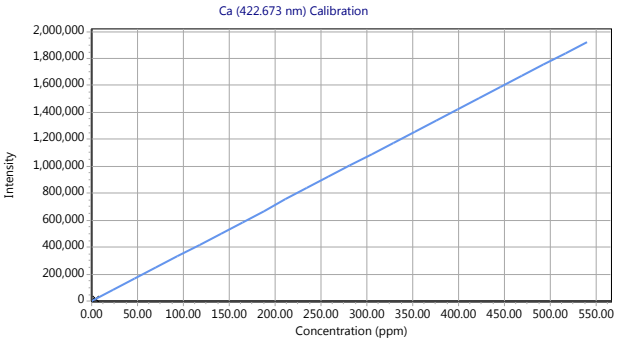

Be (234.861 nm)
Intensity = 164872.44409434 * Concentration + 5.91852456
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | 5.9190 |
| STD1 4461461 | 807.7000 |
| STD2 4461460 | 16300.0000 |
| STD3 4461459 | 164900.0000 |



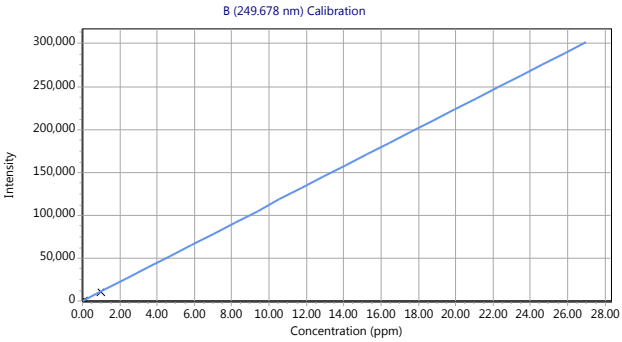

Ca (422.673 nm)
Intensity = 3561.06957480 * Concentration + 134.34422025
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | 134.3000 |
| STD1 4461461 | 195.0000 |
| STD2 4461460 | 1907.0000 |
| STD3 4461459 | 17940.0000 |



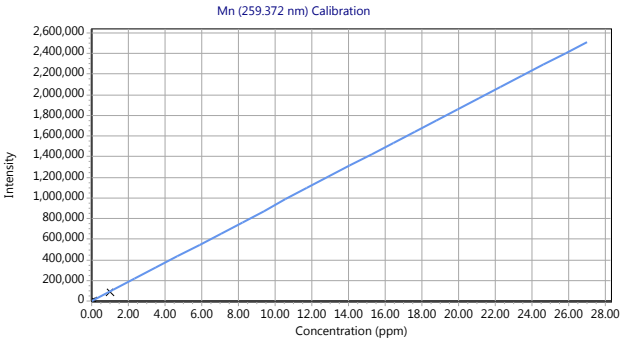

B (249.678 nm)
Intensity = 11186.13688417 * Concentration - 1.58155456
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | -1.5820 |
| STD2 4461460 | 1087.0000 |
| STD3 4461459 | 11190.0000 |



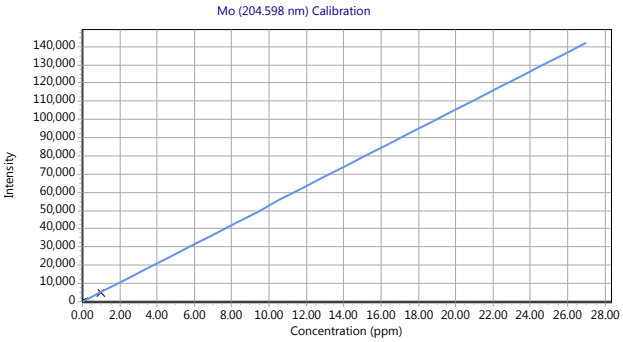

Mn (259.372 nm)
Intensity = 93044.12999106 * Concentration + 70.91826620
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | 70.9200 |
| STD1 4461461 | 534.8000 |
| STD2 4461460 | 9459.0000 |
| STD3 4461459 | 93110.0000 |



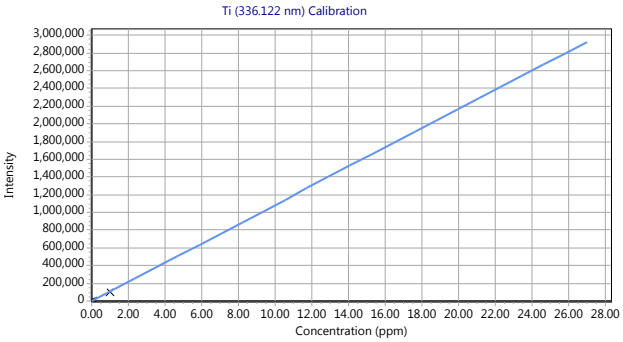

Mo (204.598 nm)
Intensity = 5268.02839276 * Concentration + 5.63113633
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | 5.6310 |
| STD1 4461461 | 34.1000 |
| STD2 4461460 | 523.1000 |
| STD3 4461459 | 5275.0000 |



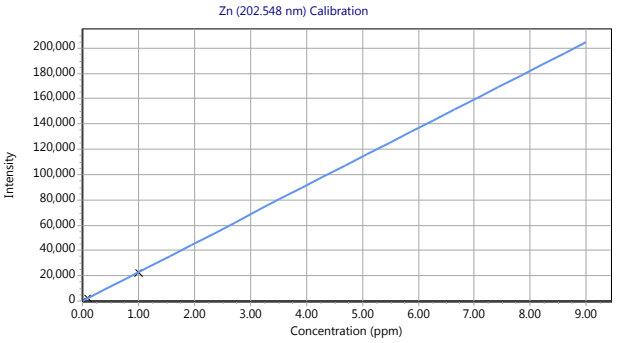

Ti (336.122 nm)
Intensity = 108388.09562746 * Concentration - 99.26194425
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | -99.2600 |
| STD1 4461461 | 434.1000 |
| STD2 4461460 | 10550.0000 |
| STD3 4461459 | 108300.0000 |




Zn (202.548 nm)
Intensity = 22753.12501806 * Concentration + 80.55333074
Correlation coefficient: 1.00000

| Standards | Intensity |
|---|---|
| STD0 4461458 | 80.5500 |
| STD2 4461460 | 2327.0000 |
| STD3 4461459 | 22840.0000 |



Sample Name: STD0 4461458

Date: 11/2/2017 8:51:21 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0000 | ppm | N/A | N/A | -0.0837 | 0.0000 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0000 | ppm | N/A | N/A | -1184.0000 | 0.0000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0000 | ppm | N/A | N/A | 6.3460 | 0.0000 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0000 | ppm | N/A | N/A | -1.5820 | 0.0000 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0000 | ppm | N/A | N/A | -10.1900 | 0.0000 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | N/A | N/A | 5.9190 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0000 | ppm | N/A | N/A | 134.3000 | 0.0000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 | ppm | N/A | N/A | -4.1820 | 0.0000 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0000 | ppm | N/A | N/A | -10.8300 | 0.0000 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0000 | ppm | N/A | N/A | 1.2210 | 0.0000 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0000 | ppm | N/A | N/A | 163.9000 | 0.0000 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0000 | ppm | N/A | N/A | 4.0220 | 0.0000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0000 | ppm | N/A | N/A | -69.3900 | 0.0000 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0000 | ppm | N/A | N/A | 13.1900 | 0.0000 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0000 | ppm | N/A | N/A | 7.8640 | 0.0000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 | ppm | N/A | N/A | 70.9200 | 0.0000 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0000 | ppm | N/A | N/A | 5.6310 | 0.0000 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0000 | ppm | N/A | N/A | 1555.0000 | 0.0000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0000 | ppm | N/A | N/A | 0.1112 | 0.0000 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0000 | ppm | N/A | N/A | -13.8400 | 0.0000 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0000 | ppm | N/A | N/A | -5.0870 | 0.0000 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0000 | ppm | N/A | N/A | -5.0360 | 0.0000 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0000 | ppm | N/A | N/A | -2.2140 | 0.0000 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0000 | ppm | N/A | N/A | 17.8400 | 0.0000 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0000 | ppm | N/A | N/A | -3.4410 | 0.0000 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 | ppm | N/A | N/A | 67.1200 | 0.0000 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0000 | ppm | N/A | N/A | -99.2600 | 0.0000 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0000 | ppm | N/A | N/A | -6.3500 | 0.0000 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0000 | ppm | N/A | N/A | 41.4500 | 0.0000 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0000 | ppm | N/A | N/A | -7.0760 | 0.0000 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0000 | ppm | N/A | N/A | 80.5500 | 0.0000 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 | ppm | N/A | N/A | -35.0700 | 0.0000 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0000 | 377900.0000 | 0.0000 | 0.00 |
| Y_R 371.029 | 1.0000 | 53870.0000 | 0.0000 | 0.00 |

Sample Name: STD1 4461461

Date: 11/2/2017 8:53:26 AM Rack:Tube: S1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0025 | ppm | N/A | N/A | 92.1900 | 0.0025 (ppm) | Y 371.029 |
| Al (396.152 nm) | | ppm | N/A | N/A | -1090.0000 | | Y 371.029 |
| As (188.980 nm) | 0.0050 | ppm | N/A | N/A | 11.3900 | 0.0050 (ppm) | Y 371.029 |
| B (249.678 nm) | | ppm | N/A | N/A | 52.6400 | | Y 371.029 |
| Ba (233.527 nm) | 0.0050 | ppm | N/A | N/A | 366.7000 | 0.0050 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0050 | ppm | N/A | N/A | 807.7000 | 0.0050 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0250 | ppm | N/A | N/A | 195.0000 | 0.0250 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0050 | ppm | N/A | N/A | 118.7000 | 0.0050 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0050 | ppm | N/A | N/A | 44.7300 | 0.0050 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0050 | ppm | N/A | N/A | 32.8500 | 0.0050 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0050 | ppm | N/A | N/A | 340.2000 | 0.0050 (ppm) | Y 371.029 |
| Fe (238.204 nm) | | ppm | N/A | N/A | 12.3200 | | Y_R 371.029 |
| K (766.491 nm) | | ppm | N/A | N/A | 26.5100 | | Y_R 371.029 |
| Li (670.783 nm) | | ppm | N/A | N/A | 314.5000 | | Y_R 371.029 |
| Mg (279.078 nm) | 0.0250 | ppm | N/A | N/A | 65.7200 | 0.0250 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0050 | ppm | N/A | N/A | 534.8000 | 0.0050 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0050 | ppm | N/A | N/A | 34.1000 | 0.0050 (ppm) | Y 371.029 |
| Na (589.592 nm) | | ppm | N/A | N/A | 1778.0000 | | Y_R 371.029 |
| Ni (231.604 nm) | 0.0050 | ppm | N/A | N/A | 23.9900 | 0.0050 (ppm) | Y 371.029 |
| P (213.618 nm) | | ppm | N/A | N/A | -3.2120 | | Y 371.029 |
| Pb (220.353 nm) | 0.0050 | ppm | N/A | N/A | 3.7030 | 0.0050 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0050 | ppm | N/A | N/A | 6.1880 | 0.0050 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0050 | ppm | N/A | N/A | 3.2090 | 0.0050 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0250 | ppm | N/A | N/A | 75.3300 | 0.0250 (ppm) | Y 371.029 |
| Sn (189.925 nm) | | ppm | N/A | N/A | 3.3760 | | Y 371.029 |
| Sr (421.552 nm) | 0.0050 | ppm | N/A | N/A | 1650.0000 | 0.0050 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0050 | ppm | N/A | N/A | 434.1000 | 0.0050 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0050 | ppm | N/A | N/A | 2.6670 | 0.0050 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0050 | ppm | N/A | N/A | 181.6000 | 0.0050 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0050 | ppm | N/A | N/A | -0.2866 | 0.0050 (ppm) | Y 371.029 |
| Zn (202.548 nm) | | ppm | N/A | N/A | 161.9000 | | Y 371.029 |
| Zr (343.823 nm) | 0.0050 | ppm | N/A | N/A | 106.9000 | 0.0050 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9937 | 375500.0000 | 0.0030 | 0.30 |
| Y_R 371.029 | 1.0080 | 54290.0000 | 0.0087 | 0.86 |

Sample Name: STD2 4461460

Date: 11/2/2017 8:55:30 AM Rack:Tube: S1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0500 | ppm | N/A | N/A | 1710.0000 | 0.0500 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.1000 | ppm | N/A | N/A | 1012.0000 | 0.1000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1000 | ppm | N/A | N/A | 89.3800 | 0.1000 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1000 | ppm | N/A | N/A | 1087.0000 | 0.1000 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1000 | ppm | N/A | N/A | 7387.0000 | 0.1000 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.1000 | ppm | N/A | N/A | 16300.0000 | 0.1000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.5000 | ppm | N/A | N/A | 1907.0000 | 0.5000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.1000 | ppm | N/A | N/A | 2487.0000 | 0.1000 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.1000 | ppm | N/A | N/A | 1326.0000 | 0.1000 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1000 | ppm | N/A | N/A | 602.0000 | 0.1000 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1000 | ppm | N/A | N/A | 3640.0000 | 0.1000 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.1000 | ppm | N/A | N/A | 419.5000 | 0.1000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 1.0000 | ppm | N/A | N/A | 996.9000 | 1.0000 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1000 | ppm | N/A | N/A | 5919.0000 | 0.1000 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.5000 | ppm | N/A | N/A | 1132.0000 | 0.5000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1000 | ppm | N/A | N/A | 9459.0000 | 0.1000 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.1000 | ppm | N/A | N/A | 523.1000 | 0.1000 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.0000 | ppm | N/A | N/A | 6722.0000 | 1.0000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1000 | ppm | N/A | N/A | 476.6000 | 0.1000 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.1000 | ppm | N/A | N/A | 80.7500 | 0.1000 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.1000 | ppm | N/A | N/A | 189.5000 | 0.1000 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.1000 | ppm | N/A | N/A | 103.7000 | 0.1000 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.1000 | ppm | N/A | N/A | 85.2700 | 0.1000 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.5000 | ppm | N/A | N/A | 1075.0000 | 0.5000 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.1000 | ppm | N/A | N/A | 76.3900 | 0.1000 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1000 | ppm | N/A | N/A | 31260.0000 | 0.1000 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.1000 | ppm | N/A | N/A | 10550.0000 | 0.1000 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.1000 | ppm | N/A | N/A | 152.2000 | 0.1000 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1000 | ppm | N/A | N/A | 2616.0000 | 0.1000 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.1000 | ppm | N/A | N/A | 196.2000 | 0.1000 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.1000 | ppm | N/A | N/A | 2327.0000 | 0.1000 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1000 | ppm | N/A | N/A | 6548.0000 | 0.1000 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9949 | 376000.0000 | 0.0024 | 0.24 |
| Y_R 371.029 | 1.0080 | 54270.0000 | 0.0005 | 0.05 |

Sample Name: STD3 4461459

Date: 11/2/2017 8:57:35 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5000 | ppm | N/A | N/A | 17140.0000 | 0.5000 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0000 | ppm | N/A | N/A | 21180.0000 | 1.0000 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0000 | ppm | N/A | N/A | 815.3000 | 1.0000 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0000 | ppm | N/A | N/A | 11190.0000 | 1.0000 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0000 | ppm | N/A | N/A | 73480.0000 | 1.0000 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0000 | ppm | N/A | N/A | 164900.0000 | 1.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.0000 | ppm | N/A | N/A | 17940.0000 | 5.0000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0000 | ppm | N/A | N/A | 24800.0000 | 1.0000 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0000 | ppm | N/A | N/A | 13470.0000 | 1.0000 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0000 | ppm | N/A | N/A | 5999.0000 | 1.0000 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0000 | ppm | N/A | N/A | 35310.0000 | 1.0000 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0000 | ppm | N/A | N/A | 4242.0000 | 1.0000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.0000 | ppm | N/A | N/A | 10340.0000 | 10.0000 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0000 | ppm | N/A | N/A | 58890.0000 | 1.0000 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.0000 | ppm | N/A | N/A | 11190.0000 | 5.0000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0000 | ppm | N/A | N/A | 93110.0000 | 1.0000 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0000 | ppm | N/A | N/A | 5275.0000 | 1.0000 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.0000 | ppm | N/A | N/A | 52980.0000 | 10.0000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0000 | ppm | N/A | N/A | 4775.0000 | 1.0000 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0000 | ppm | N/A | N/A | 908.9000 | 1.0000 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0000 | ppm | N/A | N/A | 1938.0000 | 1.0000 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0000 | ppm | N/A | N/A | 1165.0000 | 1.0000 (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0000 | ppm | N/A | N/A | 868.4000 | 1.0000 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.0000 | ppm | N/A | N/A | 10660.0000 | 5.0000 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0000 | ppm | N/A | N/A | 798.5000 | 1.0000 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0000 | ppm | N/A | N/A | 312700.0000 | 1.0000 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0000 | ppm | N/A | N/A | 108300.0000 | 1.0000 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0000 | ppm | N/A | N/A | 1561.0000 | 1.0000 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0000 | ppm | N/A | N/A | 26070.0000 | 1.0000 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0000 | ppm | N/A | N/A | 2090.0000 | 1.0000 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0000 | ppm | N/A | N/A | 22840.0000 | 1.0000 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0000 | ppm | N/A | N/A | 69540.0000 | 1.0000 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9822 | 371200.0000 | 0.0019 | 0.20 |
| Y_R 371.029 | 1.0010 | 53940.0000 | 0.0042 | 0.42 |

Sample Name: ICV 4461462

Date: 11/2/2017 9:01:55 AM Rack:Tube: S1:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5026 | ppm | 0.0013 | 0.26 | 17370.0000 | 0.5026 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0040 | ppm | 0.0022 | 0.22 | 22110.0000 | 1.0040 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0310 | ppm | 0.0015 | 0.15 | 830.7000 | 1.0310 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9907 | ppm | 0.0025 | 0.26 | 10980.0000 | 0.9907 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9929 | ppm | 0.0164 | 1.65 | 72950.0000 | 0.9929 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0130 | ppm | 0.0014 | 0.14 | 167000.0000 | 1.0130 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 1.0460 | ppm | 0.0192 | 1.84 | 3856.0000 | 1.0460 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0200 | ppm | 0.0008 | 0.08 | 25300.0000 | 1.0200 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0060 | ppm | 0.0045 | 0.45 | 13570.0000 | 1.0060 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0190 | ppm | 0.0002 | 0.02 | 6110.0000 | 1.0190 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0480 | ppm | 0.0008 | 0.08 | 37020.0000 | 1.0480 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0160 | ppm | 0.0040 | 0.39 | 4306.0000 | 1.0160 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.9200 | ppm | 0.1562 | 1.57 | 10260.0000 | 9.9200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0230 | ppm | 0.0066 | 0.64 | 59890.0000 | 1.0230 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 1.0180 | ppm | 0.0161 | 1.59 | 2282.0000 | 1.0180 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0290 | ppm | 0.0006 | 0.06 | 96450.0000 | 1.0290 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0150 | ppm | 0.0007 | 0.07 | 5352.0000 | 1.0150 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.0700 | ppm | 0.0792 | 0.79 | 53400.0000 | 10.0700 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0280 | ppm | 0.0025 | 0.24 | 4905.0000 | 1.0280 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0120 | ppm | 0.0038 | 0.37 | 864.5000 | 1.0120 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0170 | ppm | 0.0033 | 0.33 | 1967.0000 | 1.0170 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0200 | ppm | 0.0038 | 0.37 | 1177.0000 | 1.0200 (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0260 | ppm | 0.0002 | 0.02 | 897.9000 | 1.0260 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.8970 | ppm | 0.0808 | 1.65 | 10620.0000 | 4.8970 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0220 | ppm | 0.0008 | 0.08 | 816.4000 | 1.0220 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0030 | ppm | 0.0068 | 0.67 | 313600.0000 | 1.0030 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0070 | ppm | 0.0016 | 0.16 | 109000.0000 | 1.0070 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0210 | ppm | 0.0021 | 0.20 | 1552.0000 | 1.0210 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0040 | ppm | 0.0007 | 0.07 | 25970.0000 | 1.0040 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9914 | ppm | 0.0020 | 0.20 | 2089.0000 | 0.9914 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0350 | ppm | 0.0010 | 0.09 | 23790.0000 | 1.0350 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9982 | ppm | 0.0021 | 0.21 | 69370.0000 | 0.9982 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9862 | 372700.0000 | 0.0029 | 0.29 |
| Y_R 371.029 | 1.0110 | 54480.0000 | 0.0150 | 1.48 |

Sample Name: IPC 4461462

Date: 11/2/2017 9:05:32 AM
Rack:Tube: S1:5
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5028 | ppm | 0.0005 | 0.10 | 17380.0000 | 0.5028 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0040 | ppm | 0.0019 | 0.19 | 22120.0000 | 1.0040 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0220 | ppm | 0.0011 | 0.11 | 823.8000 | 1.0220 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9901 | ppm | 0.0037 | 0.37 | 10970.0000 | 0.9901 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0020 | ppm | 0.0004 | 0.04 | 73590.0000 | 1.0020 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0130 | ppm | 0.0018 | 0.17 | 167000.0000 | 1.0130 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 1.0600 Q | ppm | 0.0053 | 0.50 | 3905.0000 Q | 1.0600 Q (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0180 | ppm | 0.0030 | 0.29 | 25260.0000 | 1.0180 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0020 | ppm | 0.0013 | 0.13 | 13520.0000 | 1.0020 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0170 | ppm | 0.0019 | 0.19 | 6100.0000 | 1.0170 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0490 | ppm | 0.0029 | 0.28 | 37040.0000 | 1.0490 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0260 | ppm | 0.0065 | 0.64 | 4347.0000 | 1.0260 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.0200 | ppm | 0.0935 | 0.93 | 10370.0000 | 10.0200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0300 | ppm | 0.0058 | 0.56 | 60280.0000 | 1.0300 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 1.0260 | ppm | 0.0001 | 0.01 | 2299.0000 | 1.0260 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0290 | ppm | 0.0020 | 0.19 | 96390.0000 | 1.0290 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0120 | ppm | 0.0023 | 0.23 | 5340.0000 | 1.0120 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.1700 | ppm | 0.0464 | 0.46 | 53940.0000 | 10.1700 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0250 | ppm | 0.0008 | 0.08 | 4890.0000 | 1.0250 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0110 | ppm | 0.0026 | 0.25 | 863.5000 | 1.0110 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0160 | ppm | 0.0007 | 0.07 | 1965.0000 | 1.0160 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0160 | ppm | 0.0059 | 0.58 | 1173.0000 | 1.0160 (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0200 | ppm | 0.0019 | 0.18 | 892.9000 | 1.0200 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.9210 | ppm | 0.0868 | 1.76 | 10670.0000 | 4.9210 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0210 | ppm | 0.0008 | 0.08 | 815.9000 | 1.0210 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0260 | ppm | 0.0099 | 0.97 | 320700.0000 | 1.0260 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0080 | ppm | 0.0018 | 0.18 | 109100.0000 | 1.0080 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0170 | ppm | 0.0032 | 0.31 | 1546.0000 | 1.0170 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0030 | ppm | 0.0030 | 0.30 | 25960.0000 | 1.0030 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9908 | ppm | 0.0021 | 0.21 | 2087.0000 | 0.9908 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0330 | ppm | 0.0020 | 0.19 | 23750.0000 | 1.0330 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9973 | ppm | 0.0037 | 0.37 | 69300.0000 | 0.9973 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9890 | 373800.0000 | 0.0031 | 0.32 |
| Y_R 371.029 | 1.0050 | 54110.0000 | 0.0014 | 0.13 |

Sample Name: ICB 4461458

Date: 11/2/2017 9:07:36 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0003 | ppm | 0.0002 | 70.01 | 8.9410 | 0.0003 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | -1178.0000 | 0.0001 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0053 | ppm | 0.0012 | 21.73 | 10.6400 | 0.0053 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0013 | ppm | 0.0002 | 13.95 | 13.0700 | 0.0013 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0000 | 30.14 | 0.1202 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | 22.5200 | 0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0064 u | ppm | 0.0165 | > 100.00 | 111.6000 | -0.0064 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0000 | 18.10 | -0.1529 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0005 u | ppm | 0.0000 | 8.22 | -18.0700 | -0.0005 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0002 | 37.90 | 3.5840 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0001 | 16.46 | 190.7000 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0012 | ppm | 0.0007 | 59.60 | 9.2650 | 0.0012 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0606 | ppm | 0.0449 | 74.13 | -6.2950 | 0.0606 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0013 | ppm | 0.0018 | > 100.00 | 91.0400 | 0.0013 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0030 | ppm | 0.0026 | 86.26 | 14.6200 | 0.0030 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0000 | 42.43 | 82.9900 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0045 | ppm | 0.0021 | 47.01 | 29.4400 | 0.0045 (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0159 u | ppm | 0.0047 | 29.61 | 1473.0000 | -0.0159 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0001 u | ppm | 0.0006 | > 100.00 | -0.2111 | -0.0001 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0042 | ppm | 0.0004 | 10.34 | -10.0100 | 0.0042 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0000 u | ppm | 0.0012 | > 100.00 | -5.0120 | 0.0000 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0066 | ppm | 0.0035 | 53.05 | 2.5460 | 0.0066 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0016 u | ppm | 0.0056 | > 100.00 | -0.7673 | 0.0016 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0076 | ppm | 0.0043 | 56.26 | 34.3700 | 0.0076 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0029 | ppm | 0.0000 | 1.38 | -1.0890 | 0.0029 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 51.8700 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0015 | ppm | 0.0005 | 34.00 | 66.6400 | 0.0015 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0009 | ppm | 0.0007 | 75.67 | -4.9140 | 0.0009 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0006 | ppm | 0.0002 | 27.65 | 55.6300 | 0.0006 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0017 | ppm | 0.0021 | > 100.00 | -3.4830 | 0.0017 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0003 | ppm | 0.0001 | 20.07 | 88.4000 | 0.0003 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0001 | 75.46 | -27.3800 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9932 | 375300.0000 | 0.0038 | 0.39 |
| Y_R 371.029 | 1.0110 | 54470.0000 | 0.0102 | 1.01 |

Sample Name: ICSA 4461463

Date: 11/2/2017 9:09:41 AM Rack:Tube: S1:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0005 | ppm | 0.0006 | > 100.00 | -229.5000 | 0.0005 (ppm) | Y 371.029 |
| Al (396.152 nm) | 606.4000 o | ppm | 1.9200 | 0.32 | 13560000.0000 | 606.4000 o (ppm) | Y 371.029 |
| As (188.980 nm) | -0.0095 u | ppm | 0.0029 | 30.15 | 12.6800 | -0.0095 u (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0071 u | ppm | 0.0024 | 34.30 | -624.5000 | -0.0071 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0037 | ppm | 0.0002 | 4.27 | 359.9000 | 0.0037 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0018 | ppm | 0.0012 | 69.49 | 12290.0000 | 0.0018 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 617.5000 o | ppm | 2.4940 | 0.40 | 2199000.0000 | 617.5000 o (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0046 | ppm | 0.0004 | 8.94 | 256.8000 | 0.0046 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0042 u | ppm | 0.0007 | 16.62 | 12.1200 | -0.0042 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | -0.0004 u | ppm | 0.0013 | > 100.00 | 28.1400 | -0.0004 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | -0.0037 u | ppm | 0.0004 | 9.77 | 119.4000 | -0.0037 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | 561.4000 o | ppm | 3.5990 | 0.64 | 2379000.0000 | 561.4000 o (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.2034 u | ppm | 0.0696 | 34.23 | 113.4000 | -0.2034 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | -0.0672 u | ppm | 0.0031 | 4.57 | 671.1000 | -0.0672 u (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 574.5000 o | ppm | 3.1730 | 0.55 | 1284000.0000 | 574.5000 o (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0035 u | ppm | 0.0023 | 65.00 | 73320.0000 | -0.0035 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0020 | ppm | 0.0010 | 49.20 | 116.6000 | 0.0020 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.2684 | ppm | 0.0016 | 0.59 | 3295.0000 | 0.2684 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0035 | ppm | 0.0004 | 12.86 | 16.7200 | 0.0035 (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0209 u | ppm | 0.0042 | 20.17 | -44.7200 | -0.0209 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0052 u | ppm | 0.0001 | 2.02 | -63.9200 | -0.0052 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0288 Ku | ppm | 0.0040 | 13.72 | -27.3500 K | -0.0288 Ku (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0015 u | ppm | 0.0034 | > 100.00 | -117.0000 | -0.0015 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0192 u | ppm | 0.0028 | 14.37 | 33.3200 | -0.0192 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0077 u | ppm | 0.0075 | 97.14 | -8.0440 | -0.0077 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0171 u | ppm | 0.0000 | 0.08 | 970.4000 | -0.0171 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0014 | ppm | 0.0001 | 5.57 | -441.7000 | 0.0014 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0057 | ppm | 0.0025 | 44.03 | 9.9540 | 0.0057 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0048 u | ppm | 0.0002 | 4.10 | 652.5000 | -0.0048 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0015 u | ppm | 0.0016 | > 100.00 | -39.0700 | -0.0015 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0196 u | ppm | 0.0004 | 1.89 | 31.0200 | -0.0196 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0021 | ppm | 0.0001 | 6.86 | 652.1000 | 0.0021 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8342 | 315200.0000 | 0.0031 | 0.38 |
| Y_R 371.029 | 0.9109 | 49070.0000 | 0.0072 | 0.79 |

Sample Name: ICSAB 4461464

Date: 11/2/2017 9:14:44 AM
Rack:Tube: S1:7
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2848 | ppm | 0.0003 | 0.11 | 9581.0000 | 0.2848 (ppm) | Y 371.029 |
| Al (396.152 nm) | 616.9000 o | ppm | 0.1950 | 0.03 | 13800000.0000 | 616.9000 o (ppm) | Y 371.029 |
| As (188.980 nm) | 0.5283 | ppm | 0.0024 | 0.45 | 443.4000 | 0.5283 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.5304 | ppm | 0.0007 | 0.14 | 5325.0000 | 0.5304 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4890 | ppm | 0.0072 | 1.47 | 36020.0000 | 0.4890 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.5457 | ppm | 0.0024 | 0.44 | 102200.0000 | 0.5457 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 634.2000 o | ppm | 3.5010 | 0.55 | 2259000.0000 | 634.2000 o (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4792 | ppm | 0.0024 | 0.49 | 12030.0000 | 0.4792 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4705 | ppm | 0.0034 | 0.72 | 6425.0000 | 0.4705 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.5069 | ppm | 0.0016 | 0.32 | 3071.0000 | 0.5069 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.5586 | ppm | 0.0004 | 0.07 | 19890.0000 | 0.5586 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 570.0000 o | ppm | 7.3700 | 1.29 | 2415000.0000 | 570.0000 o (ppm) | Y_R 371.029 |
| K (766.491 nm) | 11.5300 | ppm | 0.1461 | 1.27 | 12330.0000 | 11.5300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4974 | ppm | 0.0016 | 0.32 | 33840.0000 | 0.4974 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 592.9000 o | ppm | 7.6030 | 1.28 | 1325000.0000 | 592.9000 o (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4937 | ppm | 0.0006 | 0.13 | 121100.0000 | 0.4937 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.5215 | ppm | 0.0006 | 0.12 | 2856.0000 | 0.5215 (ppm) | Y 371.029 |
| Na (589.592 nm) | 11.0100 | ppm | 0.1136 | 1.03 | 58590.0000 | 11.0100 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4723 | ppm | 0.0026 | 0.54 | 2253.0000 | 0.4723 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.5120 | ppm | 0.0021 | 0.42 | 417.1000 | 0.5120 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4830 | ppm | 0.0025 | 0.52 | 882.3000 | 0.4830 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.5237 | ppm | 0.0294 | 5.60 | 613.2000 | 0.5237 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.4867 | ppm | 0.0073 | 1.51 | 309.9000 | 0.4867 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.7480 | ppm | 0.0041 | 0.15 | 6016.0000 | 2.7480 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4829 | ppm | 0.0012 | 0.25 | 385.8000 | 0.4829 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5128 | ppm | 0.0067 | 1.30 | 166800.0000 | 0.5128 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.5397 | ppm | 0.0003 | 0.06 | 57880.0000 | 0.5397 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4752 | ppm | 0.0020 | 0.42 | 723.6000 | 0.4752 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.5193 | ppm | 0.0000 | 0.00 | 14210.0000 | 0.5193 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.5075 | ppm | 0.0012 | 0.23 | 1035.0000 | 0.5075 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4382 | ppm | 0.0009 | 0.20 | 10550.0000 | 0.4382 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.5014 | ppm | 0.0012 | 0.24 | 35380.0000 | 0.5014 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8353 | 315700.0000 | 0.0019 | 0.23 |
| Y_R 371.029 | 0.9001 | 48490.0000 | 0.0110 | 1.22 |

Sample Name: ICSA 4461463

Date: 11/2/2017 9:19:59 AM Rack:Tube: S1:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0009 | ppm | 0.0003 | 34.44 | -219.1000 | 0.0009 (ppm) | Y 371.029 |
| Al (396.152 nm) | 608.8000 o | ppm | 1.5290 | 0.25 | 13610000.0000 | 608.8000 o (ppm) | Y 371.029 |
| As (188.980 nm) | -0.0036 u | ppm | 0.0088 | > 100.00 | 17.6500 | -0.0036 u (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0097 u | ppm | 0.0006 | 5.91 | -660.7000 | -0.0097 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0036 | ppm | 0.0000 | 0.63 | 350.9000 | 0.0036 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0003 u | ppm | 0.0010 | > 100.00 | 12110.0000 | -0.0003 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 625.7000 o | ppm | 4.5760 | 0.73 | 2228000.0000 | 625.7000 o (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0043 | ppm | 0.0002 | 4.29 | 252.2000 | 0.0043 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0046 u | ppm | 0.0007 | 15.97 | 7.2580 | -0.0046 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0003 | 72.91 | 33.6800 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | -0.0035 u | ppm | 0.0004 | 10.08 | 128.1000 | -0.0035 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | 566.5000 o | ppm | 1.2890 | 0.23 | 2400000.0000 | 566.5000 o (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.1339 u | ppm | 0.1473 | > 100.00 | 191.6000 | -0.1339 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | -0.0688 u | ppm | 0.0020 | 2.97 | 636.8000 | -0.0688 u (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 585.1000 o | ppm | 6.6610 | 1.14 | 1308000.0000 | 585.1000 o (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0109 u | ppm | 0.0009 | 8.40 | 73570.0000 | -0.0109 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0003 u | ppm | 0.0016 | > 100.00 | 108.3000 | 0.0003 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.2572 | ppm | 0.0031 | 1.20 | 3242.0000 | 0.2572 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0016 | ppm | 0.0001 | 6.09 | 7.7980 | 0.0016 (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0047 u | ppm | 0.0057 | > 100.00 | -29.9500 | -0.0047 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0005 u | ppm | 0.0054 | > 100.00 | -55.0400 | -0.0005 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0176 u | ppm | 0.0001 | 0.60 | -14.0400 | -0.0176 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0038 u | ppm | 0.0083 | > 100.00 | -113.9000 | 0.0038 u (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0178 u | ppm | 0.0017 | 9.29 | 37.3100 | -0.0178 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0118 u | ppm | 0.0038 | 32.24 | -11.2900 | -0.0118 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0174 u | ppm | 0.0001 | 0.31 | 987.6000 | -0.0174 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0012 | ppm | 0.0001 | 7.98 | -475.6000 | 0.0012 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0048 | ppm | 0.0013 | 26.91 | 8.7600 | 0.0048 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0056 u | ppm | 0.0001 | 2.65 | 641.1000 | -0.0056 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0023 u | ppm | 0.0026 | > 100.00 | -41.1200 | -0.0023 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0202 u | ppm | 0.0002 | 1.03 | 26.0500 | -0.0202 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0028 | ppm | 0.0004 | 15.33 | 703.5000 | 0.0028 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8386 | 316900.0000 | 0.0046 | 0.55 |
| Y_R 371.029 | 0.9036 | 48680.0000 | 0.0078 | 0.86 |

Sample Name: XICIS 4461467

Date: 11/2/2017 9:26:07 AM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0001 u | ppm | 0.0004 | > 100.00 | -3.9510 | -0.0001 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0071 | ppm | 0.0018 | 24.76 | -1026.0000 | 0.0071 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0032 | ppm | 0.0016 | 48.99 | 8.9330 | 0.0032 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0008 | ppm | 0.0001 | 14.86 | 7.3710 | 0.0008 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0000 | 36.52 | -4.1670 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 3.3770 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0099 u | ppm | 0.0072 | 72.82 | 99.2500 | -0.0099 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | -2.8090 | 0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0002 u | ppm | 0.0002 | 64.86 | -14.0600 | -0.0002 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0001 | ppm | 0.0002 | > 100.00 | 2.0880 | 0.0001 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0007 | 84.92 | 191.2000 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0037 | ppm | 0.0023 | 63.19 | 19.5800 | 0.0037 (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.0064 u | ppm | 0.1516 | > 100.00 | -75.9900 | -0.0064 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0035 | ppm | 0.0028 | 80.42 | 216.6000 | 0.0035 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0071 | ppm | 0.0020 | 28.48 | 23.7900 | 0.0071 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0000 | 7.44 | 66.5200 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0005 u | ppm | 0.0007 | > 100.00 | 2.8460 | -0.0005 u (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0465 u | ppm | 0.0005 | 1.09 | 1316.0000 | -0.0465 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0007 u | ppm | 0.0003 | 48.19 | -3.1700 | -0.0007 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0046 u | ppm | 0.0083 | > 100.00 | -9.6030 | 0.0046 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0005 u | ppm | 0.0017 | > 100.00 | -4.0390 | 0.0005 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0013 u | ppm | 0.0053 | > 100.00 | -6.5670 | -0.0013 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0020 | ppm | 0.0008 | 40.77 | -0.4663 | 0.0020 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0061 | ppm | 0.0012 | 20.36 | 30.8100 | 0.0061 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0010 | ppm | 0.0002 | 20.32 | -2.6770 | 0.0010 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0002 u | ppm | 0.0000 | 7.01 | 14.7200 | -0.0002 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | -88.5400 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0014 | ppm | 0.0014 | 96.34 | -4.1110 | 0.0014 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0005 | ppm | 0.0000 | 8.06 | 54.1300 | 0.0005 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0004 | ppm | 0.0000 | 12.03 | -6.2390 | 0.0004 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0028 u | ppm | 0.0002 | 5.35 | 16.4600 | -0.0028 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | -29.1600 | 0.0001 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9988 | 377500.0000 | 0.0041 | 0.41 |
| Y_R 371.029 | 1.0130 | 54590.0000 | 0.0081 | 0.80 |

Sample Name: RINSE 4461469

Date: 11/2/2017 9:28:11 AM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0002 u | ppm | 0.0003 | > 100.00 | 6.9130 | 0.0002 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0025 | ppm | 0.0008 | 33.46 | -1128.0000 | 0.0025 (ppm) | Y 371.029 |
| As (188.980 nm) | -0.0006 u | ppm | 0.0011 | > 100.00 | 5.8560 | -0.0006 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0004 | ppm | 0.0002 | 46.39 | 2.4930 | 0.0004 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0000 | ppm | 0.0001 | > 100.00 | -7.3670 | 0.0000 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 6.1120 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0119 u | ppm | 0.0054 | 45.54 | 91.9600 | -0.0119 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0000 | 24.12 | -1.9550 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0010 u | ppm | 0.0000 | 3.92 | -24.0100 | -0.0010 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 u | ppm | 0.0004 | > 100.00 | 2.4040 | 0.0002 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0001 | 11.35 | 192.6000 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0025 | ppm | 0.0002 | 9.80 | 14.8000 | 0.0025 (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.0035 u | ppm | 0.0378 | > 100.00 | -73.0000 | -0.0035 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0009 | ppm | 0.0003 | 28.96 | 67.3700 | 0.0009 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0055 | ppm | 0.0016 | 29.53 | 20.1300 | 0.0055 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 71.5300 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0001 u | ppm | 0.0007 | > 100.00 | 5.1890 | -0.0001 u (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0449 u | ppm | 0.0022 | 4.82 | 1324.0000 | -0.0449 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0000 u | ppm | 0.0006 | > 100.00 | 0.0084 | 0.0000 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0029 | ppm | 0.0037 | > 100.00 | -11.1300 | 0.0029 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0017 u | ppm | 0.0009 | 52.91 | -8.3400 | -0.0017 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0040 | ppm | 0.0008 | 20.79 | -0.3233 | 0.0040 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -2.2330 | 0.0000 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0052 | ppm | 0.0000 | 0.43 | 29.1000 | 0.0052 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0003 u | ppm | 0.0020 | > 100.00 | -3.1670 | 0.0003 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0001 | 92.58 | 49.3100 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0000 | 20.16 | -85.8500 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0004 u | ppm | 0.0014 | > 100.00 | -5.7130 | 0.0004 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0001 u | ppm | 0.0002 | > 100.00 | 38.1300 | -0.0001 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0010 u | ppm | 0.0016 | > 100.00 | -4.9080 | 0.0010 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0028 u | ppm | 0.0000 | 0.86 | 16.9400 | -0.0028 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -37.9300 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9945 | 375800.0000 | 0.0012 | 0.12 |
| Y_R 371.029 | 1.0160 | 54710.0000 | 0.0034 | 0.34 |

Sample Name: XCRI 4461465

Date: 11/2/2017 9:30:16 AM Rack:Tube: S1:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0103 | ppm | 0.0002 | 2.10 | 367.9000 | 0.0103 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0512 | ppm | 0.0002 | 0.47 | -2.0070 | 0.0512 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0135 | ppm | 0.0010 | 7.17 | 17.3300 | 0.0135 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0494 | ppm | 0.0005 | 0.94 | 540.0000 | 0.0494 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0101 | ppm | 0.0001 | 0.57 | 736.0000 | 0.0101 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0020 | ppm | 0.0000 | 1.41 | 340.7000 | 0.0020 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0974 | ppm | 0.0041 | 4.17 | 480.9000 | 0.0974 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0051 | ppm | 0.0000 | 0.74 | 121.8000 | 0.0051 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0094 | ppm | 0.0009 | 9.73 | 115.9000 | 0.0094 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0053 | ppm | 0.0007 | 14.09 | 33.1600 | 0.0053 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0108 | ppm | 0.0002 | 1.70 | 543.1000 | 0.0108 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0407 | ppm | 0.0028 | 6.98 | 176.8000 | 0.0407 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.5409 | ppm | 0.0281 | 5.19 | 494.0000 | 0.5409 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0527 | ppm | 0.0003 | 0.63 | 3101.0000 | 0.0527 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0221 | ppm | 0.0021 | 9.50 | 57.1100 | 0.0221 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0209 | ppm | 0.0000 | 0.14 | 2027.0000 | 0.0209 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0209 | ppm | 0.0014 | 6.53 | 115.8000 | 0.0209 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.4456 | ppm | 0.0146 | 3.28 | 3851.0000 | 0.4456 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0098 | ppm | 0.0001 | 1.13 | 46.7500 | 0.0098 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0475 | ppm | 0.0016 | 3.41 | 29.1900 | 0.0475 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0042 | ppm | 0.0026 | 61.86 | 3.0210 | 0.0042 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0141 | ppm | 0.0010 | 6.79 | 11.0100 | 0.0141 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0136 | ppm | 0.0027 | 20.17 | 10.4400 | 0.0136 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0485 | ppm | 0.0012 | 2.47 | 135.3000 | 0.0485 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.1011 | ppm | 0.0009 | 0.85 | 77.6600 | 0.1011 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0206 | ppm | 0.0001 | 0.56 | 6511.0000 | 0.0206 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0052 | ppm | 0.0000 | 0.38 | 466.2000 | 0.0052 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0113 | ppm | 0.0010 | 8.63 | 11.1100 | 0.0113 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0106 | ppm | 0.0001 | 1.17 | 313.0000 | 0.0106 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0975 | ppm | 0.0007 | 0.67 | 197.7000 | 0.0975 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0182 | ppm | 0.0000 | 0.13 | 497.1000 | 0.0182 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1007 | ppm | 0.0002 | 0.23 | 6965.0000 | 0.1007 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9941 | 375600.0000 | 0.0032 | 0.32 |
| Y_R 371.029 | 1.0120 | 54520.0000 | 0.0016 | 0.16 |

Sample Name: CRI 4461466

Date: 11/2/2017 9:32:20 AM
Rack:Tube: S1:10
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0206 | ppm | 0.0002 | 1.10 | 735.0000 | 0.0206 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.1005 | ppm | 0.0002 | 0.18 | 1135.0000 | 0.1005 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0257 | ppm | 0.0026 | 10.21 | 27.1600 | 0.0257 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0991 | ppm | 0.0001 | 0.14 | 1084.0000 | 0.0991 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0204 | ppm | 0.0000 | 0.10 | 1489.0000 | 0.0204 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0040 | ppm | 0.0000 | 0.37 | 667.7000 | 0.0040 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.2042 | ppm | 0.0123 | 6.01 | 860.7000 | 0.2042 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0102 | ppm | 0.0003 | 2.47 | 247.2000 | 0.0102 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0191 | ppm | 0.0000 | 0.14 | 247.4000 | 0.0191 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0103 | ppm | 0.0002 | 2.21 | 63.2000 | 0.0103 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0216 | ppm | 0.0001 | 0.47 | 924.0000 | 0.0216 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0808 | ppm | 0.0035 | 4.31 | 346.7000 | 0.0808 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 1.0390 | ppm | 0.0243 | 2.34 | 1013.0000 | 1.0390 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1039 | ppm | 0.0002 | 0.23 | 6102.0000 | 0.1039 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0437 | ppm | 0.0012 | 2.81 | 105.3000 | 0.0437 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0418 | ppm | 0.0002 | 0.39 | 3986.0000 | 0.0418 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0417 | ppm | 0.0004 | 0.89 | 225.6000 | 0.0417 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.9224 | ppm | 0.0167 | 1.81 | 6307.0000 | 0.9224 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0199 | ppm | 0.0007 | 3.39 | 95.1400 | 0.0199 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0888 | ppm | 0.0002 | 0.23 | 66.5000 | 0.0888 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0111 | ppm | 0.0008 | 6.78 | 16.3300 | 0.0111 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0260 | ppm | 0.0019 | 7.36 | 24.5200 | 0.0260 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0229 | ppm | 0.0019 | 8.38 | 19.4000 | 0.0229 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0958 | ppm | 0.0021 | 2.19 | 250.4000 | 0.0958 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.2036 | ppm | 0.0009 | 0.46 | 160.0000 | 0.2036 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0412 | ppm | 0.0004 | 0.85 | 12950.0000 | 0.0412 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0101 | ppm | 0.0001 | 1.25 | 1003.0000 | 0.0101 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0197 | ppm | 0.0013 | 6.73 | 23.9600 | 0.0197 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0204 | ppm | 0.0002 | 0.81 | 564.8000 | 0.0204 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.1974 | ppm | 0.0013 | 0.64 | 407.5000 | 0.1974 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0400 | ppm | 0.0002 | 0.44 | 997.2000 | 0.0400 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.2016 | ppm | 0.0002 | 0.09 | 13980.0000 | 0.2016 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9947 | 375900.0000 | 0.0036 | 0.36 |
| Y_R 371.029 | 1.0110 | 54480.0000 | 0.0025 | 0.25 |

Sample Name: 440-194905-g-6-b

Date: 11/2/2017 9:38:01 AM Rack:Tube: 1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0001 u | ppm | 0.0002 | > 100.00 | -4.9420 | -0.0001 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0167 | ppm | 0.0003 | 1.94 | -811.8000 | 0.0167 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0028 | ppm | 0.0026 | 90.38 | 8.6480 | 0.0028 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0010 | ppm | 0.0001 | 12.74 | 8.9590 | 0.0010 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0006 | ppm | 0.0000 | 5.69 | 33.9200 | 0.0006 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 8.9700 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.2229 | ppm | 0.0013 | 0.58 | 928.1000 | 0.2229 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -3.4190 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0008 u | ppm | 0.0002 | 31.57 | -21.3900 | -0.0008 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0005 | ppm | 0.0001 | 15.81 | 4.3740 | 0.0005 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0003 | 41.40 | 190.6000 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0034 | ppm | 0.0005 | 13.84 | 18.4300 | 0.0034 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0921 | ppm | 0.0532 | 57.75 | 26.5200 | 0.0921 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0058 | ppm | 0.0003 | 4.92 | 354.8000 | 0.0058 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0354 | ppm | 0.0009 | 2.57 | 86.9500 | 0.0354 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0005 | ppm | 0.0000 | 0.65 | 113.1000 | 0.0005 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0002 u | ppm | 0.0003 | > 100.00 | 4.4110 | -0.0002 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.6574 | ppm | 0.0024 | 0.37 | 4936.0000 | 0.6574 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0003 u | ppm | 0.0003 | 78.93 | -1.4800 | -0.0003 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0029 | ppm | 0.0018 | 62.71 | -11.1800 | 0.0029 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0010 u | ppm | 0.0018 | > 100.00 | -3.0970 | 0.0010 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0052 | ppm | 0.0037 | 71.74 | 1.0710 | 0.0052 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0009 u | ppm | 0.0017 | > 100.00 | -1.3750 | 0.0009 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.6954 | ppm | 0.0018 | 0.26 | 1499.0000 | 0.6954 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0031 | ppm | 0.0022 | 69.63 | -0.9220 | 0.0031 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0011 | ppm | 0.0001 | 13.42 | 403.2000 | 0.0011 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0001 | 59.42 | -84.5400 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0010 u | ppm | 0.0037 | > 100.00 | -7.9220 | -0.0010 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 44.7100 | 0.0001 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0012 u | ppm | 0.0017 | > 100.00 | -4.5480 | 0.0012 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0000 | ppm | 0.0000 | 73.31 | 81.3300 | 0.0000 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 4.54 | -27.8300 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0020 | 378600.0000 | 0.0028 | 0.28 |
| Y_R 371.029 | 1.0040 | 54070.0000 | 0.0143 | 1.42 |

Sample Name: 440-194905-g-7-b

Date: 11/2/2017 9:40:06 AM Rack:Tube: 1:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0002 u | ppm | 0.0002 | > 100.00 | 4.9420 | 0.0002 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0540 | ppm | 0.0002 | 0.29 | 22.2600 | 0.0540 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0046 | ppm | 0.0036 | 78.57 | 10.0700 | 0.0046 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0009 | ppm | 0.0005 | 60.37 | 8.3820 | 0.0009 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0019 | ppm | 0.0001 | 2.75 | 128.7000 | 0.0019 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 4.2190 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.4082 | ppm | 0.0021 | 0.53 | 1588.0000 | 0.4082 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -3.5040 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0002 u | ppm | 0.0003 | > 100.00 | -13.7300 | -0.0002 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0010 | ppm | 0.0001 | 8.95 | 7.2390 | 0.0010 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0010 | ppm | 0.0000 | 3.02 | 199.6000 | 0.0010 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0226 | ppm | 0.0005 | 2.01 | 99.7900 | 0.0226 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1204 | ppm | 0.0184 | 15.26 | 55.9900 | 0.1204 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0060 | ppm | 0.0003 | 4.74 | 365.4000 | 0.0060 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0320 | ppm | 0.0004 | 1.25 | 79.3600 | 0.0320 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0000 | 12.66 | 96.2000 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0002 | ppm | 0.0000 | 10.57 | 6.6560 | 0.0002 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.8397 | ppm | 0.0020 | 0.24 | 5874.0000 | 0.8397 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0004 u | ppm | 0.0009 | > 100.00 | -1.8380 | -0.0004 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0088 | ppm | 0.0038 | 43.26 | -5.7180 | 0.0088 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0002 | ppm | 0.0002 | 80.49 | -4.6160 | 0.0002 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0031 | ppm | 0.0037 | > 100.00 | -1.4060 | 0.0031 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0009 u | ppm | 0.0030 | > 100.00 | -1.4710 | 0.0009 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.7750 | ppm | 0.0044 | 0.25 | 3796.0000 | 1.7750 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0040 | ppm | 0.0011 | 26.57 | -0.2215 | 0.0040 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0009 | ppm | 0.0001 | 8.25 | 363.1000 | 0.0009 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0013 | ppm | 0.0000 | 2.98 | 36.8400 | 0.0013 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0000 u | ppm | 0.0012 | > 100.00 | -6.2860 | 0.0000 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0002 | ppm | 0.0001 | 49.40 | 48.3300 | 0.0002 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0007 | ppm | 0.0006 | 84.60 | -5.5330 | 0.0007 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0025 u | ppm | 0.0001 | 3.90 | 24.3300 | -0.0025 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0001 | 62.80 | -24.4600 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9990 | 377500.0000 | 0.0037 | 0.37 |
| Y_R 371.029 | 1.0080 | 54320.0000 | 0.0005 | 0.05 |

Sample Name: 440-194908-g-7-b

Date: 11/2/2017 9:42:10 AM Rack:Tube: 1:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -0.3565 | 0.0000 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0182 | ppm | 0.0005 | 2.60 | -777.9000 | 0.0182 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0021 | ppm | 0.0028 | > 100.00 | 8.0790 | 0.0021 (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0003 u | ppm | 0.0002 | 78.70 | -4.8680 | -0.0003 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0007 | ppm | 0.0001 | 14.79 | 39.5900 | 0.0007 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 4.9360 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.1669 | ppm | 0.0165 | 9.91 | 728.8000 | 0.1669 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -4.1080 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0009 u | ppm | 0.0003 | 36.81 | -22.3200 | -0.0009 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0005 | ppm | 0.0002 | 34.59 | 4.3160 | 0.0005 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0009 | ppm | 0.0003 | 37.71 | 193.9000 | 0.0009 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0008 u | ppm | 0.0011 | > 100.00 | 0.4430 | -0.0008 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1163 | ppm | 0.0026 | 2.28 | 51.7400 | 0.1163 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0056 | ppm | 0.0000 | 0.56 | 343.2000 | 0.0056 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0206 | ppm | 0.0001 | 0.50 | 53.9500 | 0.0206 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 71.8600 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0000 u | ppm | 0.0009 | > 100.00 | 5.5260 | 0.0000 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.4727 | ppm | 0.0047 | 0.99 | 3986.0000 | 0.4727 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | 0.7437 | 0.0001 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0061 | ppm | 0.0035 | 57.15 | -8.2310 | 0.0061 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0010 u | ppm | 0.0009 | 98.21 | -6.9570 | -0.0010 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0056 u | ppm | 0.0092 | > 100.00 | 1.4910 | 0.0056 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0023 | ppm | 0.0010 | 42.41 | -0.1624 | 0.0023 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.6915 | ppm | 0.0023 | 0.34 | 1490.0000 | 0.6915 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0027 | ppm | 0.0010 | 38.12 | -1.2930 | 0.0027 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0006 | ppm | 0.0001 | 11.30 | 261.8000 | 0.0006 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -98.6800 | 0.0000 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0010 u | ppm | 0.0013 | > 100.00 | -7.9340 | -0.0010 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0003 | ppm | 0.0001 | 35.12 | 48.8000 | 0.0003 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0016 | ppm | 0.0010 | 59.88 | -3.6390 | 0.0016 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0029 u | ppm | 0.0001 | 2.94 | 15.1700 | -0.0029 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 0.24 | -27.5800 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9971 | 376800.0000 | 0.0007 | 0.07 |
| Y_R 371.029 | 1.0210 | 55010.0000 | 0.0048 | 0.47 |

Sample Name: 440-194993-g-5-b

Date: 11/2/2017 9:44:14 AM Rack:Tube: 1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | 2.1720 | 0.0001 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0400 | ppm | 0.0001 | 0.16 | -289.0000 | 0.0400 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0058 | ppm | 0.0002 | 4.05 | 11.0700 | 0.0058 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0004 | ppm | 0.0003 | 90.43 | 2.1900 | 0.0004 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0009 | ppm | 0.0000 | 5.80 | 53.0700 | 0.0009 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 48.28 | -0.0108 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.2800 | ppm | 0.0078 | 2.78 | 1131.0000 | 0.2800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 | ppm | 0.0000 | 29.29 | -3.9110 | 0.0000 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0007 u | ppm | 0.0006 | 85.04 | -19.6300 | -0.0007 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0006 | ppm | 0.0006 | > 100.00 | 4.5390 | 0.0006 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0009 | ppm | 0.0004 | 47.72 | 196.2000 | 0.0009 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0013 | ppm | 0.0005 | 39.06 | 9.5200 | 0.0013 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1564 | ppm | 0.1215 | 77.68 | 93.4200 | 0.1564 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0058 | ppm | 0.0004 | 6.51 | 357.0000 | 0.0058 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0264 | ppm | 0.0002 | 0.86 | 66.8700 | 0.0264 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0000 | 19.07 | 88.3200 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0007 u | ppm | 0.0006 | 85.08 | 1.9740 | -0.0007 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.6656 | ppm | 0.0116 | 1.74 | 4978.0000 | 0.6656 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0008 | ppm | 0.0002 | 18.30 | 4.0380 | 0.0008 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0067 | ppm | 0.0048 | 72.36 | -7.7100 | 0.0067 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0000 u | ppm | 0.0021 | > 100.00 | -5.0710 | 0.0000 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0033 | ppm | 0.0018 | 54.95 | -1.1240 | 0.0033 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0018 | ppm | 0.0014 | 76.41 | -0.6086 | 0.0018 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.1100 | ppm | 0.0016 | 0.14 | 2381.0000 | 1.1100 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0055 | ppm | 0.0034 | 62.54 | 0.9486 | 0.0055 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0007 | ppm | 0.0001 | 21.51 | 273.4000 | 0.0007 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0001 | 77.44 | -81.3200 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0015 | ppm | 0.0012 | 81.28 | -3.9710 | 0.0015 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0002 u | ppm | 0.0004 | > 100.00 | 47.6900 | 0.0002 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0016 | ppm | 0.0011 | 67.58 | -3.7510 | 0.0016 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0028 u | ppm | 0.0000 | 0.61 | 16.9100 | -0.0028 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0001 u | ppm | 0.0001 | 72.50 | -39.8900 | -0.0001 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9982 | 377200.0000 | 0.0019 | 0.19 |
| Y_R 371.029 | 1.0090 | 54340.0000 | 0.0037 | 0.36 |

Sample Name: 440-194905-f-6-b

Date: 11/2/2017 9:46:19 AM
Rack:Tube: 1:5
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | 2.6800 | 0.0001 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0165 | ppm | 0.0005 | 3.16 | -816.0000 | 0.0165 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0039 | ppm | 0.0000 | 0.60 | 9.5080 | 0.0039 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0009 | ppm | 0.0008 | 87.93 | 8.1910 | 0.0009 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0006 | ppm | 0.0001 | 17.11 | 36.6500 | 0.0006 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 8.4500 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.1467 | ppm | 0.0114 | 7.75 | 656.8000 | 0.1467 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 77.66 | -2.2620 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0002 u | ppm | 0.0001 | 48.78 | -13.7000 | -0.0002 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0005 | ppm | 0.0000 | 6.69 | 4.5040 | 0.0005 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0025 | ppm | 0.0003 | 11.80 | 250.8000 | 0.0025 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0008 u | ppm | 0.0014 | > 100.00 | 0.8052 | -0.0008 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1104 | ppm | 0.0118 | 10.70 | 45.5100 | 0.1104 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0061 | ppm | 0.0002 | 3.67 | 373.1000 | 0.0061 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0339 | ppm | 0.0014 | 4.21 | 83.6600 | 0.0339 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0004 | ppm | 0.0001 | 17.67 | 103.2000 | 0.0004 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0001 u | ppm | 0.0000 | 37.09 | 4.9340 | -0.0001 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.3630 | ppm | 0.0197 | 5.42 | 3422.0000 | 0.3630 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0000 u | ppm | 0.0003 | > 100.00 | 0.1010 | 0.0000 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0039 | ppm | 0.0036 | 92.23 | -10.2600 | 0.0039 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0011 u | ppm | 0.0016 | > 100.00 | -2.9070 | 0.0011 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0068 | ppm | 0.0036 | 52.75 | 2.9330 | 0.0068 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0017 u | ppm | 0.0043 | > 100.00 | -0.7049 | 0.0017 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.5470 | ppm | 0.0025 | 0.46 | 1182.0000 | 0.5470 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0018 | ppm | 0.0021 | > 100.00 | -1.9740 | 0.0018 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0004 | ppm | 0.0000 | 4.50 | 198.4000 | 0.0004 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0001 | 40.45 | -81.3200 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0000 u | ppm | 0.0007 | > 100.00 | -6.2630 | 0.0000 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0003 | ppm | 0.0001 | 33.05 | 48.5400 | 0.0003 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0005 u | ppm | 0.0012 | > 100.00 | -6.0380 | 0.0005 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0023 u | ppm | 0.0001 | 5.17 | 29.3000 | -0.0023 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0001 | 74.95 | -26.1500 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9988 | 377400.0000 | 0.0035 | 0.35 |
| Y_R 371.029 | 1.0150 | 54650.0000 | 0.0143 | 1.41 |

Sample Name: 440-194905-f-7-b

Date: 11/2/2017 9:48:23 AM Rack:Tube: 1:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | 0.1671 | 0.0000 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0261 | ppm | 0.0000 | 0.13 | -600.6000 | 0.0261 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0017 u | ppm | 0.0030 | > 100.00 | 7.7240 | 0.0017 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0010 | ppm | 0.0003 | 32.26 | 10.1800 | 0.0010 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0008 | ppm | 0.0000 | 0.77 | 50.4800 | 0.0008 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 70.33 | 1.0900 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.2124 | ppm | 0.0020 | 0.94 | 890.6000 | 0.2124 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -3.7220 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0003 | > 100.00 | -15.1300 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0003 | ppm | 0.0004 | > 100.00 | 3.2950 | 0.0003 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0006 | ppm | 0.0003 | 50.96 | 183.7000 | 0.0006 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0037 | ppm | 0.0004 | 10.66 | 19.8300 | 0.0037 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1664 | ppm | 0.0250 | 15.00 | 103.9000 | 0.1664 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0068 | ppm | 0.0014 | 20.26 | 414.3000 | 0.0068 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0197 | ppm | 0.0031 | 15.67 | 51.8800 | 0.0197 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0000 | 24.39 | 87.7700 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0002 u | ppm | 0.0000 | 9.28 | 4.8430 | -0.0002 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.4984 | ppm | 0.0117 | 2.34 | 4118.0000 | 0.4984 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0009 | ppm | 0.0002 | 21.32 | 4.2170 | 0.0009 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0019 | ppm | 0.0023 | > 100.00 | -12.1000 | 0.0019 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0008 u | ppm | 0.0000 | 3.97 | -6.6290 | -0.0008 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0019 | ppm | 0.0025 | > 100.00 | -2.8140 | 0.0019 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0004 u | ppm | 0.0022 | > 100.00 | -1.8730 | 0.0004 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.8998 | ppm | 0.0008 | 0.09 | 1933.0000 | 0.8998 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0007 u | ppm | 0.0030 | > 100.00 | -2.8760 | 0.0007 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0004 | ppm | 0.0001 | 30.71 | 206.6000 | 0.0004 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0000 | 21.27 | -85.2400 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0009 | ppm | 0.0003 | 27.99 | -4.9290 | 0.0009 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0001 | ppm | 0.0001 | 79.34 | 45.3000 | 0.0001 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0013 | ppm | 0.0001 | 9.25 | -4.4550 | 0.0013 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0019 u | ppm | 0.0002 | 8.17 | 38.3000 | -0.0019 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -35.7100 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0000 | 378000.0000 | 0.0024 | 0.24 |
| Y_R 371.029 | 1.0130 | 54550.0000 | 0.0041 | 0.40 |

Sample Name: 440-194908-f-7-b

Date: 11/2/2017 9:50:28 AM Rack:Tube: 1:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0002 | ppm | 0.0000 | 28.59 | 5.2550 | 0.0002 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0229 | ppm | 0.0001 | 0.28 | -671.8000 | 0.0229 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0020 | ppm | 0.0027 | > 100.00 | 7.9710 | 0.0020 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0006 | ppm | 0.0000 | 4.67 | 4.6410 | 0.0006 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0008 | ppm | 0.0000 | 3.49 | 48.2300 | 0.0008 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 39.87 | 2.4250 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.2091 | ppm | 0.0014 | 0.67 | 878.9000 | 0.2091 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -3.0220 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0003 | 77.02 | -15.3300 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0003 | ppm | 0.0002 | 53.26 | 3.2820 | 0.0003 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0009 | ppm | 0.0001 | 13.29 | 195.8000 | 0.0009 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0008 | ppm | 0.0009 | > 100.00 | 7.3810 | 0.0008 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1039 | ppm | 0.0793 | 76.35 | 38.7500 | 0.1039 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0042 | ppm | 0.0004 | 9.72 | 260.9000 | 0.0042 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0207 | ppm | 0.0019 | 9.32 | 54.1700 | 0.0207 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0000 | 22.25 | 77.9100 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0002 u | ppm | 0.0002 | 91.83 | 4.5730 | -0.0002 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.4927 | ppm | 0.0099 | 2.01 | 4089.0000 | 0.4927 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0003 u | ppm | 0.0011 | > 100.00 | 1.3580 | 0.0003 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0036 u | ppm | 0.0065 | > 100.00 | -10.5600 | 0.0036 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0003 u | ppm | 0.0006 | > 100.00 | -5.7560 | -0.0003 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0041 u | ppm | 0.0065 | > 100.00 | -0.2189 | 0.0041 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0012 u | ppm | 0.0001 | 4.77 | -3.2710 | -0.0012 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.7786 | ppm | 0.0051 | 0.66 | 1676.0000 | 0.7786 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0012 u | ppm | 0.0019 | > 100.00 | -2.4700 | 0.0012 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0007 | ppm | 0.0002 | 23.09 | 290.0000 | 0.0007 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0000 | 18.47 | -85.9700 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0021 | ppm | 0.0013 | 61.85 | -3.0700 | 0.0021 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | 43.4500 | 0.0001 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0002 u | ppm | 0.0008 | > 100.00 | -7.5060 | -0.0002 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0022 u | ppm | 0.0000 | 0.72 | 30.0400 | -0.0022 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0000 | 83.39 | -36.2500 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0010 | 378300.0000 | 0.0030 | 0.30 |
| Y_R 371.029 | 1.0050 | 54150.0000 | 0.0047 | 0.46 |

Sample Name: 440-194993-f-5-b

Date: 11/2/2017 9:52:33 AM Rack:Tube: 1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0001 u | ppm | 0.0002 | > 100.00 | -1.9820 | -0.0001 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0425 | ppm | 0.0007 | 1.66 | -235.0000 | 0.0425 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0078 | ppm | 0.0024 | 31.46 | 12.6400 | 0.0078 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0006 | ppm | 0.0002 | 24.58 | 5.2020 | 0.0006 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0009 | ppm | 0.0001 | 8.10 | 58.1300 | 0.0009 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 3.6470 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.2734 | ppm | 0.0133 | 4.85 | 1108.0000 | 0.2734 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 52.10 | 0.6596 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0008 u | ppm | 0.0001 | 8.78 | -21.5600 | -0.0008 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0006 | ppm | 0.0003 | 55.16 | 4.7470 | 0.0006 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0001 | 14.14 | 192.6000 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0045 | ppm | 0.0013 | 29.60 | 22.9700 | 0.0045 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1241 | ppm | 0.0174 | 14.01 | 59.8200 | 0.1241 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0055 | ppm | 0.0011 | 20.94 | 335.6000 | 0.0055 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0265 | ppm | 0.0023 | 8.76 | 67.0500 | 0.0265 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0004 | ppm | 0.0000 | 4.14 | 107.0000 | 0.0004 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0002 u | ppm | 0.0007 | > 100.00 | 6.8850 | 0.0002 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.6756 | ppm | 0.0010 | 0.15 | 5030.0000 | 0.6756 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0003 u | ppm | 0.0008 | > 100.00 | 1.4170 | 0.0003 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0061 | ppm | 0.0031 | 51.55 | -8.2430 | 0.0061 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0003 u | ppm | 0.0012 | > 100.00 | -5.6120 | -0.0003 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0023 | ppm | 0.0011 | 46.93 | -2.2690 | 0.0023 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0013 u | ppm | 0.0042 | > 100.00 | -3.3070 | -0.0013 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.1230 | ppm | 0.0063 | 0.56 | 2409.0000 | 1.1230 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0042 | ppm | 0.0018 | 42.90 | -0.0414 | 0.0042 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0005 | ppm | 0.0001 | 12.69 | 223.2000 | 0.0005 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0004 | ppm | 0.0001 | 15.12 | -59.1300 | 0.0004 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0005 u | ppm | 0.0009 | > 100.00 | -7.1730 | -0.0005 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0002 | ppm | 0.0001 | 33.23 | 46.1900 | 0.0002 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0019 | ppm | 0.0000 | 0.14 | -3.1870 | 0.0019 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0021 u | ppm | 0.0001 | 6.34 | 32.7800 | -0.0021 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 9.54 | -23.8000 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0040 | 379400.0000 | 0.0056 | 0.55 |
| Y_R 371.029 | 1.0190 | 54880.0000 | 0.0040 | 0.40 |

Sample Name: 440-194908-f-6-b

Date: 11/2/2017 9:54:37 AM Rack:Tube: 1:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0016 u | ppm | 0.0003 | 17.94 | -119.4000 | -0.0016 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0232 | ppm | 0.0001 | 0.42 | -174.3000 | 0.0232 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.2330 | ppm | 0.0050 | 2.15 | 195.0000 | 0.2330 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.9490 | ppm | 0.0233 | 1.19 | 21800.0000 | 1.9490 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0394 | ppm | 0.0007 | 1.72 | 2919.0000 | 0.0394 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 4.12 | 0.3954 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 452.4000 | ppm | 2.8020 | 0.62 | 1611000.0000 | 452.4000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 69.64 | 2.1160 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0059 | ppm | 0.0000 | 0.29 | 81.8100 | 0.0059 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0006 | ppm | 0.0003 | 51.47 | 12.9900 | 0.0006 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0018 | ppm | 0.0001 | 6.58 | -60.8500 | 0.0018 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0456 | ppm | 0.0006 | 1.34 | 233.9000 | 0.0456 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 48.4300 | ppm | 0.2901 | 0.60 | 50470.0000 | 48.4300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4376 | ppm | 0.0013 | 0.31 | 27360.0000 | 0.4376 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 339.4000 | ppm | 3.0840 | 0.91 | 758800.0000 | 339.4000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.9430 | ppm | 0.0309 | 1.05 | 275000.0000 | 2.9430 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0244 | ppm | 0.0009 | 3.88 | 134.8000 | 0.0244 (ppm) | Y 371.029 |
| Na (589.592 nm) | 2797.0000 o | ppm | 2.1120 | 0.08 | 14390000.0000 | 2797.0000 o (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0049 | ppm | 0.0007 | 14.04 | 12.5200 | 0.0049 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0850 | ppm | 0.0104 | 0.96 | 982.1000 | 1.0850 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0104 u | ppm | 0.0005 | 4.74 | -13.7500 | -0.0104 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0021 u | ppm | 0.0104 | > 100.00 | -7.1780 | -0.0021 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0017 | ppm | 0.0015 | 85.82 | -2.3660 | 0.0017 (ppm) | Y 371.029 |
| Si (251.611 nm) | 44.6300 | ppm | 0.3832 | 0.86 | 95080.0000 | 44.6300 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0046 u | ppm | 0.0008 | 17.37 | -6.5060 | -0.0046 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 15.0200 | ppm | 0.0722 | 0.48 | 4702000.0000 | 15.0200 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0001 u | ppm | 0.0000 | 33.25 | -501.0000 | -0.0001 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0033 | ppm | 0.0024 | 71.00 | 1.9490 | 0.0033 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0640 | ppm | 0.0012 | 1.82 | 2191.0000 | 0.0640 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0104 | ppm | 0.0019 | 18.08 | 4.4250 | 0.0104 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0208 u | ppm | 0.0002 | 1.16 | -150.2000 | -0.0208 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0012 | ppm | 0.0003 | 28.68 | 88.8900 | 0.0012 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.7777 | 293900.0000 | 0.0130 | 1.67 |
| Y_R 371.029 | 0.8665 | 46680.0000 | 0.0056 | 0.65 |

Sample Name: 440-194908-f-6-b@10

Date: 11/2/2017 9:56:42 AM Rack:Tube: 1:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0010 u | ppm | 0.0000 | 0.36 | -40.2700 | -0.0010 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0158 | ppm | 0.0001 | 0.78 | -777.9000 | 0.0158 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0234 | ppm | 0.0028 | 11.97 | 25.3000 | 0.0234 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1996 | ppm | 0.0004 | 0.20 | 2231.0000 | 0.1996 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0044 | ppm | 0.0000 | 0.13 | 317.4000 | 0.0044 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 5.4990 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 43.9200 | ppm | 0.3196 | 0.73 | 156500.0000 | 43.9200 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 99.06 | -2.3490 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0005 | ppm | 0.0000 | 3.38 | -2.9590 | 0.0005 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0006 | ppm | 0.0003 | 49.88 | 5.4690 | 0.0006 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0006 | ppm | 0.0004 | 73.68 | 157.6000 | 0.0006 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0036 | ppm | 0.0004 | 12.29 | 23.2800 | 0.0036 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 4.3400 | ppm | 0.0651 | 1.50 | 4462.0000 | 4.3400 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0425 | ppm | 0.0025 | 5.80 | 2679.0000 | 0.0425 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 36.6600 | ppm | 0.2094 | 0.57 | 81980.0000 | 36.6600 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.3023 | ppm | 0.0004 | 0.12 | 28320.0000 | 0.3023 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0039 | ppm | 0.0000 | 0.73 | 26.5000 | 0.0039 (ppm) | Y 371.029 |
| Na (589.592 nm) | 327.9000 | ppm | 3.1850 | 0.97 | 1688000.0000 | 327.9000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0003 u | ppm | 0.0003 | 89.23 | -2.3530 | -0.0003 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.1036 | ppm | 0.0017 | 1.67 | 81.2100 | 0.1036 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0019 u | ppm | 0.0033 | > 100.00 | -7.5220 | -0.0019 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0037 | ppm | 0.0014 | 39.16 | -0.7711 | 0.0037 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0040 | ppm | 0.0022 | 55.73 | 1.0860 | 0.0040 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.2420 | ppm | 0.0058 | 0.14 | 9056.0000 | 4.2420 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0007 u | ppm | 0.0044 | > 100.00 | -2.8250 | 0.0007 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.4690 | ppm | 0.0093 | 0.63 | 459700.0000 | 1.4690 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0001 | 65.48 | -117.5000 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0018 | ppm | 0.0020 | > 100.00 | -3.2160 | 0.0018 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0075 | ppm | 0.0003 | 4.25 | 284.0000 | 0.0075 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0008 u | ppm | 0.0016 | > 100.00 | -6.3260 | 0.0008 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0044 u | ppm | 0.0001 | 1.67 | 6.8330 | -0.0044 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -31.1800 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9144 | 345500.0000 | 0.0012 | 0.13 |
| Y_R 371.029 | 0.9524 | 51300.0000 | 0.0066 | 0.69 |

Sample Name: CCV 4461459

Date: 11/2/2017 9:58:46 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4985 | ppm | 0.0010 | 0.20 | 17240.0000 | 0.4985 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.9971 | ppm | 0.0036 | 0.36 | 21970.0000 | 0.9971 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9959 | ppm | 0.0016 | 0.16 | 802.7000 | 0.9959 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0020 | ppm | 0.0037 | 0.37 | 11100.0000 | 1.0020 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9846 | ppm | 0.0030 | 0.31 | 72340.0000 | 0.9846 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9992 | ppm | 0.0037 | 0.37 | 164800.0000 | 0.9992 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.0080 | ppm | 0.0502 | 1.00 | 17970.0000 | 5.0080 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9959 | ppm | 0.0031 | 0.31 | 24700.0000 | 0.9959 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0030 | ppm | 0.0002 | 0.02 | 13530.0000 | 1.0030 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9921 | ppm | 0.0045 | 0.46 | 5950.0000 | 0.9921 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0090 | ppm | 0.0037 | 0.36 | 35640.0000 | 1.0090 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9885 | ppm | 0.0109 | 1.10 | 4190.0000 | 0.9885 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.1100 | ppm | 0.1110 | 1.10 | 10460.0000 | 10.1100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0030 | ppm | 0.0089 | 0.89 | 58700.0000 | 1.0030 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.9730 | ppm | 0.0193 | 0.39 | 11120.0000 | 4.9730 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9951 | ppm | 0.0027 | 0.27 | 93270.0000 | 0.9951 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9927 | ppm | 0.0041 | 0.41 | 5237.0000 | 0.9927 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.3600 | ppm | 0.1078 | 1.04 | 54910.0000 | 10.3600 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9954 | ppm | 0.0033 | 0.33 | 4749.0000 | 0.9954 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9979 | ppm | 0.0047 | 0.47 | 852.4000 | 0.9979 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9976 | ppm | 0.0019 | 0.19 | 1930.0000 | 0.9976 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9983 | ppm | 0.0119 | 1.19 | 1152.0000 | 0.9983 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9998 | ppm | 0.0005 | 0.05 | 875.7000 | 0.9998 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.0100 | ppm | 0.1100 | 2.19 | 10860.0000 | 5.0100 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9996 | ppm | 0.0047 | 0.47 | 798.8000 | 0.9996 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9929 | ppm | 0.0142 | 1.43 | 310500.0000 | 0.9929 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9996 | ppm | 0.0028 | 0.28 | 108200.0000 | 0.9996 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9990 | ppm | 0.0036 | 0.36 | 1518.0000 | 0.9990 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0050 | ppm | 0.0053 | 0.52 | 26020.0000 | 1.0050 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9945 | ppm | 0.0022 | 0.22 | 2094.0000 | 0.9945 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9973 | ppm | 0.0034 | 0.34 | 22930.0000 | 0.9973 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0010 | ppm | 0.0035 | 0.35 | 69590.0000 | 1.0010 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9731 | 367700.0000 | 0.0042 | 0.43 |
| Y_R 371.029 | 1.0010 | 53940.0000 | 0.0020 | 0.20 |

Sample Name: CCB 4461458

Date: 11/2/2017 10:00:51 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0005 | ppm | 0.0002 | 39.02 | 16.0200 | 0.0005 (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0012 u | ppm | 0.0005 | 38.19 | -1209.0000 | -0.0012 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0011 | ppm | 0.0003 | 26.89 | 7.2320 | 0.0011 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0012 | ppm | 0.0005 | 41.39 | 11.6400 | 0.0012 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0000 | 23.61 | 1.2050 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 16.9800 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0077 u | ppm | 0.0046 | 60.42 | 107.0000 | -0.0077 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 45.40 | -1.3020 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0008 u | ppm | 0.0001 | 11.72 | -20.9100 | -0.0008 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | 1.6410 | 0.0001 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0003 | 40.12 | 191.7000 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0012 u | ppm | 0.0037 | > 100.00 | -1.2160 | -0.0012 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1368 | ppm | 0.0712 | 52.03 | 72.9800 | 0.1368 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0053 | ppm | 0.0010 | 19.28 | 322.8000 | 0.0053 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0012 | ppm | 0.0010 | 86.13 | 10.4400 | 0.0012 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0001 | 53.69 | 87.1400 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0036 | ppm | 0.0005 | 15.29 | 24.5500 | 0.0036 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.2329 | ppm | 0.0130 | 5.58 | 2753.0000 | 0.2329 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0006 | ppm | 0.0004 | 78.20 | 2.7830 | 0.0006 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0011 u | ppm | 0.0022 | > 100.00 | -12.9600 | 0.0011 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0021 | ppm | 0.0015 | 68.49 | -0.9831 | 0.0021 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0058 | ppm | 0.0024 | 41.91 | 1.5960 | 0.0058 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0038 | ppm | 0.0030 | 79.33 | 1.1340 | 0.0038 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0051 | ppm | 0.0065 | > 100.00 | 29.1200 | 0.0051 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0026 | ppm | 0.0001 | 4.39 | -1.3240 | 0.0026 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0002 u | ppm | 0.0001 | 71.25 | 10.3600 | -0.0002 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0015 | ppm | 0.0003 | 19.54 | 62.5800 | 0.0015 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0017 | ppm | 0.0016 | 93.51 | -3.6550 | 0.0017 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0005 | ppm | 0.0001 | 17.85 | 52.3700 | 0.0005 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0024 | ppm | 0.0010 | 41.40 | -2.0420 | 0.0024 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0003 | ppm | 0.0000 | 15.91 | 87.6700 | 0.0003 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0001 | 75.87 | -30.1800 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9849 | 372200.0000 | 0.0031 | 0.31 |
| Y_R 371.029 | 1.0020 | 53950.0000 | 0.0063 | 0.63 |

Sample Name: mb 440-438408/1-a@20

Date: 11/2/2017 10:04:39 AM Rack:Tube: 1:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0000 u | ppm | 0.0003 | > 100.00 | -1.5600 | 0.0000 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0036 u | ppm | 0.0008 | 21.90 | -1264.0000 | -0.0036 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0027 | ppm | 0.0020 | 72.62 | 8.5600 | 0.0027 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0016 | ppm | 0.0003 | 21.24 | 15.8000 | 0.0016 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0001 | 36.08 | 3.8160 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 6.2140 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0129 u | ppm | 0.0052 | 39.90 | 88.3000 | -0.0129 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 | ppm | 0.0000 | 5.40 | -3.9800 | 0.0000 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0008 u | ppm | 0.0003 | 45.65 | -21.0600 | -0.0008 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0006 | ppm | 0.0000 | 6.51 | 4.6630 | 0.0006 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0018 | ppm | 0.0001 | 8.06 | 226.2000 | 0.0018 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0012 | ppm | 0.0014 | > 100.00 | 9.0200 | 0.0012 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1551 | ppm | 0.0776 | 50.02 | 92.0300 | 0.1551 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0071 | ppm | 0.0007 | 10.38 | 432.3000 | 0.0071 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0043 | ppm | 0.0021 | 47.65 | 17.5600 | 0.0043 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 71.8300 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0007 u | ppm | 0.0011 | > 100.00 | 9.3450 | 0.0007 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 428.9000 | ppm | 2.4290 | 0.57 | 2207000.0000 | 428.9000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0041 | ppm | 0.0002 | 3.81 | 19.6200 | 0.0041 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0062 | ppm | 0.0003 | 4.17 | -8.1420 | 0.0062 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0007 u | ppm | 0.0026 | > 100.00 | -6.4790 | -0.0007 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0049 | ppm | 0.0005 | 10.57 | 0.6950 | 0.0049 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0019 u | ppm | 0.0095 | > 100.00 | -0.5140 | 0.0019 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0078 | ppm | 0.0014 | 18.01 | 34.5000 | 0.0078 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0037 | ppm | 0.0020 | 53.26 | -0.4650 | 0.0037 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0002 u | ppm | 0.0000 | 6.08 | 13.2600 | -0.0002 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0003 | ppm | 0.0001 | 46.01 | -64.8700 | 0.0003 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0002 u | ppm | 0.0014 | > 100.00 | -6.5730 | -0.0002 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0001 | ppm | 0.0001 | 50.83 | 44.8300 | 0.0001 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0003 u | ppm | 0.0004 | > 100.00 | -6.5200 | 0.0003 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0025 u | ppm | 0.0001 | 2.18 | 23.7300 | -0.0025 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0005 | ppm | 0.0000 | 0.30 | 1.0670 | 0.0005 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9120 | 344700.0000 | 0.0086 | 0.94 |
| Y_R 371.029 | 0.9604 | 51740.0000 | 0.0093 | 0.97 |

Sample Name: lcs 440-438408/2-a@20

Date: 11/2/2017 10:06:44 AM Rack:Tube: 1:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4936 | ppm | 0.0004 | 0.08 | 17070.0000 | 0.4936 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0740 | ppm | 0.0004 | 0.04 | 23710.0000 | 1.0740 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0200 | ppm | 0.0011 | 0.11 | 822.2000 | 1.0200 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0030 | ppm | 0.0003 | 0.03 | 11110.0000 | 1.0030 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9488 | ppm | 0.0128 | 1.34 | 69700.0000 | 0.9488 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0010 | ppm | 0.0031 | 0.31 | 165100.0000 | 1.0010 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.9460 | ppm | 0.0735 | 1.49 | 17740.0000 | 4.9460 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9662 | ppm | 0.0018 | 0.19 | 23960.0000 | 0.9662 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9802 | ppm | 0.0029 | 0.30 | 13230.0000 | 0.9802 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9853 | ppm | 0.0020 | 0.21 | 5909.0000 | 0.9853 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0440 | ppm | 0.0043 | 0.41 | 36870.0000 | 1.0440 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9739 | ppm | 0.0143 | 1.47 | 4128.0000 | 0.9739 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.5400 | ppm | 0.1269 | 1.20 | 10910.0000 | 10.5400 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0110 | ppm | 0.0050 | 0.50 | 59170.0000 | 1.0110 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.7030 | ppm | 0.0596 | 1.27 | 10520.0000 | 4.7030 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9599 | ppm | 0.0016 | 0.17 | 90000.0000 | 0.9599 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0170 | ppm | 0.0016 | 0.16 | 5364.0000 | 1.0170 (ppm) | Y 371.029 |
| Na (589.592 nm) | 439.0000 | ppm | 2.5940 | 0.59 | 2259000.0000 | 439.0000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9823 | ppm | 0.0046 | 0.47 | 4687.0000 | 0.9823 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0360 | ppm | 0.0016 | 0.16 | 885.4000 | 1.0360 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9661 | ppm | 0.0002 | 0.02 | 1869.0000 | 0.9661 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0080 | ppm | 0.0042 | 0.41 | 1162.0000 | 1.0080 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9748 | ppm | 0.0050 | 0.51 | 854.1000 | 0.9748 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.0580 | ppm | 0.0829 | 1.64 | 10970.0000 | 5.0580 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0040 | ppm | 0.0066 | 0.66 | 802.6000 | 1.0040 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9851 | ppm | 0.0175 | 1.78 | 308100.0000 | 0.9851 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0100 | ppm | 0.0013 | 0.13 | 109300.0000 | 1.0100 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9429 | ppm | 0.0047 | 0.50 | 1429.0000 | 0.9429 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0180 | ppm | 0.0021 | 0.21 | 26340.0000 | 1.0180 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0160 | ppm | 0.0001 | 0.01 | 2139.0000 | 1.0160 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9724 | ppm | 0.0020 | 0.20 | 22370.0000 | 0.9724 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9999 | ppm | 0.0014 | 0.14 | 69490.0000 | 0.9999 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9116 | 344500.0000 | 0.0027 | 0.29 |
| Y_R 371.029 | 0.9558 | 51490.0000 | 0.0124 | 1.30 |

Sample Name: 440-194881-a-1-g@20

Date: 11/2/2017 10:08:48 AM Rack:Tube: 1:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0007 u | ppm | 0.0001 | 7.84 | -42.5600 | -0.0007 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 3.2920 | ppm | 0.0029 | 0.09 | 72410.0000 | 3.2920 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1162 | ppm | 0.0033 | 2.86 | 100.5000 | 0.1162 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0058 | ppm | 0.0012 | 20.08 | -1.8730 | 0.0058 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0597 | ppm | 0.0013 | 2.24 | 4387.0000 | 0.0597 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0004 | ppm | 0.0001 | 21.15 | 1386.0000 | 0.0004 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 32.1800 | ppm | 0.9855 | 3.06 | 114700.0000 | 32.1800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0013 | ppm | 0.0001 | 8.57 | 45.2600 | 0.0013 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0248 | ppm | 0.0003 | 1.21 | 332.6000 | 0.0248 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0362 | ppm | 0.0002 | 0.45 | 221.5000 | 0.0362 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0014 | ppm | 0.0005 | 37.51 | 244.6000 | 0.0014 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 60.9700 | ppm | 1.2370 | 2.03 | 258400.0000 | 60.9700 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.5432 | ppm | 0.0122 | 2.24 | 506.1000 | 0.5432 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0150 | ppm | 0.0028 | 18.68 | 744.6000 | 0.0150 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 1.4720 | ppm | 0.0301 | 2.05 | 3268.0000 | 1.4720 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1346 | ppm | 0.0003 | 0.26 | 20500.0000 | 0.1346 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0064 | ppm | 0.0000 | 0.63 | 42.4200 | 0.0064 (ppm) | Y 371.029 |
| Na (589.592 nm) | 438.5000 | ppm | 7.0610 | 1.61 | 2257000.0000 | 438.5000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0128 | ppm | 0.0001 | 0.58 | 62.2800 | 0.0128 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.1621 | ppm | 0.0032 | 1.95 | 134.0000 | 0.1621 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.1290 | ppm | 0.0001 | 0.05 | 243.5000 | 0.1290 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0128 | ppm | 0.0044 | 33.99 | 11.3200 | 0.0128 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0021 u | ppm | 0.0050 | > 100.00 | -12.1600 | 0.0021 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 19.7000 | ppm | 0.7041 | 3.57 | 41980.0000 | 19.7000 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0080 | ppm | 0.0004 | 5.31 | 3.1250 | 0.0080 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0958 | ppm | 0.0017 | 1.75 | 30340.0000 | 0.0958 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.1043 | ppm | 0.0002 | 0.15 | 11180.0000 | 0.1043 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0016 u | ppm | 0.0036 | > 100.00 | -4.7950 | 0.0016 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0104 | ppm | 0.0001 | 1.43 | 349.0000 | 0.0104 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0043 u | ppm | 0.0024 | 54.21 | 59.8500 | -0.0043 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 4.6480 | ppm | 0.0027 | 0.06 | 105800.0000 | 4.6480 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0096 | ppm | 0.0001 | 1.00 | 689.0000 | 0.0096 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9141 | 345400.0000 | 0.0014 | 0.15 |
| Y_R 371.029 | 0.9600 | 51710.0000 | 0.0189 | 1.97 |

Sample Name: 440-194881-a-1-g ms@20

Date: 11/2/2017 10:10:52 AM
Rack:Tube: 1:14
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5050 | ppm | 0.0026 | 0.51 | 17440.0000 | 0.5050 (ppm) | Y 371.029 |
| Al (396.152 nm) | 4.3330 | ppm | 0.0001 | 0.00 | 96560.0000 | 4.3330 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.1550 | ppm | 0.0053 | 0.46 | 931.8000 | 1.1550 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0240 | ppm | 0.0029 | 0.29 | 11280.0000 | 1.0240 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0130 | ppm | 0.0231 | 2.28 | 74430.0000 | 1.0130 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0170 | ppm | 0.0028 | 0.28 | 169100.0000 | 1.0170 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 36.8500 | ppm | 0.4957 | 1.35 | 131300.0000 | 36.8500 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9680 | ppm | 0.0022 | 0.23 | 24020.0000 | 0.9680 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0170 | ppm | 0.0016 | 0.16 | 13730.0000 | 1.0170 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0300 | ppm | 0.0026 | 0.25 | 6179.0000 | 1.0300 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0570 | ppm | 0.0033 | 0.31 | 37350.0000 | 1.0570 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 61.1000 | ppm | 0.7540 | 1.23 | 258900.0000 | 61.1000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.9900 | ppm | 0.1833 | 1.67 | 11390.0000 | 10.9900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0300 | ppm | 0.0116 | 1.12 | 60160.0000 | 1.0300 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 6.1960 | ppm | 0.1368 | 2.21 | 13830.0000 | 6.1960 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0990 | ppm | 0.0027 | 0.24 | 110700.0000 | 1.0990 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0320 | ppm | 0.0019 | 0.18 | 5448.0000 | 1.0320 (ppm) | Y 371.029 |
| Na (589.592 nm) | 442.5000 | ppm | 7.1270 | 1.61 | 2277000.0000 | 442.5000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9804 | ppm | 0.0014 | 0.14 | 4678.0000 | 0.9804 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.2020 | ppm | 0.0087 | 0.72 | 1037.0000 | 1.2020 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0870 | ppm | 0.0015 | 0.14 | 2101.0000 | 1.0870 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0340 | ppm | 0.0012 | 0.12 | 1194.0000 | 1.0340 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9844 | ppm | 0.0021 | 0.21 | 850.9000 | 0.9844 (ppm) | Y 371.029 |
| Si (251.611 nm) | 26.2900 | ppm | 0.2289 | 0.87 | 56190.0000 | 26.2900 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0050 | ppm | 0.0005 | 0.05 | 803.2000 | 1.0050 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0850 | ppm | 0.0149 | 1.37 | 339700.0000 | 1.0850 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.1310 | ppm | 0.0051 | 0.46 | 122400.0000 | 1.1310 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9510 | ppm | 0.0008 | 0.09 | 1440.0000 | 0.9510 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0380 | ppm | 0.0025 | 0.24 | 26910.0000 | 1.0380 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0230 | ppm | 0.0038 | 0.37 | 2229.0000 | 1.0230 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 5.5400 | ppm | 0.0130 | 0.23 | 126300.0000 | 5.5400 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0210 | ppm | 0.0042 | 0.41 | 71040.0000 | 1.0210 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9109 | 344200.0000 | 0.0036 | 0.39 |
| Y_R 371.029 | 0.9505 | 51200.0000 | 0.0194 | 2.04 |

Sample Name: 440-194881-a-1-g msd@20

Date: 11/2/2017 10:12:58 AM
Rack:Tube: 1:15
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5077 | ppm | 0.0024 | 0.48 | 17530.0000 | 0.5077 (ppm) | Y 371.029 |
| Al (396.152 nm) | 4.3620 | ppm | 0.0147 | 0.34 | 97210.0000 | 4.3620 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.1660 | ppm | 0.0066 | 0.57 | 940.1000 | 1.1660 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0300 | ppm | 0.0036 | 0.35 | 11350.0000 | 1.0300 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0070 | ppm | 0.0047 | 0.47 | 73960.0000 | 1.0070 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0240 | ppm | 0.0026 | 0.25 | 170100.0000 | 1.0240 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 37.0800 | ppm | 0.4525 | 1.22 | 132200.0000 | 37.0800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9730 | ppm | 0.0043 | 0.44 | 24150.0000 | 0.9730 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0240 | ppm | 0.0017 | 0.16 | 13820.0000 | 1.0240 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0370 | ppm | 0.0037 | 0.35 | 6222.0000 | 1.0370 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0620 | ppm | 0.0035 | 0.33 | 37520.0000 | 1.0620 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 61.8400 | ppm | 0.5619 | 0.91 | 262100.0000 | 61.8400 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 11.1000 | ppm | 0.2576 | 2.32 | 11510.0000 | 11.1000 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0330 | ppm | 0.0114 | 1.11 | 60320.0000 | 1.0330 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 6.1530 | ppm | 0.0416 | 0.68 | 13730.0000 | 6.1530 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.1050 | ppm | 0.0040 | 0.36 | 111400.0000 | 1.1050 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0380 | ppm | 0.0037 | 0.35 | 5477.0000 | 1.0380 (ppm) | Y 371.029 |
| Na (589.592 nm) | 446.3000 | ppm | 2.4840 | 0.56 | 2297000.0000 | 446.3000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9852 | ppm | 0.0024 | 0.25 | 4701.0000 | 0.9852 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.2090 | ppm | 0.0021 | 0.18 | 1043.0000 | 1.2090 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0950 | ppm | 0.0061 | 0.56 | 2118.0000 | 1.0950 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0330 | ppm | 0.0129 | 1.25 | 1192.0000 | 1.0330 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9964 | ppm | 0.0028 | 0.28 | 861.1000 | 0.9964 (ppm) | Y 371.029 |
| Si (251.611 nm) | 26.5700 | ppm | 0.2362 | 0.89 | 56780.0000 | 26.5700 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0080 | ppm | 0.0116 | 1.15 | 805.4000 | 1.0080 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0910 | ppm | 0.0133 | 1.21 | 341700.0000 | 1.0910 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.1310 | ppm | 0.0057 | 0.51 | 122500.0000 | 1.1310 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9576 | ppm | 0.0039 | 0.40 | 1450.0000 | 0.9576 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0430 | ppm | 0.0042 | 0.41 | 27020.0000 | 1.0430 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0240 | ppm | 0.0039 | 0.38 | 2232.0000 | 1.0240 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 5.5830 | ppm | 0.0159 | 0.29 | 127300.0000 | 5.5830 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0190 | ppm | 0.0038 | 0.38 | 70900.0000 | 1.0190 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9033 | 341300.0000 | 0.0042 | 0.47 |
| Y_R 371.029 | 0.9536 | 51370.0000 | 0.0072 | 0.76 |

Sample Name: 440-194881-a-1-g sd@100

Date: 11/2/2017 10:15:02 AM Rack:Tube: 1:16

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0002 u | ppm | 0.0003 | > 100.00 | -9.0810 | -0.0002 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.6446 | ppm | 0.0016 | 0.24 | 13220.0000 | 0.6446 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0244 | ppm | 0.0028 | 11.54 | 26.1300 | 0.0244 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0030 | ppm | 0.0001 | 2.13 | 18.8500 | 0.0030 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0128 | ppm | 0.0001 | 0.40 | 935.1000 | 0.0128 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 287.8000 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 6.5680 | ppm | 0.0103 | 0.16 | 23520.0000 | 6.5680 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0003 | ppm | 0.0001 | 45.29 | 7.4590 | 0.0003 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0044 | ppm | 0.0004 | 9.57 | 50.5500 | 0.0044 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0082 | ppm | 0.0003 | 3.13 | 51.3400 | 0.0082 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0011 | ppm | 0.0003 | 29.89 | 208.1000 | 0.0011 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 12.6600 | ppm | 0.0654 | 0.52 | 53670.0000 | 12.6600 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.2438 | ppm | 0.0537 | 22.03 | 186.4000 | 0.2438 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0064 | ppm | 0.0022 | 33.84 | 358.8000 | 0.0064 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.3113 | ppm | 0.0011 | 0.36 | 697.5000 | 0.3113 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0279 | ppm | 0.0000 | 0.10 | 4307.0000 | 0.0279 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0028 | ppm | 0.0001 | 4.83 | 20.9700 | 0.0028 (ppm) | Y 371.029 |
| Na (589.592 nm) | 91.5500 | ppm | 0.2538 | 0.28 | 472400.0000 | 91.5500 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0033 | ppm | 0.0003 | 10.05 | 15.9900 | 0.0033 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0375 | ppm | 0.0026 | 7.00 | 20.3400 | 0.0375 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0256 | ppm | 0.0016 | 6.21 | 44.1700 | 0.0256 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0114 | ppm | 0.0049 | 43.11 | 8.5310 | 0.0114 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0033 | ppm | 0.0019 | 56.63 | -1.7740 | 0.0033 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.0730 | ppm | 0.1198 | 2.94 | 8692.0000 | 4.0730 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0059 | ppm | 0.0031 | 51.38 | 1.3570 | 0.0059 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0198 | ppm | 0.0004 | 2.24 | 6335.0000 | 0.0198 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0220 | ppm | 0.0001 | 0.62 | 2281.0000 | 0.0220 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0018 | ppm | 0.0014 | 75.85 | -3.7330 | 0.0018 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0022 | ppm | 0.0002 | 9.51 | 106.5000 | 0.0022 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0005 u | ppm | 0.0001 | 16.31 | 8.0380 | -0.0005 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9826 | ppm | 0.0000 | 0.00 | 22440.0000 | 0.9826 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0018 | ppm | 0.0002 | 10.09 | 103.8000 | 0.0018 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9478 | 358200.0000 | 0.0035 | 0.36 |
| Y_R 371.029 | 0.9745 | 52490.0000 | 0.0042 | 0.44 |

Sample Name: mb 440-438811/1-a@5

Date: 11/2/2017 10:17:07 AM Rack:Tube: 1:17

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0005 | ppm | 0.0001 | 17.90 | 17.5100 | 0.0005 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0231 | ppm | 0.0008 | 3.42 | -668.9000 | 0.0231 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0008 | ppm | 0.0009 | > 100.00 | 6.9790 | 0.0008 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0030 | ppm | 0.0000 | 1.62 | 30.6600 | 0.0030 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0003 | ppm | 0.0001 | 30.38 | 14.9000 | 0.0003 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 37.21 | 14.2400 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0504 | ppm | 0.0113 | 22.47 | 313.4000 | 0.0504 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -4.3600 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0005 u | ppm | 0.0001 | 24.93 | -17.4900 | -0.0005 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0004 | > 100.00 | 3.8610 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0030 | ppm | 0.0001 | 2.34 | 269.1000 | 0.0030 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.8344 | ppm | 0.0076 | 0.91 | 3540.0000 | 0.8344 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0980 | ppm | 0.0234 | 23.90 | 32.7600 | 0.0980 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0047 | ppm | 0.0013 | 27.45 | 287.7000 | 0.0047 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0144 | ppm | 0.0026 | 18.20 | 39.7000 | 0.0144 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0038 | ppm | 0.0002 | 5.52 | 528.7000 | 0.0038 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0004 u | ppm | 0.0009 | > 100.00 | 3.4280 | -0.0004 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.2674 | ppm | 0.0145 | 5.44 | 2930.0000 | 0.2674 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0001 u | ppm | 0.0004 | > 100.00 | -0.1872 | -0.0001 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0035 u | ppm | 0.0106 | > 100.00 | -10.6900 | 0.0035 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0012 | ppm | 0.0013 | > 100.00 | -2.8120 | 0.0012 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0023 | ppm | 0.0008 | 34.27 | -2.3590 | 0.0023 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0041 | ppm | 0.0006 | 14.94 | 1.2270 | 0.0041 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.1037 | ppm | 0.0007 | 0.71 | 238.8000 | 0.1037 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0063 | ppm | 0.0034 | 53.39 | 1.6250 | 0.0063 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0005 | ppm | 0.0000 | 7.99 | 228.1000 | 0.0005 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0018 | ppm | 0.0001 | 8.24 | 96.8800 | 0.0018 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0014 u | ppm | 0.0013 | 95.08 | -8.4570 | -0.0014 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0003 | ppm | 0.0003 | 86.12 | 49.4000 | 0.0003 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0012 | ppm | 0.0006 | 53.04 | -4.6560 | 0.0012 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0011 u | ppm | 0.0000 | 0.27 | 55.1800 | -0.0011 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0001 | 33.60 | -18.6800 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9661 | 365100.0000 | 0.0029 | 0.30 |
| Y_R 371.029 | 0.9892 | 53290.0000 | 0.0057 | 0.58 |

Sample Name: lcs 440-438811/2-a@5

Date: 11/2/2017 10:19:11 AM Rack:Tube: 1:18

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1806 | ppm | 0.0003 | 0.14 | 6242.0000 | 0.1806 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.3659 | ppm | 0.0008 | 0.21 | 7306.0000 | 0.3659 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.3596 | ppm | 0.0012 | 0.34 | 293.9000 | 0.3596 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.3512 | ppm | 0.0008 | 0.23 | 3888.0000 | 0.3512 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.3610 | ppm | 0.0059 | 1.62 | 26510.0000 | 0.3610 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3544 | ppm | 0.0003 | 0.09 | 58440.0000 | 0.3544 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 1.8380 | ppm | 0.0193 | 1.05 | 6678.0000 | 1.8380 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3557 | ppm | 0.0006 | 0.16 | 8817.0000 | 0.3557 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.3652 | ppm | 0.0012 | 0.32 | 4921.0000 | 0.3652 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.3606 | ppm | 0.0010 | 0.27 | 2164.0000 | 0.3606 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.3681 | ppm | 0.0010 | 0.28 | 13110.0000 | 0.3681 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.4007 | ppm | 0.0015 | 0.38 | 1701.0000 | 0.4007 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 3.7060 | ppm | 0.0713 | 1.92 | 3792.0000 | 3.7060 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3646 | ppm | 0.0031 | 0.86 | 21350.0000 | 0.3646 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 1.8250 | ppm | 0.0306 | 1.68 | 4086.0000 | 1.8250 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.3649 | ppm | 0.0010 | 0.29 | 34240.0000 | 0.3649 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.3600 | ppm | 0.0021 | 0.59 | 1903.0000 | 0.3600 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.8750 | ppm | 0.0345 | 0.89 | 21510.0000 | 3.8750 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.3610 | ppm | 0.0023 | 0.63 | 1722.0000 | 0.3610 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.3590 | ppm | 0.0074 | 2.05 | 297.6000 | 0.3590 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.3606 | ppm | 0.0028 | 0.78 | 694.4000 | 0.3606 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.3648 | ppm | 0.0011 | 0.29 | 417.7000 | 0.3648 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3345 | ppm | 0.0004 | 0.12 | 291.7000 | 0.3345 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.1100 | ppm | 0.0192 | 17.40 | 315.6000 | 0.1100 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.3650 | ppm | 0.0002 | 0.06 | 289.5000 | 0.3650 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.3556 | ppm | 0.0034 | 0.96 | 111300.0000 | 0.3556 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.3636 | ppm | 0.0005 | 0.14 | 39310.0000 | 0.3636 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3563 | ppm | 0.0035 | 0.97 | 537.1000 | 0.3563 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3624 | ppm | 0.0010 | 0.28 | 9404.0000 | 0.3624 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.3594 | ppm | 0.0021 | 0.57 | 752.2000 | 0.3594 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.3511 | ppm | 0.0006 | 0.16 | 8127.0000 | 0.3511 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.3534 | ppm | 0.0005 | 0.15 | 24540.0000 | 0.3534 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9573 | 361800.0000 | 0.0021 | 0.22 |
| Y_R 371.029 | 0.9769 | 52630.0000 | 0.0120 | 1.22 |

Sample Name: 440-195320-a-11-m@5

Date: 11/2/2017 10:21:15 AM Rack:Tube: 1:19

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0008 u | ppm | 0.0003 | 42.64 | -102.2000 | -0.0008 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 71.2400 | ppm | 0.2182 | 0.31 | 1592000.0000 | 71.2400 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0422 | ppm | 0.0024 | 5.70 | 39.5700 | 0.0422 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0491 | ppm | 0.0003 | 0.59 | 377.4000 | 0.0491 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.7230 | ppm | 0.0021 | 0.29 | 53150.0000 | 0.7230 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0020 | ppm | 0.0004 | 22.36 | 3993.0000 | 0.0020 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 223.9000 | ppm | 0.9781 | 0.44 | 797400.0000 | 223.9000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0062 | ppm | 0.0005 | 8.64 | 197.7000 | 0.0062 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0523 | ppm | 0.0007 | 1.39 | 835.7000 | 0.0523 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2749 | ppm | 0.0007 | 0.27 | 1660.0000 | 0.2749 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4266 | ppm | 0.0013 | 0.31 | 15180.0000 | 0.4266 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 169.0000 | ppm | 0.4015 | 0.24 | 716000.0000 | 169.0000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 17.6500 | ppm | 0.0141 | 0.08 | 18380.0000 | 17.6500 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0722 | ppm | 0.0013 | 1.76 | 4766.0000 | 0.0722 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 39.3600 | ppm | 0.1501 | 0.38 | 87930.0000 | 39.3600 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.6690 | ppm | 0.0039 | 0.10 | 363500.0000 | 3.6690 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0212 | ppm | 0.0004 | 2.00 | 133.5000 | 0.0212 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.7800 | ppm | 0.0198 | 0.52 | 21090.0000 | 3.7800 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0986 | ppm | 0.0016 | 1.63 | 470.2000 | 0.0986 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.4930 | ppm | 0.0118 | 0.34 | 3191.0000 | 3.4930 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.8550 | ppm | 0.0024 | 0.13 | 3589.0000 | 1.8550 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0113 | ppm | 0.0006 | 4.99 | 14.8400 | 0.0113 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0055 | ppm | 0.0046 | 83.41 | -30.0600 | 0.0055 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.7734 | ppm | 0.0042 | 0.54 | 1719.0000 | 0.7734 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0349 | ppm | 0.0019 | 5.34 | 24.4100 | 0.0349 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0510 | ppm | 0.0023 | 0.22 | 330900.0000 | 1.0510 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 5.6760 | ppm | 0.0062 | 0.11 | 614900.0000 | 5.6760 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0002 u | ppm | 0.0014 | > 100.00 | -91.8500 | -0.0002 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2613 | ppm | 0.0002 | 0.09 | 7201.0000 | 0.2613 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0016 | ppm | 0.0001 | 5.61 | 13.0900 | 0.0016 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.4770 | ppm | 0.0010 | 0.07 | 33800.0000 | 1.4770 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0275 | ppm | 0.0001 | 0.20 | 2032.0000 | 0.0275 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9138 | 345300.0000 | 0.0005 | 0.05 |
| Y_R 371.029 | 0.9527 | 51320.0000 | 0.0028 | 0.29 |

Sample Name: 440-195320-a-11-n ms@5

Date: 11/2/2017 10:23:20 AM Rack:Tube: 1:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2006 | ppm | 0.0037 | 1.84 | 6854.0000 | 0.2006 (ppm) | Y 371.029 |
| Al (396.152 nm) | 90.9000 | ppm | 1.4740 | 1.62 | 2032000.0000 | 90.9000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4425 | ppm | 0.0115 | 2.60 | 359.8000 | 0.4425 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4230 | ppm | 0.0085 | 2.01 | 4527.0000 | 0.4230 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.2560 | ppm | 0.0454 | 3.61 | 92320.0000 | 1.2560 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.4006 | ppm | 0.0083 | 2.07 | 69760.0000 | 0.4006 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 229.2000 | ppm | 3.1050 | 1.35 | 816400.0000 | 229.2000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3772 | ppm | 0.0067 | 1.76 | 9399.0000 | 0.3772 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4238 | ppm | 0.0079 | 1.86 | 5912.0000 | 0.4238 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.6598 | ppm | 0.0103 | 1.57 | 3969.0000 | 0.6598 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.7826 | ppm | 0.0134 | 1.71 | 27720.0000 | 0.7826 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 171.2000 | ppm | 3.2990 | 1.93 | 725500.0000 | 171.2000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 24.9700 | ppm | 0.5524 | 2.21 | 26010.0000 | 24.9700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4717 | ppm | 0.0114 | 2.42 | 28270.0000 | 0.4717 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 44.7000 | ppm | 1.6990 | 3.80 | 99860.0000 | 44.7000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 4.2400 | ppm | 0.0740 | 1.75 | 417100.0000 | 4.2400 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4199 | ppm | 0.0084 | 2.00 | 2238.0000 | 0.4199 (ppm) | Y 371.029 |
| Na (589.592 nm) | 9.0690 | ppm | 0.1845 | 2.03 | 48320.0000 | 9.0690 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4716 | ppm | 0.0083 | 1.76 | 2249.0000 | 0.4716 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.4910 | ppm | 0.0555 | 1.24 | 4091.0000 | 4.4910 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.9960 | ppm | 0.0316 | 1.58 | 3856.0000 | 1.9960 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.2798 | ppm | 0.0093 | 3.31 | 325.2000 | 0.2798 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3720 | ppm | 0.0002 | 0.05 | 290.5000 | 0.3720 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.7620 | ppm | 0.0351 | 1.99 | 3905.0000 | 1.7620 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4144 | ppm | 0.0017 | 0.40 | 328.8000 | 0.4144 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.7070 | ppm | 0.0192 | 1.13 | 536000.0000 | 1.7070 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 8.8990 | ppm | 0.1523 | 1.71 | 964200.0000 | 8.8990 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3660 | ppm | 0.0070 | 1.91 | 422.2000 | 0.3660 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.6848 | ppm | 0.0114 | 1.67 | 18210.0000 | 0.6848 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.3029 | ppm | 0.0036 | 1.20 | 651.3000 | 0.3029 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.8940 | ppm | 0.0325 | 1.71 | 43350.0000 | 1.8940 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.4671 | ppm | 0.0074 | 1.58 | 32590.0000 | 0.4671 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9148 | 345700.0000 | 0.0040 | 0.44 |
| Y_R 371.029 | 0.9562 | 51510.0000 | 0.0234 | 2.45 |

Sample Name: CCV 4461459

Date: 11/2/2017 10:25:24 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5034 | ppm | 0.0012 | 0.24 | 17400.0000 | 0.5034 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0210 | ppm | 0.0065 | 0.64 | 22520.0000 | 1.0210 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0120 | ppm | 0.0071 | 0.70 | 815.5000 | 1.0120 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0110 | ppm | 0.0035 | 0.35 | 11200.0000 | 1.0110 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0010 | ppm | 0.0069 | 0.69 | 73570.0000 | 1.0010 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0110 | ppm | 0.0025 | 0.25 | 166700.0000 | 1.0110 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.0770 | ppm | 0.0282 | 0.56 | 18210.0000 | 5.0770 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0050 | ppm | 0.0022 | 0.22 | 24920.0000 | 1.0050 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0170 | ppm | 0.0043 | 0.43 | 13730.0000 | 1.0170 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0030 | ppm | 0.0019 | 0.19 | 6016.0000 | 1.0030 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0190 | ppm | 0.0019 | 0.19 | 35980.0000 | 1.0190 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0370 | ppm | 0.0064 | 0.62 | 4398.0000 | 1.0370 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.2800 | ppm | 0.0401 | 0.39 | 10640.0000 | 10.2800 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0150 | ppm | 0.0029 | 0.29 | 59390.0000 | 1.0150 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.0470 | ppm | 0.0401 | 0.79 | 11290.0000 | 5.0470 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0060 | ppm | 0.0013 | 0.13 | 94260.0000 | 1.0060 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0060 | ppm | 0.0004 | 0.04 | 5308.0000 | 1.0060 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.2800 | ppm | 0.0976 | 0.95 | 54500.0000 | 10.2800 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0060 | ppm | 0.0003 | 0.03 | 4798.0000 | 1.0060 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0070 | ppm | 0.0055 | 0.55 | 860.5000 | 1.0070 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0070 | ppm | 0.0000 | 0.00 | 1949.0000 | 1.0070 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9972 | ppm | 0.0067 | 0.67 | 1150.0000 | 0.9972 (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0030 | ppm | 0.0018 | 0.18 | 878.5000 | 1.0030 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.4580 | ppm | 0.2276 | 4.17 | 11820.0000 | 5.4580 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0080 | ppm | 0.0051 | 0.51 | 805.3000 | 1.0080 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0100 | ppm | 0.0030 | 0.30 | 315800.0000 | 1.0100 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0190 | ppm | 0.0011 | 0.11 | 110400.0000 | 1.0190 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0140 | ppm | 0.0001 | 0.01 | 1540.0000 | 1.0140 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0170 | ppm | 0.0027 | 0.27 | 26320.0000 | 1.0170 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0030 | ppm | 0.0014 | 0.14 | 2113.0000 | 1.0030 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0090 | ppm | 0.0017 | 0.17 | 23190.0000 | 1.0090 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0100 | ppm | 0.0017 | 0.17 | 70180.0000 | 1.0100 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9669 | 365400.0000 | 0.0014 | 0.15 |
| Y_R 371.029 | 0.9896 | 53310.0000 | 0.0074 | 0.75 |

Sample Name: CCB 4461458

Date: 11/2/2017 10:27:28 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0003 | ppm | 0.0001 | 20.30 | 10.6800 | 0.0003 (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0012 u | ppm | 0.0006 | 50.71 | -1208.0000 | -0.0012 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0025 | ppm | 0.0025 | > 100.00 | 8.3350 | 0.0025 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0014 | ppm | 0.0007 | 54.84 | 13.1300 | 0.0014 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0001 | 35.92 | 3.6500 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 66.80 | 25.4900 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0104 u | ppm | 0.0068 | 65.60 | 97.1700 | -0.0104 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 92.05 | -0.4000 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0004 u | ppm | 0.0001 | 16.35 | -15.9400 | -0.0004 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0006 | ppm | 0.0001 | 12.13 | 4.6960 | 0.0006 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0012 | ppm | 0.0001 | 8.62 | 204.9000 | 0.0012 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0039 | ppm | 0.0004 | 9.33 | 20.6500 | 0.0039 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0175 | ppm | 0.0219 | > 100.00 | -51.2100 | 0.0175 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0062 | ppm | 0.0010 | 16.20 | 376.3000 | 0.0062 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0020 | ppm | 0.0016 | 79.95 | 12.3900 | 0.0020 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0001 | 93.00 | 85.1400 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0038 | ppm | 0.0009 | 23.32 | 25.8500 | 0.0038 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.1021 | ppm | 0.0135 | 13.19 | 2080.0000 | 0.1021 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0004 u | ppm | 0.0006 | > 100.00 | 2.0680 | 0.0004 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0022 | ppm | 0.0023 | > 100.00 | -11.9000 | 0.0022 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0002 u | ppm | 0.0027 | > 100.00 | -5.4320 | -0.0002 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0074 | ppm | 0.0075 | > 100.00 | 3.5610 | 0.0074 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0043 | ppm | 0.0026 | 59.20 | 1.6010 | 0.0043 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0128 | ppm | 0.0024 | 18.61 | 45.7000 | 0.0128 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0050 | ppm | 0.0005 | 9.08 | 0.5993 | 0.0050 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 61.3700 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0014 | ppm | 0.0003 | 23.00 | 49.4200 | 0.0014 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0012 | ppm | 0.0013 | > 100.00 | -4.5080 | 0.0012 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0006 | ppm | 0.0001 | 21.69 | 55.9500 | 0.0006 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0040 | ppm | 0.0012 | 29.54 | 1.3170 | 0.0040 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0004 | ppm | 0.0001 | 30.79 | 88.9700 | 0.0004 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 | ppm | 0.0000 | 1.92 | -32.1400 | 0.0000 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9757 | 368700.0000 | 0.0038 | 0.39 |
| Y_R 371.029 | 0.9979 | 53760.0000 | 0.0054 | 0.54 |

Sample Name: 440-195320-a-11-o msd@5

Date: 11/2/2017 10:37:04 AM Rack:Tube: 1:21

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1964 | ppm | 0.0054 | 2.75 | 6705.0000 | 0.1964 (ppm) | Y 371.029 |
| Al (396.152 nm) | 95.2700 | ppm | 2.5840 | 2.71 | 2130000.0000 | 95.2700 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4199 | ppm | 0.0100 | 2.38 | 341.2000 | 0.4199 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4123 | ppm | 0.0092 | 2.23 | 4395.0000 | 0.4123 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.1410 | ppm | 0.0360 | 3.15 | 83890.0000 | 1.1410 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3891 | ppm | 0.0085 | 2.18 | 68150.0000 | 0.3891 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 204.5000 | ppm | 1.6740 | 0.82 | 728400.0000 | 204.5000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3666 | ppm | 0.0101 | 2.76 | 9141.0000 | 0.3666 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4147 | ppm | 0.0141 | 3.41 | 5775.0000 | 0.4147 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.7265 | ppm | 0.0193 | 2.66 | 4369.0000 | 0.7265 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.7420 | ppm | 0.0202 | 2.72 | 26320.0000 | 0.7420 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 183.0000 | ppm | 1.1580 | 0.63 | 775700.0000 | 183.0000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 23.0900 | ppm | 0.2676 | 1.16 | 24060.0000 | 23.0900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4724 | ppm | 0.0065 | 1.37 | 28310.0000 | 0.4724 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 54.0600 | ppm | 1.7700 | 3.27 | 120800.0000 | 54.0600 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 4.9310 | ppm | 0.1282 | 2.60 | 483100.0000 | 4.9310 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4037 | ppm | 0.0093 | 2.31 | 2154.0000 | 0.4037 (ppm) | Y 371.029 |
| Na (589.592 nm) | 8.5640 | ppm | 0.1067 | 1.25 | 45720.0000 | 8.5640 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4677 | ppm | 0.0096 | 2.05 | 2231.0000 | 0.4677 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.7940 | ppm | 0.1277 | 2.66 | 4373.0000 | 4.7940 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 2.1600 | ppm | 0.0512 | 2.37 | 4176.0000 | 2.1600 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.2795 | ppm | 0.0008 | 0.29 | 325.8000 | 0.2795 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3612 | ppm | 0.0123 | 3.39 | 279.1000 | 0.3612 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.5270 | ppm | 0.0327 | 2.14 | 3395.0000 | 1.5270 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.3996 | ppm | 0.0120 | 3.01 | 317.0000 | 0.3996 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.4810 | ppm | 0.0213 | 1.44 | 465100.0000 | 1.4810 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 8.1720 | ppm | 0.2107 | 2.58 | 885500.0000 | 8.1720 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3642 | ppm | 0.0111 | 3.04 | 431.8000 | 0.3642 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.7152 | ppm | 0.0176 | 2.46 | 18960.0000 | 0.7152 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.2884 | ppm | 0.0067 | 2.33 | 618.5000 | 0.2884 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.7270 | ppm | 0.0436 | 2.52 | 39530.0000 | 1.7270 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.4057 | ppm | 0.0099 | 2.45 | 28330.0000 | 0.4057 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9235 | 349000.0000 | 0.0012 | 0.13 |
| Y_R 371.029 | 0.9659 | 52030.0000 | 0.0093 | 0.97 |

Sample Name: 440-195320-a-11-m pds@5

Date: 11/2/2017 10:39:09 AM Rack:Tube: 1:22

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2146 | ppm | 0.0005 | 0.25 | 7341.0000 | 0.2146 (ppm) | Y 371.029 |
| Al (396.152 nm) | 75.7500 | ppm | 0.0675 | 0.09 | 1693000.0000 | 75.7500 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4642 | ppm | 0.0018 | 0.39 | 377.1000 | 0.4642 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4741 | ppm | 0.0011 | 0.23 | 5078.0000 | 0.4741 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.1530 | ppm | 0.0012 | 0.11 | 84760.0000 | 1.1530 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.4273 | ppm | 0.0019 | 0.44 | 74290.0000 | 0.4273 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 235.9000 | ppm | 1.7580 | 0.75 | 840000.0000 | 235.9000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4025 | ppm | 0.0018 | 0.43 | 10030.0000 | 0.4025 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4570 | ppm | 0.0025 | 0.56 | 6308.0000 | 0.4570 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.7011 | ppm | 0.0017 | 0.25 | 4216.0000 | 0.7011 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.8891 | ppm | 0.0014 | 0.16 | 31450.0000 | 0.8891 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 176.1000 | ppm | 0.6567 | 0.37 | 746400.0000 | 176.1000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 22.7200 | ppm | 0.0790 | 0.35 | 23670.0000 | 22.7200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.5100 | ppm | 0.0027 | 0.53 | 30420.0000 | 0.5100 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 43.1400 | ppm | 0.1288 | 0.30 | 96380.0000 | 43.1400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 4.2670 | ppm | 0.0014 | 0.03 | 420400.0000 | 4.2670 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4461 | ppm | 0.0004 | 0.10 | 2373.0000 | 0.4461 (ppm) | Y 371.029 |
| Na (589.592 nm) | 8.0580 | ppm | 0.0821 | 1.02 | 43120.0000 | 8.0580 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4986 | ppm | 0.0002 | 0.04 | 2378.0000 | 0.4986 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.0700 | ppm | 0.0082 | 0.20 | 3698.0000 | 4.0700 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 2.3450 | ppm | 0.0043 | 0.18 | 4539.0000 | 2.3450 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.4337 | ppm | 0.0052 | 1.21 | 504.4000 | 0.4337 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3982 | ppm | 0.0033 | 0.82 | 313.6000 | 0.3982 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.9620 | ppm | 0.0043 | 0.15 | 6456.0000 | 2.9620 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4521 | ppm | 0.0042 | 0.94 | 359.3000 | 0.4521 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.5210 | ppm | 0.0199 | 1.31 | 477800.0000 | 1.5210 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 6.4180 | ppm | 0.0069 | 0.11 | 695300.0000 | 6.4180 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4030 | ppm | 0.0029 | 0.72 | 517.6000 | 0.4030 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.7054 | ppm | 0.0004 | 0.06 | 18700.0000 | 0.7054 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.4242 | ppm | 0.0003 | 0.08 | 906.3000 | 0.4242 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.9240 | ppm | 0.0012 | 0.06 | 44040.0000 | 1.9240 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.4564 | ppm | 0.0010 | 0.21 | 31860.0000 | 0.4564 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9180 | 346900.0000 | 0.0034 | 0.37 |
| Y_R 371.029 | 0.9630 | 51870.0000 | 0.0066 | 0.69 |

Sample Name: 440-195320-a-11-m sd@25

Date: 11/2/2017 10:41:13 AM
Rack:Tube: 1:23
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0009 u | ppm | 0.0001 | 11.82 | -46.2600 | -0.0009 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 14.8000 | ppm | 0.3320 | 2.24 | 329900.0000 | 14.8000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0084 | ppm | 0.0059 | 69.55 | 12.9600 | 0.0084 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0108 | ppm | 0.0001 | 0.78 | 83.3400 | 0.0108 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1571 | ppm | 0.0039 | 2.51 | 11540.0000 | 0.1571 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0006 | ppm | 0.0001 | 19.97 | 881.6000 | 0.0006 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 45.5500 | ppm | 0.2327 | 0.51 | 162300.0000 | 45.5500 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0015 | ppm | 0.0003 | 19.84 | 42.9700 | 0.0015 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0117 | ppm | 0.0001 | 1.01 | 176.2000 | 0.0117 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0594 | ppm | 0.0010 | 1.75 | 359.4000 | 0.0594 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0889 | ppm | 0.0017 | 1.96 | 3295.0000 | 0.0889 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 35.3800 | ppm | 0.0968 | 0.27 | 149900.0000 | 35.3800 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 3.6910 | ppm | 0.0421 | 1.14 | 3789.0000 | 3.6910 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0202 | ppm | 0.0011 | 5.43 | 1307.0000 | 0.0202 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 8.6070 | ppm | 0.2314 | 2.69 | 19240.0000 | 8.6070 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.7942 | ppm | 0.0179 | 2.25 | 78610.0000 | 0.7942 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0042 | ppm | 0.0002 | 5.84 | 31.1700 | 0.0042 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.7414 | ppm | 0.0160 | 2.15 | 5388.0000 | 0.7414 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0204 | ppm | 0.0010 | 4.73 | 97.1500 | 0.0204 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.7428 | ppm | 0.0147 | 1.97 | 667.7000 | 0.7428 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4060 | ppm | 0.0092 | 2.27 | 781.4000 | 0.4060 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0065 | ppm | 0.0027 | 40.99 | 3.9900 | 0.0065 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0003 u | ppm | 0.0022 | > 100.00 | -9.3180 | -0.0003 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.1715 | ppm | 0.0101 | 5.89 | 394.6000 | 0.1715 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0109 | ppm | 0.0012 | 10.97 | 5.2820 | 0.0109 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.2135 | ppm | 0.0010 | 0.46 | 67270.0000 | 0.2135 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.2040 | ppm | 0.0244 | 2.03 | 130300.0000 | 1.2040 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0003 | ppm | 0.0001 | 42.74 | -23.8000 | 0.0003 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0565 | ppm | 0.0010 | 1.70 | 1585.0000 | 0.0565 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0009 | ppm | 0.0004 | 46.70 | -1.3060 | 0.0009 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.3233 | ppm | 0.0071 | 2.20 | 7459.0000 | 0.3233 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0054 | ppm | 0.0002 | 3.50 | 375.3000 | 0.0054 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9764 | 369000.0000 | 0.0006 | 0.06 |
| Y_R 371.029 | 1.0030 | 54040.0000 | 0.0052 | 0.51 |

Sample Name: 440-195320-a-3-g@5

Date: 11/2/2017 10:43:18 AM Rack:Tube: 1:24

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0009 u | ppm | 0.0002 | 18.68 | -111.2000 | -0.0009 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 91.9300 | ppm | 3.2310 | 3.51 | 2055000.0000 | 91.9300 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0489 | ppm | 0.0036 | 7.27 | 45.9700 | 0.0489 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0266 | ppm | 0.0013 | 5.00 | 138.2000 | 0.0266 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.7368 | ppm | 0.0217 | 2.94 | 54160.0000 | 0.7368 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0042 | ppm | 0.0013 | 30.84 | 4073.0000 | 0.0042 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 193.9000 | ppm | 0.9449 | 0.49 | 690800.0000 | 193.9000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0045 | ppm | 0.0004 | 8.23 | 151.5000 | 0.0045 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0504 | ppm | 0.0011 | 2.20 | 854.0000 | 0.0504 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1901 | ppm | 0.0067 | 3.52 | 1151.0000 | 0.1901 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.6780 | ppm | 0.0233 | 3.44 | 24040.0000 | 0.6780 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 154.8000 | ppm | 0.4531 | 0.29 | 656100.0000 | 154.8000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 23.3200 | ppm | 0.1084 | 0.46 | 24290.0000 | 23.3200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0936 | ppm | 0.0004 | 0.38 | 6155.0000 | 0.0936 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 50.3300 | ppm | 1.4770 | 2.93 | 112500.0000 | 50.3300 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.1950 | ppm | 0.1140 | 3.57 | 317700.0000 | 3.1950 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0071 | ppm | 0.0012 | 17.16 | 62.2700 | 0.0071 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.8450 | ppm | 0.0148 | 0.31 | 26570.0000 | 4.8450 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1006 | ppm | 0.0036 | 3.59 | 480.1000 | 0.1006 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.9270 | ppm | 0.1622 | 3.29 | 4506.0000 | 4.9270 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.6180 | ppm | 0.0515 | 3.19 | 3124.0000 | 1.6180 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0388 | ppm | 0.0060 | 15.41 | 46.8200 | 0.0388 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0034 | ppm | 0.0011 | 31.82 | -29.7000 | 0.0034 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.5209 | ppm | 0.0179 | 3.44 | 1198.0000 | 0.5209 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.1141 | ppm | 0.0104 | 9.11 | 87.7400 | 0.1141 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.6137 | ppm | 0.0024 | 0.39 | 193900.0000 | 0.6137 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 7.8940 | ppm | 0.2620 | 3.32 | 855300.0000 | 7.8940 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0039 u | ppm | 0.0063 | > 100.00 | -133.0000 | -0.0039 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3033 | ppm | 0.0102 | 3.37 | 8315.0000 | 0.3033 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0055 | ppm | 0.0018 | 31.82 | 12.5200 | 0.0055 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9177 | ppm | 0.0307 | 3.34 | 21130.0000 | 0.9177 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0213 | ppm | 0.0005 | 2.46 | 1581.0000 | 0.0213 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9219 | 348400.0000 | 0.0021 | 0.23 |
| Y_R 371.029 | 0.9621 | 51830.0000 | 0.0060 | 0.62 |

Sample Name: 440-195320-a-4-d@5

Date: 11/2/2017 10:45:22 AM Rack:Tube: 1:25

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0011 u | ppm | 0.0001 | 6.55 | -90.5100 | -0.0011 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 67.5700 | ppm | 2.4010 | 3.55 | 1510000.0000 | 67.5700 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0297 | ppm | 0.0042 | 14.26 | 30.9000 | 0.0297 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0085 | ppm | 0.0007 | 8.63 | -30.3400 | 0.0085 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4450 | ppm | 0.0196 | 4.40 | 32710.0000 | 0.4450 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0029 | ppm | 0.0006 | 20.74 | 3116.0000 | 0.0029 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 54.7200 | ppm | 0.6209 | 1.13 | 195000.0000 | 54.7200 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0019 | ppm | 0.0000 | 0.85 | 77.7600 | 0.0019 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0450 | ppm | 0.0021 | 4.62 | 747.7000 | 0.0450 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1315 | ppm | 0.0044 | 3.31 | 795.8000 | 0.1315 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.2036 | ppm | 0.0069 | 3.40 | 7426.0000 | 0.2036 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 120.9000 | ppm | 1.8770 | 1.55 | 512200.0000 | 120.9000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 16.3900 | ppm | 0.1471 | 0.90 | 17050.0000 | 16.3900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0913 | ppm | 0.0016 | 1.74 | 5785.0000 | 0.0913 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 37.9500 | ppm | 1.6750 | 4.41 | 84800.0000 | 37.9500 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.4560 | ppm | 0.0875 | 3.56 | 244500.0000 | 2.4560 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0040 | ppm | 0.0003 | 8.18 | 41.2200 | 0.0040 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.7930 | ppm | 0.0241 | 1.34 | 10830.0000 | 1.7930 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0793 | ppm | 0.0017 | 2.15 | 380.0000 | 0.0793 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.9810 | ppm | 0.1318 | 3.31 | 3652.0000 | 3.9810 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.3976 | ppm | 0.0142 | 3.58 | 755.7000 | 0.3976 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0087 | ppm | 0.0038 | 43.57 | 9.6090 | 0.0087 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0033 | ppm | 0.0018 | 53.76 | -22.5200 | 0.0033 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.4580 | ppm | 0.0742 | 5.09 | 3174.0000 | 1.4580 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0225 | ppm | 0.0006 | 2.72 | 14.3600 | 0.0225 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0390 | ppm | 0.0130 | 1.25 | 325400.0000 | 1.0390 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 6.5870 | ppm | 0.2176 | 3.30 | 713800.0000 | 6.5870 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0018 u | ppm | 0.0011 | 59.81 | -109.2000 | -0.0018 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2470 | ppm | 0.0089 | 3.60 | 6673.0000 | 0.2470 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0000 u | ppm | 0.0017 | > 100.00 | -3.6730 | 0.0000 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4252 | ppm | 0.0136 | 3.20 | 9821.0000 | 0.4252 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0115 | ppm | 0.0003 | 2.51 | 860.4000 | 0.0115 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9484 | 358400.0000 | 0.0003 | 0.03 |
| Y_R 371.029 | 0.9778 | 52670.0000 | 0.0094 | 0.97 |

Sample Name: 440-195320-a-5-e@5

Date: 11/2/2017 10:47:27 AM Rack:Tube: 1:26

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0004 u | ppm | 0.0004 | 81.02 | -88.6700 | -0.0004 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 87.9700 | ppm | 1.1820 | 1.34 | 1966000.0000 | 87.9700 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0428 | ppm | 0.0019 | 4.53 | 41.5500 | 0.0428 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0259 | ppm | 0.0001 | 0.57 | 127.4000 | 0.0259 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.7315 | ppm | 0.0050 | 0.68 | 53770.0000 | 0.7315 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0043 | ppm | 0.0006 | 12.95 | 4124.0000 | 0.0043 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 150.8000 | ppm | 1.1760 | 0.78 | 537100.0000 | 150.8000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0043 | ppm | 0.0001 | 1.39 | 146.7000 | 0.0043 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0489 | ppm | 0.0009 | 1.78 | 827.3000 | 0.0489 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1581 | ppm | 0.0020 | 1.27 | 958.8000 | 0.1581 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.7490 | ppm | 0.0277 | 1.59 | 61710.0000 | 1.7490 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 156.8000 | ppm | 0.1921 | 0.12 | 664600.0000 | 156.8000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 24.7700 | ppm | 0.0008 | 0.00 | 25790.0000 | 24.7700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0958 | ppm | 0.0013 | 1.34 | 6128.0000 | 0.0958 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 45.8500 | ppm | 0.4007 | 0.87 | 102400.0000 | 45.8500 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.1970 | ppm | 0.0435 | 1.36 | 318200.0000 | 3.1970 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0164 | ppm | 0.0005 | 3.05 | 110.8000 | 0.0164 (ppm) | Y 371.029 |
| Na (589.592 nm) | 5.0290 | ppm | 0.0130 | 0.26 | 27510.0000 | 5.0290 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1055 | ppm | 0.0013 | 1.23 | 504.1000 | 0.1055 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.2900 | ppm | 0.0751 | 1.75 | 3882.0000 | 4.2900 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.1960 | ppm | 0.0146 | 1.22 | 2304.0000 | 1.1960 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0325 | ppm | 0.0021 | 6.59 | 38.6400 | 0.0325 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0033 u | ppm | 0.0048 | > 100.00 | -29.9900 | 0.0033 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.4592 | ppm | 0.0071 | 1.54 | 1061.0000 | 0.4592 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.1651 | ppm | 0.0017 | 1.05 | 128.7000 | 0.1651 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.6043 | ppm | 0.0029 | 0.49 | 190500.0000 | 0.6043 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 7.5790 | ppm | 0.0683 | 0.90 | 821200.0000 | 7.5790 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0012 u | ppm | 0.0008 | 66.74 | -123.5000 | -0.0012 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2910 | ppm | 0.0036 | 1.24 | 7940.0000 | 0.2910 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0038 | ppm | 0.0015 | 40.21 | 7.1370 | 0.0038 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.7520 | ppm | 0.0088 | 1.16 | 17540.0000 | 0.7520 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0219 | ppm | 0.0002 | 0.79 | 1621.0000 | 0.0219 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9353 | 353400.0000 | 0.0013 | 0.13 |
| Y_R 371.029 | 0.9729 | 52410.0000 | 0.0048 | 0.49 |

Sample Name: 440-195320-a-6-d@5

Date: 11/2/2017 10:49:31 AM Rack:Tube: 1:27

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0009 u | ppm | 0.0003 | 30.33 | -123.0000 | -0.0009 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 94.5200 | ppm | 3.0930 | 3.27 | 2112000.0000 | 94.5200 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0390 | ppm | 0.0115 | 29.34 | 38.2800 | 0.0390 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0326 | ppm | 0.0012 | 3.77 | 141.9000 | 0.0326 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.7674 | ppm | 0.0131 | 1.71 | 56410.0000 | 0.7674 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0053 | ppm | 0.0017 | 31.25 | 5627.0000 | 0.0053 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 182.0000 | ppm | 1.9620 | 1.08 | 648200.0000 | 182.0000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0087 | ppm | 0.0005 | 5.90 | 272.1000 | 0.0087 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0563 | ppm | 0.0026 | 4.60 | 939.7000 | 0.0563 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2493 | ppm | 0.0080 | 3.23 | 1508.0000 | 0.2493 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.6698 | ppm | 0.0235 | 3.51 | 23810.0000 | 0.6698 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 217.4000 | ppm | 0.3832 | 0.18 | 921200.0000 | 217.4000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 23.2200 | ppm | 0.0385 | 0.17 | 24190.0000 | 23.2200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0929 | ppm | 0.0017 | 1.84 | 6060.0000 | 0.0929 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 54.3900 | ppm | 0.8896 | 1.64 | 121500.0000 | 54.3900 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 4.3900 | ppm | 0.1578 | 3.59 | 437100.0000 | 4.3900 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0656 | ppm | 0.0014 | 2.20 | 372.7000 | 0.0656 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.6820 | ppm | 0.0178 | 0.48 | 20590.0000 | 3.6820 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1211 | ppm | 0.0033 | 2.69 | 579.0000 | 0.1211 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.6970 | ppm | 0.1712 | 3.65 | 4292.0000 | 4.6970 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.8040 | ppm | 0.0644 | 3.57 | 3484.0000 | 1.8040 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0179 | ppm | 0.0016 | 9.17 | 21.9700 | 0.0179 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0031 u | ppm | 0.0044 | > 100.00 | -41.3900 | 0.0031 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.4655 | ppm | 0.0086 | 1.85 | 1077.0000 | 0.4655 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0460 | ppm | 0.0003 | 0.76 | 33.2200 | 0.0460 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9890 | ppm | 0.0008 | 0.08 | 311100.0000 | 0.9890 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 7.8460 | ppm | 0.2587 | 3.30 | 850100.0000 | 7.8460 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0010 u | ppm | 0.0040 | > 100.00 | -124.5000 | -0.0010 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3210 | ppm | 0.0106 | 3.30 | 8748.0000 | 0.3210 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0013 u | ppm | 0.0036 | > 100.00 | 2.6750 | -0.0013 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.2090 | ppm | 0.0405 | 3.35 | 27760.0000 | 1.2090 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0223 | ppm | 0.0008 | 3.55 | 1701.0000 | 0.0223 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9266 | 350100.0000 | 0.0024 | 0.26 |
| Y_R 371.029 | 0.9632 | 51890.0000 | 0.0196 | 2.03 |

Sample Name: 440-195320-a-7-d@5

Date: 11/2/2017 10:51:35 AM Rack:Tube: 1:28

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0013 u | ppm | 0.0003 | 26.09 | -106.9000 | -0.0013 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 75.6100 | ppm | 1.2660 | 1.67 | 1690000.0000 | 75.6100 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0306 | ppm | 0.0029 | 9.41 | 31.4000 | 0.0306 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0242 | ppm | 0.0006 | 2.53 | 133.2000 | 0.0242 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.5907 | ppm | 0.0121 | 2.05 | 43420.0000 | 0.5907 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0029 | ppm | 0.0002 | 7.35 | 3378.0000 | 0.0029 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 125.7000 | ppm | 0.3263 | 0.26 | 447800.0000 | 125.7000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0027 | ppm | 0.0001 | 5.38 | 100.5000 | 0.0027 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0419 | ppm | 0.0007 | 1.66 | 710.4000 | 0.0419 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1550 | ppm | 0.0021 | 1.38 | 938.5000 | 0.1550 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.3979 | ppm | 0.0077 | 1.94 | 14220.0000 | 0.3979 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 132.7000 | ppm | 0.8741 | 0.66 | 562300.0000 | 132.7000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 20.9100 | ppm | 0.0023 | 0.01 | 21770.0000 | 20.9100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0855 | ppm | 0.0010 | 1.17 | 5532.0000 | 0.0855 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 38.9000 | ppm | 0.7414 | 1.91 | 86920.0000 | 38.9000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.7330 | ppm | 0.0481 | 1.76 | 271800.0000 | 2.7330 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0079 | ppm | 0.0007 | 9.30 | 63.5700 | 0.0079 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.7510 | ppm | 0.0252 | 0.67 | 20920.0000 | 3.7510 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0786 | ppm | 0.0005 | 0.57 | 375.6000 | 0.0786 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.3040 | ppm | 0.0677 | 1.57 | 3942.0000 | 4.3040 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0160 | ppm | 0.0174 | 1.71 | 1956.0000 | 1.0160 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0148 | ppm | 0.0026 | 17.29 | 17.4200 | 0.0148 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0019 | ppm | 0.0005 | 27.67 | -26.3600 | 0.0019 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.5299 | ppm | 0.0114 | 2.16 | 1203.0000 | 0.5299 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0474 | ppm | 0.0014 | 2.90 | 34.2900 | 0.0474 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.4345 | ppm | 0.0009 | 0.21 | 137200.0000 | 0.4345 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 6.7000 | ppm | 0.1166 | 1.74 | 726000.0000 | 6.7000 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0011 u | ppm | 0.0003 | 23.66 | -110.1000 | -0.0011 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2596 | ppm | 0.0042 | 1.63 | 7076.0000 | 0.2596 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0021 | ppm | 0.0024 | > 100.00 | 2.4130 | 0.0021 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.6264 | ppm | 0.0100 | 1.59 | 14440.0000 | 0.6264 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0163 | ppm | 0.0003 | 1.82 | 1212.0000 | 0.0163 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9381 | 354500.0000 | 0.0008 | 0.08 |
| Y_R 371.029 | 0.9776 | 52660.0000 | 0.0015 | 0.15 |

Sample Name: 440-195320-a-8-d@5

Date: 11/2/2017 10:53:40 AM Rack:Tube: 1:29

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0013 u | ppm | 0.0004 | 31.55 | -89.5900 | -0.0013 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 55.3800 | ppm | 3.2630 | 5.89 | 1237000.0000 | 55.3800 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0265 | ppm | 0.0013 | 5.02 | 28.3000 | 0.0265 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0328 | ppm | 0.0010 | 2.98 | 253.6000 | 0.0328 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.3568 | ppm | 0.0177 | 4.95 | 26220.0000 | 0.3568 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0036 | ppm | 0.0011 | 30.16 | 2974.0000 | 0.0036 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 46.6000 | ppm | 0.0597 | 0.13 | 166100.0000 | 46.6000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0018 | ppm | 0.0002 | 9.74 | 69.8200 | 0.0018 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0341 | ppm | 0.0029 | 8.60 | 570.2000 | 0.0341 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1143 | ppm | 0.0076 | 6.61 | 692.0000 | 0.1143 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1707 | ppm | 0.0097 | 5.70 | 6257.0000 | 0.1707 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 108.7000 | ppm | 0.5385 | 0.50 | 460800.0000 | 108.7000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 13.8400 | ppm | 0.1669 | 1.21 | 14390.0000 | 13.8400 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0671 | ppm | 0.0023 | 3.44 | 4282.0000 | 0.0671 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 32.8400 | ppm | 1.6720 | 5.09 | 73380.0000 | 32.8400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.0550 | ppm | 0.1210 | 5.89 | 205600.0000 | 2.0550 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0048 | ppm | 0.0009 | 18.36 | 43.1400 | 0.0048 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.9850 | ppm | 0.0299 | 1.50 | 11810.0000 | 1.9850 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0614 | ppm | 0.0036 | 5.91 | 294.3000 | 0.0614 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.7540 | ppm | 0.2096 | 5.58 | 3444.0000 | 3.7540 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.3333 | ppm | 0.0170 | 5.11 | 632.9000 | 0.3333 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0035 | ppm | 0.0046 | > 100.00 | 2.7550 | 0.0035 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0035 u | ppm | 0.0061 | > 100.00 | -20.0400 | 0.0035 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.6110 | ppm | 0.1143 | 7.10 | 3487.0000 | 1.6110 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0198 | ppm | 0.0027 | 13.72 | 12.2100 | 0.0198 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.7684 | ppm | 0.0004 | 0.05 | 240800.0000 | 0.7684 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 5.1690 | ppm | 0.2933 | 5.67 | 560100.0000 | 5.1690 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0024 u | ppm | 0.0056 | > 100.00 | -89.9500 | -0.0024 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2470 | ppm | 0.0141 | 5.72 | 6632.0000 | 0.2470 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0021 u | ppm | 0.0037 | > 100.00 | -8.2790 | -0.0021 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.3847 | ppm | 0.0216 | 5.60 | 8887.0000 | 0.3847 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0103 | ppm | 0.0007 | 6.57 | 770.4000 | 0.0103 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9455 | 357300.0000 | 0.0023 | 0.24 |
| Y_R 371.029 | 0.9770 | 52630.0000 | 0.0076 | 0.78 |

Sample Name: 440-195320-a-9-d@5

Date: 11/2/2017 10:55:44 AM Rack:Tube: 1:30

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0009 u | ppm | 0.0005 | 54.67 | -101.6000 | -0.0009 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 83.5300 | ppm | 3.0480 | 3.65 | 1867000.0000 | 83.5300 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0508 | ppm | 0.0066 | 13.02 | 47.9200 | 0.0508 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0296 | ppm | 0.0001 | 0.33 | 177.7000 | 0.0296 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.7028 | ppm | 0.0271 | 3.85 | 51660.0000 | 0.7028 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0041 | ppm | 0.0009 | 22.68 | 3907.0000 | 0.0041 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 152.4000 | ppm | 1.4460 | 0.95 | 542700.0000 | 152.4000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0042 | ppm | 0.0004 | 10.22 | 142.1000 | 0.0042 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0471 | ppm | 0.0014 | 2.95 | 793.6000 | 0.0471 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1482 | ppm | 0.0048 | 3.26 | 898.8000 | 0.1482 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.6627 | ppm | 0.0229 | 3.45 | 23520.0000 | 0.6627 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 147.5000 | ppm | 1.9500 | 1.32 | 625100.0000 | 147.5000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 23.0600 | ppm | 0.4193 | 1.82 | 24010.0000 | 23.0600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0972 | ppm | 0.0044 | 4.52 | 6263.0000 | 0.0972 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 43.8000 | ppm | 1.6420 | 3.75 | 97870.0000 | 43.8000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.3090 | ppm | 0.1278 | 3.86 | 327400.0000 | 3.3090 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0049 | ppm | 0.0006 | 11.46 | 49.5400 | 0.0049 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.6700 | ppm | 0.0548 | 1.17 | 25650.0000 | 4.6700 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0995 | ppm | 0.0038 | 3.86 | 475.0000 | 0.0995 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.5380 | ppm | 0.1735 | 3.82 | 4149.0000 | 4.5380 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.8080 | ppm | 0.0578 | 3.20 | 3495.0000 | 1.8080 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0289 | ppm | 0.0010 | 3.34 | 34.2300 | 0.0289 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0034 | ppm | 0.0014 | 39.94 | -27.9300 | 0.0034 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.5070 | ppm | 0.0520 | 3.45 | 3290.0000 | 1.5070 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0856 | ppm | 0.0018 | 2.10 | 64.9500 | 0.0856 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5603 | ppm | 0.0114 | 2.04 | 176800.0000 | 0.5603 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 7.2120 | ppm | 0.2809 | 3.89 | 781400.0000 | 7.2120 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0008 u | ppm | 0.0045 | > 100.00 | -116.4000 | -0.0008 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2746 | ppm | 0.0104 | 3.79 | 7509.0000 | 0.2746 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0032 | ppm | 0.0016 | 50.70 | 6.9710 | 0.0032 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.8173 | ppm | 0.0294 | 3.60 | 18830.0000 | 0.8173 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0197 | ppm | 0.0008 | 4.13 | 1463.0000 | 0.0197 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9314 | 352000.0000 | 0.0014 | 0.15 |
| Y_R 371.029 | 0.9619 | 51820.0000 | 0.0030 | 0.31 |

Sample Name: CCV 4461459

Date: 11/2/2017 10:57:48 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5000 | ppm | 0.0015 | 0.30 | 17290.0000 | 0.5000 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0150 | ppm | 0.0072 | 0.71 | 22390.0000 | 1.0150 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9942 | ppm | 0.0052 | 0.52 | 801.3000 | 0.9942 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0000 | ppm | 0.0024 | 0.24 | 11080.0000 | 1.0000 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9981 | ppm | 0.0011 | 0.11 | 73330.0000 | 0.9981 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0030 | ppm | 0.0026 | 0.26 | 165300.0000 | 1.0030 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.0480 | ppm | 0.0320 | 0.63 | 18110.0000 | 5.0480 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9943 | ppm | 0.0012 | 0.12 | 24660.0000 | 0.9943 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0060 | ppm | 0.0034 | 0.34 | 13570.0000 | 1.0060 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9933 | ppm | 0.0007 | 0.07 | 5957.0000 | 0.9933 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0140 | ppm | 0.0033 | 0.33 | 35800.0000 | 1.0140 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0230 | ppm | 0.0108 | 1.06 | 4336.0000 | 1.0230 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.2100 | ppm | 0.1414 | 1.39 | 10570.0000 | 10.2100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0160 | ppm | 0.0025 | 0.24 | 59450.0000 | 1.0160 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.0330 | ppm | 0.0027 | 0.05 | 11260.0000 | 5.0330 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9970 | ppm | 0.0023 | 0.23 | 93450.0000 | 0.9970 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9957 | ppm | 0.0039 | 0.40 | 5253.0000 | 0.9957 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.0700 | ppm | 0.0540 | 0.54 | 53420.0000 | 10.0700 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9968 | ppm | 0.0003 | 0.03 | 4755.0000 | 0.9968 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9999 | ppm | 0.0009 | 0.09 | 853.8000 | 0.9999 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9991 | ppm | 0.0027 | 0.27 | 1933.0000 | 0.9991 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9939 | ppm | 0.0021 | 0.21 | 1146.0000 | 0.9939 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9986 | ppm | 0.0017 | 0.17 | 874.6000 | 0.9986 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.2870 | ppm | 0.2136 | 4.04 | 11450.0000 | 5.2870 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0010 | ppm | 0.0006 | 0.06 | 800.0000 | 1.0010 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0020 | ppm | 0.0057 | 0.57 | 313300.0000 | 1.0020 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0140 | ppm | 0.0014 | 0.14 | 109800.0000 | 1.0140 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0060 | ppm | 0.0043 | 0.43 | 1528.0000 | 1.0060 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0120 | ppm | 0.0032 | 0.32 | 26200.0000 | 1.0120 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9943 | ppm | 0.0031 | 0.31 | 2094.0000 | 0.9943 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9965 | ppm | 0.0025 | 0.25 | 22920.0000 | 0.9965 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0000 | ppm | 0.0033 | 0.33 | 69500.0000 | 1.0000 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9786 | 369800.0000 | 0.0063 | 0.64 |
| Y_R 371.029 | 0.9972 | 53720.0000 | 0.0053 | 0.53 |

Sample Name: CCB 4461458

Date: 11/2/2017 10:59:53 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0004 | ppm | 0.0000 | 3.43 | 13.2300 | 0.0004 (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0005 u | ppm | 0.0005 | 90.99 | -1195.0000 | -0.0005 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0063 | ppm | 0.0024 | 38.10 | 11.4800 | 0.0063 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0007 | ppm | 0.0005 | 73.99 | 5.3820 | 0.0007 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0000 | 22.59 | 0.0505 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 96.21 | 20.6900 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0104 u | ppm | 0.0078 | 74.84 | 97.4100 | -0.0104 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | 0.0324 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0006 u | ppm | 0.0001 | 26.50 | -18.2300 | -0.0006 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0005 | ppm | 0.0003 | 57.27 | 4.0400 | 0.0005 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0010 | ppm | 0.0002 | 19.57 | 199.9000 | 0.0010 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0035 | ppm | 0.0003 | 7.83 | 18.7600 | 0.0035 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1216 | ppm | 0.0271 | 22.25 | 57.2000 | 0.1216 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0085 | ppm | 0.0012 | 13.52 | 513.8000 | 0.0085 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0011 | ppm | 0.0013 | > 100.00 | 10.2900 | 0.0011 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0000 | 26.65 | 88.5500 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0037 | ppm | 0.0001 | 2.65 | 24.9000 | 0.0037 (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0234 u | ppm | 0.0124 | 53.04 | 1435.0000 | -0.0234 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0003 | ppm | 0.0001 | 29.87 | 1.5050 | 0.0003 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0086 | ppm | 0.0067 | 78.11 | -5.9720 | 0.0086 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0002 u | ppm | 0.0013 | > 100.00 | -4.6160 | 0.0002 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0065 | ppm | 0.0050 | 77.73 | 2.4770 | 0.0065 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0022 | ppm | 0.0014 | 63.57 | -0.2757 | 0.0022 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0086 | ppm | 0.0024 | 28.25 | 36.6600 | 0.0086 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0025 | ppm | 0.0008 | 30.98 | -1.3980 | 0.0025 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 66.8300 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0013 | ppm | 0.0004 | 32.28 | 44.0200 | 0.0013 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0015 | ppm | 0.0002 | 13.68 | -3.9250 | 0.0015 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | 41.8900 | 0.0000 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0034 | ppm | 0.0013 | 39.70 | 0.0135 | 0.0034 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0003 | ppm | 0.0002 | 52.59 | 87.3500 | 0.0003 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 37.85 | -26.8900 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9872 | 373100.0000 | 0.0032 | 0.32 |
| Y_R 371.029 | 1.0060 | 54200.0000 | 0.0041 | 0.40 |

Sample Name: 440-195320-a-10-d@5

Date: 11/2/2017 11:01:57 AM Rack:Tube: 1:31

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0002 | ppm | 0.0002 | 65.02 | -58.7000 | 0.0002 (ppm) | Y 371.029 |
| Al (396.152 nm) | 69.2900 | ppm | 0.8223 | 1.19 | 1548000.0000 | 69.2900 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0503 | ppm | 0.0028 | 5.63 | 40.7900 | 0.0503 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0825 | ppm | 0.0001 | 0.14 | 711.6000 | 0.0825 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9206 | ppm | 0.0056 | 0.61 | 67670.0000 | 0.9206 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0034 | ppm | 0.0004 | 10.53 | 5020.0000 | 0.0034 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 178.8000 | ppm | 2.1460 | 1.20 | 636800.0000 | 178.8000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0131 | ppm | 0.0001 | 0.98 | 379.1000 | 0.0131 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0569 | ppm | 0.0004 | 0.79 | 908.5000 | 0.0569 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.8412 | ppm | 0.0096 | 1.14 | 5058.0000 | 0.8412 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.7503 | ppm | 0.0084 | 1.12 | 26620.0000 | 0.7503 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 203.2000 | ppm | 0.8006 | 0.39 | 861000.0000 | 203.2000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 18.9800 | ppm | 0.0306 | 0.16 | 19770.0000 | 18.9800 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0829 | ppm | 0.0003 | 0.32 | 5148.0000 | 0.0829 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 54.8300 | ppm | 0.5033 | 0.92 | 122500.0000 | 54.8300 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 8.0940 | ppm | 0.0737 | 0.91 | 780000.0000 | 8.0940 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0145 | ppm | 0.0008 | 5.73 | 99.9600 | 0.0145 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.3390 | ppm | 0.0152 | 0.46 | 18820.0000 | 3.3390 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1109 | ppm | 0.0016 | 1.48 | 529.0000 | 0.1109 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.4070 | ppm | 0.0570 | 1.29 | 4023.0000 | 4.4070 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 4.6700 | ppm | 0.0479 | 1.03 | 9058.0000 | 4.6700 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0296 | ppm | 0.0005 | 1.67 | 43.1800 | 0.0296 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0038 | ppm | 0.0021 | 53.65 | -36.0500 | 0.0038 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.0100 | ppm | 0.0098 | 0.97 | 2229.0000 | 1.0100 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0585 | ppm | 0.0008 | 1.30 | 43.6200 | 0.0585 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.6033 | ppm | 0.0034 | 0.57 | 190500.0000 | 0.6033 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 6.0790 | ppm | 0.0685 | 1.13 | 658600.0000 | 6.0790 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0002 u | ppm | 0.0007 | > 100.00 | -88.2500 | 0.0002 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3456 | ppm | 0.0039 | 1.13 | 9364.0000 | 0.3456 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0017 u | ppm | 0.0011 | 66.01 | 29.5600 | -0.0017 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 2.8430 | ppm | 0.0315 | 1.11 | 64920.0000 | 2.8430 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0551 | ppm | 0.0009 | 1.68 | 3968.0000 | 0.0551 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9269 | 350300.0000 | 0.0004 | 0.04 |
| Y_R 371.029 | 0.9613 | 51780.0000 | 0.0028 | 0.29 |

Sample Name: 440-195320-a-12-c@5

Date: 11/2/2017 11:04:02 AM Rack:Tube: 1:32

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0004 | ppm | 0.0005 | > 100.00 | -64.0400 | 0.0004 (ppm) | Y 371.029 |
| Al (396.152 nm) | 77.6500 | ppm | 2.6820 | 3.45 | 1735000.0000 | 77.6500 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0662 | ppm | 0.0039 | 5.89 | 57.9400 | 0.0662 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0805 | ppm | 0.0021 | 2.59 | 697.8000 | 0.0805 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0130 | ppm | 0.0254 | 2.50 | 74460.0000 | 1.0130 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0037 | ppm | 0.0014 | 36.69 | 4892.0000 | 0.0037 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 232.8000 | ppm | 2.2830 | 0.98 | 829200.0000 | 232.8000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0140 | ppm | 0.0001 | 0.59 | 398.5000 | 0.0140 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0492 | ppm | 0.0025 | 5.01 | 805.9000 | 0.0492 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.3960 | ppm | 0.0120 | 3.03 | 2388.0000 | 0.3960 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.7276 | ppm | 0.0250 | 3.43 | 25780.0000 | 0.7276 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 195.4000 | ppm | 1.3490 | 0.69 | 828000.0000 | 195.4000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 20.0200 | ppm | 0.1542 | 0.77 | 20860.0000 | 20.0200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0883 | ppm | 0.0016 | 1.86 | 5551.0000 | 0.0883 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 41.6600 | ppm | 0.9213 | 2.21 | 93070.0000 | 41.6600 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 6.4130 | ppm | 0.2080 | 3.24 | 622500.0000 | 6.4130 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0201 | ppm | 0.0018 | 8.94 | 130.2000 | 0.0201 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.6680 | ppm | 0.0264 | 0.57 | 25670.0000 | 4.6680 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1262 | ppm | 0.0055 | 4.34 | 601.9000 | 0.1262 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.1650 | ppm | 0.1317 | 3.16 | 3799.0000 | 4.1650 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 3.6780 | ppm | 0.1167 | 3.17 | 7130.0000 | 3.6780 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0629 | ppm | 0.0022 | 3.44 | 77.1700 | 0.0629 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0013 u | ppm | 0.0068 | > 100.00 | -37.9100 | 0.0013 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.4920 | ppm | 0.0267 | 5.43 | 1129.0000 | 0.4920 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.6695 | ppm | 0.0214 | 3.20 | 533.4000 | 0.6695 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.8256 | ppm | 0.0076 | 0.92 | 260600.0000 | 0.8256 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 6.1670 | ppm | 0.2025 | 3.28 | 668100.0000 | 6.1670 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0003 u | ppm | 0.0025 | > 100.00 | -92.1800 | 0.0003 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2847 | ppm | 0.0100 | 3.50 | 7833.0000 | 0.2847 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0009 u | ppm | 0.0025 | > 100.00 | 31.0000 | -0.0009 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 2.8910 | ppm | 0.0932 | 3.22 | 66030.0000 | 2.8910 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0364 | ppm | 0.0013 | 3.63 | 2672.0000 | 0.0364 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9256 | 349800.0000 | 0.0012 | 0.13 |
| Y_R 371.029 | 0.9751 | 52530.0000 | 0.0112 | 1.15 |

Sample Name: 440-195320-a-13-c@5

Date: 11/2/2017 11:06:06 AM Rack:Tube: 1:33

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0013 u | ppm | 0.0006 | 49.55 | -105.4000 | -0.0013 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 66.5200 | ppm | 0.8913 | 1.34 | 1486000.0000 | 66.5200 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0332 | ppm | 0.0053 | 15.97 | 33.2400 | 0.0332 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0271 | ppm | 0.0004 | 1.54 | 187.8000 | 0.0271 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4708 | ppm | 0.0072 | 1.53 | 34610.0000 | 0.4708 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0025 | ppm | 0.0001 | 2.30 | 2876.0000 | 0.0025 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 179.4000 | ppm | 0.0238 | 0.01 | 638900.0000 | 179.4000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0021 | ppm | 0.0000 | 0.15 | 81.1700 | 0.0021 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0363 | ppm | 0.0008 | 2.15 | 630.2000 | 0.0363 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1171 | ppm | 0.0011 | 0.93 | 711.3000 | 0.1171 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1779 | ppm | 0.0024 | 1.36 | 6429.0000 | 0.1779 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 111.7000 | ppm | 0.4156 | 0.37 | 473500.0000 | 111.7000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 16.5100 | ppm | 0.0111 | 0.07 | 17180.0000 | 16.5100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0806 | ppm | 0.0019 | 2.31 | 5296.0000 | 0.0806 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 35.0200 | ppm | 0.5496 | 1.57 | 78260.0000 | 35.0200 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.7410 | ppm | 0.0438 | 1.60 | 269900.0000 | 2.7410 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0052 | ppm | 0.0004 | 7.70 | 47.1200 | 0.0052 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.6130 | ppm | 0.0120 | 0.33 | 20220.0000 | 3.6130 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0698 | ppm | 0.0011 | 1.54 | 332.3000 | 0.0698 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.6260 | ppm | 0.0676 | 1.86 | 3324.0000 | 3.6260 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.2972 | ppm | 0.0036 | 1.22 | 561.9000 | 0.2972 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0064 | ppm | 0.0006 | 9.40 | 7.1560 | 0.0064 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0054 | ppm | 0.0002 | 4.41 | -19.6800 | 0.0054 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.3363 | ppm | 0.0063 | 1.88 | 792.7000 | 0.3363 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0268 | ppm | 0.0047 | 17.58 | 17.7700 | 0.0268 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5385 | ppm | 0.0006 | 0.10 | 170200.0000 | 0.5385 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 6.5670 | ppm | 0.0972 | 1.48 | 711500.0000 | 6.5670 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0030 u | ppm | 0.0023 | 77.02 | -110.9000 | -0.0030 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2356 | ppm | 0.0040 | 1.69 | 6505.0000 | 0.2356 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0005 u | ppm | 0.0004 | 67.41 | -6.0630 | -0.0005 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4937 | ppm | 0.0072 | 1.46 | 11380.0000 | 0.4937 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0261 | ppm | 0.0006 | 2.42 | 1882.0000 | 0.0261 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9296 | 351300.0000 | 0.0009 | 0.09 |
| Y_R 371.029 | 0.9654 | 52000.0000 | 0.0026 | 0.27 |

Sample Name: 440-195320-a-14-c@5

Date: 11/2/2017 11:08:11 AM Rack:Tube: 1:34

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0014 u | ppm | 0.0002 | 14.50 | -123.5000 | -0.0014 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 101.2000 | ppm | 2.8920 | 2.86 | 2262000.0000 | 101.2000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0750 | ppm | 0.0091 | 12.09 | 67.9900 | 0.0750 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0250 | ppm | 0.0010 | 3.87 | 120.0000 | 0.0250 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.6103 | ppm | 0.0210 | 3.43 | 44870.0000 | 0.6103 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0042 | ppm | 0.0001 | 1.50 | 4039.0000 | 0.0042 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 138.5000 | ppm | 0.9812 | 0.71 | 493200.0000 | 138.5000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0027 | ppm | 0.0000 | 0.28 | 106.0000 | 0.0027 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0537 | ppm | 0.0019 | 3.58 | 911.0000 | 0.0537 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1304 | ppm | 0.0029 | 2.20 | 792.1000 | 0.1304 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4255 | ppm | 0.0125 | 2.95 | 15210.0000 | 0.4255 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 152.9000 | ppm | 0.5846 | 0.38 | 647900.0000 | 152.9000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 27.5700 | ppm | 0.3516 | 1.28 | 28700.0000 | 27.5700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1023 | ppm | 0.0015 | 1.46 | 6661.0000 | 0.1023 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 50.7600 | ppm | 1.7090 | 3.37 | 113400.0000 | 50.7600 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.7350 | ppm | 0.1026 | 2.75 | 367800.0000 | 3.7350 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0058 | ppm | 0.0002 | 3.87 | 57.1800 | 0.0058 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.2440 | ppm | 0.0446 | 1.05 | 23470.0000 | 4.2440 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0972 | ppm | 0.0043 | 4.47 | 464.4000 | 0.0972 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.8900 | ppm | 0.1102 | 2.25 | 4482.0000 | 4.8900 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.7015 | ppm | 0.0199 | 2.84 | 1342.0000 | 0.7015 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0114 | ppm | 0.0069 | 60.77 | 13.9700 | 0.0114 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0015 u | ppm | 0.0055 | > 100.00 | -33.1900 | -0.0015 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.6592 | ppm | 0.0185 | 2.81 | 1494.0000 | 0.6592 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0639 | ppm | 0.0043 | 6.79 | 47.4600 | 0.0639 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5874 | ppm | 0.0073 | 1.24 | 185100.0000 | 0.5874 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 8.5820 | ppm | 0.2364 | 2.75 | 930000.0000 | 8.5820 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0011 u | ppm | 0.0004 | 36.51 | -137.6000 | -0.0011 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3178 | ppm | 0.0097 | 3.06 | 8648.0000 | 0.3178 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0007 | ppm | 0.0007 | 97.15 | -2.4840 | 0.0007 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.5607 | ppm | 0.0144 | 2.58 | 12960.0000 | 0.5607 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0152 | ppm | 0.0003 | 1.76 | 1147.0000 | 0.0152 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9292 | 351200.0000 | 0.0010 | 0.11 |
| Y_R 371.029 | 0.9656 | 52020.0000 | 0.0071 | 0.73 |

Sample Name: 440-195320-a-15-c@5

Date: 11/2/2017 11:10:15 AM Rack:Tube: 1:35

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0006 u | ppm | 0.0001 | 15.70 | -86.4200 | -0.0006 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 71.4400 | ppm | 1.7290 | 2.42 | 1596000.0000 | 71.4400 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0411 | ppm | 0.0034 | 8.36 | 39.2700 | 0.0411 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0420 | ppm | 0.0015 | 3.46 | 305.7000 | 0.0420 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.8753 | ppm | 0.0245 | 2.80 | 64340.0000 | 0.8753 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0027 | ppm | 0.0011 | 41.39 | 3901.0000 | 0.0027 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 149.4000 | ppm | 1.8120 | 1.21 | 532200.0000 | 149.4000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0072 | ppm | 0.0004 | 4.96 | 218.4000 | 0.0072 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0447 | ppm | 0.0006 | 1.34 | 739.0000 | 0.0447 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2254 | ppm | 0.0056 | 2.48 | 1362.0000 | 0.2254 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4900 | ppm | 0.0123 | 2.50 | 17460.0000 | 0.4900 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 158.1000 | ppm | 1.8890 | 1.20 | 669900.0000 | 158.1000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 20.3500 | ppm | 0.3611 | 1.77 | 21180.0000 | 20.3500 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0843 | ppm | 0.0002 | 0.18 | 5380.0000 | 0.0843 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 41.6300 | ppm | 1.1640 | 2.80 | 93020.0000 | 41.6300 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 4.2390 | ppm | 0.1025 | 2.42 | 415300.0000 | 4.2390 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0170 | ppm | 0.0004 | 2.26 | 111.5000 | 0.0170 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.6230 | ppm | 0.0644 | 1.78 | 20270.0000 | 3.6230 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0954 | ppm | 0.0025 | 2.60 | 455.7000 | 0.0954 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.0010 | ppm | 0.0857 | 2.14 | 3658.0000 | 4.0010 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.8910 | ppm | 0.0454 | 2.40 | 3657.0000 | 1.8910 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0124 | ppm | 0.0075 | 60.71 | 15.3400 | 0.0124 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0029 | ppm | 0.0013 | 44.92 | -29.8700 | 0.0029 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.9887 | ppm | 0.0314 | 3.18 | 2178.0000 | 0.9887 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0433 | ppm | 0.0018 | 4.25 | 31.1700 | 0.0433 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.3770 | ppm | 0.0125 | 0.91 | 431900.0000 | 1.3770 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 6.0930 | ppm | 0.1506 | 2.47 | 660200.0000 | 6.0930 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0004 u | ppm | 0.0022 | > 100.00 | -94.4300 | 0.0004 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2496 | ppm | 0.0058 | 2.32 | 6830.0000 | 0.2496 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0006 u | ppm | 0.0005 | 89.84 | 11.9800 | -0.0006 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.5740 | ppm | 0.0358 | 2.27 | 36020.0000 | 1.5740 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0174 | ppm | 0.0002 | 1.15 | 1312.0000 | 0.0174 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9362 | 353800.0000 | 0.0031 | 0.33 |
| Y_R 371.029 | 0.9665 | 52060.0000 | 0.0081 | 0.83 |

Sample Name: 440-195320-a-16-c@5

Date: 11/2/2017 11:12:20 AM Rack:Tube: 1:36

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0009 u | ppm | 0.0002 | 23.53 | -123.3000 | -0.0009 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 77.5000 | ppm | 2.8830 | 3.72 | 1732000.0000 | 77.5000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0468 | ppm | 0.0074 | 15.74 | 44.4100 | 0.0468 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0483 | ppm | 0.0023 | 4.77 | 337.1000 | 0.0483 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.8366 | ppm | 0.0299 | 3.57 | 61500.0000 | 0.8366 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0046 | ppm | 0.0010 | 22.62 | 5123.0000 | 0.0046 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 290.8000 | ppm | 5.0170 | 1.73 | 1036000.0000 | 290.8000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0058 | ppm | 0.0005 | 9.14 | 196.6000 | 0.0058 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0415 | ppm | 0.0024 | 5.83 | 696.4000 | 0.0415 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1882 | ppm | 0.0070 | 3.73 | 1142.0000 | 0.1882 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.5110 | ppm | 0.0193 | 3.77 | 18130.0000 | 0.5110 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 199.5000 | ppm | 2.5600 | 1.28 | 845400.0000 | 199.5000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 18.5700 | ppm | 0.2310 | 1.24 | 19350.0000 | 18.5700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0776 | ppm | 0.0010 | 1.30 | 5205.0000 | 0.0776 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 40.7000 | ppm | 1.4070 | 3.46 | 90910.0000 | 40.7000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.6300 | ppm | 0.1394 | 3.84 | 364100.0000 | 3.6300 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0149 | ppm | 0.0013 | 8.94 | 102.0000 | 0.0149 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.1150 | ppm | 0.0190 | 0.46 | 22830.0000 | 4.1150 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1130 | ppm | 0.0035 | 3.09 | 538.4000 | 0.1130 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.6160 | ppm | 0.1471 | 4.07 | 3300.0000 | 3.6160 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.1790 | ppm | 0.0412 | 3.49 | 2273.0000 | 1.1790 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0168 | ppm | 0.0059 | 34.98 | 20.9900 | 0.0168 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0042 u | ppm | 0.0081 | > 100.00 | -45.1700 | -0.0042 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.4146 | ppm | 0.0201 | 4.84 | 955.7000 | 0.4146 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0519 | ppm | 0.0022 | 4.26 | 38.0200 | 0.0519 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0540 | ppm | 0.0148 | 1.40 | 332600.0000 | 1.0540 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 5.8270 | ppm | 0.2045 | 3.51 | 631200.0000 | 5.8270 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0023 | ppm | 0.0009 | 39.95 | -89.3300 | 0.0023 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2414 | ppm | 0.0094 | 3.91 | 6760.0000 | 0.2414 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0007 | ppm | 0.0003 | 50.21 | 2.9130 | 0.0007 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0780 | ppm | 0.0385 | 3.57 | 24740.0000 | 1.0780 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0366 | ppm | 0.0016 | 4.50 | 2698.0000 | 0.0366 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9180 | 346900.0000 | 0.0007 | 0.08 |
| Y_R 371.029 | 0.9546 | 51430.0000 | 0.0031 | 0.32 |

Sample Name: 440-195320-a-17-c@5

Date: 11/2/2017 11:14:25 AM Rack:Tube: 1:37

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0013 u | ppm | 0.0001 | 10.91 | -93.5500 | -0.0013 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 52.5300 | ppm | 1.9290 | 3.67 | 1173000.0000 | 52.5300 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0859 | ppm | 0.0011 | 1.25 | 76.3700 | 0.0859 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0128 | ppm | 0.0018 | 13.97 | 7.1190 | 0.0128 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9312 | ppm | 0.0404 | 4.33 | 68440.0000 | 0.9312 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0038 | ppm | 0.0007 | 19.40 | 3452.0000 | 0.0038 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 109.5000 | ppm | 1.0240 | 0.94 | 390100.0000 | 109.5000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0028 | ppm | 0.0007 | 26.50 | 100.7000 | 0.0028 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0347 | ppm | 0.0011 | 3.18 | 563.0000 | 0.0347 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1058 | ppm | 0.0039 | 3.64 | 642.3000 | 0.1058 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.2206 | ppm | 0.0080 | 3.64 | 7978.0000 | 0.2206 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 129.2000 | ppm | 1.4380 | 1.11 | 547400.0000 | 129.2000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 11.4000 | ppm | 0.1376 | 1.21 | 11850.0000 | 11.4000 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0795 | ppm | 0.0001 | 0.13 | 4937.0000 | 0.0795 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 25.8600 | ppm | 1.1500 | 4.45 | 57760.0000 | 25.8600 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 4.1980 | ppm | 0.1474 | 3.51 | 407700.0000 | 4.1980 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0534 | ppm | 0.0014 | 2.56 | 299.5000 | 0.0534 (ppm) | Y 371.029 |
| Na (589.592 nm) | 2.5180 | ppm | 0.0241 | 0.95 | 14570.0000 | 2.5180 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1007 | ppm | 0.0034 | 3.41 | 481.0000 | 0.1007 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.6730 | ppm | 0.1074 | 2.92 | 3364.0000 | 3.6730 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.1674 | ppm | 0.0065 | 3.87 | 311.9000 | 0.1674 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0106 | ppm | 0.0071 | 67.51 | 9.9000 | 0.0106 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0005 u | ppm | 0.0020 | > 100.00 | -26.6700 | -0.0005 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.5430 | ppm | 0.1227 | 4.83 | 5472.0000 | 2.5430 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0191 | ppm | 0.0005 | 2.67 | 11.8400 | 0.0191 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.4670 | ppm | 0.0268 | 1.83 | 459700.0000 | 1.4670 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.3400 | ppm | 0.1476 | 3.40 | 470200.0000 | 4.3400 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0027 u | ppm | 0.0001 | 2.77 | -72.3300 | -0.0027 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2174 | ppm | 0.0074 | 3.42 | 5901.0000 | 0.2174 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0046 | ppm | 0.0022 | 47.65 | 17.6700 | 0.0046 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.1810 | ppm | 0.0388 | 3.29 | 27020.0000 | 1.1810 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0207 | ppm | 0.0005 | 2.50 | 1516.0000 | 0.0207 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9502 | 359100.0000 | 0.0008 | 0.08 |
| Y_R 371.029 | 0.9955 | 53630.0000 | 0.0099 | 0.99 |

Sample Name: 440-195320-a-18-c@5

Date: 11/2/2017 11:16:30 AM Rack:Tube: 1:38

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0009 u | ppm | 0.0001 | 15.46 | -69.8300 | -0.0009 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 53.6700 | ppm | 1.3790 | 2.57 | 1199000.0000 | 53.6700 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0425 | ppm | 0.0081 | 19.16 | 41.5900 | 0.0425 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0078 | ppm | 0.0003 | 3.35 | -35.9100 | 0.0078 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.6325 | ppm | 0.0257 | 4.07 | 46480.0000 | 0.6325 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0024 | ppm | 0.0005 | 20.02 | 2943.0000 | 0.0024 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 33.6300 | ppm | 0.5577 | 1.66 | 119900.0000 | 33.6300 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0021 | ppm | 0.0001 | 6.29 | 79.7300 | 0.0021 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0347 | ppm | 0.0010 | 2.92 | 557.4000 | 0.0347 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0936 | ppm | 0.0028 | 3.04 | 567.6000 | 0.0936 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1415 | ppm | 0.0039 | 2.77 | 5239.0000 | 0.1415 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 116.6000 | ppm | 1.7950 | 1.54 | 494100.0000 | 116.6000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 11.2300 | ppm | 0.1195 | 1.06 | 11660.0000 | 11.2300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0809 | ppm | 0.0017 | 2.14 | 4985.0000 | 0.0809 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 26.6100 | ppm | 1.0610 | 3.99 | 59450.0000 | 26.6100 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.1530 | ppm | 0.0855 | 2.71 | 308800.0000 | 3.1530 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0376 | ppm | 0.0016 | 4.31 | 215.9000 | 0.0376 (ppm) | Y 371.029 |
| Na (589.592 nm) | 2.2500 | ppm | 0.0281 | 1.25 | 13170.0000 | 2.2500 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0959 | ppm | 0.0023 | 2.40 | 459.1000 | 0.0959 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.1610 | ppm | 0.0728 | 2.30 | 2896.0000 | 3.1610 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0741 | ppm | 0.0006 | 0.82 | 130.0000 | 0.0741 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0044 | ppm | 0.0020 | 44.94 | 2.5470 | 0.0044 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0065 | ppm | 0.0004 | 5.89 | -18.1800 | 0.0065 (ppm) | Y 371.029 |
| Si (251.611 nm) | 3.5590 | ppm | 0.1153 | 3.24 | 7629.0000 | 3.5590 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0088 | ppm | 0.0006 | 6.57 | 3.5450 | 0.0088 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.3430 | ppm | 0.0199 | 1.48 | 420200.0000 | 1.3430 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.1810 | ppm | 0.1045 | 2.50 | 453100.0000 | 4.1810 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0012 u | ppm | 0.0008 | 64.76 | -68.8600 | -0.0012 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2006 | ppm | 0.0052 | 2.57 | 5384.0000 | 0.2006 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0043 | ppm | 0.0027 | 61.68 | 13.5200 | 0.0043 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.8642 | ppm | 0.0226 | 2.62 | 19790.0000 | 0.8642 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0132 | ppm | 0.0001 | 0.61 | 974.2000 | 0.0132 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9604 | 362900.0000 | 0.0007 | 0.08 |
| Y_R 371.029 | 0.9886 | 53250.0000 | 0.0144 | 1.46 |

Sample Name: 440-195320-a-19-c@5

Date: 11/2/2017 11:18:35 AM Rack:Tube: 1:39

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0014 u | ppm | 0.0001 | 5.60 | -111.8000 | -0.0014 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 61.5800 | ppm | 3.2480 | 5.27 | 1376000.0000 | 61.5800 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0604 | ppm | 0.0037 | 6.05 | 56.1200 | 0.0604 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0152 | ppm | 0.0008 | 5.59 | -31.9200 | 0.0152 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0230 | ppm | 0.0562 | 5.50 | 75170.0000 | 1.0230 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0061 | ppm | 0.0022 | 35.56 | 5258.0000 | 0.0061 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 98.9800 | ppm | 0.6724 | 0.68 | 352600.0000 | 98.9800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0047 | ppm | 0.0001 | 2.62 | 167.0000 | 0.0047 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0462 | ppm | 0.0036 | 7.80 | 744.4000 | 0.0462 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1629 | ppm | 0.0095 | 5.82 | 987.0000 | 0.1629 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4013 | ppm | 0.0224 | 5.59 | 14400.0000 | 0.4013 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 194.3000 | ppm | 2.2190 | 1.14 | 823300.0000 | 194.3000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 14.2500 | ppm | 0.0630 | 0.44 | 14840.0000 | 14.2500 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0944 | ppm | 0.0011 | 1.13 | 5826.0000 | 0.0944 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 33.5800 | ppm | 1.8730 | 5.58 | 75010.0000 | 33.5800 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 4.7140 | ppm | 0.2583 | 5.48 | 464200.0000 | 4.7140 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0620 | ppm | 0.0032 | 5.13 | 348.0000 | 0.0620 (ppm) | Y 371.029 |
| Na (589.592 nm) | 2.8890 | ppm | 0.0219 | 0.76 | 16490.0000 | 2.8890 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1811 | ppm | 0.0090 | 4.95 | 866.2000 | 0.1811 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.3780 | ppm | 0.2379 | 5.43 | 4009.0000 | 4.3780 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4996 | ppm | 0.0231 | 4.62 | 954.2000 | 0.4996 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0126 | ppm | 0.0065 | 51.56 | 13.4700 | 0.0126 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0020 u | ppm | 0.0021 | > 100.00 | -40.3800 | -0.0020 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.5400 | ppm | 0.1624 | 6.40 | 5468.0000 | 2.5400 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0318 | ppm | 0.0021 | 6.58 | 21.9900 | 0.0318 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.3590 | ppm | 0.0115 | 0.85 | 425800.0000 | 1.3590 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 5.2640 | ppm | 0.2886 | 5.48 | 570400.0000 | 5.2640 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0030 u | ppm | 0.0036 | > 100.00 | -85.1100 | -0.0030 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2434 | ppm | 0.0138 | 5.66 | 6585.0000 | 0.2434 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0018 u | ppm | 0.0029 | > 100.00 | 13.2200 | 0.0018 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.3080 | ppm | 0.0677 | 5.18 | 29930.0000 | 1.3080 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0256 | ppm | 0.0012 | 4.85 | 1905.0000 | 0.0256 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9498 | 358900.0000 | 0.0005 | 0.05 |
| Y_R 371.029 | 0.9857 | 53100.0000 | 0.0002 | 0.02 |

Sample Name: 440-195320-a-20-e@5

Date: 11/2/2017 11:20:39 AM Rack:Tube: 1:40

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0008 u | ppm | 0.0004 | 45.75 | -76.3200 | -0.0008 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 50.7400 | ppm | 1.4860 | 2.93 | 1133000.0000 | 50.7400 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0560 | ppm | 0.0046 | 8.17 | 52.1900 | 0.0560 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0118 | ppm | 0.0024 | 20.63 | -39.2600 | 0.0118 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9497 | ppm | 0.0160 | 1.69 | 69800.0000 | 0.9497 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0035 | ppm | 0.0007 | 20.34 | 4132.0000 | 0.0035 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 64.0000 | ppm | 0.5956 | 0.93 | 228000.0000 | 64.0000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0041 | ppm | 0.0001 | 2.23 | 144.3000 | 0.0041 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0367 | ppm | 0.0018 | 4.88 | 592.6000 | 0.0367 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1645 | ppm | 0.0050 | 3.01 | 994.5000 | 0.1645 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.2236 | ppm | 0.0061 | 2.71 | 8143.0000 | 0.2236 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 162.9000 | ppm | 1.2890 | 0.79 | 690400.0000 | 162.9000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 12.0100 | ppm | 0.0232 | 0.19 | 12490.0000 | 12.0100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0881 | ppm | 0.0012 | 1.34 | 5324.0000 | 0.0881 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 28.3600 | ppm | 0.4931 | 1.74 | 63350.0000 | 28.3600 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 5.3360 | ppm | 0.1266 | 2.37 | 518000.0000 | 5.3360 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0989 | ppm | 0.0030 | 3.07 | 539.9000 | 0.0989 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.4200 | ppm | 0.0179 | 0.52 | 19200.0000 | 3.4200 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1282 | ppm | 0.0036 | 2.83 | 613.4000 | 0.1282 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.3480 | ppm | 0.0718 | 2.14 | 3064.0000 | 3.3480 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.2481 | ppm | 0.0077 | 3.11 | 467.9000 | 0.2481 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0179 | ppm | 0.0051 | 28.66 | 18.0500 | 0.0179 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0008 u | ppm | 0.0032 | > 100.00 | -32.5700 | -0.0008 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.1280 | ppm | 0.0817 | 3.84 | 4587.0000 | 2.1280 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0140 | ppm | 0.0002 | 1.59 | 7.7850 | 0.0140 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.5270 | ppm | 0.0052 | 0.34 | 478100.0000 | 1.5270 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.3330 | ppm | 0.1188 | 2.74 | 469500.0000 | 4.3330 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0010 u | ppm | 0.0003 | 28.48 | -66.2400 | -0.0010 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2277 | ppm | 0.0062 | 2.73 | 6110.0000 | 0.2277 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0005 | ppm | 0.0001 | 10.55 | 17.1800 | 0.0005 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.6320 | ppm | 0.0436 | 2.67 | 37270.0000 | 1.6320 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0196 | ppm | 0.0004 | 1.98 | 1455.0000 | 0.0196 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9562 | 361400.0000 | 0.0014 | 0.14 |
| Y_R 371.029 | 0.9876 | 53200.0000 | 0.0110 | 1.11 |

Sample Name: CCV 4461459

Date: 11/2/2017 11:22:44 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5011 | ppm | 0.0019 | 0.38 | 17330.0000 | 0.5011 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0140 | ppm | 0.0033 | 0.33 | 22350.0000 | 1.0140 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0010 | ppm | 0.0025 | 0.25 | 806.7000 | 1.0010 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0000 | ppm | 0.0037 | 0.37 | 11080.0000 | 1.0000 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9986 | ppm | 0.0013 | 0.13 | 73360.0000 | 0.9986 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0050 | ppm | 0.0030 | 0.30 | 165700.0000 | 1.0050 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.0490 | ppm | 0.0119 | 0.23 | 18110.0000 | 5.0490 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9950 | ppm | 0.0035 | 0.35 | 24670.0000 | 0.9950 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0080 | ppm | 0.0024 | 0.24 | 13600.0000 | 1.0080 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9921 | ppm | 0.0035 | 0.35 | 5950.0000 | 0.9921 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0170 | ppm | 0.0000 | 0.00 | 35930.0000 | 1.0170 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0290 | ppm | 0.0023 | 0.22 | 4364.0000 | 1.0290 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.1700 | ppm | 0.2040 | 2.01 | 10530.0000 | 10.1700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0120 | ppm | 0.0046 | 0.46 | 59260.0000 | 1.0120 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.0270 | ppm | 0.0122 | 0.24 | 11240.0000 | 5.0270 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9991 | ppm | 0.0018 | 0.18 | 93650.0000 | 0.9991 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0000 | ppm | 0.0028 | 0.28 | 5278.0000 | 1.0000 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.0500 | ppm | 0.0818 | 0.81 | 53300.0000 | 10.0500 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9993 | ppm | 0.0034 | 0.34 | 4767.0000 | 0.9993 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0020 | ppm | 0.0005 | 0.05 | 855.4000 | 1.0020 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0000 | ppm | 0.0006 | 0.06 | 1935.0000 | 1.0000 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9999 | ppm | 0.0091 | 0.91 | 1153.0000 | 0.9999 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9961 | ppm | 0.0013 | 0.13 | 872.5000 | 0.9961 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.2870 | ppm | 0.2110 | 3.99 | 11450.0000 | 5.2870 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0010 | ppm | 0.0003 | 0.03 | 799.9000 | 1.0010 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0130 | ppm | 0.0052 | 0.51 | 316700.0000 | 1.0130 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0130 | ppm | 0.0011 | 0.11 | 109700.0000 | 1.0130 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0020 | ppm | 0.0038 | 0.38 | 1522.0000 | 1.0020 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0130 | ppm | 0.0013 | 0.13 | 26210.0000 | 1.0130 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9986 | ppm | 0.0031 | 0.31 | 2103.0000 | 0.9986 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9993 | ppm | 0.0025 | 0.25 | 22980.0000 | 0.9993 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0010 | ppm | 0.0028 | 0.28 | 69590.0000 | 1.0010 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9808 | 370600.0000 | 0.0035 | 0.36 |
| Y_R 371.029 | 1.0000 | 53890.0000 | 0.0023 | 0.23 |

Sample Name: CCB 4461458

Date: 11/2/2017 11:24:48 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0004 | ppm | 0.0002 | 40.90 | 13.8400 | 0.0004 (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0006 u | ppm | 0.0004 | 68.67 | -1195.0000 | -0.0006 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0045 | ppm | 0.0022 | 48.16 | 9.9650 | 0.0045 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0003 | ppm | 0.0003 | > 100.00 | 1.3200 | 0.0003 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0000 | 14.20 | 3.4610 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 27.7500 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0041 u | ppm | 0.0052 | > 100.00 | 119.7000 | -0.0041 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0004 | ppm | 0.0001 | 17.66 | 4.7470 | 0.0004 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | -9.9170 | 0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0003 | ppm | 0.0001 | 24.94 | 3.0190 | 0.0003 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0011 | ppm | 0.0004 | 38.64 | 203.6000 | 0.0011 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0073 | ppm | 0.0012 | 16.30 | 34.8700 | 0.0073 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1092 | ppm | 0.0956 | 87.54 | 44.3100 | 0.1092 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0067 | ppm | 0.0000 | 0.44 | 406.7000 | 0.0067 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0017 u | ppm | 0.0029 | > 100.00 | 11.6200 | 0.0017 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0000 | 17.49 | 95.9700 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0043 | ppm | 0.0007 | 15.84 | 28.2900 | 0.0043 (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0616 u | ppm | 0.0050 | 8.05 | 1238.0000 | -0.0616 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0009 | ppm | 0.0002 | 19.62 | 4.5060 | 0.0009 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0024 | ppm | 0.0024 | 98.04 | -11.7100 | 0.0024 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0008 u | ppm | 0.0008 | > 100.00 | -6.6360 | -0.0008 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0115 Z | ppm | 0.0028 | 24.66 | 8.3390 Z | 0.0115 Z (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0027 | ppm | 0.0006 | 23.34 | 0.1512 | 0.0027 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0095 | ppm | 0.0048 | 50.77 | 38.5700 | 0.0095 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0028 | ppm | 0.0003 | 12.10 | -1.2010 | 0.0028 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 | ppm | 0.0000 | 4.14 | 71.5600 | 0.0000 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0013 | ppm | 0.0002 | 12.68 | 45.4900 | 0.0013 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0012 | ppm | 0.0011 | 87.02 | -4.4300 | 0.0012 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 40.9400 | 0.0000 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0027 | ppm | 0.0001 | 4.46 | -1.3260 | 0.0027 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0004 | ppm | 0.0001 | 13.83 | 90.5300 | 0.0004 (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0002 u | ppm | 0.0001 | 37.10 | -45.5600 | -0.0002 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9893 | 373900.0000 | 0.0027 | 0.27 |
| Y_R 371.029 | 1.0060 | 54200.0000 | 0.0008 | 0.08 |

Sample Name: 440-195320-a-21-b@5

Date: 11/2/2017 11:28:16 AM Rack:Tube: 1:41

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0009 u | ppm | 0.0004 | 44.53 | -67.0200 | -0.0009 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 40.3900 | ppm | 0.9197 | 2.28 | 902000.0000 | 40.3900 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0341 | ppm | 0.0005 | 1.44 | 34.5700 | 0.0341 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0087 | ppm | 0.0017 | 19.98 | -28.9000 | 0.0087 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.6929 | ppm | 0.0269 | 3.88 | 50920.0000 | 0.6929 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0027 | ppm | 0.0004 | 16.07 | 3064.0000 | 0.0027 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 31.3700 | ppm | 0.6969 | 2.22 | 111800.0000 | 31.3700 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0021 | ppm | 0.0001 | 3.73 | 82.6500 | 0.0021 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0275 | ppm | 0.0002 | 0.65 | 448.7000 | 0.0275 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1055 | ppm | 0.0021 | 1.99 | 638.5000 | 0.1055 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1425 | ppm | 0.0035 | 2.48 | 5273.0000 | 0.1425 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 120.0000 | ppm | 2.7110 | 2.26 | 508500.0000 | 120.0000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.3620 | ppm | 0.2908 | 3.11 | 9717.0000 | 9.3620 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0632 | ppm | 0.0008 | 1.26 | 3861.0000 | 0.0632 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 21.4500 | ppm | 0.8268 | 3.85 | 47910.0000 | 21.4500 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.2090 | ppm | 0.0740 | 2.31 | 314400.0000 | 3.2090 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0623 | ppm | 0.0015 | 2.39 | 344.0000 | 0.0623 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.9670 | ppm | 0.0404 | 2.06 | 11710.0000 | 1.9670 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0912 | ppm | 0.0027 | 2.92 | 436.7000 | 0.0912 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.0590 | ppm | 0.0635 | 2.07 | 2802.0000 | 3.0590 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.1174 | ppm | 0.0020 | 1.72 | 215.4000 | 0.1174 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0148 | ppm | 0.0021 | 14.16 | 13.9500 | 0.0148 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0028 u | ppm | 0.0043 | > 100.00 | -21.8600 | 0.0028 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.6910 | ppm | 0.0601 | 3.56 | 3647.0000 | 1.6910 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0116 | ppm | 0.0015 | 12.65 | 5.7960 | 0.0116 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.8980 | ppm | 0.0345 | 1.82 | 593800.0000 | 1.8980 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 3.5750 | ppm | 0.0764 | 2.14 | 387300.0000 | 3.5750 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0008 u | ppm | 0.0006 | 81.83 | -57.8800 | -0.0008 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1695 | ppm | 0.0039 | 2.33 | 4552.0000 | 0.1695 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0046 | ppm | 0.0011 | 23.33 | 15.5200 | 0.0046 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9438 | ppm | 0.0225 | 2.38 | 21590.0000 | 0.9438 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0129 | ppm | 0.0002 | 1.38 | 959.3000 | 0.0129 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9649 | 364600.0000 | 0.0004 | 0.05 |
| Y_R 371.029 | 0.9981 | 53770.0000 | 0.0144 | 1.44 |

Sample Name: 440-195320-a-22-c@5

Date: 11/2/2017 11:30:19 AM Rack:Tube: 1:42

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0011 u | ppm | 0.0002 | 18.13 | -92.4700 | -0.0011 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 65.9300 | ppm | 2.2340 | 3.39 | 1473000.0000 | 65.9300 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0725 | ppm | 0.0013 | 1.82 | 65.8200 | 0.0725 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0152 | ppm | 0.0006 | 3.73 | -25.8300 | 0.0152 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.2680 | ppm | 0.0234 | 1.85 | 93200.0000 | 1.2680 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0050 | ppm | 0.0007 | 13.16 | 4899.0000 | 0.0050 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 98.4000 | ppm | 0.2424 | 0.25 | 350500.0000 | 98.4000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0054 | ppm | 0.0001 | 1.71 | 182.5000 | 0.0054 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0465 | ppm | 0.0005 | 1.16 | 734.9000 | 0.0465 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1652 | ppm | 0.0045 | 2.73 | 1001.0000 | 0.1652 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.2594 | ppm | 0.0082 | 3.17 | 9403.0000 | 0.2594 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 187.5000 | ppm | 0.4106 | 0.22 | 794300.0000 | 187.5000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 13.3900 | ppm | 0.0092 | 0.07 | 13930.0000 | 13.3900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1019 | ppm | 0.0016 | 1.59 | 6196.0000 | 0.1019 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 31.2000 | ppm | 0.5561 | 1.78 | 69690.0000 | 31.2000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 6.3380 | ppm | 0.1687 | 2.66 | 614400.0000 | 6.3380 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0738 | ppm | 0.0025 | 3.39 | 410.4000 | 0.0738 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.3820 | ppm | 0.0064 | 0.15 | 24160.0000 | 4.3820 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1433 | ppm | 0.0030 | 2.09 | 685.2000 | 0.1433 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.9020 | ppm | 0.1259 | 3.23 | 3573.0000 | 3.9020 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.3765 | ppm | 0.0114 | 3.02 | 716.0000 | 0.3765 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0167 | ppm | 0.0055 | 33.07 | 17.7200 | 0.0167 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0035 u | ppm | 0.0067 | > 100.00 | -33.2800 | 0.0035 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.1440 | ppm | 0.0952 | 4.44 | 4625.0000 | 2.1440 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0248 | ppm | 0.0016 | 6.62 | 16.5100 | 0.0248 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.6850 | ppm | 0.0087 | 0.52 | 528000.0000 | 1.6850 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.6550 | ppm | 0.1276 | 2.74 | 504300.0000 | 4.6550 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0043 u | ppm | 0.0023 | 52.31 | -75.7700 | -0.0043 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2778 | ppm | 0.0085 | 3.06 | 7465.0000 | 0.2778 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0019 | ppm | 0.0009 | 47.79 | 20.9000 | 0.0019 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.7560 | ppm | 0.0498 | 2.84 | 40110.0000 | 1.7560 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0260 | ppm | 0.0010 | 3.70 | 1923.0000 | 0.0260 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9514 | 359500.0000 | 0.0009 | 0.09 |
| Y_R 371.029 | 0.9885 | 53250.0000 | 0.0083 | 0.84 |

Sample Name: mb 440-438829/1-a

Date: 11/2/2017 11:32:24 AM Rack:Tube: 1:43

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | 1.7020 | 0.0001 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0093 | ppm | 0.0080 | 85.33 | -975.0000 | 0.0093 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0030 | ppm | 0.0020 | 66.17 | 8.7390 | 0.0030 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | -1.0750 | 0.0001 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0003 | ppm | 0.0002 | 62.06 | 12.9400 | 0.0003 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | 67.04 | 12.8800 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0050 u | ppm | 0.0040 | 80.63 | 116.5000 | -0.0050 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | -4.2990 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0010 u | ppm | 0.0001 | 7.37 | -24.9300 | -0.0010 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0003 | ppm | 0.0001 | 28.98 | 3.2670 | 0.0003 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0010 | ppm | 0.0001 | 8.31 | 199.9000 | 0.0010 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0145 | ppm | 0.0028 | 19.21 | 65.3400 | 0.0145 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0328 | ppm | 0.0428 | > 100.00 | -35.2800 | 0.0328 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0078 | ppm | 0.0000 | 0.41 | 473.4000 | 0.0078 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0076 | ppm | 0.0046 | 60.74 | 24.8100 | 0.0076 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0014 | ppm | 0.0008 | 55.50 | 207.1000 | 0.0014 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0001 u | ppm | 0.0008 | > 100.00 | 5.9400 | 0.0001 u (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0655 u | ppm | 0.0041 | 6.25 | 1218.0000 | -0.0655 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | 0.3405 | 0.0000 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0085 | ppm | 0.0004 | 4.58 | -5.9870 | 0.0085 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0007 u | ppm | 0.0004 | 53.17 | -6.3930 | -0.0007 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0028 | ppm | 0.0003 | 12.12 | -1.8110 | 0.0028 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0029 | ppm | 0.0028 | 98.52 | 0.2796 | 0.0029 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0035 | ppm | 0.0002 | 5.52 | 25.3300 | 0.0035 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0016 | ppm | 0.0012 | 72.93 | -2.1610 | 0.0016 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 65.6900 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0023 | ppm | 0.0001 | 4.02 | 145.4000 | 0.0023 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0014 | ppm | 0.0014 | > 100.00 | -4.1740 | 0.0014 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | 42.9800 | 0.0001 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0006 u | ppm | 0.0011 | > 100.00 | -8.2670 | -0.0006 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0022 u | ppm | 0.0003 | 14.76 | 31.5500 | -0.0022 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -33.7800 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9980 | 377100.0000 | 0.0074 | 0.74 |
| Y_R 371.029 | 1.0090 | 54360.0000 | 0.0023 | 0.23 |

Sample Name: lcs 440-438829/2-a

Date: 11/2/2017 11:34:28 AM Rack:Tube: 1:44

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2419 | ppm | 0.0016 | 0.66 | 8364.0000 | 0.2419 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.4796 | ppm | 0.0003 | 0.06 | 9951.0000 | 0.4796 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4878 | ppm | 0.0110 | 2.25 | 396.4000 | 0.4878 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4770 | ppm | 0.0035 | 0.74 | 5283.0000 | 0.4770 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4911 | ppm | 0.0006 | 0.13 | 36080.0000 | 0.4911 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.4853 | ppm | 0.0010 | 0.22 | 80020.0000 | 0.4853 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 2.4540 | ppm | 0.0187 | 0.76 | 8871.0000 | 2.4540 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4855 | ppm | 0.0013 | 0.26 | 12040.0000 | 0.4855 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4896 | ppm | 0.0007 | 0.13 | 6601.0000 | 0.4896 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4813 | ppm | 0.0008 | 0.16 | 2887.0000 | 0.4813 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4872 | ppm | 0.0007 | 0.15 | 17290.0000 | 0.4872 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.4897 | ppm | 0.0001 | 0.01 | 2078.0000 | 0.4897 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 5.0270 | ppm | 0.0878 | 1.75 | 5168.0000 | 5.0270 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4954 | ppm | 0.0006 | 0.12 | 29010.0000 | 0.4954 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 2.4680 | ppm | 0.0112 | 0.45 | 5524.0000 | 2.4680 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4889 | ppm | 0.0006 | 0.12 | 45850.0000 | 0.4889 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4712 | ppm | 0.0023 | 0.49 | 2489.0000 | 0.4712 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.8690 | ppm | 0.0085 | 0.17 | 26620.0000 | 4.8690 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4877 | ppm | 0.0011 | 0.22 | 2327.0000 | 0.4877 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.4849 | ppm | 0.0066 | 1.36 | 407.4000 | 0.4849 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4890 | ppm | 0.0021 | 0.43 | 943.5000 | 0.4890 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.4685 | ppm | 0.0048 | 1.03 | 537.8000 | 0.4685 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.4897 | ppm | 0.0016 | 0.33 | 427.7000 | 0.4897 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.4510 | ppm | 0.0502 | 2.05 | 5320.0000 | 2.4510 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4921 | ppm | 0.0013 | 0.26 | 391.5000 | 0.4921 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.4944 | ppm | 0.0106 | 2.15 | 154600.0000 | 0.4944 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.4882 | ppm | 0.0016 | 0.32 | 52810.0000 | 0.4882 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4884 | ppm | 0.0007 | 0.15 | 738.9000 | 0.4884 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4871 | ppm | 0.0008 | 0.17 | 12630.0000 | 0.4871 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.4719 | ppm | 0.0027 | 0.58 | 990.5000 | 0.4719 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4869 | ppm | 0.0010 | 0.20 | 11240.0000 | 0.4869 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.4806 | ppm | 0.0013 | 0.27 | 33380.0000 | 0.4806 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9886 | 373600.0000 | 0.0049 | 0.49 |
| Y_R 371.029 | 0.9976 | 53740.0000 | 0.0015 | 0.15 |

Sample Name: 440-195176-g-1-e

Date: 11/2/2017 11:36:32 AM Rack:Tube: 1:45

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0009 u | ppm | 0.0001 | 11.24 | -43.1200 | -0.0009 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0192 | ppm | 0.0000 | 0.05 | -636.1000 | 0.0192 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0063 | ppm | 0.0038 | 60.38 | 11.2100 | 0.0063 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.5303 | ppm | 0.0017 | 0.33 | 5930.0000 | 0.5303 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0585 | ppm | 0.0008 | 1.34 | 4292.0000 | 0.0585 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0002 | ppm | 0.0001 | 77.00 | 40.4700 | 0.0002 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 86.9400 | ppm | 0.4798 | 0.55 | 309700.0000 | 86.9400 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0003 | ppm | 0.0000 | 6.98 | 4.3560 | 0.0003 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0001 u | ppm | 0.0007 | > 100.00 | -10.3200 | -0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0014 | ppm | 0.0004 | 26.74 | 10.7800 | 0.0014 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0186 | ppm | 0.0002 | 1.32 | 761.9000 | 0.0186 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.2098 | ppm | 0.0062 | 2.93 | 896.4000 | 0.2098 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 2.9620 | ppm | 0.0180 | 0.61 | 3028.0000 | 2.9620 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0065 | ppm | 0.0004 | 5.84 | 573.5000 | 0.0065 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 26.0000 | ppm | 0.2530 | 0.97 | 58150.0000 | 26.0000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4230 | ppm | 0.0001 | 0.03 | 39600.0000 | 0.4230 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.1053 | ppm | 0.0024 | 2.24 | 560.6000 | 0.1053 (ppm) | Y 371.029 |
| Na (589.592 nm) | 130.5000 | ppm | 0.8995 | 0.69 | 672800.0000 | 130.5000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0047 | ppm | 0.0011 | 23.59 | 20.7700 | 0.0047 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.2827 | ppm | 0.0071 | 2.50 | 243.3000 | 0.2827 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0020 u | ppm | 0.0034 | > 100.00 | -7.8300 | -0.0020 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0057 | ppm | 0.0040 | 69.18 | -0.5001 | 0.0057 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0032 | ppm | 0.0004 | 14.06 | 0.2033 | 0.0032 (ppm) | Y 371.029 |
| Si (251.611 nm) | 16.9400 | ppm | 0.0337 | 0.20 | 36100.0000 | 16.9400 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0020 | ppm | 0.0025 | > 100.00 | -1.7630 | 0.0020 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.7196 | ppm | 0.0036 | 0.50 | 225900.0000 | 0.7196 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0012 | ppm | 0.0004 | 30.25 | -50.5000 | 0.0012 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0025 | ppm | 0.0004 | 15.41 | -1.8820 | 0.0025 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0025 u | ppm | 0.0001 | 2.86 | 43.0500 | -0.0025 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0027 | ppm | 0.0008 | 29.00 | -2.7250 | 0.0027 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0270 | ppm | 0.0003 | 1.03 | 721.4000 | 0.0270 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0004 | ppm | 0.0000 | 4.92 | 3.5530 | 0.0004 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9479 | 358200.0000 | 0.0002 | 0.02 |
| Y_R 371.029 | 0.9853 | 53080.0000 | 0.0112 | 1.14 |

Sample Name: 440-195176-g-1-f ms

Date: 11/2/2017 11:38:36 AM Rack:Tube: 1:46

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2402 | ppm | 0.0009 | 0.39 | 8297.0000 | 0.2402 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.5390 | ppm | 0.0013 | 0.24 | 11410.0000 | 0.5390 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.5214 | ppm | 0.0015 | 0.29 | 423.3000 | 0.5214 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0350 | ppm | 0.0029 | 0.28 | 11520.0000 | 1.0350 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.5365 | ppm | 0.0013 | 0.23 | 39420.0000 | 0.5365 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.5038 | ppm | 0.0003 | 0.06 | 83080.0000 | 0.5038 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 88.5500 | ppm | 0.0900 | 0.10 | 315500.0000 | 88.5500 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4784 | ppm | 0.0020 | 0.41 | 11860.0000 | 0.4784 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4880 | ppm | 0.0042 | 0.86 | 6582.0000 | 0.4880 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4895 | ppm | 0.0021 | 0.43 | 2938.0000 | 0.4895 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.5309 | ppm | 0.0022 | 0.41 | 18770.0000 | 0.5309 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.6980 | ppm | 0.0006 | 0.08 | 2964.0000 | 0.6980 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 7.9800 | ppm | 0.0148 | 0.19 | 8257.0000 | 7.9800 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4920 | ppm | 0.0038 | 0.78 | 28980.0000 | 0.4920 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 28.2500 | ppm | 0.0943 | 0.33 | 63170.0000 | 28.2500 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9012 | ppm | 0.0015 | 0.17 | 84390.0000 | 0.9012 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.5968 | ppm | 0.0009 | 0.16 | 3150.0000 | 0.5968 (ppm) | Y 371.029 |
| Na (589.592 nm) | 134.6000 | ppm | 0.6370 | 0.47 | 693700.0000 | 134.6000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4804 | ppm | 0.0016 | 0.33 | 2290.0000 | 0.4804 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.8010 | ppm | 0.0034 | 0.42 | 694.0000 | 0.8010 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4759 | ppm | 0.0054 | 1.13 | 919.0000 | 0.4759 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.4968 | ppm | 0.0066 | 1.32 | 568.3000 | 0.4968 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.4950 | ppm | 0.0019 | 0.37 | 432.1000 | 0.4950 (ppm) | Y 371.029 |
| Si (251.611 nm) | 18.9000 | ppm | 0.1031 | 0.55 | 40360.0000 | 18.9000 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.5029 | ppm | 0.0027 | 0.55 | 400.2000 | 0.5029 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.2020 | ppm | 0.0017 | 0.14 | 376800.0000 | 1.2020 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.5052 | ppm | 0.0020 | 0.39 | 54580.0000 | 0.5052 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4775 | ppm | 0.0012 | 0.26 | 721.3000 | 0.4775 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.5048 | ppm | 0.0005 | 0.10 | 13150.0000 | 0.5048 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.4965 | ppm | 0.0016 | 0.32 | 1040.0000 | 0.4965 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4835 | ppm | 0.0003 | 0.07 | 11190.0000 | 0.4835 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.4946 | ppm | 0.0020 | 0.40 | 34360.0000 | 0.4946 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9475 | 358100.0000 | 0.0011 | 0.12 |
| Y_R 371.029 | 0.9810 | 52840.0000 | 0.0036 | 0.37 |

Sample Name: 440-195176-g-1-g msd

Date: 11/2/2017 11:40:41 AM Rack:Tube: 1:47

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2392 | ppm | 0.0013 | 0.55 | 8263.0000 | 0.2392 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.5396 | ppm | 0.0012 | 0.22 | 11430.0000 | 0.5396 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.5137 | ppm | 0.0042 | 0.81 | 417.1000 | 0.5137 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0330 | ppm | 0.0037 | 0.36 | 11500.0000 | 1.0330 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.5346 | ppm | 0.0049 | 0.92 | 39270.0000 | 0.5346 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.5051 | ppm | 0.0007 | 0.14 | 83290.0000 | 0.5051 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 89.2800 | ppm | 0.6667 | 0.75 | 318100.0000 | 89.2800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4800 | ppm | 0.0018 | 0.37 | 11900.0000 | 0.4800 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4859 | ppm | 0.0017 | 0.35 | 6553.0000 | 0.4859 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4906 | ppm | 0.0003 | 0.07 | 2944.0000 | 0.4906 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.5321 | ppm | 0.0018 | 0.35 | 18810.0000 | 0.5321 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.6996 | ppm | 0.0097 | 1.39 | 2971.0000 | 0.6996 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 8.0670 | ppm | 0.1747 | 2.17 | 8347.0000 | 8.0670 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4913 | ppm | 0.0044 | 0.89 | 28940.0000 | 0.4913 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 28.2400 | ppm | 0.2777 | 0.98 | 63150.0000 | 28.2400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9032 | ppm | 0.0016 | 0.18 | 84580.0000 | 0.9032 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.5986 | ppm | 0.0032 | 0.53 | 3160.0000 | 0.5986 (ppm) | Y 371.029 |
| Na (589.592 nm) | 135.1000 | ppm | 1.4700 | 1.09 | 696600.0000 | 135.1000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4815 | ppm | 0.0018 | 0.38 | 2295.0000 | 0.4815 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.8059 | ppm | 0.0038 | 0.47 | 698.5000 | 0.8059 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4797 | ppm | 0.0017 | 0.35 | 926.4000 | 0.4797 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.4951 | ppm | 0.0019 | 0.38 | 566.3000 | 0.4951 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.5015 | ppm | 0.0056 | 1.11 | 437.8000 | 0.5015 (ppm) | Y 371.029 |
| Si (251.611 nm) | 19.1300 | ppm | 0.1163 | 0.61 | 40840.0000 | 19.1300 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.5084 | ppm | 0.0027 | 0.54 | 404.6000 | 0.5084 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.2110 | ppm | 0.0097 | 0.80 | 379600.0000 | 1.2110 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.5078 | ppm | 0.0023 | 0.45 | 54860.0000 | 0.5078 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4806 | ppm | 0.0021 | 0.44 | 726.1000 | 0.4806 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.5052 | ppm | 0.0017 | 0.34 | 13160.0000 | 0.5052 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.5002 | ppm | 0.0023 | 0.46 | 1048.0000 | 0.5002 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4847 | ppm | 0.0007 | 0.14 | 11220.0000 | 0.4847 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.4962 | ppm | 0.0020 | 0.40 | 34480.0000 | 0.4962 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9443 | 356800.0000 | 0.0023 | 0.24 |
| Y_R 371.029 | 0.9812 | 52860.0000 | 0.0098 | 1.00 |

Sample Name: 440-195176-g-2-c

Date: 11/2/2017 11:42:46 AM Rack:Tube: 1:48

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0007 u | ppm | 0.0004 | 57.80 | -67.4900 | -0.0007 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0133 | ppm | 0.0004 | 3.09 | -584.6000 | 0.0133 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0234 | ppm | 0.0010 | 4.42 | 24.8000 | 0.0234 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.7163 | ppm | 0.0004 | 0.06 | 8012.0000 | 0.7163 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0344 | ppm | 0.0000 | 0.02 | 2543.0000 | 0.0344 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 55.2000 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 349.9000 | ppm | 5.7660 | 1.65 | 1246000.0000 | 349.9000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | 1.0580 | 0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0005 u | ppm | 0.0003 | 57.96 | -9.9910 | -0.0005 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0005 | ppm | 0.0003 | 57.83 | 9.9520 | 0.0005 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0311 | ppm | 0.0002 | 0.77 | 1030.0000 | 0.0311 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.9010 | ppm | 0.0190 | 1.00 | 8079.0000 | 1.9010 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.4400 | ppm | 0.2226 | 2.13 | 10870.0000 | 10.4400 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0006 u | ppm | 0.0018 | > 100.00 | 914.5000 | 0.0006 u (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 151.2000 | ppm | 0.1899 | 0.13 | 338100.0000 | 151.2000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.3040 | ppm | 0.0031 | 0.13 | 215200.0000 | 2.3040 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0742 | ppm | 0.0012 | 1.65 | 397.0000 | 0.0742 (ppm) | Y 371.029 |
| Na (589.592 nm) | 665.8000 | ppm | 1.1070 | 0.17 | 3426000.0000 | 665.8000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0039 | ppm | 0.0018 | 45.36 | 11.3600 | 0.0039 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0950 | ppm | 0.0027 | 2.80 | 67.3000 | 0.0950 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0055 u | ppm | 0.0008 | 14.67 | -9.3450 | -0.0055 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0004 u | ppm | 0.0047 | > 100.00 | -6.3320 | -0.0004 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0038 | ppm | 0.0022 | 57.70 | -0.3991 | 0.0038 (ppm) | Y 371.029 |
| Si (251.611 nm) | 16.9800 | ppm | 0.0610 | 0.36 | 36210.0000 | 16.9800 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0026 u | ppm | 0.0013 | 51.63 | -5.2270 | -0.0026 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 2.6900 | ppm | 0.0489 | 1.82 | 844400.0000 | 2.6900 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0008 | ppm | 0.0003 | 33.07 | -316.2000 | 0.0008 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0004 u | ppm | 0.0030 | > 100.00 | -1.9780 | 0.0004 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0121 u | ppm | 0.0001 | 0.60 | 84.4000 | -0.0121 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0001 | ppm | 0.0000 | 12.41 | -14.5400 | 0.0001 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0090 u | ppm | 0.0001 | 0.70 | 0.8162 | -0.0090 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0001 | 40.03 | 11.1800 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8880 | 335600.0000 | 0.0018 | 0.20 |
| Y_R 371.029 | 0.9489 | 51120.0000 | 0.0007 | 0.08 |

Sample Name: 440-195176-g-3-h@2

Date: 11/2/2017 11:44:50 AM Rack:Tube: 1:49

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0011 u | ppm | 0.0001 | 10.66 | -61.9700 | -0.0011 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0168 | ppm | 0.0008 | 4.87 | -549.9000 | 0.0168 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0337 | ppm | 0.0021 | 6.08 | 33.4900 | 0.0337 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.2016 | ppm | 0.0004 | 0.21 | 2254.0000 | 0.2016 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0132 | ppm | 0.0001 | 0.45 | 967.2000 | 0.0132 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 11.20 | 5.0850 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 181.6000 | ppm | 1.5150 | 0.83 | 646800.0000 | 181.6000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | 0.8671 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0004 | > 100.00 | -10.5400 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0011 | ppm | 0.0001 | 8.25 | 10.5000 | 0.0011 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0245 | ppm | 0.0001 | 0.46 | 909.9000 | 0.0245 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.1079 | ppm | 0.0004 | 0.39 | 472.9000 | 0.1079 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 6.0790 | ppm | 0.0841 | 1.38 | 6303.0000 | 6.0790 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0040 | ppm | 0.0010 | 24.38 | 763.3000 | 0.0040 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 104.4000 | ppm | 0.9644 | 0.92 | 233500.0000 | 104.4000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.7240 | ppm | 0.0034 | 0.20 | 160900.0000 | 1.7240 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.1599 | ppm | 0.0029 | 1.82 | 848.3000 | 0.1599 (ppm) | Y 371.029 |
| Na (589.592 nm) | 551.9000 | ppm | 2.6800 | 0.49 | 2840000.0000 | 551.9000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0001 u | ppm | 0.0004 | > 100.00 | -3.5570 | 0.0001 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0410 | ppm | 0.0066 | 16.08 | 17.9100 | 0.0410 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0037 u | ppm | 0.0015 | 40.82 | -8.2580 | -0.0037 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0013 u | ppm | 0.0012 | 96.57 | -9.8120 | -0.0013 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0026 | ppm | 0.0024 | 91.47 | -0.3467 | 0.0026 (ppm) | Y 371.029 |
| Si (251.611 nm) | 7.5300 | ppm | 0.0106 | 0.14 | 16070.0000 | 7.5300 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0008 u | ppm | 0.0003 | 32.69 | -3.8840 | -0.0008 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.6000 | ppm | 0.0030 | 0.19 | 502000.0000 | 1.6000 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0007 | ppm | 0.0001 | 9.95 | -187.2000 | 0.0007 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0004 u | ppm | 0.0025 | > 100.00 | -2.3960 | 0.0004 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0065 u | ppm | 0.0005 | 7.10 | 30.3100 | -0.0065 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0022 u | ppm | 0.0004 | 18.45 | -15.7700 | -0.0022 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0075 u | ppm | 0.0001 | 1.77 | -7.7710 | -0.0075 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | -14.6100 | 0.0001 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9078 | 343000.0000 | 0.0025 | 0.27 |
| Y_R 371.029 | 0.9513 | 51250.0000 | 0.0084 | 0.88 |

Sample Name: 440-195095-h-1-g@2

Date: 11/2/2017 11:46:54 AM Rack:Tube: 1:50

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0011 u | ppm | 0.0002 | 19.54 | -52.9800 | -0.0011 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0192 | ppm | 0.0006 | 3.33 | -601.9000 | 0.0192 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0302 | ppm | 0.0034 | 11.17 | 30.5800 | 0.0302 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.3740 | ppm | 0.0021 | 0.57 | 4183.0000 | 0.3740 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0187 | ppm | 0.0001 | 0.65 | 1368.0000 | 0.0187 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 25.57 | -1.8420 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 125.7000 | ppm | 1.5370 | 1.22 | 447600.0000 | 125.7000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0000 | 9.82 | 1.4670 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -8.1940 | 0.0000 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0009 | ppm | 0.0003 | 34.87 | 8.6480 | 0.0009 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1363 | ppm | 0.0010 | 0.74 | 4872.0000 | 0.1363 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0406 | ppm | 0.0003 | 0.67 | 182.1000 | 0.0406 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 2.9970 | ppm | 0.0258 | 0.86 | 3075.0000 | 2.9970 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0062 | ppm | 0.0010 | 16.34 | 671.1000 | 0.0062 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 51.1700 | ppm | 0.1987 | 0.39 | 114400.0000 | 51.1700 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.7356 | ppm | 0.0028 | 0.38 | 68740.0000 | 0.7356 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0992 | ppm | 0.0011 | 1.15 | 528.2000 | 0.0992 (ppm) | Y 371.029 |
| Na (589.592 nm) | 149.9000 | ppm | 0.0437 | 0.03 | 772600.0000 | 149.9000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0024 | ppm | 0.0003 | 11.19 | 9.0560 | 0.0024 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.1422 | ppm | 0.0009 | 0.65 | 109.2000 | 0.1422 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0026 u | ppm | 0.0011 | 40.84 | -7.9720 | -0.0026 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0032 | ppm | 0.0036 | > 100.00 | -3.1990 | 0.0032 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0018 u | ppm | 0.0028 | > 100.00 | -1.1330 | 0.0018 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 9.2410 | ppm | 0.0358 | 0.39 | 19710.0000 | 9.2410 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0014 u | ppm | 0.0003 | 18.76 | -4.4690 | -0.0014 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.1530 | ppm | 0.0038 | 0.33 | 361900.0000 | 1.1530 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0004 | ppm | 0.0002 | 55.55 | -164.1000 | 0.0004 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0024 | ppm | 0.0002 | 8.85 | -1.4650 | 0.0024 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0037 u | ppm | 0.0001 | 2.15 | 55.0700 | -0.0037 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0011 u | ppm | 0.0002 | 21.20 | -11.9900 | -0.0011 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0029 u | ppm | 0.0002 | 6.98 | 79.8200 | -0.0029 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0001 | 79.10 | -13.4000 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9444 | 356900.0000 | 0.0056 | 0.60 |
| Y_R 371.029 | 1.0080 | 54310.0000 | 0.0053 | 0.53 |

Sample Name: CCV 4461459

Date: 11/2/2017 11:48:59 AM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5004 | ppm | 0.0012 | 0.24 | 17300.0000 | 0.5004 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0070 | ppm | 0.0015 | 0.15 | 22200.0000 | 1.0070 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0020 | ppm | 0.0000 | 0.00 | 807.7000 | 1.0020 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0030 | ppm | 0.0019 | 0.19 | 11110.0000 | 1.0030 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9823 | ppm | 0.0003 | 0.03 | 72160.0000 | 0.9823 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0030 | ppm | 0.0031 | 0.31 | 165300.0000 | 1.0030 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.0190 | ppm | 0.0036 | 0.07 | 18010.0000 | 5.0190 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9941 | ppm | 0.0026 | 0.26 | 24650.0000 | 0.9941 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0020 | ppm | 0.0040 | 0.40 | 13520.0000 | 1.0020 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9926 | ppm | 0.0040 | 0.41 | 5953.0000 | 0.9926 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0150 | ppm | 0.0030 | 0.30 | 35850.0000 | 1.0150 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0030 | ppm | 0.0080 | 0.80 | 4251.0000 | 1.0030 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.1100 | ppm | 0.0629 | 0.62 | 10460.0000 | 10.1100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0040 | ppm | 0.0009 | 0.09 | 58760.0000 | 1.0040 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.9530 | ppm | 0.0018 | 0.04 | 11080.0000 | 4.9530 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9957 | ppm | 0.0025 | 0.25 | 93330.0000 | 0.9957 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9975 | ppm | 0.0050 | 0.50 | 5262.0000 | 0.9975 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.1200 | ppm | 0.0007 | 0.01 | 53640.0000 | 10.1200 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9959 | ppm | 0.0049 | 0.49 | 4751.0000 | 0.9959 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9975 | ppm | 0.0024 | 0.25 | 851.6000 | 0.9975 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9972 | ppm | 0.0032 | 0.32 | 1929.0000 | 0.9972 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0070 | ppm | 0.0045 | 0.45 | 1161.0000 | 1.0070 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9965 | ppm | 0.0026 | 0.26 | 872.9000 | 0.9965 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.3940 | ppm | 0.1804 | 3.34 | 11680.0000 | 5.3940 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0050 | ppm | 0.0001 | 0.01 | 802.8000 | 1.0050 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9901 | ppm | 0.0231 | 2.33 | 309600.0000 | 0.9901 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0050 | ppm | 0.0029 | 0.29 | 108800.0000 | 1.0050 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0050 | ppm | 0.0027 | 0.27 | 1527.0000 | 1.0050 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0080 | ppm | 0.0000 | 0.00 | 26080.0000 | 1.0080 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9957 | ppm | 0.0016 | 0.16 | 2097.0000 | 0.9957 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9972 | ppm | 0.0031 | 0.31 | 22930.0000 | 0.9972 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9982 | ppm | 0.0027 | 0.27 | 69370.0000 | 0.9982 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0110 | 382000.0000 | 0.0018 | 0.17 |
| Y_R 371.029 | 1.0460 | 56340.0000 | 0.0004 | 0.04 |

Sample Name: CCB 4461458

Date: 11/2/2017 11:51:03 AM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0003 | ppm | 0.0003 | > 100.00 | 10.8000 | 0.0003 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0013 | ppm | 0.0008 | 60.72 | -1153.0000 | 0.0013 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0017 | ppm | 0.0009 | 50.96 | 7.7020 | 0.0017 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0011 | ppm | 0.0013 | > 100.00 | 10.3200 | 0.0011 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0001 | 63.07 | 1.1150 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 47.96 | 23.1600 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0146 u | ppm | 0.0024 | 16.30 | 82.4600 | -0.0146 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 49.42 | 0.3430 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0001 u | ppm | 0.0010 | > 100.00 | -11.5600 | -0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0003 | 92.78 | 3.3250 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0010 | ppm | 0.0000 | 2.22 | 200.2000 | 0.0010 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0020 | ppm | 0.0006 | 31.57 | 12.3500 | 0.0020 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1613 | ppm | 0.0884 | 54.79 | 98.5300 | 0.1613 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0074 | ppm | 0.0002 | 2.77 | 447.9000 | 0.0074 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0003 | ppm | 0.0001 | 33.20 | 8.5050 | 0.0003 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0001 | 56.42 | 89.3300 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0038 | ppm | 0.0018 | 46.97 | 25.9100 | 0.0038 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0473 | ppm | 0.0051 | 10.79 | 1798.0000 | 0.0473 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0003 u | ppm | 0.0004 | > 100.00 | -1.2190 | -0.0003 u (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0005 u | ppm | 0.0019 | > 100.00 | -14.4000 | -0.0005 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0013 | ppm | 0.0002 | 13.60 | -2.6040 | 0.0013 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0092 | ppm | 0.0076 | 82.02 | 5.6430 | 0.0092 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0010 u | ppm | 0.0017 | > 100.00 | -3.0470 | -0.0010 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0107 | ppm | 0.0048 | 44.82 | 41.1900 | 0.0107 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0041 | ppm | 0.0006 | 14.75 | -0.1680 | 0.0041 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0002 | > 100.00 | 36.2300 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0013 | ppm | 0.0003 | 20.69 | 44.9600 | 0.0013 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0012 | ppm | 0.0008 | 63.06 | -4.4620 | 0.0012 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0003 | ppm | 0.0003 | > 100.00 | 47.4900 | 0.0003 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0030 | ppm | 0.0010 | 33.23 | -0.8427 | 0.0030 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0004 | ppm | 0.0001 | 16.37 | 88.8600 | 0.0004 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 26.60 | -23.4700 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0240 | 386800.0000 | 0.0035 | 0.34 |
| Y_R 371.029 | 1.0560 | 56870.0000 | 0.0088 | 0.84 |

Sample Name: 440-195095-h-2-c

Date: 11/2/2017 11:54:20 AM Rack:Tube: 1:51

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0007 u | ppm | 0.0003 | 40.11 | -31.3700 | -0.0007 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0308 | ppm | 0.0001 | 0.39 | -389.9000 | 0.0308 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0568 | ppm | 0.0039 | 6.88 | 52.2300 | 0.0568 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.5437 | ppm | 0.0006 | 0.11 | 6081.0000 | 0.5437 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0856 | ppm | 0.0025 | 2.88 | 6280.0000 | 0.0856 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 6.2860 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 50.3700 | ppm | 0.9450 | 1.88 | 179500.0000 | 50.3700 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0000 | 2.99 | -0.7476 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0002 u | ppm | 0.0012 | > 100.00 | -7.4940 | 0.0002 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0015 | ppm | 0.0004 | 25.24 | 10.5700 | 0.0015 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0112 | ppm | 0.0001 | 0.88 | 524.2000 | 0.0112 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0705 | ppm | 0.0037 | 5.31 | 305.2000 | 0.0705 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 4.6060 | ppm | 0.1212 | 2.63 | 4735.0000 | 4.6060 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0092 | ppm | 0.0000 | 0.28 | 678.9000 | 0.0092 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 21.5900 | ppm | 0.4801 | 2.22 | 48270.0000 | 21.5900 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.2372 | ppm | 0.0008 | 0.35 | 22280.0000 | 0.2372 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.1092 | ppm | 0.0012 | 1.14 | 581.1000 | 0.1092 (ppm) | Y 371.029 |
| Na (589.592 nm) | 185.8000 | ppm | 4.1000 | 2.21 | 957100.0000 | 185.8000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0023 | ppm | 0.0001 | 3.17 | 10.2300 | 0.0023 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.1671 | ppm | 0.0041 | 2.45 | 137.3000 | 0.1671 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0018 u | ppm | 0.0014 | 77.46 | -7.9250 | -0.0018 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0025 | ppm | 0.0016 | 63.57 | -4.4320 | 0.0025 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0031 | ppm | 0.0023 | 72.43 | 0.2826 | 0.0031 (ppm) | Y 371.029 |
| Si (251.611 nm) | 16.9100 | ppm | 0.1100 | 0.65 | 36020.0000 | 16.9100 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0006 u | ppm | 0.0009 | > 100.00 | -2.9450 | 0.0006 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.6880 | ppm | 0.0131 | 1.91 | 215600.0000 | 0.6880 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0008 | ppm | 0.0001 | 5.94 | -53.2100 | 0.0008 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0007 | ppm | 0.0009 | > 100.00 | -4.9800 | 0.0007 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0005 | ppm | 0.0002 | 48.19 | 82.4500 | 0.0005 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0006 u | ppm | 0.0008 | > 100.00 | -9.2710 | -0.0006 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0016 u | ppm | 0.0000 | 2.30 | 62.0600 | -0.0016 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0001 | 34.73 | -6.2540 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9900 | 374100.0000 | 0.0021 | 0.21 |
| Y_R 371.029 | 1.0360 | 55840.0000 | 0.0248 | 2.39 |

Sample Name: 440-195095-h-3-c

Date: 11/2/2017 11:56:24 AM Rack:Tube: 1:52

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0012 u | ppm | 0.0001 | 10.54 | -56.3800 | -0.0012 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0211 | ppm | 0.0009 | 4.10 | -575.7000 | 0.0211 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0291 | ppm | 0.0029 | 9.80 | 29.6400 | 0.0291 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.3257 | ppm | 0.0003 | 0.11 | 3643.0000 | 0.3257 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0865 | ppm | 0.0019 | 2.17 | 6351.0000 | 0.0865 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | 6.9190 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 121.9000 | ppm | 0.5443 | 0.45 | 434400.0000 | 121.9000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 68.85 | -0.3854 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0004 u | ppm | 0.0001 | 31.95 | -13.3200 | -0.0004 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0017 | ppm | 0.0001 | 6.28 | 13.1600 | 0.0017 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0112 | ppm | 0.0004 | 3.40 | 479.3000 | 0.0112 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.3900 | ppm | 0.0034 | 0.87 | 1662.0000 | 0.3900 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 3.3520 | ppm | 0.0397 | 1.18 | 3442.0000 | 3.3520 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0051 | ppm | 0.0002 | 4.83 | 576.1000 | 0.0051 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 40.5800 | ppm | 0.4670 | 1.15 | 90750.0000 | 40.5800 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.8020 | ppm | 0.0011 | 0.13 | 74930.0000 | 0.8020 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0942 | ppm | 0.0001 | 0.15 | 501.8000 | 0.0942 (ppm) | Y 371.029 |
| Na (589.592 nm) | 110.3000 | ppm | 1.0000 | 0.91 | 568800.0000 | 110.3000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0031 | ppm | 0.0002 | 5.79 | 12.2800 | 0.0031 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.3060 | ppm | 0.0061 | 1.98 | 264.9000 | 0.3060 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0025 u | ppm | 0.0028 | > 100.00 | -8.0700 | -0.0025 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0032 | ppm | 0.0028 | 88.02 | -3.0580 | 0.0032 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0025 u | ppm | 0.0001 | 2.72 | -4.8470 | -0.0025 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 16.8200 | ppm | 0.0813 | 0.48 | 35840.0000 | 16.8200 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0022 | ppm | 0.0006 | 25.33 | -1.6220 | 0.0022 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.2570 | ppm | 0.0116 | 0.92 | 394200.0000 | 1.2570 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0005 | ppm | 0.0001 | 11.83 | -151.6000 | 0.0005 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0005 u | ppm | 0.0013 | > 100.00 | -4.3670 | 0.0005 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0039 u | ppm | 0.0001 | 1.44 | 47.3800 | -0.0039 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0003 u | ppm | 0.0001 | 31.75 | -10.3400 | -0.0003 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0041 u | ppm | 0.0003 | 6.58 | 24.5200 | -0.0041 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 16.01 | -15.2200 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9766 | 369100.0000 | 0.0024 | 0.24 |
| Y_R 371.029 | 1.0240 | 55160.0000 | 0.0084 | 0.82 |

Sample Name: 440-195095-h-4-c@2

Date: 11/2/2017 11:58:28 AM Rack:Tube: 1:53

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0003 u | ppm | 0.0002 | 62.11 | -15.1500 | -0.0003 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0181 | ppm | 0.0003 | 1.76 | -725.9000 | 0.0181 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0305 | ppm | 0.0034 | 11.23 | 30.9600 | 0.0305 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.2678 | ppm | 0.0007 | 0.25 | 2994.0000 | 0.2678 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0428 | ppm | 0.0006 | 1.47 | 3133.0000 | 0.0428 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 7.8880 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 24.7800 | ppm | 0.0594 | 0.24 | 88390.0000 | 24.7800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 41.66 | -0.3120 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0001 | 26.12 | -13.8900 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0014 | ppm | 0.0003 | 18.63 | 9.9830 | 0.0014 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0091 | ppm | 0.0000 | 0.36 | 469.0000 | 0.0091 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0390 | ppm | 0.0009 | 2.27 | 170.4000 | 0.0390 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 2.3060 | ppm | 0.1074 | 4.66 | 2336.0000 | 2.3060 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0081 | ppm | 0.0005 | 5.65 | 549.5000 | 0.0081 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 10.7700 | ppm | 0.1200 | 1.11 | 24090.0000 | 10.7700 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1176 | ppm | 0.0002 | 0.18 | 11080.0000 | 0.1176 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0541 | ppm | 0.0014 | 2.62 | 290.7000 | 0.0541 (ppm) | Y 371.029 |
| Na (589.592 nm) | 92.3700 | ppm | 0.3611 | 0.39 | 476600.0000 | 92.3700 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0013 | ppm | 0.0012 | 91.04 | 5.7260 | 0.0013 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0890 | ppm | 0.0005 | 0.59 | 66.6400 | 0.0890 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0014 u | ppm | 0.0010 | 68.83 | -7.4540 | -0.0014 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0030 | ppm | 0.0029 | 97.17 | -2.6750 | 0.0030 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0028 | ppm | 0.0018 | 63.43 | 0.1114 | 0.0028 (ppm) | Y 371.029 |
| Si (251.611 nm) | 8.2990 | ppm | 0.0940 | 1.13 | 17690.0000 | 8.2990 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0010 u | ppm | 0.0025 | > 100.00 | -2.6430 | 0.0010 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.3396 | ppm | 0.0007 | 0.20 | 106500.0000 | 0.3396 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0007 | ppm | 0.0001 | 8.19 | -44.1300 | 0.0007 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0008 u | ppm | 0.0026 | > 100.00 | -7.4970 | -0.0008 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0003 | ppm | 0.0001 | 29.30 | 62.6900 | 0.0003 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0001 u | ppm | 0.0005 | > 100.00 | -7.8610 | -0.0001 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0023 u | ppm | 0.0001 | 4.99 | 38.2200 | -0.0023 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0001 | 29.42 | -8.6900 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0060 | 380100.0000 | 0.0019 | 0.19 |
| Y_R 371.029 | 1.0450 | 56300.0000 | 0.0122 | 1.17 |

Sample Name: 440-195170-m-1-a

Date: 11/2/2017 12:00:32 PM Rack:Tube: 1:54

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0009 u | ppm | 0.0004 | 40.23 | -55.2500 | -0.0009 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0233 | ppm | 0.0005 | 2.00 | -563.8000 | 0.0233 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0005 u | ppm | 0.0018 | > 100.00 | 6.1630 | 0.0005 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1759 | ppm | 0.0011 | 0.64 | 1969.0000 | 0.1759 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1007 | ppm | 0.0004 | 0.42 | 7400.0000 | 0.1007 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 76.98 | 8.2550 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 189.3000 | ppm | 1.1460 | 0.61 | 674400.0000 | 189.3000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0003 | ppm | 0.0001 | 27.41 | 5.4520 | 0.0003 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0004 u | ppm | 0.0005 | > 100.00 | -12.2400 | -0.0004 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0037 | ppm | 0.0004 | 9.80 | 26.3000 | 0.0037 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0196 | ppm | 0.0005 | 2.51 | 727.2000 | 0.0196 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0029 | ppm | 0.0029 | 96.95 | 22.1000 | 0.0029 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 5.6030 | ppm | 0.0281 | 0.50 | 5791.0000 | 5.6030 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0166 | ppm | 0.0004 | 2.15 | 1360.0000 | 0.0166 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 39.4600 | ppm | 0.1166 | 0.30 | 88240.0000 | 39.4600 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0125 | ppm | 0.0000 | 0.23 | 1377.0000 | 0.0125 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0037 | ppm | 0.0008 | 20.95 | 25.2700 | 0.0037 (ppm) | Y 371.029 |
| Na (589.592 nm) | 93.0000 | ppm | 1.0540 | 1.13 | 479900.0000 | 93.0000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0002 u | ppm | 0.0009 | > 100.00 | -4.3390 | -0.0002 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0300 | ppm | 0.0006 | 1.86 | 10.9700 | 0.0300 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0021 u | ppm | 0.0023 | > 100.00 | -6.9790 | -0.0021 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0032 | ppm | 0.0010 | 30.22 | -0.6745 | 0.0032 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0129 | ppm | 0.0028 | 21.65 | 7.8120 | 0.0129 (ppm) | Y 371.029 |
| Si (251.611 nm) | 13.2000 | ppm | 0.0255 | 0.19 | 28120.0000 | 13.2000 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0018 | ppm | 0.0019 | > 100.00 | -1.9810 | 0.0018 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.2400 | ppm | 0.0020 | 0.16 | 389500.0000 | 1.2400 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0000 | 26.15 | -252.2000 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0021 | ppm | 0.0001 | 6.82 | -4.2740 | 0.0021 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0029 u | ppm | 0.0004 | 13.35 | 164.8000 | -0.0029 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0012 u | ppm | 0.0015 | > 100.00 | -13.1200 | -0.0012 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0256 | ppm | 0.0001 | 0.27 | 703.0000 | 0.0256 (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0001 u | ppm | 0.0001 | 50.70 | -20.9500 | -0.0001 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9722 | 367400.0000 | 0.0074 | 0.76 |
| Y_R 371.029 | 1.0130 | 54580.0000 | 0.0060 | 0.59 |

Sample Name: 440-195170-m-2-a

Date: 11/2/2017 12:02:37 PM Rack:Tube: 1:55

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0005 | ppm | 0.0001 | 26.55 | 16.2300 | 0.0005 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0020 | ppm | 0.0007 | 33.15 | -1139.0000 | 0.0020 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0042 | ppm | 0.0020 | 48.42 | 9.7400 | 0.0042 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0008 | ppm | 0.0006 | 74.88 | 7.1530 | 0.0008 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0001 | 48.85 | 0.4156 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 64.58 | 2.5610 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0243 | ppm | 0.0066 | 27.16 | 220.7000 | 0.0243 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | -2.0270 | 0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0002 u | ppm | 0.0002 | > 100.00 | -13.0900 | -0.0002 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0005 | ppm | 0.0000 | 8.61 | 4.4770 | 0.0005 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0209 | ppm | 0.0001 | 0.26 | 896.7000 | 0.0209 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0020 | ppm | 0.0022 | > 100.00 | 12.5300 | 0.0020 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0879 | ppm | 0.0207 | 23.59 | 22.0800 | 0.0879 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0074 | ppm | 0.0006 | 8.37 | 449.3000 | 0.0074 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0114 | ppm | 0.0056 | 49.02 | 33.4100 | 0.0114 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0003 | ppm | 0.0000 | 4.85 | 102.6000 | 0.0003 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0004 u | ppm | 0.0001 | 40.95 | 3.7110 | -0.0004 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0506 | ppm | 0.0153 | 30.22 | 1815.0000 | 0.0506 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0013 | ppm | 0.0010 | 74.11 | 6.3770 | 0.0013 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0049 u | ppm | 0.0070 | > 100.00 | -10.0200 | 0.0049 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0011 | ppm | 0.0001 | 10.34 | -2.8640 | 0.0011 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0051 | ppm | 0.0047 | 92.08 | 0.9821 | 0.0051 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0012 | ppm | 0.0008 | 68.35 | -1.1430 | 0.0012 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0116 | ppm | 0.0016 | 13.74 | 42.4700 | 0.0116 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0022 | ppm | 0.0026 | > 100.00 | -1.6570 | 0.0022 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0002 | ppm | 0.0001 | 40.80 | 120.8000 | 0.0002 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0003 | ppm | 0.0001 | 47.93 | -70.5700 | 0.0003 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0005 | ppm | 0.0001 | 26.78 | -5.5500 | 0.0005 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0001 | ppm | 0.0001 | 51.29 | 44.5600 | 0.0001 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0001 u | ppm | 0.0020 | > 100.00 | -7.0380 | -0.0001 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0113 | ppm | 0.0001 | 0.46 | 341.0000 | 0.0113 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0001 | 70.14 | -26.8900 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0240 | 386800.0000 | 0.0022 | 0.22 |
| Y_R 371.029 | 1.0390 | 55980.0000 | 0.0059 | 0.57 |

Sample Name: mb 440-438639/1-a@5

Date: 11/2/2017 12:04:41 PM Rack:Tube: 1:56

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | 2.0080 | 0.0001 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0457 | ppm | 0.0009 | 1.95 | -162.9000 | 0.0457 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0048 | ppm | 0.0021 | 43.42 | 10.2200 | 0.0048 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0057 | ppm | 0.0003 | 4.57 | 62.0100 | 0.0057 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0004 | ppm | 0.0000 | 4.18 | 19.7000 | 0.0004 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 6.67 | -2.7930 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.1013 | ppm | 0.0020 | 2.02 | 494.9000 | 0.1013 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 54.69 | 0.0505 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0007 u | ppm | 0.0006 | 81.31 | -20.4500 | -0.0007 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0002 | 49.32 | 3.7900 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0026 | ppm | 0.0001 | 1.96 | 254.7000 | 0.0026 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0274 | ppm | 0.0011 | 4.02 | 120.1000 | 0.0274 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1163 | ppm | 0.0585 | 50.30 | 51.7200 | 0.1163 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0091 | ppm | 0.0021 | 23.56 | 546.7000 | 0.0091 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0182 | ppm | 0.0011 | 6.03 | 48.5200 | 0.0182 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0009 | ppm | 0.0000 | 1.76 | 158.2000 | 0.0009 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0002 u | ppm | 0.0005 | > 100.00 | 6.5500 | 0.0002 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0620 | ppm | 0.0063 | 10.24 | 1874.0000 | 0.0620 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0003 u | ppm | 0.0006 | > 100.00 | -1.0960 | -0.0003 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0031 | ppm | 0.0041 | > 100.00 | -11.0600 | 0.0031 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0019 | ppm | 0.0006 | 31.25 | -1.4760 | 0.0019 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0078 | ppm | 0.0060 | 76.92 | 4.1300 | 0.0078 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0027 u | ppm | 0.0051 | > 100.00 | 0.1214 | 0.0027 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0331 | ppm | 0.0027 | 8.22 | 88.4100 | 0.0331 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0071 | ppm | 0.0006 | 8.15 | 2.2850 | 0.0071 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0013 | ppm | 0.0002 | 12.71 | 474.2000 | 0.0013 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0010 | ppm | 0.0001 | 10.03 | 8.8410 | 0.0010 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0000 u | ppm | 0.0015 | > 100.00 | -6.3590 | 0.0000 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0001 u | ppm | 0.0002 | > 100.00 | 40.2900 | -0.0001 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0000 u | ppm | 0.0013 | > 100.00 | -6.9770 | 0.0000 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0009 u | ppm | 0.0000 | 1.23 | 60.5300 | -0.0009 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | -33.6200 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9943 | 375700.0000 | 0.0003 | 0.03 |
| Y_R 371.029 | 1.0060 | 54210.0000 | 0.0030 | 0.30 |

Sample Name: lcs 440-438639/2-a@5

Date: 11/2/2017 12:06:45 PM Rack:Tube: 1:57

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2001 | ppm | 0.0043 | 2.14 | 6917.0000 | 0.2001 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.4175 | ppm | 0.0091 | 2.18 | 8497.0000 | 0.4175 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.3956 | ppm | 0.0076 | 1.91 | 322.6000 | 0.3956 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.3867 | ppm | 0.0071 | 1.83 | 4281.0000 | 0.3867 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.3996 | ppm | 0.0139 | 3.47 | 29350.0000 | 0.3996 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3925 | ppm | 0.0082 | 2.08 | 64730.0000 | 0.3925 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 1.9780 | ppm | 0.0331 | 1.67 | 7178.0000 | 1.9780 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3926 | ppm | 0.0069 | 1.75 | 9732.0000 | 0.3926 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4061 | ppm | 0.0058 | 1.43 | 5474.0000 | 0.4061 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.3992 | ppm | 0.0067 | 1.68 | 2395.0000 | 0.3992 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4094 | ppm | 0.0088 | 2.15 | 14560.0000 | 0.4094 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.4107 | ppm | 0.0087 | 2.12 | 1744.0000 | 0.4107 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 4.0190 | ppm | 0.1703 | 4.24 | 4118.0000 | 4.0190 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3946 | ppm | 0.0059 | 1.48 | 23100.0000 | 0.3946 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 2.0240 | ppm | 0.0722 | 3.57 | 4533.0000 | 2.0240 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4032 | ppm | 0.0085 | 2.10 | 37830.0000 | 0.4032 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4010 | ppm | 0.0096 | 2.38 | 2119.0000 | 0.4010 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.9570 | ppm | 0.0516 | 1.30 | 21930.0000 | 3.9570 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4009 | ppm | 0.0111 | 2.77 | 1913.0000 | 0.4009 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.3944 | ppm | 0.0064 | 1.63 | 328.0000 | 0.3944 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4020 | ppm | 0.0053 | 1.33 | 774.7000 | 0.4020 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.4088 | ppm | 0.0070 | 1.72 | 468.6000 | 0.4088 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3702 | ppm | 0.0065 | 1.75 | 323.1000 | 0.3702 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0862 | ppm | 0.0087 | 10.08 | 272.5000 | 0.0862 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4057 | ppm | 0.0067 | 1.64 | 322.2000 | 0.4057 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.3875 | ppm | 0.0062 | 1.61 | 121200.0000 | 0.3875 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.4056 | ppm | 0.0083 | 2.04 | 43870.0000 | 0.4056 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3960 | ppm | 0.0062 | 1.56 | 597.6000 | 0.3960 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4033 | ppm | 0.0082 | 2.04 | 10460.0000 | 0.4033 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.3977 | ppm | 0.0099 | 2.48 | 833.3000 | 0.3977 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.3867 | ppm | 0.0079 | 2.05 | 8943.0000 | 0.3867 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.3960 | ppm | 0.0080 | 2.02 | 27500.0000 | 0.3960 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9865 | 372800.0000 | 0.0027 | 0.28 |
| Y_R 371.029 | 1.0090 | 54370.0000 | 0.0172 | 1.70 |

Sample Name: 440-195269-a-1-a@5

Date: 11/2/2017 12:08:50 PM Rack:Tube: 1:58

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0004 | ppm | 0.0001 | 13.04 | -62.9900 | 0.0004 (ppm) | Y 371.029 |
| Al (396.152 nm) | 110.6000 | ppm | 0.0077 | 0.01 | 2471000.0000 | 110.6000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0298 | ppm | 0.0011 | 3.65 | 31.3500 | 0.0298 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0371 | ppm | 0.0034 | 9.11 | 229.6000 | 0.0371 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.1790 | ppm | 0.0097 | 0.83 | 86670.0000 | 1.1790 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0032 | ppm | 0.0008 | 23.79 | 4381.0000 | 0.0032 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 61.1700 | ppm | 0.2545 | 0.42 | 217900.0000 | 61.1700 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0124 | ppm | 0.0002 | 1.61 | 352.4000 | 0.0124 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0688 | ppm | 0.0009 | 1.26 | 1137.0000 | 0.0688 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1943 | ppm | 0.0006 | 0.33 | 1175.0000 | 0.1943 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.2938 | ppm | 0.0000 | 0.00 | 10660.0000 | 0.2938 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 176.6000 | ppm | 0.8416 | 0.48 | 748500.0000 | 176.6000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 36.1300 | ppm | 0.3431 | 0.95 | 37610.0000 | 36.1300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1060 | ppm | 0.0006 | 0.56 | 6786.0000 | 0.1060 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 52.8800 | ppm | 0.4476 | 0.85 | 118200.0000 | 52.8800 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.0530 | ppm | 0.0019 | 0.06 | 307300.0000 | 3.0530 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0086 | ppm | 0.0006 | 7.41 | 74.5300 | 0.0086 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.1400 | ppm | 0.0351 | 1.12 | 17780.0000 | 3.1400 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1383 | ppm | 0.0001 | 0.09 | 662.7000 | 0.1383 (ppm) | Y 371.029 |
| P (213.618 nm) | 11.5200 | ppm | 0.0381 | 0.33 | 10610.0000 | 11.5200 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.5790 | ppm | 0.0012 | 0.08 | 3044.0000 | 1.5790 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0094 | ppm | 0.0037 | 38.99 | 12.6600 | 0.0094 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0042 | ppm | 0.0053 | > 100.00 | -32.5400 | 0.0042 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.7048 | ppm | 0.0051 | 0.72 | 1600.0000 | 0.7048 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0480 | ppm | 0.0025 | 5.25 | 34.7300 | 0.0480 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5247 | ppm | 0.0028 | 0.53 | 164800.0000 | 0.5247 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 9.5730 | ppm | 0.0096 | 0.10 | 1037000.0000 | 9.5730 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0018 u | ppm | 0.0028 | > 100.00 | -154.7000 | -0.0018 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3288 | ppm | 0.0005 | 0.15 | 8875.0000 | 0.3288 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0004 u | ppm | 0.0017 | > 100.00 | 29.2000 | 0.0004 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 2.4270 | ppm | 0.0005 | 0.02 | 55400.0000 | 2.4270 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0127 | ppm | 0.0002 | 1.42 | 985.7000 | 0.0127 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9640 | 364300.0000 | 0.0002 | 0.02 |
| Y_R 371.029 | 1.0110 | 54470.0000 | 0.0072 | 0.71 |

Sample Name: 440-195269-a-1-b ms@5

Date: 11/2/2017 12:10:54 PM Rack:Tube: 1:59

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1841 | ppm | 0.0058 | 3.14 | 6251.0000 | 0.1841 (ppm) | Y 371.029 |
| Al (396.152 nm) | 139.1000 | ppm | 3.6390 | 2.62 | 3109000.0000 | 139.1000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.3868 | ppm | 0.0090 | 2.33 | 316.7000 | 0.3868 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.3862 | ppm | 0.0133 | 3.43 | 4096.0000 | 0.3862 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.6580 | ppm | 0.0751 | 4.53 | 121800.0000 | 1.6580 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3663 | ppm | 0.0105 | 2.86 | 64590.0000 | 0.3663 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 73.4700 | ppm | 1.6530 | 2.25 | 261700.0000 | 73.4700 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3568 | ppm | 0.0109 | 3.06 | 8898.0000 | 0.3568 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4269 | ppm | 0.0155 | 3.64 | 6028.0000 | 0.4269 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.5796 | ppm | 0.0172 | 2.96 | 3487.0000 | 0.5796 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.7044 | ppm | 0.0220 | 3.13 | 25120.0000 | 0.7044 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 192.8000 | ppm | 3.2400 | 1.68 | 816900.0000 | 192.8000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 42.9600 | ppm | 0.9692 | 2.26 | 44750.0000 | 42.9600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4638 | ppm | 0.0154 | 3.32 | 27890.0000 | 0.4638 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 63.7400 | ppm | 2.6860 | 4.21 | 142400.0000 | 63.7400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.8630 | ppm | 0.1141 | 2.95 | 385000.0000 | 3.8630 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.3619 | ppm | 0.0103 | 2.85 | 1941.0000 | 0.3619 (ppm) | Y 371.029 |
| Na (589.592 nm) | 7.6630 | ppm | 0.1457 | 1.90 | 41070.0000 | 7.6630 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.5030 | ppm | 0.0152 | 3.02 | 2403.0000 | 0.5030 (ppm) | Y 371.029 |
| P (213.618 nm) | 12.4600 | ppm | 0.3579 | 2.87 | 11450.0000 | 12.4600 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 2.0840 | ppm | 0.0599 | 2.87 | 4021.0000 | 2.0840 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.1831 | ppm | 0.0144 | 7.89 | 213.3000 | 0.1831 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3355 | ppm | 0.0109 | 3.24 | 254.2000 | 0.3355 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.5230 | ppm | 0.0502 | 3.30 | 3407.0000 | 1.5230 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4046 | ppm | 0.0095 | 2.36 | 320.7000 | 0.4046 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9243 | ppm | 0.0199 | 2.16 | 289800.0000 | 0.9243 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 12.4400 | ppm | 0.3885 | 3.12 | 1348000.0000 | 12.4400 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3415 | ppm | 0.0051 | 1.50 | 329.4000 | 0.3415 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.7564 | ppm | 0.0226 | 2.99 | 20000.0000 | 0.7564 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.2242 | ppm | 0.0075 | 3.32 | 505.3000 | 0.2242 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 2.8940 | ppm | 0.0817 | 2.82 | 66080.0000 | 2.8940 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.2054 | ppm | 0.0056 | 2.74 | 14390.0000 | 0.2054 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9564 | 361400.0000 | 0.0008 | 0.08 |
| Y_R 371.029 | 1.0020 | 53950.0000 | 0.0130 | 1.30 |

Sample Name: 440-195269-a-1-c msd@5

Date: 11/2/2017 12:12:59 PM Rack:Tube: 1:60

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1993 | ppm | 0.0066 | 3.32 | 6766.0000 | 0.1993 (ppm) | Y 371.029 |
| Al (396.152 nm) | 149.7000 | ppm | 4.7130 | 3.15 | 3346000.0000 | 149.7000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4191 | ppm | 0.0108 | 2.58 | 342.6000 | 0.4191 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4140 | ppm | 0.0109 | 2.63 | 4394.0000 | 0.4140 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.7790 | ppm | 0.0931 | 5.23 | 130800.0000 | 1.7790 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3966 | ppm | 0.0134 | 3.37 | 69840.0000 | 0.3966 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 79.3000 | ppm | 1.3010 | 1.64 | 282500.0000 | 79.3000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3852 | ppm | 0.0122 | 3.18 | 9608.0000 | 0.3852 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4588 | ppm | 0.0167 | 3.65 | 6479.0000 | 0.4588 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.6267 | ppm | 0.0200 | 3.19 | 3770.0000 | 0.6267 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.7737 | ppm | 0.0288 | 3.72 | 27570.0000 | 0.7737 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 204.0000 | ppm | 3.7060 | 1.82 | 864500.0000 | 204.0000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 45.9500 | ppm | 0.9633 | 2.10 | 47860.0000 | 45.9500 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4970 | ppm | 0.0087 | 1.76 | 29840.0000 | 0.4970 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 68.5000 | ppm | 3.6380 | 5.31 | 153100.0000 | 68.5000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 4.1150 | ppm | 0.1476 | 3.59 | 410000.0000 | 4.1150 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.3940 | ppm | 0.0128 | 3.25 | 2113.0000 | 0.3940 (ppm) | Y 371.029 |
| Na (589.592 nm) | 8.2730 | ppm | 0.1706 | 2.06 | 44210.0000 | 8.2730 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.5472 | ppm | 0.0153 | 2.80 | 2614.0000 | 0.5472 (ppm) | Y 371.029 |
| P (213.618 nm) | 13.1500 | ppm | 0.4267 | 3.25 | 12080.0000 | 13.1500 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 2.9100 | ppm | 0.0885 | 3.04 | 5622.0000 | 2.9100 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.1976 | ppm | 0.0189 | 9.58 | 230.7000 | 0.1976 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3646 | ppm | 0.0100 | 2.73 | 277.3000 | 0.3646 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.2190 | ppm | 0.0505 | 4.14 | 2772.0000 | 1.2190 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.1870 | ppm | 0.0401 | 3.38 | 947.7000 | 1.1870 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0100 | ppm | 0.0160 | 1.58 | 316800.0000 | 1.0100 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 13.3500 | ppm | 0.4161 | 3.12 | 1447000.0000 | 13.3500 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3683 | ppm | 0.0068 | 1.85 | 356.1000 | 0.3683 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.8223 | ppm | 0.0269 | 3.27 | 21740.0000 | 0.8223 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.2348 | ppm | 0.0060 | 2.55 | 530.6000 | 0.2348 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 3.1060 | ppm | 0.0936 | 3.01 | 70940.0000 | 3.1060 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.2189 | ppm | 0.0071 | 3.24 | 15340.0000 | 0.2189 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9582 | 362100.0000 | 0.0001 | 0.01 |
| Y_R 371.029 | 1.0110 | 54440.0000 | 0.0207 | 2.05 |

Sample Name: CCV 4461459

Date: 11/2/2017 12:15:03 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4980 | ppm | 0.0009 | 0.17 | 17220.0000 | 0.4980 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0240 | ppm | 0.0152 | 1.48 | 22570.0000 | 1.0240 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9929 | ppm | 0.0063 | 0.63 | 800.3000 | 0.9929 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9955 | ppm | 0.0031 | 0.31 | 11030.0000 | 0.9955 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9849 | ppm | 0.0070 | 0.71 | 72360.0000 | 0.9849 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9966 | ppm | 0.0029 | 0.29 | 164300.0000 | 0.9966 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.0020 | ppm | 0.0408 | 0.82 | 17940.0000 | 5.0020 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9882 | ppm | 0.0015 | 0.15 | 24510.0000 | 0.9882 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9996 | ppm | 0.0004 | 0.04 | 13490.0000 | 0.9996 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9862 | ppm | 0.0012 | 0.12 | 5915.0000 | 0.9862 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0050 | ppm | 0.0030 | 0.30 | 35520.0000 | 1.0050 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0340 | ppm | 0.0081 | 0.78 | 4384.0000 | 1.0340 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.1100 | ppm | 0.1779 | 1.76 | 10460.0000 | 10.1100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0030 | ppm | 0.0052 | 0.52 | 58680.0000 | 1.0030 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.9720 | ppm | 0.0303 | 0.61 | 11120.0000 | 4.9720 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9916 | ppm | 0.0008 | 0.08 | 92950.0000 | 0.9916 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9929 | ppm | 0.0024 | 0.25 | 5238.0000 | 0.9929 (ppm) | Y 371.029 |
| Na (589.592 nm) | 9.9950 | ppm | 0.0465 | 0.47 | 53020.0000 | 9.9950 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9912 | ppm | 0.0020 | 0.20 | 4729.0000 | 0.9912 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9982 | ppm | 0.0001 | 0.01 | 852.8000 | 0.9982 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9949 | ppm | 0.0014 | 0.14 | 1925.0000 | 0.9949 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9862 | ppm | 0.0072 | 0.73 | 1137.0000 | 0.9862 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9921 | ppm | 0.0051 | 0.51 | 868.9000 | 0.9921 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.2410 | ppm | 0.1837 | 3.50 | 11350.0000 | 5.2410 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9955 | ppm | 0.0008 | 0.08 | 795.6000 | 0.9955 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0070 | ppm | 0.0058 | 0.58 | 314800.0000 | 1.0070 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0120 | ppm | 0.0006 | 0.06 | 109600.0000 | 1.0120 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9969 | ppm | 0.0054 | 0.54 | 1514.0000 | 0.9969 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0050 | ppm | 0.0015 | 0.15 | 26020.0000 | 1.0050 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9945 | ppm | 0.0014 | 0.14 | 2095.0000 | 0.9945 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9929 | ppm | 0.0009 | 0.09 | 22830.0000 | 0.9929 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9952 | ppm | 0.0028 | 0.28 | 69160.0000 | 0.9952 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0020 | 378700.0000 | 0.0043 | 0.43 |
| Y_R 371.029 | 1.0290 | 55450.0000 | 0.0089 | 0.87 |

Sample Name: CCB 4461458

Date: 11/2/2017 12:17:08 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0002 | ppm | 0.0001 | 67.45 | 6.1210 | 0.0002 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0014 | ppm | 0.0001 | 9.86 | -1151.0000 | 0.0014 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0032 | ppm | 0.0033 | > 100.00 | 8.9350 | 0.0032 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0007 | ppm | 0.0002 | 24.58 | 5.3600 | 0.0007 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0001 | 61.71 | 3.8070 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 89.18 | 24.1300 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0103 u | ppm | 0.0100 | 97.13 | 97.7800 | -0.0103 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 70.36 | 0.8324 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0005 u | ppm | 0.0009 | > 100.00 | -17.5100 | -0.0005 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0008 | ppm | 0.0004 | 53.22 | 6.0280 | 0.0008 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0002 | 25.16 | 193.1000 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0040 | ppm | 0.0005 | 11.90 | 20.7800 | 0.0040 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0669 | ppm | 0.0291 | 43.48 | 0.2129 | 0.0669 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0043 | ppm | 0.0005 | 12.55 | 267.2000 | 0.0043 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0014 | ppm | 0.0004 | 27.05 | 10.9000 | 0.0014 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0001 | 50.36 | 92.0700 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0042 | ppm | 0.0007 | 16.55 | 27.5300 | 0.0042 (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0273 u | ppm | 0.0236 | 86.45 | 1414.0000 | -0.0273 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0006 | ppm | 0.0005 | 76.80 | 3.1920 | 0.0006 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0070 | ppm | 0.0010 | 13.69 | -7.4310 | 0.0070 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0004 u | ppm | 0.0009 | > 100.00 | -4.3820 | 0.0004 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0059 | ppm | 0.0036 | 61.20 | 1.7830 | 0.0059 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0024 | ppm | 0.0012 | 50.21 | -0.1313 | 0.0024 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0066 | ppm | 0.0029 | 44.21 | 32.4400 | 0.0066 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0016 | ppm | 0.0001 | 5.12 | -2.1670 | 0.0016 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0000 | 79.13 | 49.6200 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0015 | ppm | 0.0003 | 21.06 | 68.3300 | 0.0015 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0010 | ppm | 0.0012 | > 100.00 | -4.7860 | 0.0010 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0002 | ppm | 0.0002 | 65.75 | 46.6300 | 0.0002 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0030 | ppm | 0.0011 | 35.51 | -0.8274 | 0.0030 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0004 | ppm | 0.0001 | 25.80 | 90.6800 | 0.0004 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 34.83 | -27.0500 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0100 | 381700.0000 | 0.0041 | 0.41 |
| Y_R 371.029 | 1.0390 | 55960.0000 | 0.0026 | 0.25 |

Sample Name: 440-195269-a-1-a pds@5

Date: 11/2/2017 12:29:49 PM Rack:Tube: 2:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2111 | ppm | 0.0012 | 0.57 | 7217.0000 | 0.2111 (ppm) | Y 371.029 |
| Al (396.152 nm) | 117.4000 | ppm | 0.7753 | 0.66 | 2624000.0000 | 117.4000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4440 | ppm | 0.0022 | 0.49 | 362.7000 | 0.4440 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4506 | ppm | 0.0001 | 0.03 | 4803.0000 | 0.4506 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.6490 | ppm | 0.0391 | 2.37 | 121200.0000 | 1.6490 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.4146 | ppm | 0.0025 | 0.60 | 72370.0000 | 0.4146 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 66.2600 | ppm | 1.2370 | 1.87 | 236100.0000 | 66.2600 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4070 | ppm | 0.0023 | 0.56 | 10140.0000 | 0.4070 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4770 | ppm | 0.0028 | 0.58 | 6664.0000 | 0.4770 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.6113 | ppm | 0.0022 | 0.37 | 3676.0000 | 0.6113 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.7387 | ppm | 0.0009 | 0.12 | 26310.0000 | 0.7387 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 185.0000 | ppm | 2.8620 | 1.55 | 783900.0000 | 185.0000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 41.9400 | ppm | 0.6717 | 1.60 | 43680.0000 | 41.9400 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.5261 | ppm | 0.0097 | 1.85 | 31410.0000 | 0.5261 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 58.1800 | ppm | 1.2650 | 2.17 | 130000.0000 | 58.1800 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.6220 | ppm | 0.0130 | 0.36 | 361500.0000 | 3.6220 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4253 | ppm | 0.0013 | 0.30 | 2271.0000 | 0.4253 (ppm) | Y 371.029 |
| Na (589.592 nm) | 7.3210 | ppm | 0.1406 | 1.92 | 39310.0000 | 7.3210 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.5451 | ppm | 0.0023 | 0.43 | 2603.0000 | 0.5451 (ppm) | Y 371.029 |
| P (213.618 nm) | 12.5500 | ppm | 0.0418 | 0.33 | 11530.0000 | 12.5500 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 2.0590 | ppm | 0.0080 | 0.39 | 3974.0000 | 2.0590 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.4279 | ppm | 0.0030 | 0.71 | 497.8000 | 0.4279 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3918 | ppm | 0.0069 | 1.77 | 306.5000 | 0.3918 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.8440 | ppm | 0.0132 | 0.46 | 6233.0000 | 2.8440 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4576 | ppm | 0.0077 | 1.68 | 363.4000 | 0.4576 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9615 | ppm | 0.0186 | 1.93 | 301400.0000 | 0.9615 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 10.5400 | ppm | 0.0328 | 0.31 | 1142000.0000 | 10.5400 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3909 | ppm | 0.0003 | 0.07 | 434.5000 | 0.3909 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.7667 | ppm | 0.0035 | 0.46 | 20210.0000 | 0.7667 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.4108 | ppm | 0.0039 | 0.96 | 897.7000 | 0.4108 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 2.9340 | ppm | 0.0095 | 0.32 | 66990.0000 | 2.9340 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.4222 | ppm | 0.0015 | 0.36 | 29470.0000 | 0.4222 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9649 | 364600.0000 | 0.0004 | 0.05 |
| Y_R 371.029 | 1.0060 | 54200.0000 | 0.0166 | 1.65 |

Sample Name: 440-195269-a-1-a sd@25

Date: 11/2/2017 12:31:53 PM Rack:Tube: 2:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0000 u | ppm | 0.0003 | > 100.00 | -14.8700 | 0.0000 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 23.1100 | ppm | 0.3243 | 1.40 | 515500.0000 | 23.1100 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0075 | ppm | 0.0001 | 1.80 | 12.5900 | 0.0075 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0094 | ppm | 0.0002 | 2.13 | 64.3900 | 0.0094 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.2634 | ppm | 0.0088 | 3.34 | 19350.0000 | 0.2634 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0008 | ppm | 0.0001 | 14.72 | 968.2000 | 0.0008 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 12.8800 | ppm | 0.2068 | 1.61 | 45990.0000 | 12.8800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0029 | ppm | 0.0000 | 1.35 | 77.4600 | 0.0029 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0154 | ppm | 0.0004 | 2.39 | 244.2000 | 0.0154 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0418 | ppm | 0.0012 | 2.85 | 254.0000 | 0.0418 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0621 | ppm | 0.0007 | 1.20 | 2383.0000 | 0.0621 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 38.1900 | ppm | 0.4358 | 1.14 | 161800.0000 | 38.1900 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 7.6780 | ppm | 0.1198 | 1.56 | 7940.0000 | 7.6780 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0267 | ppm | 0.0007 | 2.55 | 1695.0000 | 0.0267 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 11.7200 | ppm | 0.3995 | 3.41 | 26200.0000 | 11.7200 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.6705 | ppm | 0.0091 | 1.35 | 67450.0000 | 0.6705 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0022 | ppm | 0.0003 | 11.71 | 22.1700 | 0.0022 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.5855 | ppm | 0.0187 | 3.20 | 4582.0000 | 0.5855 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0304 | ppm | 0.0014 | 4.54 | 145.5000 | 0.0304 (ppm) | Y 371.029 |
| P (213.618 nm) | 2.4790 | ppm | 0.0000 | 0.00 | 2272.0000 | 2.4790 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.3478 | ppm | 0.0049 | 1.41 | 666.8000 | 0.3478 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0081 | ppm | 0.0034 | 42.70 | 5.8200 | 0.0081 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0023 | ppm | 0.0001 | 2.77 | -7.5340 | 0.0023 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.1581 | ppm | 0.0020 | 1.28 | 372.1000 | 0.1581 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0145 | ppm | 0.0007 | 4.84 | 8.1260 | 0.0145 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1109 | ppm | 0.0014 | 1.27 | 34890.0000 | 0.1109 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 2.0550 | ppm | 0.0279 | 1.36 | 222700.0000 | 2.0550 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0006 | ppm | 0.0006 | > 100.00 | -36.6600 | 0.0006 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0708 | ppm | 0.0007 | 0.99 | 1943.0000 | 0.0708 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0005 u | ppm | 0.0008 | > 100.00 | 1.7660 | 0.0005 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.5371 | ppm | 0.0070 | 1.30 | 12320.0000 | 0.5371 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0032 | ppm | 0.0002 | 5.63 | 214.4000 | 0.0032 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0080 | 381100.0000 | 0.0009 | 0.09 |
| Y_R 371.029 | 1.0300 | 55490.0000 | 0.0201 | 1.95 |

Sample Name: 440-195269-a-2-a@5

Date: 11/2/2017 12:33:57 PM Rack:Tube: 2:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0006 | ppm | 0.0001 | 19.44 | -62.8000 | 0.0006 (ppm) | Y 371.029 |
| Al (396.152 nm) | 128.1000 | ppm | 3.3170 | 2.59 | 2862000.0000 | 128.1000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0808 | ppm | 0.0012 | 1.50 | 72.0800 | 0.0808 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0452 | ppm | 0.0011 | 2.37 | 306.5000 | 0.0452 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.4810 | ppm | 0.0283 | 1.91 | 108800.0000 | 1.4810 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0044 | ppm | 0.0019 | 42.73 | 4847.0000 | 0.0044 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 76.1700 | ppm | 0.3102 | 0.41 | 271300.0000 | 76.1700 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0149 | ppm | 0.0005 | 3.42 | 417.1000 | 0.0149 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0793 | ppm | 0.0022 | 2.80 | 1290.0000 | 0.0793 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2684 | ppm | 0.0077 | 2.89 | 1621.0000 | 0.2684 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4384 | ppm | 0.0120 | 2.73 | 15750.0000 | 0.4384 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 190.2000 | ppm | 0.9884 | 0.52 | 805800.0000 | 190.2000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 40.6600 | ppm | 0.2636 | 0.65 | 42340.0000 | 40.6600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1081 | ppm | 0.0001 | 0.06 | 6933.0000 | 0.1081 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 60.3000 | ppm | 1.1370 | 1.89 | 134700.0000 | 60.3000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.5390 | ppm | 0.0947 | 2.68 | 354200.0000 | 3.5390 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0094 | ppm | 0.0000 | 0.01 | 82.0300 | 0.0094 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.3810 | ppm | 0.0003 | 0.01 | 19030.0000 | 3.3810 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1659 | ppm | 0.0022 | 1.30 | 794.4000 | 0.1659 (ppm) | Y 371.029 |
| P (213.618 nm) | 15.0300 | ppm | 0.3518 | 2.34 | 13840.0000 | 15.0300 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 9.2750 | ppm | 0.2165 | 2.33 | 17990.0000 | 9.2750 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0122 | ppm | 0.0019 | 15.15 | 17.3800 | 0.0122 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0003 u | ppm | 0.0011 | > 100.00 | -38.4700 | 0.0003 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.5337 | ppm | 0.0158 | 2.96 | 1245.0000 | 0.5337 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.1031 | ppm | 0.0036 | 3.47 | 78.9500 | 0.1031 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.6064 | ppm | 0.0022 | 0.36 | 190500.0000 | 0.6064 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 10.0100 | ppm | 0.2382 | 2.38 | 1084000.0000 | 10.0100 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0006 u | ppm | 0.0053 | > 100.00 | -157.9000 | 0.0006 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3656 | ppm | 0.0100 | 2.73 | 9861.0000 | 0.3656 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0012 u | ppm | 0.0009 | 74.36 | 46.8300 | -0.0012 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 3.7350 | ppm | 0.0905 | 2.42 | 85170.0000 | 3.7350 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0111 | ppm | 0.0003 | 2.26 | 887.8000 | 0.0111 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9716 | 367200.0000 | 0.0042 | 0.43 |
| Y_R 371.029 | 1.0140 | 54640.0000 | 0.0101 | 1.00 |

Sample Name: 440-195269-a-3-a@5

Date: 11/2/2017 12:36:02 PM Rack:Tube: 2:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0005 u | ppm | 0.0001 | 12.70 | -91.5900 | -0.0005 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 135.4000 | ppm | 5.7770 | 4.27 | 3028000.0000 | 135.4000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0582 | ppm | 0.0053 | 9.06 | 54.7200 | 0.0582 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0538 | ppm | 0.0030 | 5.54 | 402.5000 | 0.0538 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.4110 | ppm | 0.0542 | 3.84 | 103700.0000 | 1.4110 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0056 | ppm | 0.0012 | 21.21 | 5117.0000 | 0.0056 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 76.8400 | ppm | 0.0996 | 0.13 | 273700.0000 | 76.8400 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0103 | ppm | 0.0006 | 5.93 | 303.4000 | 0.0103 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0804 | ppm | 0.0045 | 5.57 | 1235.0000 | 0.0804 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2163 | ppm | 0.0089 | 4.12 | 1308.0000 | 0.2163 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.3904 | ppm | 0.0181 | 4.63 | 14040.0000 | 0.3904 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 193.5000 | ppm | 0.3567 | 0.18 | 819900.0000 | 193.5000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 43.1300 | ppm | 0.1447 | 0.34 | 44910.0000 | 43.1300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1096 | ppm | 0.0010 | 0.89 | 7060.0000 | 0.1096 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 64.3400 | ppm | 2.5610 | 3.98 | 143800.0000 | 64.3400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.6610 | ppm | 0.1696 | 4.63 | 366000.0000 | 3.6610 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0110 | ppm | 0.0005 | 4.93 | 90.2700 | 0.0110 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.8850 | ppm | 0.0059 | 0.15 | 21620.0000 | 3.8850 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1524 | ppm | 0.0062 | 4.07 | 729.8000 | 0.1524 (ppm) | Y 371.029 |
| P (213.618 nm) | 13.9500 | ppm | 0.6578 | 4.72 | 12840.0000 | 13.9500 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.3290 | ppm | 0.0583 | 4.38 | 2558.0000 | 1.3290 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0062 u | ppm | 0.0097 | > 100.00 | 8.9290 | 0.0062 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0073 | ppm | 0.0015 | 21.19 | -32.8900 | 0.0073 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.4432 | ppm | 0.0214 | 4.82 | 1021.0000 | 0.4432 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0447 | ppm | 0.0056 | 12.44 | 32.3400 | 0.0447 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.6723 | ppm | 0.0008 | 0.11 | 211100.0000 | 0.6723 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 6.6200 | ppm | 0.2887 | 4.36 | 717400.0000 | 6.6200 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0019 u | ppm | 0.0010 | 53.11 | -110.8000 | -0.0019 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3804 | ppm | 0.0172 | 4.51 | 10180.0000 | 0.3804 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0019 u | ppm | 0.0005 | 28.72 | 20.8100 | -0.0019 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 2.2730 | ppm | 0.0959 | 4.22 | 51910.0000 | 2.2730 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0072 | ppm | 0.0003 | 4.62 | 621.3000 | 0.0072 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9665 | 365200.0000 | 0.0022 | 0.23 |
| Y_R 371.029 | 1.0230 | 55110.0000 | 0.0069 | 0.68 |

Sample Name: 440-195269-a-4-a@5

Date: 11/2/2017 12:38:07 PM Rack:Tube: 2:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0012 | ppm | 0.0001 | 12.23 | -39.2400 | 0.0012 (ppm) | Y 371.029 |
| Al (396.152 nm) | 130.6000 | ppm | 6.0330 | 4.62 | 2919000.0000 | 130.6000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0416 | ppm | 0.0129 | 30.90 | 40.8000 | 0.0416 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0416 | ppm | 0.0007 | 1.66 | 260.0000 | 0.0416 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.3410 | ppm | 0.0696 | 5.19 | 98600.0000 | 1.3410 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0055 | ppm | 0.0015 | 26.90 | 5204.0000 | 0.0055 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 63.8800 | ppm | 1.2330 | 1.93 | 227600.0000 | 63.8800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0143 | ppm | 0.0005 | 3.70 | 404.9000 | 0.0143 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0849 | ppm | 0.0052 | 6.08 | 1349.0000 | 0.0849 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2542 | ppm | 0.0121 | 4.75 | 1535.0000 | 0.2542 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4201 | ppm | 0.0200 | 4.75 | 15110.0000 | 0.4201 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 197.9000 | ppm | 3.5620 | 1.80 | 838500.0000 | 197.9000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 40.7800 | ppm | 0.9367 | 2.30 | 42470.0000 | 40.7800 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1092 | ppm | 0.0052 | 4.72 | 7029.0000 | 0.1092 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 63.0500 | ppm | 3.3240 | 5.27 | 140900.0000 | 63.0500 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.2880 | ppm | 0.1619 | 4.92 | 331800.0000 | 3.2880 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0122 | ppm | 0.0003 | 2.53 | 96.4000 | 0.0122 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.4860 | ppm | 0.0834 | 2.39 | 19560.0000 | 3.4860 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1769 | ppm | 0.0086 | 4.86 | 847.5000 | 0.1769 (ppm) | Y 371.029 |
| P (213.618 nm) | 11.8800 | ppm | 0.5585 | 4.70 | 10940.0000 | 11.8800 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.9400 | ppm | 0.0912 | 4.70 | 3744.0000 | 1.9400 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0106 | ppm | 0.0030 | 28.31 | 15.0100 | 0.0106 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0072 | ppm | 0.0036 | 49.60 | -33.9900 | 0.0072 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.5739 | ppm | 0.0254 | 4.42 | 1320.0000 | 0.5739 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0534 | ppm | 0.0016 | 2.93 | 39.1000 | 0.0534 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5685 | ppm | 0.0105 | 1.84 | 178500.0000 | 0.5685 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 9.1570 | ppm | 0.4219 | 4.61 | 992400.0000 | 9.1570 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0003 u | ppm | 0.0063 | > 100.00 | -147.8000 | -0.0003 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3961 | ppm | 0.0191 | 4.82 | 10630.0000 | 0.3961 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0015 u | ppm | 0.0000 | 1.82 | 30.9100 | -0.0015 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 2.8160 | ppm | 0.1258 | 4.47 | 64270.0000 | 2.8160 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0085 | ppm | 0.0004 | 5.16 | 710.5000 | 0.0085 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9636 | 364200.0000 | 0.0050 | 0.51 |
| Y_R 371.029 | 1.0100 | 54430.0000 | 0.0112 | 1.11 |

Sample Name: 440-195269-a-5-a@5

Date: 11/2/2017 12:40:11 PM Rack:Tube: 2:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0012 | ppm | 0.0005 | 36.76 | -33.0300 | 0.0012 (ppm) | Y 371.029 |
| Al (396.152 nm) | 121.7000 | ppm | 4.0160 | 3.30 | 2720000.0000 | 121.7000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0304 | ppm | 0.0047 | 15.54 | 31.8200 | 0.0304 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0562 | ppm | 0.0010 | 1.78 | 441.2000 | 0.0562 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.2210 | ppm | 0.0455 | 3.72 | 89750.0000 | 1.2210 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0049 | ppm | 0.0010 | 20.02 | 4725.0000 | 0.0049 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 61.9000 | ppm | 0.5538 | 0.89 | 220500.0000 | 61.9000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0097 | ppm | 0.0002 | 1.96 | 285.7000 | 0.0097 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0723 | ppm | 0.0013 | 1.84 | 1177.0000 | 0.0723 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2186 | ppm | 0.0064 | 2.94 | 1321.0000 | 0.2186 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.3006 | ppm | 0.0098 | 3.26 | 10900.0000 | 0.3006 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 180.3000 | ppm | 2.5390 | 1.41 | 763900.0000 | 180.3000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 34.4300 | ppm | 0.3766 | 1.09 | 35850.0000 | 34.4300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1054 | ppm | 0.0010 | 0.99 | 6813.0000 | 0.1054 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 57.1200 | ppm | 2.1890 | 3.83 | 127600.0000 | 57.1200 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.2550 | ppm | 0.1036 | 3.18 | 326500.0000 | 3.2550 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0110 | ppm | 0.0004 | 3.53 | 88.4300 | 0.0110 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.7890 | ppm | 0.0191 | 0.50 | 21120.0000 | 3.7890 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1472 | ppm | 0.0042 | 2.85 | 705.2000 | 0.1472 (ppm) | Y 371.029 |
| P (213.618 nm) | 10.8000 | ppm | 0.3610 | 3.34 | 9945.0000 | 10.8000 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.1290 | ppm | 0.0343 | 3.03 | 2169.0000 | 1.1290 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0111 | ppm | 0.0024 | 22.09 | 14.7900 | 0.0111 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0055 | ppm | 0.0032 | 58.30 | -32.0300 | 0.0055 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.7786 | ppm | 0.0303 | 3.89 | 1753.0000 | 0.7786 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0342 | ppm | 0.0024 | 7.00 | 23.6500 | 0.0342 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5350 | ppm | 0.0052 | 0.98 | 168000.0000 | 0.5350 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 9.1570 | ppm | 0.2826 | 3.09 | 992300.0000 | 9.1570 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0023 u | ppm | 0.0001 | 4.02 | -149.8000 | -0.0023 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3528 | ppm | 0.0111 | 3.14 | 9494.0000 | 0.3528 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0010 | ppm | 0.0004 | 39.74 | 20.6800 | 0.0010 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.8670 | ppm | 0.0534 | 2.86 | 42640.0000 | 1.8670 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0132 | ppm | 0.0006 | 4.48 | 1021.0000 | 0.0132 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9753 | 368600.0000 | 0.0057 | 0.58 |
| Y_R 371.029 | 1.0090 | 54350.0000 | 0.0009 | 0.09 |

Sample Name: 440-195269-a-6-a@5

Date: 11/2/2017 12:42:15 PM Rack:Tube: 2:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0000 u | ppm | 0.0004 | > 100.00 | -70.0800 | 0.0000 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 119.0000 | ppm | 4.5580 | 3.83 | 2661000.0000 | 119.0000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0712 | ppm | 0.0039 | 5.54 | 64.9300 | 0.0712 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0220 | ppm | 0.0023 | 10.35 | 59.9100 | 0.0220 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.2480 | ppm | 0.0366 | 2.93 | 91760.0000 | 1.2480 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0043 | ppm | 0.0008 | 19.11 | 4586.0000 | 0.0043 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 56.7400 | ppm | 0.2680 | 0.47 | 202200.0000 | 56.7400 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0128 | ppm | 0.0005 | 4.14 | 362.6000 | 0.0128 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0737 | ppm | 0.0040 | 5.38 | 1162.0000 | 0.0737 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2089 | ppm | 0.0090 | 4.30 | 1263.0000 | 0.2089 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.3391 | ppm | 0.0145 | 4.26 | 12240.0000 | 0.3391 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 178.9000 | ppm | 0.5613 | 0.31 | 758300.0000 | 178.9000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 34.4400 | ppm | 0.2041 | 0.59 | 35850.0000 | 34.4400 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0942 | ppm | 0.0015 | 1.54 | 6061.0000 | 0.0942 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 55.7000 | ppm | 1.6970 | 3.05 | 124500.0000 | 55.7000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.2130 | ppm | 0.1458 | 4.54 | 322400.0000 | 3.2130 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0077 | ppm | 0.0001 | 1.52 | 70.2000 | 0.0077 (ppm) | Y 371.029 |
| Na (589.592 nm) | 2.8940 | ppm | 0.0043 | 0.15 | 16510.0000 | 2.8940 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1349 | ppm | 0.0057 | 4.26 | 646.4000 | 0.1349 (ppm) | Y 371.029 |
| P (213.618 nm) | 11.0100 | ppm | 0.4811 | 4.37 | 10130.0000 | 11.0100 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.6750 | ppm | 0.0644 | 3.84 | 3232.0000 | 1.6750 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0072 | ppm | 0.0051 | 70.16 | 9.9840 | 0.0072 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0016 u | ppm | 0.0041 | > 100.00 | -34.9600 | 0.0016 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.5402 | ppm | 0.0215 | 3.99 | 1235.0000 | 0.5402 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0367 | ppm | 0.0015 | 4.10 | 25.8100 | 0.0367 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.4238 | ppm | 0.0020 | 0.47 | 133200.0000 | 0.4238 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 7.5580 | ppm | 0.2975 | 3.94 | 819100.0000 | 7.5580 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0018 u | ppm | 0.0028 | > 100.00 | -124.7000 | -0.0018 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3432 | ppm | 0.0141 | 4.11 | 9208.0000 | 0.3432 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0018 u | ppm | 0.0014 | 81.06 | 29.8600 | -0.0018 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 2.7520 | ppm | 0.1108 | 4.03 | 62810.0000 | 2.7520 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0060 | ppm | 0.0001 | 2.21 | 526.2000 | 0.0060 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9698 | 366500.0000 | 0.0016 | 0.16 |
| Y_R 371.029 | 1.0100 | 54380.0000 | 0.0097 | 0.96 |

Sample Name: 440-195269-a-7-a@5

Date: 11/2/2017 12:44:19 PM Rack:Tube: 2:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | -92.7300 | -0.0001 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 151.6000 | ppm | 6.7610 | 4.46 | 3388000.0000 | 151.6000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0666 | ppm | 0.0007 | 1.03 | 61.5100 | 0.0666 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0311 | ppm | 0.0026 | 8.26 | 120.0000 | 0.0311 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.5900 | ppm | 0.0582 | 3.66 | 116800.0000 | 1.5900 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0061 | ppm | 0.0013 | 21.67 | 5787.0000 | 0.0061 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 75.5200 | ppm | 1.0170 | 1.35 | 269000.0000 | 75.5200 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0139 | ppm | 0.0008 | 6.12 | 400.7000 | 0.0139 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0928 | ppm | 0.0045 | 4.81 | 1476.0000 | 0.0928 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2489 | ppm | 0.0102 | 4.10 | 1505.0000 | 0.2489 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4687 | ppm | 0.0199 | 4.25 | 16840.0000 | 0.4687 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 220.8000 | ppm | 3.1050 | 1.41 | 935700.0000 | 220.8000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 38.6600 | ppm | 0.5641 | 1.46 | 40270.0000 | 38.6600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1299 | ppm | 0.0012 | 0.95 | 8343.0000 | 0.1299 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 72.1300 | ppm | 2.7050 | 3.75 | 161200.0000 | 72.1300 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.8700 | ppm | 0.1722 | 4.45 | 389000.0000 | 3.8700 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0086 | ppm | 0.0003 | 3.02 | 81.3900 | 0.0086 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.3540 | ppm | 0.0431 | 0.99 | 24040.0000 | 4.3540 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1692 | ppm | 0.0067 | 3.93 | 810.8000 | 0.1692 (ppm) | Y 371.029 |
| P (213.618 nm) | 13.2800 | ppm | 0.5483 | 4.13 | 12220.0000 | 13.2800 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 2.0940 | ppm | 0.0877 | 4.19 | 4040.0000 | 2.0940 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0132 | ppm | 0.0038 | 29.03 | 18.6000 | 0.0132 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0007 u | ppm | 0.0060 | > 100.00 | -43.9800 | 0.0007 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.6196 | ppm | 0.0263 | 4.24 | 1425.0000 | 0.6196 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0472 | ppm | 0.0024 | 5.16 | 34.1600 | 0.0472 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.6383 | ppm | 0.0092 | 1.43 | 200400.0000 | 0.6383 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 10.0100 | ppm | 0.4245 | 4.24 | 1085000.0000 | 10.0100 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0012 u | ppm | 0.0065 | > 100.00 | -162.1000 | -0.0012 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4386 | ppm | 0.0190 | 4.32 | 11770.0000 | 0.4386 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0029 u | ppm | 0.0002 | 6.75 | 32.6900 | -0.0029 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 3.1480 | ppm | 0.1119 | 3.56 | 71840.0000 | 3.1480 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0064 | ppm | 0.0001 | 2.16 | 584.5000 | 0.0064 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9597 | 362700.0000 | 0.0011 | 0.11 |
| Y_R 371.029 | 1.0030 | 54050.0000 | 0.0019 | 0.18 |

Sample Name: 440-195269-a-8-a@5

Date: 11/2/2017 12:46:24 PM Rack:Tube: 2:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0004 u | ppm | 0.0004 | 87.75 | -82.8500 | -0.0004 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 112.6000 | ppm | 4.6990 | 4.17 | 2518000.0000 | 112.6000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0541 | ppm | 0.0017 | 3.14 | 50.9700 | 0.0541 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0212 | ppm | 0.0011 | 5.40 | 62.8100 | 0.0212 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.2030 | ppm | 0.0559 | 4.65 | 88450.0000 | 1.2030 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0052 | ppm | 0.0009 | 16.46 | 4493.0000 | 0.0052 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 53.7800 | ppm | 0.4885 | 0.91 | 191600.0000 | 53.7800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0112 | ppm | 0.0004 | 3.69 | 318.7000 | 0.0112 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0718 | ppm | 0.0036 | 5.01 | 1143.0000 | 0.0718 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1955 | ppm | 0.0077 | 3.95 | 1182.0000 | 0.1955 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.3426 | ppm | 0.0141 | 4.11 | 12360.0000 | 0.3426 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 167.7000 | ppm | 1.6640 | 0.99 | 710600.0000 | 167.7000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 29.0700 | ppm | 0.3028 | 1.04 | 30270.0000 | 29.0700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0986 | ppm | 0.0005 | 0.48 | 6302.0000 | 0.0986 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 53.0900 | ppm | 2.4430 | 4.60 | 118600.0000 | 53.0900 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.0000 | ppm | 0.1328 | 4.43 | 301100.0000 | 3.0000 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0042 | ppm | 0.0002 | 5.32 | 51.0400 | 0.0042 (ppm) | Y 371.029 |
| Na (589.592 nm) | 2.9160 | ppm | 0.0275 | 0.94 | 16620.0000 | 2.9160 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1337 | ppm | 0.0072 | 5.35 | 640.6000 | 0.1337 (ppm) | Y 371.029 |
| P (213.618 nm) | 10.6400 | ppm | 0.4723 | 4.44 | 9790.0000 | 10.6400 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.7080 | ppm | 0.0744 | 4.35 | 3296.0000 | 1.7080 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0045 | ppm | 0.0016 | 34.89 | 6.6090 | 0.0045 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0052 | ppm | 0.0008 | 15.75 | -29.7500 | 0.0052 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.7090 | ppm | 0.0353 | 4.98 | 1598.0000 | 0.7090 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0415 | ppm | 0.0004 | 1.05 | 29.6000 | 0.0415 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.3889 | ppm | 0.0038 | 0.97 | 122200.0000 | 0.3889 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 7.9670 | ppm | 0.3244 | 4.07 | 863400.0000 | 7.9670 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0007 | ppm | 0.0009 | > 100.00 | -127.8000 | 0.0007 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3444 | ppm | 0.0141 | 4.09 | 9243.0000 | 0.3444 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0018 u | ppm | 0.0005 | 30.40 | 30.8500 | -0.0018 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 2.7980 | ppm | 0.1120 | 4.00 | 63840.0000 | 2.7980 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0077 | ppm | 0.0002 | 1.99 | 629.5000 | 0.0077 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9701 | 366600.0000 | 0.0015 | 0.16 |
| Y_R 371.029 | 1.0150 | 54690.0000 | 0.0065 | 0.64 |

Sample Name: 440-195269-a-9-a@5

Date: 11/2/2017 12:48:29 PM Rack:Tube: 2:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0004 u | ppm | 0.0004 | > 100.00 | -88.0100 | -0.0004 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 118.2000 | ppm | 4.3790 | 3.71 | 2641000.0000 | 118.2000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0448 | ppm | 0.0052 | 11.57 | 43.6600 | 0.0448 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0236 | ppm | 0.0012 | 4.88 | 77.5800 | 0.0236 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.3000 | ppm | 0.0384 | 2.95 | 95570.0000 | 1.3000 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0049 | ppm | 0.0014 | 28.67 | 4706.0000 | 0.0049 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 59.3200 | ppm | 0.2636 | 0.44 | 211300.0000 | 59.3200 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0095 | ppm | 0.0002 | 1.73 | 280.5000 | 0.0095 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0733 | ppm | 0.0035 | 4.71 | 1185.0000 | 0.0733 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1962 | ppm | 0.0075 | 3.83 | 1186.0000 | 0.1962 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4507 | ppm | 0.0187 | 4.16 | 16170.0000 | 0.4507 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 180.1000 | ppm | 0.5671 | 0.31 | 763100.0000 | 180.1000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 29.9600 | ppm | 0.0157 | 0.05 | 31200.0000 | 29.9600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0990 | ppm | 0.0011 | 1.11 | 6384.0000 | 0.0990 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 54.9000 | ppm | 1.5240 | 2.78 | 122700.0000 | 54.9000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.0270 | ppm | 0.1273 | 4.20 | 305200.0000 | 3.0270 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0155 | ppm | 0.0014 | 8.83 | 111.7000 | 0.0155 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.2840 | ppm | 0.0203 | 0.62 | 18520.0000 | 3.2840 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1375 | ppm | 0.0050 | 3.61 | 658.8000 | 0.1375 (ppm) | Y 371.029 |
| P (213.618 nm) | 10.9000 | ppm | 0.5008 | 4.60 | 10030.0000 | 10.9000 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.4430 | ppm | 0.0491 | 3.40 | 2780.0000 | 1.4430 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0034 u | ppm | 0.0056 | > 100.00 | 5.4670 | 0.0034 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0037 | ppm | 0.0033 | 90.45 | -33.5100 | 0.0037 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.5665 | ppm | 0.0270 | 4.77 | 1300.0000 | 0.5665 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0291 | ppm | 0.0014 | 4.67 | 19.5900 | 0.0291 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.4684 | ppm | 0.0018 | 0.39 | 147100.0000 | 0.4684 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 8.9100 | ppm | 0.3383 | 3.80 | 965600.0000 | 8.9100 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0023 u | ppm | 0.0013 | 57.61 | -146.8000 | -0.0023 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3506 | ppm | 0.0137 | 3.90 | 9427.0000 | 0.3506 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0053 u | ppm | 0.0002 | 3.53 | 14.8800 | -0.0053 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 2.3080 | ppm | 0.0844 | 3.66 | 52700.0000 | 2.3080 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0082 | ppm | 0.0005 | 5.58 | 675.9000 | 0.0082 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9722 | 367400.0000 | 0.0024 | 0.25 |
| Y_R 371.029 | 1.0140 | 54620.0000 | 0.0127 | 1.25 |

Sample Name: CCV 4461459

Date: 11/2/2017 1:02:35 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4991 | ppm | 0.0008 | 0.15 | 17260.0000 | 0.4991 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0040 | ppm | 0.0016 | 0.16 | 22120.0000 | 1.0040 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9926 | ppm | 0.0001 | 0.01 | 800.1000 | 0.9926 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9987 | ppm | 0.0022 | 0.22 | 11060.0000 | 0.9987 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0060 | ppm | 0.0009 | 0.09 | 73920.0000 | 1.0060 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9996 | ppm | 0.0020 | 0.20 | 164800.0000 | 0.9996 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.0420 | ppm | 0.0037 | 0.07 | 18090.0000 | 5.0420 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9912 | ppm | 0.0028 | 0.29 | 24580.0000 | 0.9912 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0040 | ppm | 0.0004 | 0.04 | 13550.0000 | 1.0040 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9908 | ppm | 0.0017 | 0.17 | 5942.0000 | 0.9908 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0100 | ppm | 0.0023 | 0.23 | 35660.0000 | 1.0100 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0080 | ppm | 0.0032 | 0.32 | 4273.0000 | 1.0080 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.2000 | ppm | 0.0726 | 0.71 | 10560.0000 | 10.2000 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0140 | ppm | 0.0032 | 0.32 | 59370.0000 | 1.0140 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.0800 | ppm | 0.0129 | 0.25 | 11360.0000 | 5.0800 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9942 | ppm | 0.0022 | 0.22 | 93190.0000 | 0.9942 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9974 | ppm | 0.0001 | 0.01 | 5262.0000 | 0.9974 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.0400 | ppm | 0.0534 | 0.53 | 53270.0000 | 10.0400 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9962 | ppm | 0.0023 | 0.24 | 4753.0000 | 0.9962 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9982 | ppm | 0.0054 | 0.54 | 852.6000 | 0.9982 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9932 | ppm | 0.0042 | 0.43 | 1921.0000 | 0.9932 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9922 | ppm | 0.0045 | 0.46 | 1144.0000 | 0.9922 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9917 | ppm | 0.0016 | 0.16 | 868.6000 | 0.9917 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.2020 | ppm | 0.1903 | 3.66 | 11270.0000 | 5.2020 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0020 | ppm | 0.0026 | 0.26 | 800.7000 | 1.0020 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0170 | ppm | 0.0115 | 1.13 | 318200.0000 | 1.0170 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0020 | ppm | 0.0024 | 0.24 | 108500.0000 | 1.0020 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9986 | ppm | 0.0010 | 0.10 | 1517.0000 | 0.9986 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0090 | ppm | 0.0008 | 0.08 | 26110.0000 | 1.0090 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9955 | ppm | 0.0012 | 0.12 | 2097.0000 | 0.9955 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9967 | ppm | 0.0022 | 0.22 | 22920.0000 | 0.9967 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9961 | ppm | 0.0010 | 0.10 | 69230.0000 | 0.9961 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0070 | 380600.0000 | 0.0053 | 0.52 |
| Y_R 371.029 | 1.0150 | 54680.0000 | 0.0047 | 0.46 |

Sample Name: CCB 4461458

Date: 11/2/2017 1:04:39 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0003 | ppm | 0.0002 | 73.87 | 10.2400 | 0.0003 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0005 | ppm | 0.0003 | 54.43 | -1170.0000 | 0.0005 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0032 | ppm | 0.0030 | 92.88 | 8.9190 | 0.0032 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0007 | ppm | 0.0003 | 47.78 | 5.3350 | 0.0007 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0001 | 29.51 | 6.1650 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 74.03 | 25.7700 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0037 u | ppm | 0.0041 | > 100.00 | 121.2000 | -0.0037 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 47.76 | 1.0280 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0007 u | ppm | 0.0003 | 49.31 | -20.3100 | -0.0007 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0001 | 24.96 | 3.7510 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0003 | 31.57 | 193.5000 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0007 | ppm | 0.0009 | > 100.00 | 6.8420 | 0.0007 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1234 | ppm | 0.1215 | 98.43 | 59.0900 | 0.1234 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0061 | ppm | 0.0030 | 48.50 | 374.8000 | 0.0061 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | -0.0009 u | ppm | 0.0032 | > 100.00 | 5.9190 | -0.0009 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0001 | 52.25 | 81.0600 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0025 | ppm | 0.0006 | 24.37 | 18.7200 | 0.0025 (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0890 u | ppm | 0.0013 | 1.41 | 1098.0000 | -0.0890 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0001 u | ppm | 0.0005 | > 100.00 | 0.7931 | 0.0001 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0033 u | ppm | 0.0066 | > 100.00 | -10.8900 | 0.0033 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0008 u | ppm | 0.0022 | > 100.00 | -3.5070 | 0.0008 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0127 Z | ppm | 0.0058 | 46.03 | 9.7190 Z | 0.0127 Z (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0014 | ppm | 0.0010 | 71.25 | -1.0000 | 0.0014 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0081 | ppm | 0.0025 | 31.27 | 35.5700 | 0.0081 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0039 | ppm | 0.0011 | 29.22 | -0.3042 | 0.0039 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0000 | 17.98 | 47.0600 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0017 | ppm | 0.0003 | 15.59 | 87.0200 | 0.0017 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0054 | ppm | 0.0021 | 38.81 | 2.0440 | 0.0054 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0002 | ppm | 0.0001 | 53.66 | 46.9300 | 0.0002 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0019 | ppm | 0.0003 | 14.04 | -3.0530 | 0.0019 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0004 | ppm | 0.0001 | 30.76 | 89.4600 | 0.0004 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -35.6400 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0120 | 382600.0000 | 0.0049 | 0.49 |
| Y_R 371.029 | 1.0320 | 55600.0000 | 0.0111 | 1.08 |

Sample Name: CCB 4461458

Date: 11/2/2017 1:28:14 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0003 | ppm | 0.0002 | 56.03 | 11.7100 | 0.0003 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0007 | ppm | 0.0002 | 26.38 | -1170.0000 | 0.0007 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0006 | ppm | 0.0002 | 29.19 | 6.8380 | 0.0006 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | -1.8880 | 0.0000 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0000 | ppm | 0.0000 | 74.68 | -6.9140 | 0.0000 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 10.2000 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0081 u | ppm | 0.0082 | > 100.00 | 105.6000 | -0.0081 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0000 | 9.74 | -1.5910 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0007 u | ppm | 0.0005 | 62.28 | -20.6300 | -0.0007 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | -0.0001 u | ppm | 0.0001 | 94.23 | 0.7807 | -0.0001 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0004 | ppm | 0.0003 | 72.06 | 178.0000 | 0.0004 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0002 u | ppm | 0.0027 | > 100.00 | 3.0200 | -0.0002 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0630 | ppm | 0.0143 | 22.66 | -3.8080 | 0.0630 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0060 | ppm | 0.0013 | 22.27 | 368.3000 | 0.0060 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0020 | ppm | 0.0011 | 53.32 | 12.3200 | 0.0020 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 68.5900 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0002 u | ppm | 0.0013 | > 100.00 | 4.5840 | -0.0002 u (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0738 u | ppm | 0.0199 | 27.01 | 1175.0000 | -0.0738 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0001 u | ppm | 0.0010 | > 100.00 | 0.6465 | 0.0001 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0072 | ppm | 0.0020 | 28.48 | -7.2030 | 0.0072 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0003 u | ppm | 0.0004 | > 100.00 | -4.5330 | 0.0003 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0009 u | ppm | 0.0052 | > 100.00 | -4.0060 | 0.0009 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0017 | ppm | 0.0013 | 75.14 | -0.7413 | 0.0017 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0014 | ppm | 0.0001 | 6.80 | 20.7900 | 0.0014 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0032 | ppm | 0.0012 | 37.81 | -0.9069 | 0.0032 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | 60.4700 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0003 | ppm | 0.0001 | 44.49 | -65.8700 | 0.0003 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0008 | ppm | 0.0004 | 57.25 | -5.1380 | 0.0008 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | 43.9200 | 0.0001 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0016 u | ppm | 0.0004 | 21.96 | -10.4900 | -0.0016 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0004 | ppm | 0.0000 | 7.31 | 88.6900 | 0.0004 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -36.4800 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0190 | 384900.0000 | 0.0041 | 0.41 |
| Y_R 371.029 | 1.0320 | 55580.0000 | 0.0177 | 1.72 |

Sample Name: 440-195269-a-10-a@5

Date: 11/2/2017 1:32:17 PM Rack:Tube: 2:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0003 | ppm | 0.0003 | 77.69 | -66.8000 | 0.0003 (ppm) | Y 371.029 |
| Al (396.152 nm) | 124.5000 | ppm | 5.9180 | 4.75 | 2782000.0000 | 124.5000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0650 | ppm | 0.0081 | 12.46 | 59.4000 | 0.0650 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0210 | ppm | 0.0013 | 6.36 | 35.4800 | 0.0210 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.5980 | ppm | 0.0737 | 4.61 | 117500.0000 | 1.5980 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0061 | ppm | 0.0015 | 24.22 | 5150.0000 | 0.0061 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 54.8300 | ppm | 0.0115 | 0.02 | 195300.0000 | 54.8300 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0137 | ppm | 0.0009 | 6.24 | 388.0000 | 0.0137 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0841 | ppm | 0.0035 | 4.19 | 1344.0000 | 0.0841 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2727 | ppm | 0.0125 | 4.57 | 1646.0000 | 0.2727 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.5392 | ppm | 0.0256 | 4.75 | 19300.0000 | 0.5392 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 191.4000 | ppm | 0.4303 | 0.22 | 810900.0000 | 191.4000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 31.9300 | ppm | 0.1219 | 0.38 | 33250.0000 | 31.9300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1058 | ppm | 0.0003 | 0.26 | 6761.0000 | 0.1058 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 60.1400 | ppm | 2.8090 | 4.67 | 134400.0000 | 60.1400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.4840 | ppm | 0.1701 | 4.88 | 349200.0000 | 3.4840 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0130 | ppm | 0.0009 | 7.27 | 100.3000 | 0.0130 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.3400 | ppm | 0.0012 | 0.04 | 18810.0000 | 3.3400 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1759 | ppm | 0.0088 | 5.01 | 842.7000 | 0.1759 (ppm) | Y 371.029 |
| P (213.618 nm) | 11.9700 | ppm | 0.4502 | 3.76 | 11010.0000 | 11.9700 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 2.5430 | ppm | 0.1132 | 4.45 | 4916.0000 | 2.5430 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0111 | ppm | 0.0027 | 24.67 | 15.7100 | 0.0111 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0029 | ppm | 0.0006 | 19.95 | -36.3300 | 0.0029 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.6024 | ppm | 0.0288 | 4.78 | 1384.0000 | 0.6024 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0492 | ppm | 0.0026 | 5.38 | 35.7200 | 0.0492 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.3970 | ppm | 0.0002 | 0.05 | 124800.0000 | 0.3970 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 9.4530 | ppm | 0.4542 | 4.80 | 1024000.0000 | 9.4530 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0017 u | ppm | 0.0054 | > 100.00 | -153.8000 | -0.0017 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3870 | ppm | 0.0189 | 4.88 | 10380.0000 | 0.3870 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0033 u | ppm | 0.0022 | 65.85 | 35.1200 | -0.0033 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 3.2730 | ppm | 0.1470 | 4.49 | 74680.0000 | 3.2730 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0101 | ppm | 0.0003 | 3.33 | 818.5000 | 0.0101 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9714 | 367100.0000 | 0.0049 | 0.50 |
| Y_R 371.029 | 1.0110 | 54450.0000 | 0.0056 | 0.55 |

Sample Name: 440-195269-a-11-a@5

Date: 11/2/2017 1:34:21 PM Rack:Tube: 2:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0007 u | ppm | 0.0001 | 11.82 | -107.9000 | -0.0007 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 126.4000 | ppm | 3.4190 | 2.71 | 2825000.0000 | 126.4000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0788 | ppm | 0.0024 | 3.04 | 71.1000 | 0.0788 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0229 | ppm | 0.0008 | 3.44 | 47.8000 | 0.0229 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.3380 | ppm | 0.0511 | 3.82 | 98330.0000 | 1.3380 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0051 | ppm | 0.0005 | 9.74 | 5195.0000 | 0.0051 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 66.1500 | ppm | 0.9029 | 1.36 | 235700.0000 | 66.1500 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0126 | ppm | 0.0004 | 2.88 | 364.4000 | 0.0126 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0818 | ppm | 0.0031 | 3.81 | 1332.0000 | 0.0818 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2225 | ppm | 0.0051 | 2.30 | 1345.0000 | 0.2225 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4800 | ppm | 0.0136 | 2.83 | 17230.0000 | 0.4800 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 200.5000 | ppm | 2.5040 | 1.25 | 849700.0000 | 200.5000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 34.8100 | ppm | 0.4038 | 1.16 | 36250.0000 | 34.8100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1015 | ppm | 0.0018 | 1.79 | 6570.0000 | 0.1015 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 61.2700 | ppm | 2.3480 | 3.83 | 136900.0000 | 61.2700 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.4680 | ppm | 0.0928 | 2.68 | 349000.0000 | 3.4680 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0091 | ppm | 0.0008 | 8.97 | 79.9500 | 0.0091 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.1630 | ppm | 0.0325 | 1.03 | 17900.0000 | 3.1630 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1466 | ppm | 0.0030 | 2.08 | 702.7000 | 0.1466 (ppm) | Y 371.029 |
| P (213.618 nm) | 13.3900 | ppm | 0.2618 | 1.96 | 12320.0000 | 13.3900 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 2.0700 | ppm | 0.0488 | 2.36 | 3997.0000 | 2.0700 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0029 u | ppm | 0.0053 | > 100.00 | 5.9220 | 0.0029 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0031 | ppm | 0.0038 | > 100.00 | -37.9600 | 0.0031 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.7091 | ppm | 0.0170 | 2.39 | 1616.0000 | 0.7091 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0336 | ppm | 0.0010 | 2.85 | 23.1900 | 0.0336 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.4466 | ppm | 0.0062 | 1.39 | 140400.0000 | 0.4466 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 10.3200 | ppm | 0.2663 | 2.58 | 1118000.0000 | 10.3200 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0029 u | ppm | 0.0013 | 45.76 | -169.4000 | -0.0029 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4024 | ppm | 0.0108 | 2.69 | 10820.0000 | 0.4024 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0014 u | ppm | 0.0010 | 68.23 | 32.3900 | -0.0014 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 2.9000 | ppm | 0.0734 | 2.53 | 66190.0000 | 2.9000 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0078 | ppm | 0.0001 | 1.72 | 665.8000 | 0.0078 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9661 | 365100.0000 | 0.0007 | 0.07 |
| Y_R 371.029 | 1.0040 | 54100.0000 | 0.0122 | 1.21 |

Sample Name: 440-195269-a-12-a@5

Date: 11/2/2017 1:36:26 PM Rack:Tube: 2:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0010 | ppm | 0.0002 | 18.35 | -38.4200 | 0.0010 (ppm) | Y 371.029 |
| Al (396.152 nm) | 102.7000 | ppm | 3.2900 | 3.20 | 2296000.0000 | 102.7000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.2947 | ppm | 0.0022 | 0.75 | 244.8000 | 0.2947 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0244 | ppm | 0.0007 | 2.69 | 94.5700 | 0.0244 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.3670 | ppm | 0.0608 | 4.45 | 100500.0000 | 1.3670 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0041 | ppm | 0.0005 | 13.11 | 4351.0000 | 0.0041 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 64.7600 | ppm | 0.8664 | 1.34 | 230700.0000 | 64.7600 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0171 | ppm | 0.0009 | 5.40 | 466.6000 | 0.0171 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0682 | ppm | 0.0023 | 3.41 | 1113.0000 | 0.0682 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2524 | ppm | 0.0084 | 3.34 | 1524.0000 | 0.2524 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.3750 | ppm | 0.0117 | 3.11 | 13500.0000 | 0.3750 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 170.1000 | ppm | 2.7920 | 1.64 | 720900.0000 | 170.1000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 31.1700 | ppm | 0.4631 | 1.49 | 32450.0000 | 31.1700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0859 | ppm | 0.0001 | 0.10 | 5464.0000 | 0.0859 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 49.0700 | ppm | 2.2270 | 4.54 | 109600.0000 | 49.0700 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.8470 | ppm | 0.0969 | 3.40 | 287200.0000 | 2.8470 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0064 | ppm | 0.0012 | 19.08 | 61.9100 | 0.0064 (ppm) | Y 371.029 |
| Na (589.592 nm) | 2.6210 | ppm | 0.0376 | 1.43 | 15100.0000 | 2.6210 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1458 | ppm | 0.0078 | 5.33 | 698.8000 | 0.1458 (ppm) | Y 371.029 |
| P (213.618 nm) | 12.1800 | ppm | 0.3115 | 2.56 | 11210.0000 | 12.1800 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 3.0690 | ppm | 0.0909 | 2.96 | 5941.0000 | 3.0690 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0043 | ppm | 0.0007 | 16.63 | 7.3680 | 0.0043 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0037 | ppm | 0.0034 | 90.69 | -31.6300 | 0.0037 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.6000 | ppm | 0.0176 | 2.94 | 1378.0000 | 0.6000 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0526 | ppm | 0.0028 | 5.32 | 38.4600 | 0.0526 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.3584 | ppm | 0.0039 | 1.10 | 112800.0000 | 0.3584 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 8.8070 | ppm | 0.2754 | 3.13 | 954400.0000 | 8.8070 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0022 u | ppm | 0.0014 | 62.16 | -145.2000 | -0.0022 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3347 | ppm | 0.0099 | 2.97 | 9018.0000 | 0.3347 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0049 u | ppm | 0.0000 | 0.27 | 54.0600 | -0.0049 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 4.5960 | ppm | 0.1379 | 3.00 | 104700.0000 | 4.5960 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0057 | ppm | 0.0003 | 4.72 | 492.2000 | 0.0057 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9676 | 365700.0000 | 0.0011 | 0.12 |
| Y_R 371.029 | 1.0110 | 54460.0000 | 0.0156 | 1.54 |

Sample Name: 440-195269-a-13-a@5

Date: 11/2/2017 1:38:30 PM Rack:Tube: 2:14

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0003 u | ppm | 0.0004 | > 100.00 | -112.0000 | -0.0003 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 157.5000 | ppm | 7.0100 | 4.45 | 3522000.0000 | 157.5000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0803 | ppm | 0.0011 | 1.32 | 72.5200 | 0.0803 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0316 | ppm | 0.0002 | 0.48 | 123.8000 | 0.0316 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.5120 | ppm | 0.0761 | 5.04 | 111100.0000 | 1.5120 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0065 | ppm | 0.0013 | 19.74 | 5899.0000 | 0.0065 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 91.9700 | ppm | 1.7980 | 1.95 | 327600.0000 | 91.9700 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0134 | ppm | 0.0007 | 5.08 | 389.7000 | 0.0134 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0939 | ppm | 0.0058 | 6.17 | 1552.0000 | 0.0939 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2484 | ppm | 0.0106 | 4.27 | 1502.0000 | 0.2484 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.3722 | ppm | 0.0171 | 4.60 | 13450.0000 | 0.3722 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 223.2000 | ppm | 3.7910 | 1.70 | 946000.0000 | 223.2000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 46.9600 | ppm | 0.6606 | 1.41 | 48910.0000 | 46.9600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1258 | ppm | 0.0019 | 1.54 | 8222.0000 | 0.1258 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 74.6300 | ppm | 3.6970 | 4.95 | 166800.0000 | 74.6300 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 4.0970 | ppm | 0.1905 | 4.65 | 410300.0000 | 4.0970 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0066 | ppm | 0.0010 | 15.25 | 72.6900 | 0.0066 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.3220 | ppm | 0.0495 | 1.49 | 18740.0000 | 3.3220 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1642 | ppm | 0.0088 | 5.38 | 786.8000 | 0.1642 (ppm) | Y 371.029 |
| P (213.618 nm) | 16.5700 | ppm | 0.6913 | 4.17 | 15260.0000 | 16.5700 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.5650 | ppm | 0.0682 | 4.36 | 3010.0000 | 1.5650 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0108 | ppm | 0.0009 | 8.81 | 16.4600 | 0.0108 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0016 | ppm | 0.0002 | 12.50 | -43.6500 | 0.0016 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.7033 | ppm | 0.0391 | 5.57 | 1625.0000 | 0.7033 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0537 | ppm | 0.0050 | 9.39 | 39.1100 | 0.0537 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.6340 | ppm | 0.0126 | 1.99 | 199200.0000 | 0.6340 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 12.9200 | ppm | 0.5867 | 4.54 | 1400000.0000 | 12.9200 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0017 u | ppm | 0.0060 | > 100.00 | -206.5000 | -0.0017 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4431 | ppm | 0.0206 | 4.65 | 11960.0000 | 0.4431 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0049 u | ppm | 0.0002 | 3.23 | 20.4600 | -0.0049 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 2.6950 | ppm | 0.1121 | 4.16 | 61530.0000 | 2.6950 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0108 | ppm | 0.0005 | 4.71 | 887.4000 | 0.0108 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9555 | 361100.0000 | 0.0004 | 0.04 |
| Y_R 371.029 | 0.9957 | 53640.0000 | 0.0065 | 0.66 |

Sample Name: 440-195269-a-14-a@5

Date: 11/2/2017 1:40:34 PM Rack:Tube: 2:15

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0015 u | ppm | 0.0003 | 17.58 | -144.6000 | -0.0015 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 154.2000 | ppm | 7.0900 | 4.60 | 3448000.0000 | 154.2000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0654 | ppm | 0.0048 | 7.42 | 60.9900 | 0.0654 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0203 | ppm | 0.0014 | 6.76 | 9.3960 | 0.0203 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.3620 | ppm | 0.0533 | 3.91 | 100100.0000 | 1.3620 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0063 | ppm | 0.0010 | 16.08 | 5613.0000 | 0.0063 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 68.7400 | ppm | 0.1571 | 0.23 | 244900.0000 | 68.7400 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0058 | ppm | 0.0002 | 4.12 | 198.1000 | 0.0058 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0895 | ppm | 0.0050 | 5.62 | 1459.0000 | 0.0895 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2021 | ppm | 0.0091 | 4.51 | 1224.0000 | 0.2021 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.2846 | ppm | 0.0144 | 5.05 | 10370.0000 | 0.2846 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 212.1000 | ppm | 1.1800 | 0.56 | 898800.0000 | 212.1000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 44.5300 | ppm | 0.1849 | 0.42 | 46380.0000 | 44.5300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1167 | ppm | 0.0007 | 0.60 | 7694.0000 | 0.1167 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 72.3400 | ppm | 2.6670 | 3.69 | 161700.0000 | 72.3400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.7570 | ppm | 0.1865 | 4.97 | 377200.0000 | 3.7570 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0024 | ppm | 0.0003 | 12.52 | 48.9800 | 0.0024 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.1610 | ppm | 0.0268 | 0.85 | 17900.0000 | 3.1610 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1363 | ppm | 0.0084 | 6.17 | 653.6000 | 0.1363 (ppm) | Y 371.029 |
| P (213.618 nm) | 14.5200 | ppm | 0.5579 | 3.84 | 13370.0000 | 14.5200 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.5158 | ppm | 0.0243 | 4.71 | 973.5000 | 0.5158 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0060 | ppm | 0.0085 | > 100.00 | 9.7840 | 0.0060 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0024 | ppm | 0.0027 | > 100.00 | -40.8000 | 0.0024 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.7218 | ppm | 0.0383 | 5.31 | 1646.0000 | 0.7218 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0326 | ppm | 0.0005 | 1.41 | 22.2400 | 0.0326 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5701 | ppm | 0.0010 | 0.17 | 179000.0000 | 0.5701 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 11.3500 | ppm | 0.5196 | 4.58 | 1230000.0000 | 11.3500 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0045 u | ppm | 0.0047 | > 100.00 | -188.0000 | -0.0045 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4397 | ppm | 0.0206 | 4.68 | 11810.0000 | 0.4397 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0012 u | ppm | 0.0022 | > 100.00 | 2.1640 | -0.0012 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.1000 | ppm | 0.0494 | 4.49 | 25210.0000 | 1.1000 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0057 | ppm | 0.0003 | 5.18 | 527.6000 | 0.0057 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9595 | 362600.0000 | 0.0016 | 0.17 |
| Y_R 371.029 | 1.0050 | 54120.0000 | 0.0106 | 1.06 |

Sample Name: 440-195269-a-15-a@5

Date: 11/2/2017 1:42:39 PM Rack:Tube: 2:16

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0019 u | ppm | 0.0003 | 18.01 | -154.9000 | -0.0019 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 146.3000 | ppm | 5.4650 | 3.73 | 3271000.0000 | 146.3000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0489 | ppm | 0.0046 | 9.41 | 47.6900 | 0.0489 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0168 | ppm | 0.0010 | 5.78 | -21.4000 | 0.0168 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.1980 | ppm | 0.0640 | 5.34 | 88090.0000 | 1.1980 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0059 | ppm | 0.0010 | 17.17 | 5374.0000 | 0.0059 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 63.5800 | ppm | 1.4780 | 2.32 | 226500.0000 | 63.5800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0037 | ppm | 0.0002 | 5.78 | 142.4000 | 0.0037 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0859 | ppm | 0.0048 | 5.58 | 1406.0000 | 0.0859 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1842 | ppm | 0.0069 | 3.76 | 1115.0000 | 0.1842 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.2241 | ppm | 0.0089 | 3.97 | 8240.0000 | 0.2241 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 203.7000 | ppm | 4.2960 | 2.11 | 863400.0000 | 203.7000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 40.9100 | ppm | 0.7796 | 1.91 | 42610.0000 | 40.9100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1045 | ppm | 0.0048 | 4.56 | 6959.0000 | 0.1045 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 68.1600 | ppm | 3.6580 | 5.37 | 152300.0000 | 68.1600 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.5310 | ppm | 0.1440 | 4.08 | 355200.0000 | 3.5310 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0033 | ppm | 0.0004 | 10.86 | 52.1300 | 0.0033 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.1570 | ppm | 0.0808 | 2.56 | 17880.0000 | 3.1570 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1249 | ppm | 0.0048 | 3.88 | 599.1000 | 0.1249 (ppm) | Y 371.029 |
| P (213.618 nm) | 12.2800 | ppm | 0.3835 | 3.12 | 11310.0000 | 12.2800 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.1643 | ppm | 0.0036 | 2.20 | 291.4000 | 0.1643 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0046 | ppm | 0.0019 | 41.27 | 7.7250 | 0.0046 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0012 u | ppm | 0.0065 | > 100.00 | -42.3700 | -0.0012 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.7872 | ppm | 0.0352 | 4.47 | 1782.0000 | 0.7872 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0094 | ppm | 0.0034 | 35.91 | 3.6600 | 0.0094 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5322 | ppm | 0.0130 | 2.45 | 167100.0000 | 0.5322 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 11.1800 | ppm | 0.4245 | 3.80 | 1211000.0000 | 11.1800 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0023 u | ppm | 0.0036 | > 100.00 | -181.6000 | -0.0023 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4094 | ppm | 0.0159 | 3.88 | 11020.0000 | 0.4094 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0021 u | ppm | 0.0003 | 14.47 | -5.9520 | -0.0021 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.6946 | ppm | 0.0267 | 3.84 | 15980.0000 | 0.6946 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0062 | ppm | 0.0003 | 4.98 | 553.8000 | 0.0062 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9560 | 361300.0000 | 0.0029 | 0.31 |
| Y_R 371.029 | 1.0030 | 54020.0000 | 0.0164 | 1.64 |

Sample Name: 440-195269-a-16-a@5

Date: 11/2/2017 1:44:43 PM Rack:Tube: 2:17

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0008 u | ppm | 0.0003 | 38.42 | -123.2000 | -0.0008 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 147.1000 | ppm | 4.8990 | 3.33 | 3288000.0000 | 147.1000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0372 | ppm | 0.0004 | 1.07 | 37.9600 | 0.0372 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0280 | ppm | 0.0011 | 4.09 | 93.3300 | 0.0280 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.3170 | ppm | 0.0511 | 3.88 | 96820.0000 | 1.3170 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0062 | ppm | 0.0014 | 22.63 | 5653.0000 | 0.0062 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 65.4000 | ppm | 0.3813 | 0.58 | 233000.0000 | 65.4000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0089 | ppm | 0.0010 | 10.93 | 275.3000 | 0.0089 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0884 | ppm | 0.0039 | 4.46 | 1467.0000 | 0.0884 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2120 | ppm | 0.0070 | 3.29 | 1283.0000 | 0.2120 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.2679 | ppm | 0.0092 | 3.44 | 9796.0000 | 0.2679 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 213.8000 | ppm | 2.3770 | 1.11 | 906000.0000 | 213.8000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 43.4000 | ppm | 0.1929 | 0.44 | 45200.0000 | 43.4000 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1174 | ppm | 0.0027 | 2.31 | 7707.0000 | 0.1174 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 69.6100 | ppm | 2.7600 | 3.96 | 155500.0000 | 69.6100 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.5260 | ppm | 0.1277 | 3.62 | 356100.0000 | 3.5260 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0071 | ppm | 0.0003 | 4.76 | 73.1300 | 0.0071 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.8530 | ppm | 0.0232 | 0.60 | 21460.0000 | 3.8530 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1458 | ppm | 0.0065 | 4.46 | 699.2000 | 0.1458 (ppm) | Y 371.029 |
| P (213.618 nm) | 13.5100 | ppm | 0.5161 | 3.82 | 12440.0000 | 13.5100 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.8018 | ppm | 0.0265 | 3.30 | 1529.0000 | 0.8018 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0099 | ppm | 0.0007 | 6.65 | 14.6200 | 0.0099 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0056 | ppm | 0.0062 | > 100.00 | -38.4800 | 0.0056 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.6500 | ppm | 0.0267 | 4.11 | 1503.0000 | 0.6500 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0322 | ppm | 0.0031 | 9.52 | 21.8200 | 0.0322 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5570 | ppm | 0.0030 | 0.55 | 174900.0000 | 0.5570 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 12.4600 | ppm | 0.3984 | 3.20 | 1351000.0000 | 12.4600 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0025 u | ppm | 0.0050 | > 100.00 | -202.0000 | -0.0025 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4376 | ppm | 0.0149 | 3.40 | 11780.0000 | 0.4376 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0007 | ppm | 0.0009 | > 100.00 | 14.0600 | 0.0007 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.5580 | ppm | 0.0523 | 3.35 | 35630.0000 | 1.5580 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0104 | ppm | 0.0004 | 3.70 | 850.5000 | 0.0104 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9598 | 362700.0000 | 0.0001 | 0.01 |
| Y_R 371.029 | 1.0120 | 54490.0000 | 0.0043 | 0.43 |

Sample Name: 440-195269-a-17-a@5

Date: 11/2/2017 1:46:47 PM Rack:Tube: 2:18

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0016 u | ppm | 0.0001 | 5.03 | -144.9000 | -0.0016 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 151.5000 | ppm | 8.1320 | 5.37 | 3386000.0000 | 151.5000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0360 | ppm | 0.0024 | 6.75 | 37.2200 | 0.0360 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0232 | ppm | 0.0009 | 3.93 | 41.9800 | 0.0232 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.2760 | ppm | 0.0862 | 6.75 | 93760.0000 | 1.2760 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0069 | ppm | 0.0017 | 24.83 | 5723.0000 | 0.0069 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 65.3100 | ppm | 1.1710 | 1.79 | 232700.0000 | 65.3100 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0060 | ppm | 0.0004 | 6.45 | 202.5000 | 0.0060 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0889 | ppm | 0.0070 | 7.86 | 1447.0000 | 0.0889 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2016 | ppm | 0.0102 | 5.07 | 1221.0000 | 0.2016 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.2463 | ppm | 0.0130 | 5.26 | 9028.0000 | 0.2463 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 211.7000 | ppm | 4.3160 | 2.04 | 897100.0000 | 211.7000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 43.8800 | ppm | 0.8169 | 1.86 | 45700.0000 | 43.8800 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1154 | ppm | 0.0002 | 0.16 | 7615.0000 | 0.1154 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 72.5600 | ppm | 5.0260 | 6.93 | 162100.0000 | 72.5600 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.5580 | ppm | 0.1965 | 5.52 | 358700.0000 | 3.5580 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0070 | ppm | 0.0002 | 2.65 | 72.8000 | 0.0070 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.9690 | ppm | 0.0697 | 1.75 | 22050.0000 | 3.9690 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1392 | ppm | 0.0055 | 3.96 | 667.4000 | 0.1392 (ppm) | Y 371.029 |
| P (213.618 nm) | 12.7500 | ppm | 0.6460 | 5.07 | 11740.0000 | 12.7500 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.3996 | ppm | 0.0191 | 4.77 | 748.1000 | 0.3996 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0140 | ppm | 0.0005 | 3.32 | 18.9900 | 0.0140 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0037 | ppm | 0.0027 | 74.42 | -39.7500 | 0.0037 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.8079 | ppm | 0.0483 | 5.97 | 1827.0000 | 0.8079 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0168 | ppm | 0.0047 | 28.07 | 9.5830 | 0.0168 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5484 | ppm | 0.0103 | 1.88 | 172200.0000 | 0.5484 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 11.1700 | ppm | 0.5484 | 4.91 | 1211000.0000 | 11.1700 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0018 u | ppm | 0.0032 | > 100.00 | -181.3000 | -0.0018 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4369 | ppm | 0.0223 | 5.10 | 11730.0000 | 0.4369 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0016 u | ppm | 0.0015 | 93.53 | 0.2264 | -0.0016 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0250 | ppm | 0.0534 | 5.21 | 23500.0000 | 1.0250 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0068 | ppm | 0.0003 | 5.03 | 603.1000 | 0.0068 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9606 | 363000.0000 | 0.0001 | 0.01 |
| Y_R 371.029 | 1.0000 | 53890.0000 | 0.0173 | 1.73 |

Sample Name: 440-195269-a-18-a@5

Date: 11/2/2017 1:48:51 PM Rack:Tube: 2:19

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0020 u | ppm | 0.0003 | 12.82 | -157.8000 | -0.0020 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 148.9000 | ppm | 5.0100 | 3.36 | 3328000.0000 | 148.9000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0194 | ppm | 0.0055 | 28.53 | 23.9400 | 0.0194 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0185 | ppm | 0.0002 | 0.98 | -8.6880 | 0.0185 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.2050 | ppm | 0.0419 | 3.48 | 88560.0000 | 1.2050 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0054 | ppm | 0.0012 | 22.54 | 5446.0000 | 0.0054 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 64.1300 | ppm | 0.6808 | 1.06 | 228500.0000 | 64.1300 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0034 | ppm | 0.0002 | 5.40 | 137.4000 | 0.0034 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0875 | ppm | 0.0031 | 3.55 | 1412.0000 | 0.0875 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1857 | ppm | 0.0062 | 3.32 | 1124.0000 | 0.1857 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.2006 | ppm | 0.0075 | 3.76 | 7416.0000 | 0.2006 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 211.0000 | ppm | 1.9300 | 0.91 | 894000.0000 | 211.0000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 42.6900 | ppm | 0.2140 | 0.50 | 44470.0000 | 42.6900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1063 | ppm | 0.0017 | 1.58 | 7075.0000 | 0.1063 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 70.8300 | ppm | 2.4680 | 3.48 | 158300.0000 | 70.8300 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.4660 | ppm | 0.1351 | 3.90 | 350100.0000 | 3.4660 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0040 | ppm | 0.0006 | 14.02 | 55.9400 | 0.0040 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.1180 | ppm | 0.0415 | 1.01 | 22820.0000 | 4.1180 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1256 | ppm | 0.0047 | 3.71 | 602.3000 | 0.1256 (ppm) | Y 371.029 |
| P (213.618 nm) | 11.2700 | ppm | 0.3620 | 3.21 | 10380.0000 | 11.2700 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.1163 | ppm | 0.0029 | 2.48 | 198.4000 | 0.1163 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0062 | ppm | 0.0061 | 98.15 | 9.4590 | 0.0062 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0040 | ppm | 0.0007 | 16.94 | -39.1900 | 0.0040 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.6203 | ppm | 0.0166 | 2.67 | 1420.0000 | 0.6203 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0086 | ppm | 0.0035 | 40.71 | 3.0280 | 0.0086 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5212 | ppm | 0.0059 | 1.13 | 163700.0000 | 0.5212 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 10.3800 | ppm | 0.3870 | 3.73 | 1125000.0000 | 10.3800 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0026 u | ppm | 0.0035 | > 100.00 | -170.3000 | -0.0026 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4183 | ppm | 0.0161 | 3.84 | 11230.0000 | 0.4183 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0009 u | ppm | 0.0026 | > 100.00 | -5.2000 | -0.0009 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.5972 | ppm | 0.0219 | 3.66 | 13760.0000 | 0.5972 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0049 | ppm | 0.0002 | 3.50 | 471.7000 | 0.0049 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9587 | 362300.0000 | 0.0018 | 0.19 |
| Y_R 371.029 | 0.9988 | 53800.0000 | 0.0001 | 0.01 |

Sample Name: 440-195269-a-19-a@5

Date: 11/2/2017 1:50:56 PM Rack:Tube: 2:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -96.3400 | 0.0000 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 152.1000 | ppm | 11.4400 | 7.52 | 3401000.0000 | 152.1000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0590 | ppm | 0.0065 | 11.05 | 55.1100 | 0.0590 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0307 | ppm | 0.0003 | 1.02 | 126.3000 | 0.0307 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.5850 | ppm | 0.0973 | 6.14 | 116500.0000 | 1.5850 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0086 | ppm | 0.0026 | 30.81 | 5908.0000 | 0.0086 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 70.1000 | ppm | 0.2295 | 0.33 | 249700.0000 | 70.1000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0137 | ppm | 0.0013 | 9.71 | 393.6000 | 0.0137 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0927 | ppm | 0.0071 | 7.69 | 1541.0000 | 0.0927 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2432 | ppm | 0.0192 | 7.89 | 1471.0000 | 0.2432 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4667 | ppm | 0.0351 | 7.51 | 16780.0000 | 0.4667 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 208.4000 | ppm | 0.1764 | 0.08 | 883200.0000 | 208.4000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 36.1600 | ppm | 0.0432 | 0.12 | 37670.0000 | 36.1600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1171 | ppm | 0.0008 | 0.71 | 7643.0000 | 0.1171 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 71.7800 | ppm | 4.7130 | 6.57 | 160400.0000 | 71.7800 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.9150 | ppm | 0.3017 | 7.71 | 391400.0000 | 3.9150 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0074 | ppm | 0.0011 | 14.73 | 75.8600 | 0.0074 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.0580 | ppm | 0.0037 | 0.09 | 22520.0000 | 4.0580 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1700 | ppm | 0.0117 | 6.90 | 814.6000 | 0.1700 (ppm) | Y 371.029 |
| P (213.618 nm) | 15.0400 | ppm | 1.0620 | 7.06 | 13850.0000 | 15.0400 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 2.2000 | ppm | 0.1520 | 6.91 | 4245.0000 | 2.2000 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0155 | ppm | 0.0101 | 64.74 | 21.8500 | 0.0155 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0031 | ppm | 0.0031 | > 100.00 | -39.4300 | 0.0031 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.8101 | ppm | 0.0696 | 8.59 | 1857.0000 | 0.8101 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0402 | ppm | 0.0006 | 1.61 | 28.2600 | 0.0402 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5925 | ppm | 0.0021 | 0.36 | 186100.0000 | 0.5925 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 13.2400 | ppm | 0.9212 | 6.96 | 1435000.0000 | 13.2400 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0018 u | ppm | 0.0064 | > 100.00 | -212.1000 | -0.0018 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4384 | ppm | 0.0335 | 7.63 | 11820.0000 | 0.4384 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0009 u | ppm | 0.0032 | > 100.00 | 40.1400 | 0.0009 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 3.1190 | ppm | 0.2058 | 6.60 | 71180.0000 | 3.1190 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0120 | ppm | 0.0010 | 8.12 | 954.9000 | 0.0120 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9572 | 361700.0000 | 0.0001 | 0.01 |
| Y_R 371.029 | 1.0110 | 54470.0000 | 0.0090 | 0.89 |

Sample Name: CCV 4461459

Date: 11/2/2017 1:53:00 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5024 | ppm | 0.0008 | 0.15 | 17370.0000 | 0.5024 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0270 | ppm | 0.0160 | 1.56 | 22640.0000 | 1.0270 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0050 | ppm | 0.0001 | 0.01 | 809.8000 | 1.0050 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0050 | ppm | 0.0011 | 0.11 | 11130.0000 | 1.0050 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9987 | ppm | 0.0200 | 2.00 | 73370.0000 | 0.9987 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0070 | ppm | 0.0004 | 0.04 | 166000.0000 | 1.0070 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.0420 | ppm | 0.0723 | 1.43 | 18090.0000 | 5.0420 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0010 | ppm | 0.0018 | 0.18 | 24820.0000 | 1.0010 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0100 | ppm | 0.0079 | 0.78 | 13640.0000 | 1.0100 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9981 | ppm | 0.0005 | 0.05 | 5986.0000 | 0.9981 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0080 | ppm | 0.0028 | 0.28 | 35600.0000 | 1.0080 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0480 | ppm | 0.0189 | 1.80 | 4441.0000 | 1.0480 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.2000 | ppm | 0.0819 | 0.80 | 10550.0000 | 10.2000 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0020 | ppm | 0.0130 | 1.30 | 58630.0000 | 1.0020 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.0490 | ppm | 0.0944 | 1.87 | 11290.0000 | 5.0490 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0020 | ppm | 0.0002 | 0.02 | 93910.0000 | 1.0020 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0010 | ppm | 0.0006 | 0.06 | 5282.0000 | 1.0010 (ppm) | Y 371.029 |
| Na (589.592 nm) | 9.9570 | ppm | 0.1683 | 1.69 | 52820.0000 | 9.9570 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0020 | ppm | 0.0033 | 0.33 | 4781.0000 | 1.0020 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0060 | ppm | 0.0005 | 0.05 | 859.9000 | 1.0060 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0030 | ppm | 0.0006 | 0.06 | 1940.0000 | 1.0030 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0010 | ppm | 0.0031 | 0.31 | 1154.0000 | 1.0010 (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0030 | ppm | 0.0006 | 0.06 | 878.5000 | 1.0030 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.2260 | ppm | 0.1749 | 3.35 | 11320.0000 | 5.2260 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0050 | ppm | 0.0021 | 0.21 | 803.5000 | 1.0050 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9963 | ppm | 0.0136 | 1.37 | 311600.0000 | 0.9963 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0190 | ppm | 0.0013 | 0.12 | 110400.0000 | 1.0190 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0060 | ppm | 0.0009 | 0.09 | 1529.0000 | 1.0060 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0080 | ppm | 0.0007 | 0.06 | 26090.0000 | 1.0080 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0040 | ppm | 0.0016 | 0.16 | 2114.0000 | 1.0040 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0070 | ppm | 0.0004 | 0.04 | 23160.0000 | 1.0070 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9999 | ppm | 0.0007 | 0.07 | 69490.0000 | 0.9999 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0010 | 378400.0000 | 0.0018 | 0.18 |
| Y_R 371.029 | 1.0250 | 55240.0000 | 0.0174 | 1.69 |

Sample Name: CCB 4461458

Date: 11/2/2017 1:55:03 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0004 | ppm | 0.0001 | 29.63 | 14.2000 | 0.0004 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0016 | ppm | 0.0004 | 22.41 | -1147.0000 | 0.0016 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0016 | ppm | 0.0016 | 97.57 | 7.6780 | 0.0016 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0003 u | ppm | 0.0004 | > 100.00 | 0.8804 | 0.0003 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0001 | 35.09 | 4.0540 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 20.6600 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0172 u | ppm | 0.0040 | 23.15 | 73.1800 | -0.0172 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | -2.6850 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0005 u | ppm | 0.0002 | 46.73 | -17.2300 | -0.0005 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 u | ppm | 0.0004 | > 100.00 | 2.1510 | 0.0002 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0009 | ppm | 0.0000 | 0.07 | 196.4000 | 0.0009 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0047 | ppm | 0.0006 | 12.03 | 23.7600 | 0.0047 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0591 u | ppm | 0.1136 | > 100.00 | -7.9260 | 0.0591 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0035 | ppm | 0.0007 | 21.20 | 218.1000 | 0.0035 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0024 | ppm | 0.0034 | > 100.00 | 13.3200 | 0.0024 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0000 | 1.40 | 88.8900 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0027 | ppm | 0.0016 | 59.75 | 19.8100 | 0.0027 (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.1015 u | ppm | 0.0043 | 4.22 | 1033.0000 | -0.1015 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0003 u | ppm | 0.0008 | > 100.00 | 1.4300 | 0.0003 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0065 | ppm | 0.0030 | 45.50 | -7.8860 | 0.0065 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0011 u | ppm | 0.0025 | > 100.00 | -7.2750 | -0.0011 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0030 u | ppm | 0.0047 | > 100.00 | -1.6080 | 0.0030 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0038 | ppm | 0.0008 | 21.95 | 1.1460 | 0.0038 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0080 | ppm | 0.0029 | 35.77 | 35.4400 | 0.0080 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0031 | ppm | 0.0017 | 55.36 | -0.9453 | 0.0031 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 54.3000 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0018 | ppm | 0.0004 | 21.93 | 95.1600 | 0.0018 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0012 u | ppm | 0.0030 | > 100.00 | -4.4990 | 0.0012 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0005 | ppm | 0.0002 | 46.98 | 53.5700 | 0.0005 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0026 | ppm | 0.0005 | 18.08 | -1.5450 | 0.0026 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0006 | ppm | 0.0002 | 26.89 | 94.4500 | 0.0006 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0001 | 88.32 | -24.3700 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0150 | 383500.0000 | 0.0032 | 0.31 |
| Y_R 371.029 | 1.0370 | 55880.0000 | 0.0122 | 1.17 |

Sample Name: 440-195269-a-20-a@5

Date: 11/2/2017 1:59:19 PM Rack:Tube: 2:21

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0006 u | ppm | 0.0005 | 86.80 | -100.2000 | -0.0006 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 117.9000 | ppm | 5.6740 | 4.81 | 2635000.0000 | 117.9000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0824 | ppm | 0.0001 | 0.08 | 73.6100 | 0.0824 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0185 | ppm | 0.0033 | 17.84 | 18.0700 | 0.0185 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.2880 | ppm | 0.0675 | 5.24 | 94670.0000 | 1.2880 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0058 | ppm | 0.0016 | 27.18 | 4905.0000 | 0.0058 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 65.6100 | ppm | 0.2035 | 0.31 | 233700.0000 | 65.6100 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0116 | ppm | 0.0008 | 6.55 | 333.5000 | 0.0116 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0760 | ppm | 0.0045 | 5.95 | 1232.0000 | 0.0760 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2364 | ppm | 0.0119 | 5.05 | 1428.0000 | 0.2364 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4835 | ppm | 0.0238 | 4.91 | 17330.0000 | 0.4835 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 183.1000 | ppm | 1.0880 | 0.59 | 775700.0000 | 183.1000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 30.8300 | ppm | 0.0090 | 0.03 | 32100.0000 | 30.8300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0947 | ppm | 0.0005 | 0.55 | 6150.0000 | 0.0947 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 63.6300 | ppm | 3.2910 | 5.17 | 142200.0000 | 63.6300 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.1460 | ppm | 0.1577 | 5.01 | 316600.0000 | 3.1460 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0468 | ppm | 0.0030 | 6.41 | 276.9000 | 0.0468 (ppm) | Y 371.029 |
| Na (589.592 nm) | 2.7490 | ppm | 0.0124 | 0.45 | 15770.0000 | 2.7490 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1423 | ppm | 0.0060 | 4.22 | 681.9000 | 0.1423 (ppm) | Y 371.029 |
| P (213.618 nm) | 12.6600 | ppm | 0.5389 | 4.26 | 11650.0000 | 12.6600 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 2.2190 | ppm | 0.0924 | 4.16 | 4287.0000 | 2.2190 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0128 | ppm | 0.0007 | 5.69 | 16.3800 | 0.0128 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0069 | ppm | 0.0057 | 81.61 | -31.1400 | 0.0069 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.5352 | ppm | 0.0270 | 5.04 | 1241.0000 | 0.5352 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0342 | ppm | 0.0006 | 1.72 | 23.7200 | 0.0342 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.3550 | ppm | 0.0012 | 0.34 | 111700.0000 | 0.3550 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 9.4020 | ppm | 0.4224 | 4.49 | 1019000.0000 | 9.4020 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0012 u | ppm | 0.0039 | > 100.00 | -149.7000 | 0.0012 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3803 | ppm | 0.0185 | 4.85 | 10210.0000 | 0.3803 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0016 | ppm | 0.0011 | 66.25 | 36.5800 | 0.0016 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 2.7500 | ppm | 0.1250 | 4.54 | 62790.0000 | 2.7500 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0083 | ppm | 0.0004 | 4.86 | 680.7000 | 0.0083 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9668 | 365400.0000 | 0.0034 | 0.35 |
| Y_R 371.029 | 1.0020 | 54000.0000 | 0.0011 | 0.11 |

Sample Name: mb 440-438571/1-a@5

Date: 11/2/2017 2:01:24 PM Rack:Tube: 2:22

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | 2.7360 | 0.0001 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0247 | ppm | 0.0096 | 38.95 | -632.4000 | 0.0247 (ppm) | Y 371.029 |
| As (188.980 nm) | -0.0003 u | ppm | 0.0003 | > 100.00 | 6.1290 | -0.0003 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0010 | ppm | 0.0002 | 15.03 | 9.7100 | 0.0010 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0005 | ppm | 0.0001 | 15.28 | 24.2300 | 0.0005 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 10.48 | -7.2490 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0520 | ppm | 0.0059 | 11.45 | 319.4000 | 0.0520 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -4.7320 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0002 u | ppm | 0.0003 | > 100.00 | -13.1900 | -0.0002 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0006 | ppm | 0.0005 | 74.24 | 5.1230 | 0.0006 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0039 | ppm | 0.0001 | 3.80 | 302.2000 | 0.0039 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0667 | ppm | 0.0007 | 1.12 | 286.7000 | 0.0667 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1149 | ppm | 0.0709 | 61.68 | 50.2000 | 0.1149 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0056 | ppm | 0.0014 | 25.22 | 343.1000 | 0.0056 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0269 | ppm | 0.0045 | 16.80 | 67.9900 | 0.0269 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0017 | ppm | 0.0003 | 18.21 | 235.2000 | 0.0017 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0011 u | ppm | 0.0011 | > 100.00 | 0.0608 | -0.0011 u (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0819 u | ppm | 0.0264 | 32.19 | 1134.0000 | -0.0819 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0007 | ppm | 0.0003 | 47.61 | 3.4320 | 0.0007 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0091 | ppm | 0.0007 | 7.54 | -5.5310 | 0.0091 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0011 | ppm | 0.0001 | 14.24 | -3.0500 | 0.0011 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0085 | ppm | 0.0030 | 35.86 | 4.9090 | 0.0085 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0008 u | ppm | 0.0056 | > 100.00 | -2.9260 | -0.0008 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0253 | ppm | 0.0009 | 3.45 | 72.0300 | 0.0253 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0045 | ppm | 0.0025 | 54.90 | 0.1748 | 0.0045 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0004 | ppm | 0.0001 | 31.16 | 180.7000 | 0.0004 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0057 | ppm | 0.0005 | 8.96 | 517.0000 | 0.0057 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0009 u | ppm | 0.0042 | > 100.00 | -7.8830 | -0.0009 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0005 | ppm | 0.0000 | 2.14 | 55.4200 | 0.0005 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0020 | ppm | 0.0006 | 27.32 | -2.8210 | 0.0020 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0005 u | ppm | 0.0001 | 21.09 | 69.8000 | -0.0005 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -33.3500 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9997 | 377800.0000 | 0.0012 | 0.12 |
| Y_R 371.029 | 1.0150 | 54670.0000 | 0.0118 | 1.16 |

Sample Name: lcs 440-438571/2-a@5

Date: 11/2/2017 2:03:28 PM
Rack:Tube: 2:23

Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1911 | ppm | 0.0014 | 0.74 | 6606.0000 | 0.1911 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.3850 | ppm | 0.0022 | 0.56 | 7754.0000 | 0.3850 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.3770 | ppm | 0.0020 | 0.53 | 307.8000 | 0.3770 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.3708 | ppm | 0.0001 | 0.03 | 4105.0000 | 0.3708 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.3823 | ppm | 0.0001 | 0.02 | 28080.0000 | 0.3823 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3742 | ppm | 0.0022 | 0.58 | 61710.0000 | 0.3742 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 1.9380 | ppm | 0.0002 | 0.01 | 7036.0000 | 1.9380 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3763 | ppm | 0.0031 | 0.83 | 9329.0000 | 0.3763 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.3845 | ppm | 0.0014 | 0.37 | 5182.0000 | 0.3845 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.3816 | ppm | 0.0016 | 0.41 | 2289.0000 | 0.3816 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.3891 | ppm | 0.0020 | 0.50 | 13850.0000 | 0.3891 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.4141 | ppm | 0.0027 | 0.65 | 1758.0000 | 0.4141 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 3.9670 | ppm | 0.0399 | 1.01 | 4063.0000 | 3.9670 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3849 | ppm | 0.0006 | 0.14 | 22540.0000 | 0.3849 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 1.9400 | ppm | 0.0010 | 0.05 | 4344.0000 | 1.9400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.3877 | ppm | 0.0026 | 0.67 | 36380.0000 | 0.3877 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.3865 | ppm | 0.0022 | 0.56 | 2043.0000 | 0.3865 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.7740 | ppm | 0.0199 | 0.53 | 20990.0000 | 3.7740 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.3828 | ppm | 0.0031 | 0.80 | 1826.0000 | 0.3828 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.3783 | ppm | 0.0020 | 0.52 | 314.2000 | 0.3783 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.3816 | ppm | 0.0014 | 0.38 | 735.1000 | 0.3816 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.3898 | ppm | 0.0004 | 0.10 | 446.6000 | 0.3898 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3485 | ppm | 0.0007 | 0.21 | 304.0000 | 0.3485 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.1274 | ppm | 0.0101 | 7.90 | 356.7000 | 0.1274 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.3896 | ppm | 0.0047 | 1.20 | 309.2000 | 0.3896 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.3845 | ppm | 0.0021 | 0.55 | 120300.0000 | 0.3845 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.3898 | ppm | 0.0019 | 0.48 | 42150.0000 | 0.3898 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3797 | ppm | 0.0021 | 0.56 | 572.7000 | 0.3797 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3835 | ppm | 0.0021 | 0.55 | 9949.0000 | 0.3835 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.3816 | ppm | 0.0010 | 0.27 | 799.2000 | 0.3816 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.3717 | ppm | 0.0023 | 0.63 | 8600.0000 | 0.3717 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.3796 | ppm | 0.0020 | 0.52 | 26360.0000 | 0.3796 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9872 | 373100.0000 | 0.0027 | 0.27 |
| Y_R 371.029 | 1.0070 | 54250.0000 | 0.0028 | 0.28 |

Sample Name: 440-195191-a-1-b@5

Date: 11/2/2017 2:05:33 PM Rack:Tube: 2:24

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0003 | ppm | 0.0001 | 26.96 | 8.4000 | 0.0003 (ppm) | Y 371.029 |
| Al (396.152 nm) | 57.1900 | ppm | 0.0150 | 0.03 | 1278000.0000 | 57.1900 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0063 | ppm | 0.0001 | 1.62 | 11.9200 | 0.0063 (ppm) | Y 371.029 |
| B (249.678 nm) | 2.1970 | ppm | 0.0144 | 0.66 | 24550.0000 | 2.1970 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0831 | ppm | 0.0008 | 0.97 | 6092.0000 | 0.0831 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 80.67 | 178.3000 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 16.1500 | ppm | 0.0866 | 0.54 | 57660.0000 | 16.1500 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0030 | ppm | 0.0002 | 5.67 | 70.2000 | 0.0030 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0006 | ppm | 0.0001 | 10.20 | 0.5707 | 0.0006 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0181 | ppm | 0.0001 | 0.40 | 110.4000 | 0.0181 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4637 | ppm | 0.0012 | 0.26 | 16460.0000 | 0.4637 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 7.3780 | ppm | 0.0178 | 0.24 | 31270.0000 | 7.3780 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 1.0720 | ppm | 0.0717 | 6.68 | 1055.0000 | 1.0720 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0040 | ppm | 0.0016 | 40.02 | 379.8000 | 0.0040 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 1.8860 | ppm | 0.0192 | 1.02 | 4219.0000 | 1.8860 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4644 | ppm | 0.0007 | 0.16 | 44360.0000 | 0.4644 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.2736 | ppm | 0.0003 | 0.11 | 1456.0000 | 0.2736 (ppm) | Y 371.029 |
| Na (589.592 nm) | 8.2980 | ppm | 0.0445 | 0.54 | 44250.0000 | 8.2980 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0089 | ppm | 0.0000 | 0.46 | 42.5300 | 0.0089 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.4730 | ppm | 0.0044 | 0.10 | 4093.0000 | 4.4730 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.1468 | ppm | 0.0004 | 0.30 | 275.1000 | 0.1468 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0080 | ppm | 0.0013 | 16.30 | -0.9222 | 0.0080 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0013 u | ppm | 0.0026 | > 100.00 | -1.7010 | 0.0013 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.7845 | ppm | 0.0020 | 0.25 | 1715.0000 | 0.7845 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0123 | ppm | 0.0019 | 15.35 | 6.5420 | 0.0123 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1156 | ppm | 0.0001 | 0.12 | 36360.0000 | 0.1156 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0844 | ppm | 0.0000 | 0.02 | 9036.0000 | 0.0844 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0011 | ppm | 0.0012 | > 100.00 | -5.4080 | 0.0011 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0147 | ppm | 0.0004 | 2.78 | 388.6000 | 0.0147 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.1138 | ppm | 0.0102 | 8.97 | 246.3000 | 0.1138 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9621 | ppm | 0.0012 | 0.13 | 22060.0000 | 0.9621 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0101 | ppm | 0.0003 | 3.32 | 676.3000 | 0.0101 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9887 | 373600.0000 | 0.0017 | 0.17 |
| Y_R 371.029 | 1.0190 | 54870.0000 | 0.0071 | 0.69 |

Sample Name: 440-195191-a-1-c ms@5

Date: 11/2/2017 2:07:37 PM Rack:Tube: 2:25

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1918 | ppm | 0.0013 | 0.66 | 6625.0000 | 0.1918 (ppm) | Y 371.029 |
| Al (396.152 nm) | 68.7600 | ppm | 0.2753 | 0.40 | 1537000.0000 | 68.7600 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.3935 | ppm | 0.0034 | 0.88 | 321.7000 | 0.3935 (ppm) | Y 371.029 |
| B (249.678 nm) | 3.2900 | ppm | 0.0190 | 0.58 | 36740.0000 | 3.2900 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4874 | ppm | 0.0137 | 2.80 | 35800.0000 | 0.4874 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3844 | ppm | 0.0016 | 0.42 | 63580.0000 | 0.3844 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 21.7300 | ppm | 0.4282 | 1.97 | 77520.0000 | 21.7300 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3774 | ppm | 0.0019 | 0.50 | 9358.0000 | 0.3774 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.3883 | ppm | 0.0010 | 0.26 | 5237.0000 | 0.3883 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4063 | ppm | 0.0009 | 0.21 | 2438.0000 | 0.4063 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9469 | ppm | 0.0038 | 0.41 | 33450.0000 | 0.9469 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 9.4470 | ppm | 0.1842 | 1.95 | 40030.0000 | 9.4470 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 6.0650 | ppm | 0.0984 | 1.62 | 6257.0000 | 6.0650 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3951 | ppm | 0.0083 | 2.10 | 23270.0000 | 0.3951 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.4220 | ppm | 0.1152 | 2.60 | 9888.0000 | 4.4220 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.7190 | ppm | 0.0080 | 0.47 | 161600.0000 | 1.7190 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.7239 | ppm | 0.0030 | 0.42 | 3831.0000 | 0.7239 (ppm) | Y 371.029 |
| Na (589.592 nm) | 14.8800 | ppm | 0.2707 | 1.82 | 78110.0000 | 14.8800 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.3896 | ppm | 0.0005 | 0.12 | 1859.0000 | 0.3896 (ppm) | Y 371.029 |
| P (213.618 nm) | 5.5520 | ppm | 0.0235 | 0.42 | 5063.0000 | 5.5520 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.5511 | ppm | 0.0039 | 0.70 | 1059.0000 | 0.5511 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.3916 | ppm | 0.0040 | 1.03 | 442.2000 | 0.3916 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3621 | ppm | 0.0008 | 0.21 | 315.0000 | 0.3621 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.7130 | ppm | 0.0138 | 0.51 | 5886.0000 | 2.7130 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.3917 | ppm | 0.0036 | 0.93 | 311.1000 | 0.3917 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5328 | ppm | 0.0104 | 1.95 | 166800.0000 | 0.5328 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.5006 | ppm | 0.0023 | 0.46 | 54150.0000 | 0.5006 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3780 | ppm | 0.0028 | 0.73 | 570.7000 | 0.3780 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4058 | ppm | 0.0014 | 0.34 | 10480.0000 | 0.4058 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.4610 | ppm | 0.0096 | 2.09 | 982.6000 | 0.4610 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.4860 | ppm | 0.0074 | 0.50 | 34070.0000 | 1.4860 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.3649 | ppm | 0.0012 | 0.33 | 25350.0000 | 0.3649 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9785 | 369800.0000 | 0.0009 | 0.09 |
| Y_R 371.029 | 1.0180 | 54840.0000 | 0.0233 | 2.29 |

Sample Name: 440-195191-a-1-d msd@5

Date: 11/2/2017 2:09:42 PM Rack:Tube: 2:26

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1966 | ppm | 0.0008 | 0.41 | 6789.0000 | 0.1966 (ppm) | Y 371.029 |
| Al (396.152 nm) | 85.2200 | ppm | 0.0212 | 0.02 | 1905000.0000 | 85.2200 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.3986 | ppm | 0.0039 | 0.98 | 325.8000 | 0.3986 (ppm) | Y 371.029 |
| B (249.678 nm) | 4.0300 | ppm | 0.0252 | 0.62 | 45020.0000 | 4.0300 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.5251 | ppm | 0.0011 | 0.20 | 38570.0000 | 0.5251 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3938 | ppm | 0.0004 | 0.11 | 65160.0000 | 0.3938 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 26.1300 | ppm | 0.1187 | 0.45 | 93190.0000 | 26.1300 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3864 | ppm | 0.0006 | 0.16 | 9581.0000 | 0.3864 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.3972 | ppm | 0.0019 | 0.47 | 5358.0000 | 0.3972 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4181 | ppm | 0.0014 | 0.32 | 2509.0000 | 0.4181 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0980 | ppm | 0.0021 | 0.19 | 38750.0000 | 1.0980 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 11.0500 | ppm | 0.0428 | 0.39 | 46810.0000 | 11.0500 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 5.3290 | ppm | 0.0032 | 0.06 | 5493.0000 | 5.3290 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3977 | ppm | 0.0022 | 0.56 | 23510.0000 | 0.3977 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.0570 | ppm | 0.0118 | 0.23 | 11310.0000 | 5.0570 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4863 | ppm | 0.0009 | 0.19 | 47120.0000 | 0.4863 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.7748 | ppm | 0.0003 | 0.04 | 4101.0000 | 0.7748 (ppm) | Y 371.029 |
| Na (589.592 nm) | 13.7100 | ppm | 0.0541 | 0.39 | 72090.0000 | 13.7100 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.3990 | ppm | 0.0014 | 0.35 | 1904.0000 | 0.3990 (ppm) | Y 371.029 |
| P (213.618 nm) | 6.7830 | ppm | 0.0161 | 0.24 | 6193.0000 | 6.7830 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.6154 | ppm | 0.0017 | 0.27 | 1182.0000 | 0.6154 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.3930 | ppm | 0.0039 | 0.98 | 443.2000 | 0.3930 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3689 | ppm | 0.0010 | 0.27 | 319.8000 | 0.3689 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.7220 | ppm | 0.0041 | 0.24 | 3780.0000 | 1.7220 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.3964 | ppm | 0.0023 | 0.59 | 314.9000 | 0.3964 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5678 | ppm | 0.0027 | 0.47 | 177800.0000 | 0.5678 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.5321 | ppm | 0.0004 | 0.08 | 57560.0000 | 0.5321 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3810 | ppm | 0.0030 | 0.78 | 571.7000 | 0.3810 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4189 | ppm | 0.0004 | 0.08 | 10820.0000 | 0.4189 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.4603 | ppm | 0.0110 | 2.39 | 985.8000 | 0.4603 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.7830 | ppm | 0.0020 | 0.11 | 40850.0000 | 1.7830 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.3718 | ppm | 0.0005 | 0.14 | 25830.0000 | 0.3718 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9818 | 371000.0000 | 0.0029 | 0.30 |
| Y_R 371.029 | 1.0170 | 54760.0000 | 0.0025 | 0.24 |

Sample Name: 440-195191-a-1-b pds@5

Date: 11/2/2017 2:11:46 PM
Rack:Tube: 2:27
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2057 | ppm | 0.0005 | 0.24 | 7110.0000 | 0.2057 (ppm) | Y 371.029 |
| Al (396.152 nm) | 59.6200 | ppm | 0.1277 | 0.21 | 1333000.0000 | 59.6200 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4154 | ppm | 0.0070 | 1.68 | 339.0000 | 0.4154 (ppm) | Y 371.029 |
| B (249.678 nm) | 2.6790 | ppm | 0.0050 | 0.18 | 29910.0000 | 2.6790 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4998 | ppm | 0.0054 | 1.09 | 36710.0000 | 0.4998 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.4134 | ppm | 0.0009 | 0.22 | 68340.0000 | 0.4134 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 18.8200 | ppm | 0.2652 | 1.41 | 67170.0000 | 18.8200 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4051 | ppm | 0.0005 | 0.13 | 10050.0000 | 0.4051 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4159 | ppm | 0.0011 | 0.27 | 5609.0000 | 0.4159 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4311 | ppm | 0.0000 | 0.00 | 2586.0000 | 0.4311 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9055 | ppm | 0.0020 | 0.22 | 31990.0000 | 0.9055 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 8.0440 | ppm | 0.1060 | 1.32 | 34090.0000 | 8.0440 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 5.3520 | ppm | 0.0564 | 1.05 | 5514.0000 | 5.3520 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4241 | ppm | 0.0064 | 1.52 | 24970.0000 | 0.4241 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 3.9910 | ppm | 0.0432 | 1.08 | 8925.0000 | 3.9910 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.8873 | ppm | 0.0033 | 0.37 | 84000.0000 | 0.8873 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.7007 | ppm | 0.0004 | 0.05 | 3707.0000 | 0.7007 (ppm) | Y 371.029 |
| Na (589.592 nm) | 12.8200 | ppm | 0.2229 | 1.74 | 67510.0000 | 12.8200 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4168 | ppm | 0.0016 | 0.39 | 1989.0000 | 0.4168 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.9890 | ppm | 0.0116 | 0.23 | 4545.0000 | 4.9890 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.5614 | ppm | 0.0019 | 0.33 | 1079.0000 | 0.5614 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.4118 | ppm | 0.0026 | 0.63 | 466.6000 | 0.4118 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3942 | ppm | 0.0026 | 0.65 | 342.8000 | 0.3942 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.8900 | ppm | 0.0090 | 0.31 | 6263.0000 | 2.8900 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4159 | ppm | 0.0030 | 0.71 | 330.5000 | 0.4159 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5374 | ppm | 0.0086 | 1.59 | 168300.0000 | 0.5374 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.5063 | ppm | 0.0015 | 0.31 | 54760.0000 | 0.5063 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4074 | ppm | 0.0003 | 0.07 | 614.0000 | 0.4074 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4311 | ppm | 0.0004 | 0.08 | 11140.0000 | 0.4311 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.4643 | ppm | 0.0053 | 1.15 | 988.1000 | 0.4643 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.3810 | ppm | 0.0042 | 0.30 | 31660.0000 | 1.3810 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.4215 | ppm | 0.0010 | 0.24 | 29280.0000 | 0.4215 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9882 | 373400.0000 | 0.0024 | 0.24 |
| Y_R 371.029 | 1.0150 | 54660.0000 | 0.0112 | 1.10 |

Sample Name: 440-195191-a-1-b sd@25

Date: 11/2/2017 2:13:49 PM Rack:Tube: 2:28

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | 0.0425 | 0.0000 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 12.1800 | ppm | 0.3648 | 2.99 | 271300.0000 | 12.1800 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0009 | ppm | 0.0001 | 10.91 | 7.1870 | 0.0009 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4813 | ppm | 0.0118 | 2.45 | 5379.0000 | 0.4813 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0186 | ppm | 0.0006 | 3.21 | 1354.0000 | 0.0186 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0000 | 43.85 | 56.0000 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 3.3610 | ppm | 0.0034 | 0.10 | 12100.0000 | 3.3610 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0008 | ppm | 0.0000 | 6.15 | 15.8900 | 0.0008 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0000 | 1.79 | -14.4000 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0041 | ppm | 0.0006 | 13.58 | 25.6200 | 0.0041 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0994 | ppm | 0.0033 | 3.30 | 3659.0000 | 0.0994 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.5270 | ppm | 0.0094 | 0.62 | 6473.0000 | 1.5270 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.2801 | ppm | 0.1202 | 42.90 | 223.8000 | 0.2801 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0064 | ppm | 0.0005 | 7.77 | 414.3000 | 0.0064 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.4190 | ppm | 0.0128 | 3.05 | 943.8000 | 0.4190 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1016 | ppm | 0.0031 | 3.07 | 9754.0000 | 0.1016 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0599 | ppm | 0.0013 | 2.18 | 322.8000 | 0.0599 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.6680 | ppm | 0.0008 | 0.05 | 10140.0000 | 1.6680 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0019 | ppm | 0.0007 | 37.15 | 9.4450 | 0.0019 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9902 | ppm | 0.0180 | 1.82 | 895.4000 | 0.9902 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0315 | ppm | 0.0011 | 3.60 | 54.9600 | 0.0315 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0091 | ppm | 0.0001 | 0.94 | 4.4160 | 0.0091 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0017 | ppm | 0.0020 | > 100.00 | -0.9261 | 0.0017 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.1846 | ppm | 0.0043 | 2.35 | 415.5000 | 0.1846 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0036 | ppm | 0.0013 | 37.43 | -0.5617 | 0.0036 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0240 | ppm | 0.0000 | 0.00 | 7587.0000 | 0.0240 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0185 | ppm | 0.0005 | 2.55 | 1908.0000 | 0.0185 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0001 u | ppm | 0.0008 | > 100.00 | -6.2700 | 0.0001 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0032 | ppm | 0.0001 | 3.36 | 116.7000 | 0.0032 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0151 | ppm | 0.0011 | 6.94 | 27.9300 | 0.0151 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2100 | ppm | 0.0067 | 3.21 | 4878.0000 | 0.2100 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0030 | ppm | 0.0002 | 6.67 | 175.4000 | 0.0030 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0210 | 385700.0000 | 0.0032 | 0.32 |
| Y_R 371.029 | 1.0300 | 55470.0000 | 0.0018 | 0.18 |

Sample Name: 440-195187-a-1-b@5

Date: 11/2/2017 2:15:53 PM Rack:Tube: 2:29

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0060 | ppm | 0.0006 | 10.63 | 190.8000 | 0.0060 (ppm) | Y 371.029 |
| Al (396.152 nm) | 86.1400 | ppm | 3.0270 | 3.51 | 1925000.0000 | 86.1400 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0224 | ppm | 0.0031 | 14.04 | 24.9000 | 0.0224 (ppm) | Y 371.029 |
| B (249.678 nm) | 7.1680 | ppm | 0.3055 | 4.26 | 80140.0000 | 7.1680 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.3463 | ppm | 0.0092 | 2.66 | 25440.0000 | 0.3463 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0005 | ppm | 0.0002 | 36.86 | 670.1000 | 0.0005 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 66.8600 | ppm | 0.4177 | 0.62 | 238200.0000 | 66.8600 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0046 | ppm | 0.0002 | 4.28 | 117.4000 | 0.0046 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0809 | ppm | 0.0024 | 3.00 | 1097.0000 | 0.0809 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0492 | ppm | 0.0018 | 3.64 | 299.5000 | 0.0492 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 2.5850 | ppm | 0.0953 | 3.69 | 90990.0000 | 2.5850 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 26.8200 | ppm | 0.1014 | 0.38 | 113700.0000 | 26.8200 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 3.2830 | ppm | 0.0621 | 1.89 | 3367.0000 | 3.2830 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0183 | ppm | 0.0008 | 4.45 | 1190.0000 | 0.0183 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 6.8360 | ppm | 0.1777 | 2.60 | 15280.0000 | 6.8360 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.3341 | ppm | 0.0124 | 3.71 | 34780.0000 | 0.3341 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.2636 | ppm | 0.0090 | 3.42 | 1408.0000 | 0.2636 (ppm) | Y 371.029 |
| Na (589.592 nm) | 23.7700 | ppm | 0.1334 | 0.56 | 123900.0000 | 23.7700 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0405 | ppm | 0.0019 | 4.72 | 193.1000 | 0.0405 (ppm) | Y 371.029 |
| P (213.618 nm) | 12.4900 | ppm | 0.4641 | 3.72 | 11420.0000 | 12.4900 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.1530 | ppm | 0.0042 | 2.75 | 284.2000 | 0.1530 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0095 | ppm | 0.0005 | 5.76 | 2.6580 | 0.0095 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0033 | ppm | 0.0011 | 33.80 | -4.9410 | 0.0033 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.4570 | ppm | 0.0171 | 3.73 | 1026.0000 | 0.4570 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0221 | ppm | 0.0007 | 2.97 | 14.4800 | 0.0221 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.3056 | ppm | 0.0016 | 0.53 | 96270.0000 | 0.3056 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.6733 | ppm | 0.0224 | 3.33 | 72830.0000 | 0.6733 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0017 u | ppm | 0.0025 | > 100.00 | -14.4000 | 0.0017 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0369 | ppm | 0.0012 | 3.11 | 1040.0000 | 0.0369 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0583 | ppm | 0.0027 | 4.67 | 162.2000 | 0.0583 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 2.9950 | ppm | 0.0985 | 3.29 | 68680.0000 | 2.9950 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0150 | ppm | 0.0000 | 0.16 | 1036.0000 | 0.0150 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9683 | 365900.0000 | 0.0020 | 0.21 |
| Y_R 371.029 | 1.0070 | 54220.0000 | 0.0056 | 0.55 |

Sample Name: 440-194764-a-1-e@5

Date: 11/2/2017 2:17:58 PM Rack:Tube: 2:30

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0023 u | ppm | 0.0005 | 22.56 | -114.1000 | -0.0023 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 86.6100 | ppm | 1.5870 | 1.83 | 1936000.0000 | 86.6100 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1036 | ppm | 0.0012 | 1.12 | 91.5700 | 0.1036 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1679 | ppm | 0.0076 | 4.53 | 1783.0000 | 0.1679 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 9.2180 | ppm | 0.0663 | 0.72 | 677500.0000 | 9.2180 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0047 | ppm | 0.0004 | 7.75 | 2795.0000 | 0.0047 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 87.3100 | ppm | 0.3834 | 0.44 | 311100.0000 | 87.3100 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0011 | ppm | 0.0001 | 8.35 | 47.8700 | 0.0011 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0204 | ppm | 0.0003 | 1.27 | 360.7000 | 0.0204 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1571 | ppm | 0.0014 | 0.89 | 949.3000 | 0.1571 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0885 | ppm | 0.0014 | 1.55 | 3331.0000 | 0.0885 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 93.2400 | ppm | 0.4840 | 0.52 | 395100.0000 | 93.2400 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 22.5800 | ppm | 0.0222 | 0.10 | 23550.0000 | 22.5800 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3772 | ppm | 0.0021 | 0.56 | 23430.0000 | 0.3772 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 258.0000 | ppm | 2.8430 | 1.10 | 576800.0000 | 258.0000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.8910 | ppm | 0.0363 | 1.92 | 189000.0000 | 1.8910 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0051 | ppm | 0.0004 | 7.90 | 48.8400 | 0.0051 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.4000 | ppm | 0.0233 | 0.22 | 55130.0000 | 10.4000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0883 | ppm | 0.0033 | 3.69 | 420.0000 | 0.0883 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.9260 | ppm | 0.0751 | 1.91 | 3605.0000 | 3.9260 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0449 | ppm | 0.0020 | 4.54 | 76.4500 | 0.0449 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0014 u | ppm | 0.0021 | > 100.00 | 0.3837 | 0.0014 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0046 | ppm | 0.0009 | 19.14 | -16.6400 | 0.0046 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.5196 | ppm | 0.0089 | 1.71 | 1183.0000 | 0.5196 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0048 | ppm | 0.0016 | 33.84 | 0.8835 | 0.0048 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.8474 | ppm | 0.0041 | 0.48 | 265900.0000 | 0.8474 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 3.8080 | ppm | 0.0682 | 1.79 | 412500.0000 | 3.8080 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0020 u | ppm | 0.0004 | 20.13 | -67.6200 | -0.0020 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2229 | ppm | 0.0039 | 1.75 | 6035.0000 | 0.2229 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0018 u | ppm | 0.0022 | > 100.00 | -11.9400 | -0.0018 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2253 | ppm | 0.0036 | 1.58 | 5388.0000 | 0.2253 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1491 | ppm | 0.0043 | 2.89 | 10410.0000 | 0.1491 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9342 | 353000.0000 | 0.0004 | 0.04 |
| Y_R 371.029 | 0.9671 | 52100.0000 | 0.0075 | 0.77 |

Sample Name: CCV 4461459

Date: 11/2/2017 2:20:02 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4998 | ppm | 0.0019 | 0.38 | 17280.0000 | 0.4998 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0160 | ppm | 0.0072 | 0.71 | 22400.0000 | 1.0160 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9954 | ppm | 0.0071 | 0.72 | 802.4000 | 0.9954 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0010 | ppm | 0.0027 | 0.27 | 11090.0000 | 1.0010 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0010 | ppm | 0.0114 | 1.14 | 73540.0000 | 1.0010 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9992 | ppm | 0.0031 | 0.31 | 164800.0000 | 0.9992 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.0370 | ppm | 0.0549 | 1.09 | 18070.0000 | 5.0370 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9942 | ppm | 0.0036 | 0.37 | 24660.0000 | 0.9942 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0040 | ppm | 0.0083 | 0.83 | 13550.0000 | 1.0040 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9929 | ppm | 0.0030 | 0.31 | 5955.0000 | 0.9929 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0050 | ppm | 0.0037 | 0.36 | 35500.0000 | 1.0050 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0290 | ppm | 0.0187 | 1.82 | 4360.0000 | 1.0290 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.1900 | ppm | 0.0926 | 0.91 | 10550.0000 | 10.1900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0010 | ppm | 0.0129 | 1.29 | 58610.0000 | 1.0010 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.0790 | ppm | 0.0432 | 0.85 | 11360.0000 | 5.0790 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9951 | ppm | 0.0014 | 0.14 | 93270.0000 | 0.9951 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9955 | ppm | 0.0026 | 0.26 | 5252.0000 | 0.9955 (ppm) | Y 371.029 |
| Na (589.592 nm) | 9.9500 | ppm | 0.1497 | 1.50 | 52790.0000 | 9.9500 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9946 | ppm | 0.0017 | 0.17 | 4745.0000 | 0.9946 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9949 | ppm | 0.0090 | 0.91 | 849.9000 | 0.9949 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9999 | ppm | 0.0034 | 0.34 | 1934.0000 | 0.9999 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9960 | ppm | 0.0089 | 0.89 | 1149.0000 | 0.9960 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9949 | ppm | 0.0072 | 0.73 | 871.3000 | 0.9949 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.1980 | ppm | 0.1752 | 3.37 | 11260.0000 | 5.1980 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9959 | ppm | 0.0079 | 0.79 | 795.9000 | 0.9959 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0070 | ppm | 0.0156 | 1.55 | 314900.0000 | 1.0070 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0070 | ppm | 0.0018 | 0.18 | 109000.0000 | 1.0070 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0010 | ppm | 0.0034 | 0.34 | 1521.0000 | 1.0010 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0050 | ppm | 0.0010 | 0.10 | 26010.0000 | 1.0050 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9955 | ppm | 0.0002 | 0.02 | 2097.0000 | 0.9955 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9988 | ppm | 0.0024 | 0.24 | 22970.0000 | 0.9988 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0010 | ppm | 0.0008 | 0.08 | 69590.0000 | 1.0010 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0050 | 379900.0000 | 0.0036 | 0.36 |
| Y_R 371.029 | 1.0220 | 55060.0000 | 0.0144 | 1.41 |

Sample Name: CCB 4461458

Date: 11/2/2017 2:22:06 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0001 | ppm | 0.0002 | > 100.00 | 4.6840 | 0.0001 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0010 | ppm | 0.0001 | 7.25 | -1161.0000 | 0.0010 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0035 | ppm | 0.0025 | 71.11 | 9.1660 | 0.0035 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0020 | ppm | 0.0001 | 4.75 | 20.2200 | 0.0020 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0003 | ppm | 0.0001 | 30.76 | 12.9200 | 0.0003 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 70.38 | 24.7700 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0066 u | ppm | 0.0023 | 34.98 | 110.8000 | -0.0066 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0003 | ppm | 0.0000 | 2.10 | 3.0710 | 0.0003 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0005 u | ppm | 0.0000 | 4.40 | -17.9000 | -0.0005 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0003 | ppm | 0.0000 | 15.87 | 2.8890 | 0.0003 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0009 | ppm | 0.0002 | 19.06 | 196.4000 | 0.0009 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0030 | ppm | 0.0010 | 35.13 | 16.6600 | 0.0030 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0941 | ppm | 0.0356 | 37.86 | 28.5300 | 0.0941 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0053 | ppm | 0.0003 | 5.36 | 325.9000 | 0.0053 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0039 | ppm | 0.0014 | 36.36 | 16.5400 | 0.0039 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0001 | 66.73 | 84.3600 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0036 | ppm | 0.0011 | 30.77 | 24.8500 | 0.0036 (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.1008 u | ppm | 0.0147 | 14.63 | 1037.0000 | -0.1008 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0012 u | ppm | 0.0001 | 6.11 | -5.5740 | -0.0012 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0098 | ppm | 0.0032 | 33.04 | -4.8620 | 0.0098 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0003 u | ppm | 0.0000 | 5.73 | -5.6610 | -0.0003 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0047 | ppm | 0.0005 | 9.81 | 0.3634 | 0.0047 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0012 u | ppm | 0.0049 | > 100.00 | -1.1690 | 0.0012 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0064 | ppm | 0.0026 | 41.33 | 31.8700 | 0.0064 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0026 | ppm | 0.0006 | 24.77 | -1.3470 | 0.0026 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 | ppm | 0.0000 | 87.43 | 74.5000 | 0.0000 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0012 | ppm | 0.0002 | 21.11 | 28.1900 | 0.0012 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0017 | ppm | 0.0024 | > 100.00 | -3.6210 | 0.0017 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0002 u | ppm | 0.0005 | > 100.00 | 44.6700 | 0.0002 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0025 | ppm | 0.0000 | 0.09 | -1.6990 | 0.0025 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0003 | ppm | 0.0002 | 53.19 | 88.5300 | 0.0003 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0001 | 33.08 | -23.2000 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0130 | 382900.0000 | 0.0043 | 0.42 |
| Y_R 371.029 | 1.0270 | 55330.0000 | 0.0002 | 0.02 |

Sample Name: 440-195119-e-2-b@5

Date: 11/2/2017 2:24:11 PM Rack:Tube: 2:31

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0042 u | ppm | 0.0002 | 3.70 | -207.5000 | -0.0042 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 85.6700 | ppm | 2.5780 | 3.01 | 1915000.0000 | 85.6700 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0470 | ppm | 0.0002 | 0.37 | 44.9800 | 0.0470 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1282 | ppm | 0.0042 | 3.29 | 1292.0000 | 0.1282 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.1520 | ppm | 0.0339 | 2.95 | 84700.0000 | 1.1520 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0064 | ppm | 0.0008 | 12.66 | 4155.0000 | 0.0064 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 272.9000 | ppm | 0.6233 | 0.23 | 971900.0000 | 272.9000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0013 | ppm | 0.0000 | 1.80 | 69.2200 | 0.0013 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0617 | ppm | 0.0007 | 1.15 | 956.5000 | 0.0617 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1352 | ppm | 0.0042 | 3.10 | 822.0000 | 0.1352 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1433 | ppm | 0.0039 | 2.74 | 5174.0000 | 0.1433 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 143.8000 | ppm | 0.0639 | 0.04 | 609300.0000 | 143.8000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 21.6100 | ppm | 0.0001 | 0.00 | 22520.0000 | 21.6100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1886 | ppm | 0.0033 | 1.74 | 12040.0000 | 0.1886 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 107.9000 | ppm | 3.0340 | 2.81 | 241100.0000 | 107.9000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.4010 | ppm | 0.0739 | 3.08 | 242300.0000 | 2.4010 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0038 | ppm | 0.0011 | 27.90 | 42.8800 | 0.0038 (ppm) | Y 371.029 |
| Na (589.592 nm) | 22.6100 | ppm | 0.0481 | 0.21 | 118000.0000 | 22.6100 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1306 | ppm | 0.0038 | 2.93 | 621.1000 | 0.1306 (ppm) | Y 371.029 |
| P (213.618 nm) | 8.1480 | ppm | 0.2248 | 2.76 | 7497.0000 | 8.1480 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0551 | ppm | 0.0008 | 1.53 | 92.0100 | 0.0551 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0132 | ppm | 0.0023 | 17.22 | 15.6700 | 0.0132 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0074 | ppm | 0.0061 | 82.60 | -24.7200 | 0.0074 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.4936 | ppm | 0.0133 | 2.69 | 1129.0000 | 0.4936 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0072 | ppm | 0.0002 | 3.22 | 2.3040 | 0.0072 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 2.1640 | ppm | 0.0026 | 0.12 | 679400.0000 | 2.1640 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 5.4320 | ppm | 0.1532 | 2.82 | 588400.0000 | 5.4320 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0043 u | ppm | 0.0021 | 48.27 | -105.0000 | -0.0043 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4634 | ppm | 0.0143 | 3.08 | 12510.0000 | 0.4634 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0003 u | ppm | 0.0006 | > 100.00 | -10.5200 | 0.0003 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2845 | ppm | 0.0090 | 3.16 | 6664.0000 | 0.2845 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1483 | ppm | 0.0058 | 3.91 | 10420.0000 | 0.1483 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9364 | 353900.0000 | 0.0006 | 0.07 |
| Y_R 371.029 | 0.9796 | 52770.0000 | 0.0017 | 0.17 |

Sample Name: 440-195119-e-3-b@5

Date: 11/2/2017 2:26:15 PM Rack:Tube: 2:32

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0039 u | ppm | 0.0001 | 3.20 | -174.3000 | -0.0039 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 75.6100 | ppm | 3.2490 | 4.30 | 1690000.0000 | 75.6100 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0644 | ppm | 0.0038 | 5.96 | 59.7700 | 0.0644 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0642 | ppm | 0.0021 | 3.34 | 564.6000 | 0.0642 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0710 | ppm | 0.0628 | 5.86 | 78740.0000 | 1.0710 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0064 | ppm | 0.0019 | 28.84 | 4319.0000 | 0.0064 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 61.7200 | ppm | 0.9255 | 1.50 | 219900.0000 | 61.7200 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0013 | ppm | 0.0001 | 5.25 | 69.5700 | 0.0013 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0613 | ppm | 0.0030 | 4.95 | 980.8000 | 0.0613 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1259 | ppm | 0.0058 | 4.58 | 763.0000 | 0.1259 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1449 | ppm | 0.0055 | 3.82 | 5388.0000 | 0.1449 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 150.8000 | ppm | 3.7530 | 2.49 | 639200.0000 | 150.8000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 13.7900 | ppm | 0.2464 | 1.79 | 14360.0000 | 13.7900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1840 | ppm | 0.0053 | 2.85 | 11410.0000 | 0.1840 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 89.4300 | ppm | 5.3650 | 6.00 | 199900.0000 | 89.4300 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.9910 | ppm | 0.1336 | 4.47 | 298200.0000 | 2.9910 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0040 | ppm | 0.0005 | 12.28 | 43.0700 | 0.0040 (ppm) | Y 371.029 |
| Na (589.592 nm) | 24.7300 | ppm | 0.3731 | 1.51 | 128800.0000 | 24.7300 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1181 | ppm | 0.0044 | 3.72 | 564.8000 | 0.1181 (ppm) | Y 371.029 |
| P (213.618 nm) | 9.1020 | ppm | 0.4099 | 4.50 | 8381.0000 | 9.1020 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0492 | ppm | 0.0000 | 0.01 | 78.3800 | 0.0492 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0036 | ppm | 0.0017 | 47.59 | 3.6700 | 0.0036 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0046 | ppm | 0.0037 | 79.59 | -26.9100 | 0.0046 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.6076 | ppm | 0.0300 | 4.93 | 1373.0000 | 0.6076 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0059 | ppm | 0.0028 | 47.02 | 1.1660 | 0.0059 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 2.1640 | ppm | 0.0516 | 2.39 | 677400.0000 | 2.1640 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 6.9730 | ppm | 0.2838 | 4.07 | 755600.0000 | 6.9730 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0056 u | ppm | 0.0032 | 56.77 | -129.5000 | -0.0056 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.5328 | ppm | 0.0226 | 4.24 | 14130.0000 | 0.5328 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0003 u | ppm | 0.0011 | > 100.00 | -6.0710 | 0.0003 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2908 | ppm | 0.0120 | 4.14 | 6784.0000 | 0.2908 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1726 | ppm | 0.0084 | 4.84 | 12080.0000 | 0.1726 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9604 | 362900.0000 | 0.0027 | 0.28 |
| Y_R 371.029 | 0.9912 | 53400.0000 | 0.0211 | 2.13 |

Sample Name: 440-195119-e-4-b@5

Date: 11/2/2017 2:28:19 PM
Rack:Tube: 2:33
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0034 u | ppm | 0.0000 | 0.10 | -158.4000 | -0.0034 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 61.5100 | ppm | 0.0323 | 0.05 | 1374000.0000 | 61.5100 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0998 | ppm | 0.0006 | 0.60 | 87.8600 | 0.0998 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0845 | ppm | 0.0009 | 1.02 | 799.3000 | 0.0845 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.8938 | ppm | 0.0053 | 0.59 | 65700.0000 | 0.8938 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0044 | ppm | 0.0000 | 0.00 | 3826.0000 | 0.0044 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 124.3000 | ppm | 0.7126 | 0.57 | 442900.0000 | 124.3000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0011 | ppm | 0.0001 | 5.11 | 63.3900 | 0.0011 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0540 | ppm | 0.0000 | 0.02 | 877.5000 | 0.0540 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1364 | ppm | 0.0003 | 0.21 | 826.9000 | 0.1364 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1344 | ppm | 0.0000 | 0.00 | 4967.0000 | 0.1344 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 143.9000 | ppm | 0.6445 | 0.45 | 609800.0000 | 143.9000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 14.4700 | ppm | 0.0822 | 0.57 | 15080.0000 | 14.4700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2478 | ppm | 0.0003 | 0.12 | 15200.0000 | 0.2478 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 90.0400 | ppm | 0.5257 | 0.58 | 201300.0000 | 90.0400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.8850 | ppm | 0.0012 | 0.04 | 287400.0000 | 2.8850 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0027 | ppm | 0.0012 | 42.38 | 34.1600 | 0.0027 (ppm) | Y 371.029 |
| Na (589.592 nm) | 13.2400 | ppm | 0.0779 | 0.59 | 69710.0000 | 13.2400 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1168 | ppm | 0.0001 | 0.05 | 557.7000 | 0.1168 (ppm) | Y 371.029 |
| P (213.618 nm) | 7.5990 | ppm | 0.0102 | 0.13 | 6993.0000 | 7.5990 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0541 | ppm | 0.0012 | 2.25 | 89.8000 | 0.0541 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0043 | ppm | 0.0031 | 71.70 | 4.7530 | 0.0043 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0029 | ppm | 0.0014 | 48.03 | -27.4400 | 0.0029 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.5462 | ppm | 0.0021 | 0.38 | 1243.0000 | 0.5462 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0047 | ppm | 0.0008 | 17.05 | 0.2117 | 0.0047 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 4.0130 | ppm | 0.0205 | 0.51 | 1256000.0000 | 4.0130 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 6.7080 | ppm | 0.0050 | 0.08 | 726800.0000 | 6.7080 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0041 u | ppm | 0.0003 | 6.44 | -126.6000 | -0.0041 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.6007 | ppm | 0.0005 | 0.09 | 15950.0000 | 0.6007 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0012 | ppm | 0.0003 | 24.53 | -5.8770 | 0.0012 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2512 | ppm | 0.0001 | 0.03 | 5885.0000 | 0.2512 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1822 | ppm | 0.0001 | 0.03 | 12750.0000 | 0.1822 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9551 | 360900.0000 | 0.0012 | 0.13 |
| Y_R 371.029 | 0.9926 | 53470.0000 | 0.0080 | 0.81 |

Sample Name: 440-195119-e-5-b@5

Date: 11/2/2017 2:30:23 PM Rack:Tube: 2:34

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0017 u | ppm | 0.0001 | 5.75 | -129.6000 | -0.0017 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 88.8100 | ppm | 5.2520 | 5.91 | 1985000.0000 | 88.8100 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.2036 | ppm | 0.0090 | 4.40 | 169.2000 | 0.2036 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1758 | ppm | 0.0136 | 7.75 | 1907.0000 | 0.1758 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.5666 | ppm | 0.0367 | 6.47 | 41670.0000 | 0.5666 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0046 | ppm | 0.0008 | 18.20 | 2202.0000 | 0.0046 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 517.0000 | ppm | 2.9370 | 0.57 | 1841000.0000 | 517.0000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0006 | ppm | 0.0002 | 30.62 | 31.8800 | 0.0006 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0334 | ppm | 0.0019 | 5.68 | 532.9000 | 0.0334 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2446 | ppm | 0.0141 | 5.76 | 1480.0000 | 0.2446 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0732 | ppm | 0.0042 | 5.80 | 2475.0000 | 0.0732 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 66.1700 | ppm | 0.4894 | 0.74 | 280400.0000 | 66.1700 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 22.0600 | ppm | 0.2163 | 0.98 | 23020.0000 | 22.0600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0600 | ppm | 0.0114 | 1.08 | 63930.0000 | 1.0600 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 186.3000 | ppm | 11.9100 | 6.39 | 416600.0000 | 186.3000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.3600 | ppm | 0.0827 | 6.08 | 135800.0000 | 1.3600 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0018 | ppm | 0.0002 | 11.26 | 30.5400 | 0.0018 (ppm) | Y 371.029 |
| Na (589.592 nm) | 5.6730 | ppm | 0.0885 | 1.56 | 30890.0000 | 5.6730 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0955 | ppm | 0.0067 | 6.96 | 448.2000 | 0.0955 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.3150 | ppm | 0.0775 | 5.89 | 1192.0000 | 1.3150 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0312 | ppm | 0.0015 | 4.83 | 51.8700 | 0.0312 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0007 u | ppm | 0.0017 | > 100.00 | 2.4600 | 0.0007 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0049 | ppm | 0.0010 | 19.51 | -14.0700 | 0.0049 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.1760 | ppm | 0.0713 | 6.07 | 2591.0000 | 1.1760 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0032 | ppm | 0.0018 | 56.29 | -0.7058 | 0.0032 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 9.1640 | ppm | 0.0443 | 0.48 | 2870000.0000 | 9.1640 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 3.5770 | ppm | 0.2055 | 5.74 | 387200.0000 | 3.5770 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0029 u | ppm | 0.0059 | > 100.00 | -65.4500 | 0.0029 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3057 | ppm | 0.0191 | 6.25 | 8629.0000 | 0.3057 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0024 | ppm | 0.0019 | 76.22 | -12.1600 | 0.0024 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.1603 | ppm | 0.0096 | 5.98 | 3889.0000 | 0.1603 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1640 | ppm | 0.0091 | 5.52 | 11470.0000 | 0.1640 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9024 | 341000.0000 | 0.0031 | 0.35 |
| Y_R 371.029 | 0.9573 | 51570.0000 | 0.0099 | 1.04 |

Sample Name: 440-195119-e-6-b@5

Date: 11/2/2017 2:32:28 PM Rack:Tube: 2:35

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0022 u | ppm | 0.0001 | 4.95 | -99.1400 | -0.0022 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 81.5900 | ppm | 1.9830 | 2.43 | 1824000.0000 | 81.5900 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1165 | ppm | 0.0055 | 4.68 | 100.1000 | 0.1165 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1329 | ppm | 0.0063 | 4.74 | 1408.0000 | 0.1329 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.6319 | ppm | 0.0102 | 1.61 | 46450.0000 | 0.6319 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0046 | ppm | 0.0005 | 10.32 | 2460.0000 | 0.0046 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 75.6700 | ppm | 0.4389 | 0.58 | 269600.0000 | 75.6700 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0007 | ppm | 0.0002 | 32.08 | 34.7700 | 0.0007 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0312 | ppm | 0.0016 | 5.24 | 508.7000 | 0.0312 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2671 | ppm | 0.0063 | 2.35 | 1608.0000 | 0.2671 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0779 | ppm | 0.0028 | 3.56 | 2953.0000 | 0.0779 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 78.9500 | ppm | 0.1282 | 0.16 | 334600.0000 | 78.9500 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 21.5100 | ppm | 0.3313 | 1.54 | 22400.0000 | 21.5100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.7179 | ppm | 0.0068 | 0.95 | 43100.0000 | 0.7179 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 143.3000 | ppm | 2.3380 | 1.63 | 320400.0000 | 143.3000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.3660 | ppm | 0.0360 | 2.64 | 137800.0000 | 1.3660 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0039 | ppm | 0.0001 | 2.05 | 41.2900 | 0.0039 (ppm) | Y 371.029 |
| Na (589.592 nm) | 7.0180 | ppm | 0.0673 | 0.96 | 37710.0000 | 7.0180 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1039 | ppm | 0.0029 | 2.77 | 495.7000 | 0.1039 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0450 | ppm | 0.0310 | 2.96 | 946.9000 | 1.0450 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0368 | ppm | 0.0005 | 1.29 | 58.6700 | 0.0368 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0049 | ppm | 0.0011 | 23.21 | 5.9860 | 0.0049 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0079 | ppm | 0.0005 | 5.98 | -11.1200 | 0.0079 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.6783 | ppm | 0.0171 | 2.51 | 1512.0000 | 0.6783 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0056 | ppm | 0.0007 | 11.79 | 1.2140 | 0.0056 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.8759 | ppm | 0.0049 | 0.55 | 274700.0000 | 0.8759 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.0910 | ppm | 0.0989 | 2.42 | 443300.0000 | 4.0910 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0005 | ppm | 0.0002 | 54.89 | -71.0800 | 0.0005 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2437 | ppm | 0.0061 | 2.52 | 6564.0000 | 0.2437 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0001 u | ppm | 0.0000 | 67.61 | -8.2260 | -0.0001 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.1805 | ppm | 0.0040 | 2.24 | 4293.0000 | 0.1805 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1584 | ppm | 0.0042 | 2.63 | 11050.0000 | 0.1584 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9470 | 357900.0000 | 0.0032 | 0.34 |
| Y_R 371.029 | 0.9848 | 53050.0000 | 0.0111 | 1.13 |

Sample Name: 440-195119-e-7-b@5

Date: 11/2/2017 2:34:32 PM Rack:Tube: 2:36

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0022 u | ppm | 0.0001 | 2.46 | -94.3300 | -0.0022 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 74.3300 | ppm | 0.6521 | 0.88 | 1661000.0000 | 74.3300 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0782 | ppm | 0.0000 | 0.01 | 69.2100 | 0.0782 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1100 | ppm | 0.0003 | 0.26 | 1148.0000 | 0.1100 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.3849 | ppm | 0.0007 | 0.18 | 28290.0000 | 0.3849 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0040 | ppm | 0.0002 | 5.10 | 2422.0000 | 0.0040 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 25.4000 | ppm | 0.1688 | 0.66 | 90560.0000 | 25.4000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0004 | ppm | 0.0002 | 45.56 | 26.6200 | 0.0004 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0357 | ppm | 0.0002 | 0.46 | 567.7000 | 0.0357 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2313 | ppm | 0.0024 | 1.03 | 1392.0000 | 0.2313 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0841 | ppm | 0.0008 | 1.00 | 3202.0000 | 0.0841 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 81.7200 | ppm | 0.6238 | 0.76 | 346300.0000 | 81.7200 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 21.2200 | ppm | 0.0290 | 0.14 | 22070.0000 | 21.2200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3108 | ppm | 0.0026 | 0.83 | 18880.0000 | 0.3108 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 85.0000 | ppm | 0.0524 | 0.06 | 190000.0000 | 85.0000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.7502 | ppm | 0.0091 | 1.21 | 80670.0000 | 0.7502 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0025 | ppm | 0.0011 | 43.40 | 32.7700 | 0.0025 (ppm) | Y 371.029 |
| Na (589.592 nm) | 6.2340 | ppm | 0.0459 | 0.74 | 33660.0000 | 6.2340 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0915 | ppm | 0.0015 | 1.68 | 438.0000 | 0.0915 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.7198 | ppm | 0.0179 | 2.49 | 647.0000 | 0.7198 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0416 | ppm | 0.0001 | 0.17 | 66.7000 | 0.0416 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0025 | ppm | 0.0020 | 82.38 | 2.6250 | 0.0025 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0042 | ppm | 0.0030 | 70.29 | -14.7200 | 0.0042 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.5231 | ppm | 0.0057 | 1.09 | 1172.0000 | 0.5231 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0048 | ppm | 0.0029 | 60.67 | 0.4085 | 0.0048 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.8765 | ppm | 0.0058 | 0.66 | 274400.0000 | 0.8765 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.0900 | ppm | 0.0380 | 0.93 | 443200.0000 | 4.0900 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0004 u | ppm | 0.0008 | > 100.00 | -73.1500 | -0.0004 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2279 | ppm | 0.0020 | 0.89 | 6098.0000 | 0.2279 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0013 u | ppm | 0.0022 | > 100.00 | -4.4280 | 0.0013 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.1636 | ppm | 0.0019 | 1.16 | 3868.0000 | 0.1636 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1454 | ppm | 0.0017 | 1.20 | 10140.0000 | 0.1454 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9662 | 365100.0000 | 0.0009 | 0.09 |
| Y_R 371.029 | 0.9916 | 53420.0000 | 0.0123 | 1.24 |

Sample Name: 440-195119-e-8-b@5

Date: 11/2/2017 2:36:36 PM Rack:Tube: 2:37

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0022 u | ppm | 0.0000 | 0.23 | -97.9200 | -0.0022 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 98.8800 | ppm | 2.7760 | 2.81 | 2210000.0000 | 98.8800 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1216 | ppm | 0.0063 | 5.18 | 105.8000 | 0.1216 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1216 | ppm | 0.0018 | 1.47 | 1252.0000 | 0.1216 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0110 | ppm | 0.0226 | 2.24 | 74270.0000 | 1.0110 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0057 | ppm | 0.0006 | 10.53 | 3205.0000 | 0.0057 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 28.8800 | ppm | 0.1356 | 0.47 | 103000.0000 | 28.8800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0010 | ppm | 0.0001 | 13.09 | 48.6100 | 0.0010 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0430 | ppm | 0.0011 | 2.60 | 692.2000 | 0.0430 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1684 | ppm | 0.0049 | 2.90 | 1016.0000 | 0.1684 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1004 | ppm | 0.0025 | 2.47 | 3804.0000 | 0.1004 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 105.3000 | ppm | 0.3346 | 0.32 | 446100.0000 | 105.3000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 25.7200 | ppm | 0.0695 | 0.27 | 26780.0000 | 25.7200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3565 | ppm | 0.0012 | 0.32 | 21770.0000 | 0.3565 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 131.2000 | ppm | 2.7860 | 2.12 | 293300.0000 | 131.2000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.9820 | ppm | 0.0554 | 2.79 | 198500.0000 | 1.9820 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0036 | ppm | 0.0007 | 18.74 | 42.8600 | 0.0036 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.5600 | ppm | 0.0533 | 0.50 | 55930.0000 | 10.5600 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1128 | ppm | 0.0015 | 1.37 | 539.3000 | 0.1128 (ppm) | Y 371.029 |
| P (213.618 nm) | 2.8490 | ppm | 0.0672 | 2.36 | 2612.0000 | 2.8490 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0525 | ppm | 0.0057 | 10.86 | 85.7200 | 0.0525 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0086 | ppm | 0.0009 | 10.55 | 9.4850 | 0.0086 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0051 | ppm | 0.0008 | 15.30 | -18.1100 | 0.0051 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.6522 | ppm | 0.0142 | 2.17 | 1461.0000 | 0.6522 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0078 | ppm | 0.0000 | 0.56 | 2.8990 | 0.0078 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.7758 | ppm | 0.0058 | 0.75 | 242900.0000 | 0.7758 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 5.2070 | ppm | 0.1310 | 2.52 | 564200.0000 | 5.2070 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0016 u | ppm | 0.0011 | 69.84 | -91.0800 | -0.0016 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3011 | ppm | 0.0083 | 2.75 | 8034.0000 | 0.3011 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0019 | ppm | 0.0014 | 74.17 | -2.6200 | 0.0019 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2529 | ppm | 0.0061 | 2.42 | 5937.0000 | 0.2529 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1792 | ppm | 0.0047 | 2.63 | 12510.0000 | 0.1792 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9565 | 361500.0000 | 0.0029 | 0.31 |
| Y_R 371.029 | 0.9873 | 53180.0000 | 0.0072 | 0.73 |

Sample Name: 440-195119-e-9-b@5

Date: 11/2/2017 2:38:40 PM Rack:Tube: 2:38

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0021 u | ppm | 0.0001 | 5.08 | -93.2900 | -0.0021 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 115.0000 | ppm | 1.7690 | 1.54 | 2570000.0000 | 115.0000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.2263 | ppm | 0.0059 | 2.60 | 191.2000 | 0.2263 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1565 | ppm | 0.0010 | 0.62 | 1643.0000 | 0.1565 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 3.7250 | ppm | 0.0502 | 1.35 | 273800.0000 | 3.7250 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0059 | ppm | 0.0003 | 4.45 | 3198.0000 | 0.0059 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 25.5800 | ppm | 0.0395 | 0.15 | 91230.0000 | 25.5800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0010 | ppm | 0.0001 | 9.08 | 47.3900 | 0.0010 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0372 | ppm | 0.0004 | 0.95 | 611.9000 | 0.0372 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1622 | ppm | 0.0019 | 1.16 | 979.5000 | 0.1622 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0966 | ppm | 0.0020 | 2.06 | 3674.0000 | 0.0966 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 103.0000 | ppm | 0.5507 | 0.53 | 436400.0000 | 103.0000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 25.9600 | ppm | 0.0901 | 0.35 | 27060.0000 | 25.9600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.6058 | ppm | 0.0020 | 0.33 | 36740.0000 | 0.6058 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 220.8000 | ppm | 2.3050 | 1.04 | 493700.0000 | 220.8000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.2970 | ppm | 0.0486 | 1.47 | 320800.0000 | 3.2970 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0037 | ppm | 0.0013 | 34.38 | 45.9300 | 0.0037 (ppm) | Y 371.029 |
| Na (589.592 nm) | 26.6600 | ppm | 0.0221 | 0.08 | 138700.0000 | 26.6600 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1149 | ppm | 0.0010 | 0.88 | 548.5000 | 0.1149 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.5400 | ppm | 0.0478 | 1.35 | 3250.0000 | 3.5400 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0488 | ppm | 0.0025 | 5.10 | 79.9000 | 0.0488 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0022 | ppm | 0.0017 | 80.11 | 1.6320 | 0.0022 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0047 | ppm | 0.0000 | 0.45 | -17.5000 | 0.0047 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.8360 | ppm | 0.0167 | 2.00 | 1861.0000 | 0.8360 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0059 | ppm | 0.0016 | 27.82 | 1.7040 | 0.0059 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.1180 | ppm | 0.0011 | 0.09 | 349900.0000 | 1.1180 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 5.0410 | ppm | 0.0950 | 1.89 | 546200.0000 | 5.0410 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0010 u | ppm | 0.0016 | > 100.00 | -84.6500 | -0.0010 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3206 | ppm | 0.0050 | 1.56 | 8542.0000 | 0.3206 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0008 | ppm | 0.0005 | 60.96 | -4.9850 | 0.0008 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2688 | ppm | 0.0042 | 1.55 | 6355.0000 | 0.2688 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1962 | ppm | 0.0028 | 1.44 | 13680.0000 | 0.1962 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9459 | 357500.0000 | 0.0027 | 0.29 |
| Y_R 371.029 | 0.9838 | 52990.0000 | 0.0035 | 0.36 |

Sample Name: 440-195119-e-10-b@5

Date: 11/2/2017 2:40:44 PM
Rack:Tube: 2:39
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0020 u | ppm | 0.0000 | 2.14 | -85.0800 | -0.0020 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 76.7400 | ppm | 2.4530 | 3.20 | 1715000.0000 | 76.7400 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0942 | ppm | 0.0066 | 7.05 | 83.3600 | 0.0942 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1033 | ppm | 0.0006 | 0.56 | 1063.0000 | 0.1033 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.2996 | ppm | 0.0151 | 5.04 | 22020.0000 | 0.2996 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0044 | ppm | 0.0005 | 12.07 | 2687.0000 | 0.0044 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 17.9900 | ppm | 0.3697 | 2.05 | 64200.0000 | 17.9900 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0010 | ppm | 0.0002 | 15.36 | 45.4200 | 0.0010 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0349 | ppm | 0.0016 | 4.48 | 570.4000 | 0.0349 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1453 | ppm | 0.0047 | 3.25 | 877.2000 | 0.1453 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0809 | ppm | 0.0027 | 3.35 | 3108.0000 | 0.0809 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 90.7200 | ppm | 1.6930 | 1.87 | 384400.0000 | 90.7200 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 18.2100 | ppm | 0.1744 | 0.96 | 18950.0000 | 18.2100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2764 | ppm | 0.0059 | 2.14 | 16910.0000 | 0.2764 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 111.1000 | ppm | 5.5560 | 5.00 | 248500.0000 | 111.1000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.5320 | ppm | 0.0557 | 3.63 | 154700.0000 | 1.5320 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0027 | ppm | 0.0006 | 22.41 | 34.3600 | 0.0027 (ppm) | Y 371.029 |
| Na (589.592 nm) | 18.1400 | ppm | 0.3404 | 1.88 | 94890.0000 | 18.1400 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0969 | ppm | 0.0029 | 2.99 | 463.3000 | 0.0969 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.8040 | ppm | 0.1199 | 3.15 | 3494.0000 | 3.8040 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0449 | ppm | 0.0008 | 1.76 | 72.9200 | 0.0449 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0060 | ppm | 0.0048 | 80.79 | 5.7650 | 0.0060 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0046 | ppm | 0.0005 | 11.05 | -15.7700 | 0.0046 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.6074 | ppm | 0.0200 | 3.28 | 1359.0000 | 0.6074 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0037 | ppm | 0.0011 | 28.90 | -0.4084 | 0.0037 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.4162 | ppm | 0.0077 | 1.84 | 130400.0000 | 0.4162 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.6630 | ppm | 0.1664 | 3.57 | 505300.0000 | 4.6630 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0017 u | ppm | 0.0025 | > 100.00 | -78.5700 | 0.0017 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2912 | ppm | 0.0102 | 3.49 | 7751.0000 | 0.2912 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0003 u | ppm | 0.0009 | > 100.00 | -5.8850 | 0.0003 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2034 | ppm | 0.0071 | 3.49 | 4793.0000 | 0.2034 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1686 | ppm | 0.0060 | 3.54 | 11750.0000 | 0.1686 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9639 | 364200.0000 | 0.0038 | 0.39 |
| Y_R 371.029 | 1.0000 | 53880.0000 | 0.0204 | 2.04 |

Sample Name: 440-195119-e-11-b@5

Date: 11/2/2017 2:42:49 PM Rack:Tube: 2:40

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0022 u | ppm | 0.0001 | 3.44 | -101.6000 | -0.0022 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 124.9000 | ppm | 4.6290 | 3.71 | 2792000.0000 | 124.9000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.2141 | ppm | 0.0184 | 8.58 | 181.4000 | 0.2141 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1673 | ppm | 0.0036 | 2.13 | 1763.0000 | 0.1673 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.2710 | ppm | 0.0362 | 2.85 | 93420.0000 | 1.2710 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0063 | ppm | 0.0006 | 10.06 | 3311.0000 | 0.0063 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 34.5500 | ppm | 0.0678 | 0.20 | 123200.0000 | 34.5500 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0011 | ppm | 0.0001 | 10.80 | 50.4400 | 0.0011 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0458 | ppm | 0.0017 | 3.61 | 724.3000 | 0.0458 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1805 | ppm | 0.0069 | 3.82 | 1089.0000 | 0.1805 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1091 | ppm | 0.0045 | 4.13 | 4110.0000 | 0.1091 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 104.9000 | ppm | 0.7862 | 0.75 | 444700.0000 | 104.9000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 26.1900 | ppm | 0.1293 | 0.49 | 27300.0000 | 26.1900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.6022 | ppm | 0.0048 | 0.80 | 36700.0000 | 0.6022 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 256.6000 | ppm | 7.8020 | 3.04 | 573700.0000 | 256.6000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.8660 | ppm | 0.1085 | 3.79 | 281100.0000 | 2.8660 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0046 | ppm | 0.0001 | 2.27 | 52.1800 | 0.0046 (ppm) | Y 371.029 |
| Na (589.592 nm) | 11.3600 | ppm | 0.0350 | 0.31 | 60070.0000 | 11.3600 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1284 | ppm | 0.0033 | 2.56 | 612.7000 | 0.1284 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.1150 | ppm | 0.1263 | 3.07 | 3780.0000 | 4.1150 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0549 | ppm | 0.0044 | 7.98 | 91.7800 | 0.0549 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0005 u | ppm | 0.0068 | > 100.00 | -0.0643 | 0.0005 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0063 | ppm | 0.0011 | 16.97 | -16.8200 | 0.0063 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.8145 | ppm | 0.0346 | 4.25 | 1818.0000 | 0.8145 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0068 | ppm | 0.0022 | 32.26 | 2.5090 | 0.0068 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.8069 | ppm | 0.0014 | 0.17 | 252700.0000 | 0.8069 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.8180 | ppm | 0.1648 | 3.42 | 522100.0000 | 4.8180 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0018 u | ppm | 0.0040 | > 100.00 | -84.1800 | -0.0018 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3467 | ppm | 0.0123 | 3.53 | 9228.0000 | 0.3467 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0006 | ppm | 0.0003 | 51.51 | -5.4010 | 0.0006 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2969 | ppm | 0.0108 | 3.62 | 7020.0000 | 0.2969 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1891 | ppm | 0.0064 | 3.39 | 13190.0000 | 0.1891 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9427 | 356200.0000 | 0.0010 | 0.11 |
| Y_R 371.029 | 0.9784 | 52710.0000 | 0.0082 | 0.84 |

Sample Name: CCV 4461459

Date: 11/2/2017 2:44:53 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4983 | ppm | 0.0002 | 0.03 | 17230.0000 | 0.4983 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0140 | ppm | 0.0138 | 1.36 | 22350.0000 | 1.0140 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9954 | ppm | 0.0105 | 1.06 | 802.4000 | 0.9954 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9978 | ppm | 0.0010 | 0.10 | 11050.0000 | 0.9978 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9848 | ppm | 0.0092 | 0.94 | 72350.0000 | 0.9848 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9967 | ppm | 0.0008 | 0.08 | 164300.0000 | 0.9967 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.9500 | ppm | 0.0547 | 1.11 | 17760.0000 | 4.9500 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9917 | ppm | 0.0014 | 0.14 | 24590.0000 | 0.9917 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9956 | ppm | 0.0025 | 0.25 | 13440.0000 | 0.9956 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9890 | ppm | 0.0020 | 0.20 | 5932.0000 | 0.9890 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9998 | ppm | 0.0043 | 0.43 | 35320.0000 | 0.9998 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0200 | ppm | 0.0040 | 0.39 | 4324.0000 | 1.0200 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.0400 | ppm | 0.0397 | 0.39 | 10390.0000 | 10.0400 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9878 | ppm | 0.0056 | 0.57 | 57820.0000 | 0.9878 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.0080 | ppm | 0.0680 | 1.36 | 11200.0000 | 5.0080 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9922 | ppm | 0.0007 | 0.07 | 93000.0000 | 0.9922 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9930 | ppm | 0.0030 | 0.30 | 5239.0000 | 0.9930 (ppm) | Y 371.029 |
| Na (589.592 nm) | 9.8240 | ppm | 0.0634 | 0.65 | 52140.0000 | 9.8240 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9938 | ppm | 0.0020 | 0.20 | 4741.0000 | 0.9938 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9981 | ppm | 0.0033 | 0.33 | 853.2000 | 0.9981 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9951 | ppm | 0.0011 | 0.11 | 1925.0000 | 0.9951 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9899 | ppm | 0.0059 | 0.59 | 1142.0000 | 0.9899 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9944 | ppm | 0.0012 | 0.12 | 870.8000 | 0.9944 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.1600 | ppm | 0.1673 | 3.24 | 11180.0000 | 5.1600 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9899 | ppm | 0.0012 | 0.12 | 791.0000 | 0.9899 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9913 | ppm | 0.0019 | 0.19 | 310000.0000 | 0.9913 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0050 | ppm | 0.0016 | 0.16 | 108800.0000 | 1.0050 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9938 | ppm | 0.0039 | 0.39 | 1510.0000 | 0.9938 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0020 | ppm | 0.0001 | 0.01 | 25940.0000 | 1.0020 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9923 | ppm | 0.0009 | 0.09 | 2090.0000 | 0.9923 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9954 | ppm | 0.0017 | 0.17 | 22890.0000 | 0.9954 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0050 | ppm | 0.0004 | 0.04 | 69860.0000 | 1.0050 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0020 | 378500.0000 | 0.0035 | 0.35 |
| Y_R 371.029 | 1.0300 | 55460.0000 | 0.0061 | 0.59 |

Sample Name: CCB 4461458

Date: 11/2/2017 2:46:57 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0001 | ppm | 0.0000 | 74.89 | 1.7220 | 0.0001 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0008 | ppm | 0.0003 | 38.84 | -1164.0000 | 0.0008 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0036 | ppm | 0.0015 | 40.19 | 9.2720 | 0.0036 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0011 | ppm | 0.0008 | 74.31 | 9.8090 | 0.0011 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0002 | 86.09 | 3.9620 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 59.63 | 23.0000 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0190 u | ppm | 0.0039 | 20.48 | 66.8200 | -0.0190 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 63.05 | -0.3083 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0002 u | ppm | 0.0005 | > 100.00 | -8.3870 | 0.0002 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 u | ppm | 0.0004 | > 100.00 | 2.5730 | 0.0002 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0002 | 28.25 | 191.8000 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0042 | ppm | 0.0006 | 14.03 | 21.9900 | 0.0042 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0298 u | ppm | 0.1178 | > 100.00 | -38.3700 | 0.0298 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0039 | ppm | 0.0001 | 2.69 | 241.8000 | 0.0039 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0029 | ppm | 0.0006 | 21.50 | 14.4200 | 0.0029 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 82.6500 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0026 | ppm | 0.0012 | 44.28 | 19.4200 | 0.0026 (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.1033 u | ppm | 0.0020 | 1.98 | 1024.0000 | -0.1033 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0009 | ppm | 0.0006 | 64.82 | 4.3810 | 0.0009 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0100 | ppm | 0.0011 | 11.29 | -4.6210 | 0.0100 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0013 u | ppm | 0.0011 | 82.10 | -7.6070 | -0.0013 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0021 u | ppm | 0.0049 | > 100.00 | -2.6320 | 0.0021 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0030 | ppm | 0.0001 | 2.61 | 0.4233 | 0.0030 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0095 | ppm | 0.0019 | 20.37 | 38.5600 | 0.0095 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0019 | ppm | 0.0011 | 57.79 | -1.9170 | 0.0019 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0002 | > 100.00 | 21.7200 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0013 | ppm | 0.0002 | 16.38 | 47.0300 | 0.0013 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0021 | ppm | 0.0014 | 65.71 | -3.0330 | 0.0021 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0004 | ppm | 0.0003 | 65.56 | 52.2300 | 0.0004 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0032 | ppm | 0.0011 | 32.87 | -0.3353 | 0.0032 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0030 u | ppm | 0.0000 | 1.47 | 11.7500 | -0.0030 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 3.16 | -20.5800 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0100 | 381800.0000 | 0.0025 | 0.25 |
| Y_R 371.029 | 1.0250 | 55240.0000 | 0.0004 | 0.04 |

Sample Name: 440-195119-e-12-b@5

Date: 11/2/2017 2:50:19 PM Rack:Tube: 2:41

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0020 u | ppm | 0.0003 | 14.93 | -105.5000 | -0.0020 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 102.9000 | ppm | 3.3360 | 3.24 | 2301000.0000 | 102.9000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1714 | ppm | 0.0096 | 5.61 | 145.1000 | 0.1714 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1932 | ppm | 0.0031 | 1.59 | 2073.0000 | 0.1932 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.2596 | ppm | 0.0032 | 1.21 | 19090.0000 | 0.2596 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0052 | ppm | 0.0005 | 9.55 | 2762.0000 | 0.0052 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 151.6000 | ppm | 0.8821 | 0.58 | 540000.0000 | 151.6000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0010 | ppm | 0.0001 | 11.55 | 44.9700 | 0.0010 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0376 | ppm | 0.0010 | 2.55 | 604.3000 | 0.0376 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2332 | ppm | 0.0071 | 3.03 | 1407.0000 | 0.2332 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0935 | ppm | 0.0035 | 3.77 | 3462.0000 | 0.0935 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 87.7600 | ppm | 1.4360 | 1.64 | 371900.0000 | 87.7600 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 24.4700 | ppm | 0.4403 | 1.80 | 25500.0000 | 24.4700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.5501 | ppm | 0.0064 | 1.17 | 33510.0000 | 0.5501 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 184.6000 | ppm | 2.4650 | 1.34 | 412700.0000 | 184.6000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.8440 | ppm | 0.0659 | 3.57 | 183600.0000 | 1.8440 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0090 | ppm | 0.0005 | 5.05 | 71.3500 | 0.0090 (ppm) | Y 371.029 |
| Na (589.592 nm) | 6.2620 | ppm | 0.0975 | 1.56 | 33840.0000 | 6.2620 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1008 | ppm | 0.0028 | 2.81 | 479.6000 | 0.1008 (ppm) | Y 371.029 |
| P (213.618 nm) | 2.6540 | ppm | 0.0791 | 2.98 | 2431.0000 | 2.6540 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0387 | ppm | 0.0001 | 0.32 | 61.7500 | 0.0387 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0029 u | ppm | 0.0067 | > 100.00 | 3.6770 | 0.0029 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0012 | ppm | 0.0016 | > 100.00 | -19.0400 | 0.0012 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.6996 | ppm | 0.0240 | 3.43 | 1567.0000 | 0.6996 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0037 | ppm | 0.0011 | 29.28 | -0.2021 | 0.0037 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5971 | ppm | 0.0124 | 2.08 | 188300.0000 | 0.5971 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.4140 | ppm | 0.1440 | 3.26 | 478200.0000 | 4.4140 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0001 u | ppm | 0.0029 | > 100.00 | -78.1300 | -0.0001 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3025 | ppm | 0.0102 | 3.38 | 8183.0000 | 0.3025 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0009 u | ppm | 0.0002 | 26.00 | -11.4100 | -0.0009 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2203 | ppm | 0.0078 | 3.52 | 5234.0000 | 0.2203 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1676 | ppm | 0.0077 | 4.62 | 11700.0000 | 0.1676 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9307 | 351700.0000 | 0.0003 | 0.03 |
| Y_R 371.029 | 0.9732 | 52430.0000 | 0.0183 | 1.88 |

Sample Name: 440-195119-e-13-b@5

Date: 11/2/2017 2:52:23 PM Rack:Tube: 2:42

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0017 u | ppm | 0.0001 | 3.36 | -108.0000 | -0.0017 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 55.9100 | ppm | 1.2920 | 2.31 | 1249000.0000 | 55.9100 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0842 | ppm | 0.0062 | 7.35 | 73.6700 | 0.0842 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0822 | ppm | 0.0011 | 1.37 | 858.2000 | 0.0822 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.3030 | ppm | 0.0082 | 2.72 | 22280.0000 | 0.3030 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0028 | ppm | 0.0005 | 18.96 | 1835.0000 | 0.0028 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 324.9000 | ppm | 4.7330 | 1.46 | 1157000.0000 | 324.9000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0008 | ppm | 0.0001 | 10.85 | 35.6600 | 0.0008 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0230 | ppm | 0.0013 | 5.84 | 387.9000 | 0.0230 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1228 | ppm | 0.0026 | 2.13 | 746.1000 | 0.1228 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0637 | ppm | 0.0009 | 1.41 | 2264.0000 | 0.0637 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 63.6700 | ppm | 0.3889 | 0.61 | 269800.0000 | 63.6700 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 15.1900 | ppm | 0.1007 | 0.66 | 15820.0000 | 15.1900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2253 | ppm | 0.0050 | 2.23 | 14150.0000 | 0.2253 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 94.8400 | ppm | 2.5540 | 2.69 | 212000.0000 | 94.8400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.9660 | ppm | 0.0436 | 2.22 | 191500.0000 | 1.9660 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0019 | ppm | 0.0007 | 38.70 | 26.4600 | 0.0019 (ppm) | Y 371.029 |
| Na (589.592 nm) | 5.5640 | ppm | 0.0250 | 0.45 | 30270.0000 | 5.5640 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0698 | ppm | 0.0018 | 2.63 | 328.5000 | 0.0698 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.3810 | ppm | 0.0623 | 1.84 | 3100.0000 | 3.3810 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0306 | ppm | 0.0012 | 3.92 | 50.4900 | 0.0306 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0025 | ppm | 0.0026 | > 100.00 | 2.1220 | 0.0025 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0026 u | ppm | 0.0036 | > 100.00 | -13.7600 | 0.0026 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.5709 | ppm | 0.0069 | 1.21 | 1285.0000 | 0.5709 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0040 | ppm | 0.0001 | 3.07 | -0.2751 | 0.0040 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.6247 | ppm | 0.0017 | 0.27 | 198600.0000 | 0.6247 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 3.5590 | ppm | 0.0776 | 2.18 | 385300.0000 | 3.5590 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0012 u | ppm | 0.0016 | > 100.00 | -65.2200 | -0.0012 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1851 | ppm | 0.0039 | 2.08 | 5281.0000 | 0.1851 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0002 u | ppm | 0.0013 | > 100.00 | -13.5200 | -0.0002 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.1425 | ppm | 0.0028 | 1.95 | 3415.0000 | 0.1425 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1184 | ppm | 0.0028 | 2.41 | 8278.0000 | 0.1184 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9355 | 353500.0000 | 0.0004 | 0.05 |
| Y_R 371.029 | 0.9791 | 52740.0000 | 0.0047 | 0.48 |

Sample Name: 440-195119-e-14-b@5

Date: 11/2/2017 2:54:27 PM Rack:Tube: 2:43

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0019 u | ppm | 0.0001 | 5.46 | -91.1300 | -0.0019 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 122.1000 | ppm | 4.8370 | 3.96 | 2730000.0000 | 122.1000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.2054 | ppm | 0.0033 | 1.61 | 174.3000 | 0.2054 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1723 | ppm | 0.0071 | 4.11 | 1824.0000 | 0.1723 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.3260 | ppm | 0.0177 | 5.42 | 23970.0000 | 0.3260 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0062 | ppm | 0.0011 | 16.99 | 3198.0000 | 0.0062 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 43.1900 | ppm | 0.8566 | 1.98 | 153900.0000 | 43.1900 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0010 | ppm | 0.0001 | 5.17 | 47.4200 | 0.0010 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0463 | ppm | 0.0020 | 4.22 | 732.0000 | 0.0463 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1707 | ppm | 0.0071 | 4.18 | 1031.0000 | 0.1707 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1090 | ppm | 0.0044 | 4.00 | 4096.0000 | 0.1090 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 100.8000 | ppm | 2.0580 | 2.04 | 427000.0000 | 100.8000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 26.8500 | ppm | 0.5137 | 1.91 | 27990.0000 | 26.8500 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.5347 | ppm | 0.0088 | 1.65 | 32710.0000 | 0.5347 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 246.1000 | ppm | 13.1900 | 5.36 | 550300.0000 | 246.1000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.3050 | ppm | 0.0971 | 4.21 | 228300.0000 | 2.3050 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0041 | ppm | 0.0008 | 18.53 | 49.0900 | 0.0041 (ppm) | Y 371.029 |
| Na (589.592 nm) | 6.2810 | ppm | 0.1254 | 2.00 | 33930.0000 | 6.2810 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1264 | ppm | 0.0056 | 4.44 | 602.9000 | 0.1264 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.1620 | ppm | 0.1433 | 3.44 | 3824.0000 | 4.1620 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0523 | ppm | 0.0007 | 1.37 | 86.5300 | 0.0523 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0033 u | ppm | 0.0049 | > 100.00 | 3.1290 | 0.0033 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0031 | ppm | 0.0014 | 46.35 | -19.1900 | 0.0031 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.6913 | ppm | 0.0238 | 3.45 | 1555.0000 | 0.6913 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0052 | ppm | 0.0032 | 61.08 | 1.1890 | 0.0052 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5672 | ppm | 0.0120 | 2.11 | 177900.0000 | 0.5672 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.8360 | ppm | 0.1870 | 3.87 | 524000.0000 | 4.8360 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0032 u | ppm | 0.0029 | 90.65 | -86.9900 | -0.0032 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3088 | ppm | 0.0127 | 4.12 | 8249.0000 | 0.3088 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0005 u | ppm | 0.0002 | 48.17 | -7.9770 | -0.0005 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2802 | ppm | 0.0115 | 4.10 | 6632.0000 | 0.2802 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.2013 | ppm | 0.0085 | 4.22 | 14040.0000 | 0.2013 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9406 | 355500.0000 | 0.0015 | 0.16 |
| Y_R 371.029 | 0.9836 | 52980.0000 | 0.0165 | 1.68 |

Sample Name: 440-195119-e-15-b@5

Date: 11/2/2017 2:56:31 PM Rack:Tube: 2:44

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0023 u | ppm | 0.0002 | 8.09 | -86.9000 | -0.0023 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 133.8000 | ppm | 4.8010 | 3.59 | 2992000.0000 | 133.8000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1756 | ppm | 0.0096 | 5.49 | 150.5000 | 0.1756 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.2016 | ppm | 0.0065 | 3.21 | 2131.0000 | 0.2016 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4200 | ppm | 0.0126 | 3.00 | 30880.0000 | 0.4200 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0079 | ppm | 0.0009 | 11.91 | 3859.0000 | 0.0079 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 96.6300 | ppm | 0.6663 | 0.69 | 344200.0000 | 96.6300 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0009 | ppm | 0.0005 | 53.10 | 49.6600 | 0.0009 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0524 | ppm | 0.0019 | 3.67 | 814.3000 | 0.0524 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1498 | ppm | 0.0062 | 4.15 | 907.7000 | 0.1498 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1408 | ppm | 0.0054 | 3.86 | 5194.0000 | 0.1408 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 118.1000 | ppm | 0.7950 | 0.67 | 500600.0000 | 118.1000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 38.1200 | ppm | 0.2018 | 0.53 | 39730.0000 | 38.1200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4804 | ppm | 0.0080 | 1.66 | 29430.0000 | 0.4804 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 241.5000 | ppm | 7.2870 | 3.02 | 540000.0000 | 241.5000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 7.7080 | ppm | 0.2739 | 3.55 | 733300.0000 | 7.7080 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0088 | ppm | 0.0005 | 5.40 | 76.4200 | 0.0088 (ppm) | Y 371.029 |
| Na (589.592 nm) | 5.6030 | ppm | 0.0557 | 0.99 | 30470.0000 | 5.6030 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1230 | ppm | 0.0044 | 3.56 | 585.2000 | 0.1230 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.9370 | ppm | 0.1735 | 3.51 | 4536.0000 | 4.9370 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0644 | ppm | 0.0014 | 2.22 | 111.3000 | 0.0644 (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0041 u | ppm | 0.0046 | > 100.00 | -5.8920 | -0.0041 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0009 u | ppm | 0.0034 | > 100.00 | -22.0500 | 0.0009 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.7816 | ppm | 0.0280 | 3.58 | 1752.0000 | 0.7816 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0086 | ppm | 0.0013 | 14.94 | 4.1500 | 0.0086 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.6036 | ppm | 0.0042 | 0.70 | 189800.0000 | 0.6036 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.7490 | ppm | 0.1756 | 3.70 | 514600.0000 | 4.7490 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0005 u | ppm | 0.0016 | > 100.00 | -68.0600 | 0.0005 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3178 | ppm | 0.0116 | 3.65 | 8539.0000 | 0.3178 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0036 | ppm | 0.0004 | 12.61 | -0.0584 | 0.0036 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.3438 | ppm | 0.0121 | 3.52 | 8092.0000 | 0.3438 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.2798 | ppm | 0.0104 | 3.71 | 19510.0000 | 0.2798 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9306 | 351700.0000 | 0.0023 | 0.25 |
| Y_R 371.029 | 0.9676 | 52120.0000 | 0.0038 | 0.39 |

Sample Name: 440-195119-e-16-d@5

Date: 11/2/2017 2:58:36 PM Rack:Tube: 2:45

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0031 u | ppm | 0.0002 | 5.45 | -122.6000 | -0.0031 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 167.0000 | ppm | 5.7170 | 3.42 | 3733000.0000 | 167.0000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.2101 | ppm | 0.0269 | 12.79 | 179.1000 | 0.2101 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.2149 | ppm | 0.0089 | 4.16 | 2252.0000 | 0.2149 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.6586 | ppm | 0.0330 | 5.01 | 48420.0000 | 0.6586 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0099 | ppm | 0.0008 | 7.82 | 4829.0000 | 0.0099 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 111.5000 | ppm | 2.2860 | 2.05 | 397100.0000 | 111.5000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0017 | ppm | 0.0003 | 18.24 | 79.0800 | 0.0017 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0599 | ppm | 0.0036 | 5.96 | 945.2000 | 0.0599 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1698 | ppm | 0.0061 | 3.59 | 1028.0000 | 0.1698 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.2009 | ppm | 0.0068 | 3.39 | 7332.0000 | 0.2009 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 147.9000 | ppm | 2.3450 | 1.59 | 626700.0000 | 147.9000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 48.7900 | ppm | 0.8396 | 1.72 | 50860.0000 | 48.7900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4892 | ppm | 0.0089 | 1.83 | 30280.0000 | 0.4892 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 282.4000 | ppm | 13.5800 | 4.81 | 631400.0000 | 282.4000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 5.6330 | ppm | 0.1876 | 3.33 | 544200.0000 | 5.6330 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0065 | ppm | 0.0001 | 1.61 | 69.9300 | 0.0065 (ppm) | Y 371.029 |
| Na (589.592 nm) | 8.7350 | ppm | 0.1751 | 2.01 | 46590.0000 | 8.7350 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1510 | ppm | 0.0042 | 2.81 | 719.2000 | 0.1510 (ppm) | Y 371.029 |
| P (213.618 nm) | 8.9360 | ppm | 0.2782 | 3.11 | 8225.0000 | 8.9360 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0803 | ppm | 0.0024 | 3.03 | 137.9000 | 0.0803 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0011 u | ppm | 0.0022 | > 100.00 | 1.5000 | 0.0011 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0064 | ppm | 0.0053 | 82.43 | -24.4400 | 0.0064 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.7665 | ppm | 0.0255 | 3.33 | 1733.0000 | 0.7665 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0079 | ppm | 0.0006 | 7.89 | 3.5760 | 0.0079 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.1620 | ppm | 0.0245 | 2.11 | 364600.0000 | 1.1620 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 5.9410 | ppm | 0.2276 | 3.83 | 643700.0000 | 5.9410 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0019 u | ppm | 0.0014 | 74.63 | -95.0900 | -0.0019 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3575 | ppm | 0.0129 | 3.59 | 9619.0000 | 0.3575 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0010 | ppm | 0.0009 | 91.83 | -4.7160 | 0.0010 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4530 | ppm | 0.0158 | 3.49 | 10610.0000 | 0.4530 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.3649 | ppm | 0.0135 | 3.69 | 25460.0000 | 0.3649 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9313 | 351900.0000 | 0.0001 | 0.01 |
| Y_R 371.029 | 0.9726 | 52390.0000 | 0.0139 | 1.43 |

Sample Name: 440-194886-a-1-b@5

Date: 11/2/2017 3:00:40 PM Rack:Tube: 2:46

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0006 | ppm | 0.0001 | 12.46 | -12.7700 | 0.0006 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.3667 | ppm | 0.0272 | 7.41 | 8513.0000 | 0.3667 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.2740 | ppm | 0.0549 | 4.31 | 1029.0000 | 1.2740 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0798 | ppm | 0.0035 | 4.44 | 745.3000 | 0.0798 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0418 | ppm | 0.0013 | 3.18 | 3028.0000 | 0.0418 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0022 | ppm | 0.0014 | 60.61 | 3544.0000 | 0.0022 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 12.8300 | ppm | 0.0634 | 0.49 | 45790.0000 | 12.8300 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0019 | ppm | 0.0003 | 16.46 | 83.8200 | 0.0019 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.1229 | ppm | 0.0035 | 2.88 | 1664.0000 | 0.1229 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0700 | ppm | 0.0345 | 3.22 | 6416.0000 | 1.0700 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4126 | ppm | 0.0146 | 3.54 | 14790.0000 | 0.4126 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 147.4000 | ppm | 0.7025 | 0.48 | 624700.0000 | 147.4000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 3.0670 | ppm | 0.0256 | 0.84 | 3151.0000 | 3.0670 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0122 | ppm | 0.0004 | 3.31 | 528.6000 | 0.0122 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 3.5240 | ppm | 0.1441 | 4.09 | 7815.0000 | 3.5240 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1023 | ppm | 0.0120 | 11.72 | 29790.0000 | 0.1023 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 2.5780 | ppm | 0.0659 | 2.55 | 13590.0000 | 2.5780 (ppm) | Y 371.029 |
| Na (589.592 nm) | 8.9140 | ppm | 0.0260 | 0.29 | 47450.0000 | 8.9140 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0567 | ppm | 0.0016 | 2.79 | 272.6000 | 0.0567 (ppm) | Y 371.029 |
| P (213.618 nm) | 28.0300 o | ppm | 0.8761 | 3.13 | 25790.0000 | 28.0300 o (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0019 | ppm | 0.0007 | 37.47 | -9.8160 | 0.0019 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0218 | ppm | 0.0056 | 25.97 | -24.0100 | 0.0218 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0827 | ppm | 0.0064 | 7.76 | 41.5100 | 0.0827 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.6420 | ppm | 0.0186 | 2.90 | 1443.0000 | 0.6420 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0163 | ppm | 0.0028 | 17.43 | 9.7950 | 0.0163 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5592 | ppm | 0.0029 | 0.52 | 175000.0000 | 0.5592 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0089 | ppm | 0.0000 | 0.47 | 791.1000 | 0.0089 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0085 | ppm | 0.0011 | 12.98 | -16.7000 | 0.0085 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.7936 | ppm | 0.0270 | 3.40 | 20130.0000 | 0.7936 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0293 | ppm | 0.0021 | 7.27 | 64.1900 | 0.0293 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.6531 | ppm | 0.0232 | 3.55 | 14970.0000 | 0.6531 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0291 | ppm | 0.0002 | 0.52 | 2112.0000 | 0.0291 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9889 | 373700.0000 | 0.0013 | 0.14 |
| Y_R 371.029 | 1.0230 | 55080.0000 | 0.0034 | 0.33 |

Sample Name: mb 440-439004/1-a

Date: 11/2/2017 3:02:45 PM Rack:Tube: 2:47

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0002 | ppm | 0.0003 | > 100.00 | 8.2420 | 0.0002 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0073 | ppm | 0.0021 | 29.45 | -1018.0000 | 0.0073 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0051 | ppm | 0.0016 | 31.28 | 10.4800 | 0.0051 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0005 | ppm | 0.0000 | 3.58 | 4.0920 | 0.0005 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0000 | 14.25 | 4.1720 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 12.52 | 1.2220 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0045 u | ppm | 0.0145 | > 100.00 | 118.5000 | -0.0045 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -4.2000 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | -10.9800 | 0.0000 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0003 | 75.23 | 3.7120 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0010 | ppm | 0.0004 | 36.70 | 199.0000 | 0.0010 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0133 | ppm | 0.0027 | 20.53 | 60.1400 | 0.0133 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0606 u | ppm | 0.0910 | > 100.00 | -6.2920 | 0.0606 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0047 | ppm | 0.0008 | 17.01 | 292.1000 | 0.0047 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0125 | ppm | 0.0014 | 11.13 | 35.7200 | 0.0125 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0003 | ppm | 0.0001 | 41.40 | 99.9400 | 0.0003 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0031 | ppm | 0.0009 | 28.19 | 22.0900 | 0.0031 (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.1190 u | ppm | 0.0196 | 16.44 | 942.9000 | -0.1190 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0004 u | ppm | 0.0006 | > 100.00 | -1.6530 | -0.0004 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0227 | ppm | 0.0123 | 54.13 | 7.0470 | 0.0227 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0002 | ppm | 0.0000 | 17.56 | -4.6980 | 0.0002 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0088 | ppm | 0.0039 | 44.29 | 5.1550 | 0.0088 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0008 u | ppm | 0.0026 | > 100.00 | -2.9320 | -0.0008 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0020 | ppm | 0.0000 | 1.61 | 22.0700 | 0.0020 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0036 | ppm | 0.0017 | 45.76 | -0.5384 | 0.0036 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 66.7000 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0008 | ppm | 0.0001 | 13.96 | -10.6900 | 0.0008 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0015 | ppm | 0.0018 | > 100.00 | -4.0310 | 0.0015 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0006 | ppm | 0.0003 | 44.16 | 55.9000 | 0.0006 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0005 u | ppm | 0.0011 | > 100.00 | -6.0580 | 0.0005 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0011 | ppm | 0.0002 | 18.19 | 105.5000 | 0.0011 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0001 | 79.41 | -24.3100 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0290 | 388800.0000 | 0.0021 | 0.21 |
| Y_R 371.029 | 1.0320 | 55610.0000 | 0.0032 | 0.31 |

Sample Name: lcs 440-439004/2-a

Date: 11/2/2017 3:04:49 PM Rack:Tube: 2:48

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2392 | ppm | 0.0012 | 0.50 | 8271.0000 | 0.2392 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.4772 | ppm | 0.0008 | 0.18 | 9888.0000 | 0.4772 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4727 | ppm | 0.0121 | 2.56 | 384.3000 | 0.4727 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4681 | ppm | 0.0026 | 0.56 | 5185.0000 | 0.4681 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4796 | ppm | 0.0020 | 0.42 | 35230.0000 | 0.4796 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.4781 | ppm | 0.0009 | 0.19 | 78850.0000 | 0.4781 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 2.4000 | ppm | 0.0091 | 0.38 | 8681.0000 | 2.4000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4811 | ppm | 0.0027 | 0.55 | 11930.0000 | 0.4811 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4843 | ppm | 0.0022 | 0.46 | 6529.0000 | 0.4843 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4754 | ppm | 0.0006 | 0.13 | 2852.0000 | 0.4754 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.5037 | ppm | 0.0015 | 0.30 | 17870.0000 | 0.5037 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.4823 | ppm | 0.0017 | 0.35 | 2047.0000 | 0.4823 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 4.8840 | ppm | 0.0037 | 0.08 | 5019.0000 | 4.8840 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4783 | ppm | 0.0036 | 0.76 | 28000.0000 | 0.4783 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 2.4190 | ppm | 0.0104 | 0.43 | 5415.0000 | 2.4190 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4835 | ppm | 0.0014 | 0.29 | 45340.0000 | 0.4835 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4631 | ppm | 0.0011 | 0.24 | 2446.0000 | 0.4631 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.7060 | ppm | 0.0212 | 0.45 | 25780.0000 | 4.7060 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4819 | ppm | 0.0008 | 0.17 | 2299.0000 | 0.4819 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.4797 | ppm | 0.0001 | 0.02 | 402.4000 | 0.4797 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4816 | ppm | 0.0020 | 0.41 | 929.2000 | 0.4816 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.5014 | ppm | 0.0005 | 0.10 | 576.4000 | 0.5014 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.4802 | ppm | 0.0011 | 0.22 | 419.3000 | 0.4802 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.4080 | ppm | 0.0238 | 0.99 | 5226.0000 | 2.4080 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4808 | ppm | 0.0011 | 0.23 | 382.5000 | 0.4808 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.4796 | ppm | 0.0129 | 2.68 | 150000.0000 | 0.4796 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.4796 | ppm | 0.0015 | 0.30 | 51880.0000 | 0.4796 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4792 | ppm | 0.0038 | 0.80 | 724.9000 | 0.4792 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4786 | ppm | 0.0019 | 0.41 | 12410.0000 | 0.4786 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.4657 | ppm | 0.0030 | 0.65 | 977.2000 | 0.4657 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4823 | ppm | 0.0018 | 0.38 | 11130.0000 | 0.4823 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.4789 | ppm | 0.0020 | 0.41 | 33260.0000 | 0.4789 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0160 | 383900.0000 | 0.0044 | 0.44 |
| Y_R 371.029 | 1.0370 | 55850.0000 | 0.0025 | 0.24 |

Sample Name: lcsd 440-439004/3-a

Date: 11/2/2017 3:06:53 PM Rack:Tube: 2:49

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2405 | ppm | 0.0004 | 0.18 | 8315.0000 | 0.2405 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.4758 | ppm | 0.0013 | 0.27 | 9862.0000 | 0.4758 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4810 | ppm | 0.0006 | 0.13 | 391.0000 | 0.4810 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4708 | ppm | 0.0004 | 0.08 | 5214.0000 | 0.4708 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4797 | ppm | 0.0025 | 0.53 | 35240.0000 | 0.4797 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.4798 | ppm | 0.0004 | 0.09 | 79120.0000 | 0.4798 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 2.4260 | ppm | 0.0118 | 0.48 | 8772.0000 | 2.4260 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4809 | ppm | 0.0022 | 0.45 | 11920.0000 | 0.4809 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4815 | ppm | 0.0024 | 0.51 | 6491.0000 | 0.4815 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4776 | ppm | 0.0033 | 0.69 | 2865.0000 | 0.4776 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4807 | ppm | 0.0004 | 0.09 | 17070.0000 | 0.4807 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.4895 | ppm | 0.0017 | 0.35 | 2077.0000 | 0.4895 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 4.8090 | ppm | 0.0449 | 0.93 | 4941.0000 | 4.8090 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4809 | ppm | 0.0039 | 0.82 | 28160.0000 | 0.4809 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 2.4150 | ppm | 0.0183 | 0.76 | 5406.0000 | 2.4150 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4846 | ppm | 0.0012 | 0.24 | 45450.0000 | 0.4846 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4729 | ppm | 0.0013 | 0.26 | 2498.0000 | 0.4729 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.7170 | ppm | 0.0408 | 0.87 | 25840.0000 | 4.7170 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4823 | ppm | 0.0037 | 0.77 | 2301.0000 | 0.4823 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.4861 | ppm | 0.0099 | 2.04 | 408.8000 | 0.4861 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4830 | ppm | 0.0001 | 0.02 | 931.7000 | 0.4830 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.5017 | ppm | 0.0032 | 0.63 | 576.6000 | 0.5017 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.4844 | ppm | 0.0027 | 0.55 | 423.0000 | 0.4844 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.4320 | ppm | 0.0250 | 1.03 | 5280.0000 | 2.4320 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4858 | ppm | 0.0003 | 0.06 | 386.5000 | 0.4858 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.4800 | ppm | 0.0021 | 0.43 | 150200.0000 | 0.4800 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.4838 | ppm | 0.0012 | 0.25 | 52330.0000 | 0.4838 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4802 | ppm | 0.0012 | 0.26 | 726.3000 | 0.4802 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4810 | ppm | 0.0002 | 0.04 | 12470.0000 | 0.4810 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.4733 | ppm | 0.0024 | 0.50 | 993.5000 | 0.4733 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4973 | ppm | 0.0015 | 0.31 | 11470.0000 | 0.4973 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.4780 | ppm | 0.0011 | 0.23 | 33200.0000 | 0.4780 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0150 | 383700.0000 | 0.0045 | 0.44 |
| Y_R 371.029 | 1.0390 | 56000.0000 | 0.0035 | 0.33 |

Sample Name: 440-194014-c-1-b

Date: 11/2/2017 3:08:57 PM Rack:Tube: 2:50

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -0.6569 | 0.0000 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0048 | ppm | 0.0008 | 16.87 | -1074.0000 | 0.0048 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0057 | ppm | 0.0015 | 26.69 | 11.0000 | 0.0057 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0012 | ppm | 0.0009 | 69.05 | 8.5860 | 0.0012 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0004 | ppm | 0.0000 | 5.92 | 21.5100 | 0.0004 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 13.0300 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0182 | ppm | 0.0152 | 83.37 | 199.1000 | 0.0182 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0002 | 92.64 | 1.2560 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0004 u | ppm | 0.0001 | 37.58 | -15.5400 | -0.0004 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0004 | 89.38 | 3.7450 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0014 | ppm | 0.0001 | 7.05 | 211.9000 | 0.0014 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0117 | ppm | 0.0010 | 8.43 | 53.7400 | 0.0117 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.2368 | ppm | 0.2230 | 94.17 | 177.1000 | 0.2368 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0037 | ppm | 0.0003 | 9.03 | 231.7000 | 0.0037 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0037 | ppm | 0.0003 | 9.09 | 16.2000 | 0.0037 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0000 | 9.03 | 90.7800 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0022 | ppm | 0.0008 | 37.69 | 17.2700 | 0.0022 (ppm) | Y 371.029 |
| Na (589.592 nm) | 81.2300 | ppm | 0.2610 | 0.32 | 419300.0000 | 81.2300 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0000 u | ppm | 0.0008 | > 100.00 | 0.0749 | 0.0000 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0096 | ppm | 0.0027 | 27.75 | -5.1050 | 0.0096 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0007 | ppm | 0.0002 | 23.69 | -3.7560 | 0.0007 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0041 | ppm | 0.0014 | 34.79 | -0.3893 | 0.0041 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0019 u | ppm | 0.0032 | > 100.00 | -0.3419 | 0.0019 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0089 | ppm | 0.0008 | 8.75 | 40.4200 | 0.0089 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0029 | ppm | 0.0001 | 2.85 | -1.1530 | 0.0029 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0003 | ppm | 0.0002 | 49.87 | 164.3000 | 0.0003 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0011 | ppm | 0.0003 | 29.57 | 23.3300 | 0.0011 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0036 | ppm | 0.0013 | 36.22 | -0.7246 | 0.0036 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0003 | ppm | 0.0001 | 26.70 | 48.0700 | 0.0003 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0295 | ppm | 0.0005 | 1.71 | 54.6800 | 0.0295 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0019 u | ppm | 0.0000 | 2.11 | 37.2600 | -0.0019 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | -32.7500 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9906 | 374400.0000 | 0.0014 | 0.15 |
| Y_R 371.029 | 1.0150 | 54680.0000 | 0.0009 | 0.08 |

Sample Name: CCV 4461459

Date: 11/2/2017 3:11:02 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4997 | ppm | 0.0004 | 0.07 | 17280.0000 | 0.4997 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0010 | ppm | 0.0008 | 0.08 | 22050.0000 | 1.0010 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9989 | ppm | 0.0016 | 0.16 | 805.2000 | 0.9989 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0020 | ppm | 0.0002 | 0.02 | 11100.0000 | 1.0020 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9875 | ppm | 0.0107 | 1.08 | 72550.0000 | 0.9875 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0000 | ppm | 0.0002 | 0.02 | 165000.0000 | 1.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.0160 | ppm | 0.0224 | 0.45 | 18000.0000 | 5.0160 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9948 | ppm | 0.0002 | 0.02 | 24670.0000 | 0.9948 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9995 | ppm | 0.0032 | 0.32 | 13490.0000 | 0.9995 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9931 | ppm | 0.0005 | 0.05 | 5956.0000 | 0.9931 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0040 | ppm | 0.0034 | 0.34 | 35450.0000 | 1.0040 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0060 | ppm | 0.0041 | 0.41 | 4267.0000 | 1.0060 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.0800 | ppm | 0.0521 | 0.52 | 10430.0000 | 10.0800 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9937 | ppm | 0.0021 | 0.21 | 58160.0000 | 0.9937 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.9970 | ppm | 0.0451 | 0.90 | 11180.0000 | 4.9970 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9958 | ppm | 0.0009 | 0.09 | 93330.0000 | 0.9958 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9962 | ppm | 0.0018 | 0.18 | 5255.0000 | 0.9962 (ppm) | Y 371.029 |
| Na (589.592 nm) | 9.9290 | ppm | 0.0632 | 0.64 | 52680.0000 | 9.9290 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9962 | ppm | 0.0014 | 0.14 | 4753.0000 | 0.9962 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9964 | ppm | 0.0039 | 0.39 | 851.4000 | 0.9964 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9980 | ppm | 0.0039 | 0.39 | 1931.0000 | 0.9980 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0030 | ppm | 0.0061 | 0.61 | 1157.0000 | 1.0030 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9961 | ppm | 0.0019 | 0.19 | 872.3000 | 0.9961 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.2170 | ppm | 0.1315 | 2.52 | 11300.0000 | 5.2170 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0010 | ppm | 0.0028 | 0.28 | 800.1000 | 1.0010 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0020 | ppm | 0.0031 | 0.31 | 313200.0000 | 1.0020 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0040 | ppm | 0.0000 | 0.00 | 108700.0000 | 1.0040 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0020 | ppm | 0.0012 | 0.12 | 1523.0000 | 1.0020 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0050 | ppm | 0.0013 | 0.13 | 25990.0000 | 1.0050 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9973 | ppm | 0.0018 | 0.18 | 2100.0000 | 0.9973 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9996 | ppm | 0.0002 | 0.02 | 22980.0000 | 0.9996 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9983 | ppm | 0.0010 | 0.10 | 69380.0000 | 0.9983 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9991 | 377500.0000 | 0.0008 | 0.08 |
| Y_R 371.029 | 1.0270 | 55320.0000 | 0.0092 | 0.90 |

Sample Name: CCB 4461458

Date: 11/2/2017 3:13:06 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | 3.9990 | 0.0001 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0002 u | ppm | 0.0006 | > 100.00 | -1185.0000 | -0.0002 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0049 | ppm | 0.0001 | 1.37 | 10.2900 | 0.0049 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0009 | ppm | 0.0008 | 81.77 | 8.3600 | 0.0009 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0002 | 92.78 | 2.9460 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 84.85 | 24.0200 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0134 u | ppm | 0.0015 | 11.29 | 86.5500 | -0.0134 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0000 | 0.94 | 0.9180 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0002 u | ppm | 0.0001 | 26.19 | -14.0400 | -0.0002 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0000 | 5.56 | 3.7220 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0010 | ppm | 0.0002 | 15.73 | 198.8000 | 0.0010 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0017 | ppm | 0.0015 | 91.02 | 11.0100 | 0.0017 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0578 | ppm | 0.0276 | 47.80 | -9.2620 | 0.0578 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0047 | ppm | 0.0011 | 22.40 | 291.5000 | 0.0047 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0018 | ppm | 0.0002 | 10.47 | 11.8700 | 0.0018 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0000 | 11.30 | 85.4800 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0046 | ppm | 0.0015 | 32.42 | 29.7400 | 0.0046 (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0986 u | ppm | 0.0049 | 4.93 | 1048.0000 | -0.0986 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0002 u | ppm | 0.0007 | > 100.00 | -1.0490 | -0.0002 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0056 | ppm | 0.0044 | 78.22 | -8.7680 | 0.0056 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0016 u | ppm | 0.0004 | 27.54 | -8.2690 | -0.0016 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0142 Z | ppm | 0.0005 | 3.55 | 11.4100 Z | 0.0142 Z (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0007 u | ppm | 0.0025 | > 100.00 | -2.8390 | -0.0007 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0091 | ppm | 0.0042 | 46.02 | 37.5700 | 0.0091 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0035 | ppm | 0.0003 | 9.58 | -0.6431 | 0.0035 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0001 | 88.88 | 29.7000 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0012 | ppm | 0.0003 | 25.25 | 29.3200 | 0.0012 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0003 | ppm | 0.0001 | 49.02 | -5.9230 | 0.0003 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0005 | ppm | 0.0001 | 13.16 | 54.2900 | 0.0005 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0021 | ppm | 0.0003 | 14.66 | -2.7140 | 0.0021 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0031 u | ppm | 0.0001 | 1.82 | 10.6100 | -0.0031 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0002 | > 100.00 | -26.4000 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0090 | 381100.0000 | 0.0021 | 0.21 |
| Y_R 371.029 | 1.0250 | 55190.0000 | 0.0045 | 0.44 |

Sample Name: 440-194014-c-2-b

Date: 11/2/2017 3:16:24 PM Rack:Tube: 2:51

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | 0.7633 | 0.0000 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0051 | ppm | 0.0002 | 3.43 | -1070.0000 | 0.0051 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0001 | ppm | 0.0000 | 6.82 | 6.4150 | 0.0001 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0010 | ppm | 0.0003 | 29.33 | 8.7890 | 0.0010 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0000 | 11.78 | -1.0400 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 3.6520 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0066 u | ppm | 0.0148 | > 100.00 | 158.0000 | 0.0066 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 84.49 | -0.4965 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0006 u | ppm | 0.0000 | 7.04 | -19.3300 | -0.0006 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0005 | ppm | 0.0004 | 90.88 | 4.0160 | 0.0005 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0012 | ppm | 0.0003 | 22.72 | 204.7000 | 0.0012 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0032 | ppm | 0.0012 | 36.66 | 17.5700 | 0.0032 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0988 | ppm | 0.1000 | > 100.00 | 33.4100 | 0.0988 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0043 | ppm | 0.0008 | 18.98 | 264.8000 | 0.0043 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0040 | ppm | 0.0003 | 7.43 | 16.8500 | 0.0040 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 79.2300 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0010 u | ppm | 0.0006 | 56.80 | 0.5207 | -0.0010 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 81.9800 | ppm | 0.9948 | 1.21 | 423200.0000 | 81.9800 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0000 | ppm | 0.0000 | 26.41 | 0.2668 | 0.0000 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0080 | ppm | 0.0070 | 87.19 | -6.4590 | 0.0080 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0021 u | ppm | 0.0001 | 2.38 | -9.2500 | -0.0021 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0078 | ppm | 0.0039 | 50.25 | 4.1190 | 0.0078 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0013 | ppm | 0.0012 | 91.19 | -1.0120 | 0.0013 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0062 | ppm | 0.0008 | 12.71 | 31.5400 | 0.0062 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0026 | ppm | 0.0010 | 37.49 | -1.3360 | 0.0026 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0002 | ppm | 0.0001 | 27.63 | 133.1000 | 0.0002 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0004 | ppm | 0.0001 | 14.92 | -51.7500 | 0.0004 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0010 u | ppm | 0.0020 | > 100.00 | -4.8550 | 0.0010 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0004 | ppm | 0.0003 | 79.95 | 51.6100 | 0.0004 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0028 | ppm | 0.0028 | 97.83 | -1.1270 | 0.0028 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0024 u | ppm | 0.0001 | 4.12 | 25.6200 | -0.0024 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0001 u | ppm | 0.0000 | 44.13 | -40.2700 | -0.0001 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9941 | 375700.0000 | 0.0040 | 0.40 |
| Y_R 371.029 | 1.0110 | 54440.0000 | 0.0111 | 1.10 |

Sample Name: mb 440-438851/1-a

Date: 11/2/2017 3:18:28 PM Rack:Tube: 2:52

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | 3.2190 | 0.0001 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0004 | ppm | 0.0005 | > 100.00 | -1176.0000 | 0.0004 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0036 | ppm | 0.0021 | 57.27 | 9.2660 | 0.0036 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | -0.2682 | 0.0001 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0001 | 64.95 | -3.2660 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 57.71 | 0.1841 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0024 u | ppm | 0.0044 | > 100.00 | 125.7000 | -0.0024 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | -2.6610 | 0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0000 u | ppm | 0.0005 | > 100.00 | -11.4900 | 0.0000 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0009 | ppm | 0.0003 | 31.72 | 6.7250 | 0.0009 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0007 | ppm | 0.0002 | 25.82 | 189.4000 | 0.0007 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0014 u | ppm | 0.0009 | 62.12 | -1.9530 | -0.0014 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.0011 u | ppm | 0.0160 | > 100.00 | -70.5500 | -0.0011 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0044 | ppm | 0.0014 | 32.28 | 270.8000 | 0.0044 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0015 | ppm | 0.0008 | 55.53 | 11.2800 | 0.0015 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 70.0800 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0005 u | ppm | 0.0007 | > 100.00 | 3.1770 | -0.0005 u (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0999 u | ppm | 0.0054 | 5.42 | 1041.0000 | -0.0999 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0002 u | ppm | 0.0003 | > 100.00 | -0.8184 | -0.0002 u (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0037 u | ppm | 0.0086 | > 100.00 | -17.1900 | -0.0037 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0003 | ppm | 0.0002 | 69.50 | -4.5610 | 0.0003 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0051 | ppm | 0.0046 | 89.76 | 0.9381 | 0.0051 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0048 | ppm | 0.0015 | 32.36 | 1.9640 | 0.0048 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0003 u | ppm | 0.0007 | > 100.00 | 18.7400 | 0.0003 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0035 | ppm | 0.0005 | 15.73 | -0.6385 | 0.0035 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0001 | 79.10 | 31.2500 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0003 | ppm | 0.0001 | 29.61 | -67.5400 | 0.0003 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0010 | ppm | 0.0003 | 30.33 | -4.7710 | 0.0010 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0003 | ppm | 0.0000 | 16.94 | 48.4300 | 0.0003 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0007 | ppm | 0.0009 | > 100.00 | -5.6960 | 0.0007 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0031 u | ppm | 0.0001 | 1.93 | 10.0900 | -0.0031 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0001 | 86.80 | -30.0000 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0160 | 384100.0000 | 0.0029 | 0.28 |
| Y_R 371.029 | 1.0320 | 55570.0000 | 0.0126 | 1.22 |

Sample Name: lcs 440-438851/2-a

Date: 11/2/2017 3:20:32 PM Rack:Tube: 2:53

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2420 | ppm | 0.0000 | 0.02 | 8369.0000 | 0.2420 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.4991 | ppm | 0.0003 | 0.06 | 10400.0000 | 0.4991 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.5171 | ppm | 0.0070 | 1.36 | 420.0000 | 0.5171 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4976 | ppm | 0.0021 | 0.42 | 5511.0000 | 0.4976 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.5062 | ppm | 0.0026 | 0.51 | 37190.0000 | 0.5062 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.5043 | ppm | 0.0011 | 0.21 | 83160.0000 | 0.5043 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 2.5220 | ppm | 0.0174 | 0.69 | 9115.0000 | 2.5220 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.5083 | ppm | 0.0005 | 0.11 | 12600.0000 | 0.5083 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.5080 | ppm | 0.0020 | 0.40 | 6850.0000 | 0.5080 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.5026 | ppm | 0.0001 | 0.02 | 3015.0000 | 0.5026 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.5028 | ppm | 0.0007 | 0.13 | 17840.0000 | 0.5028 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.5086 | ppm | 0.0031 | 0.60 | 2158.0000 | 0.5086 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 5.1790 | ppm | 0.0526 | 1.02 | 5326.0000 | 5.1790 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.5043 | ppm | 0.0023 | 0.46 | 29530.0000 | 0.5043 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 2.5510 | ppm | 0.0060 | 0.24 | 5710.0000 | 2.5510 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.5089 | ppm | 0.0006 | 0.12 | 47730.0000 | 0.5089 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4952 | ppm | 0.0003 | 0.06 | 2615.0000 | 0.4952 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.9770 | ppm | 0.0203 | 0.41 | 27180.0000 | 4.9770 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.5072 | ppm | 0.0005 | 0.11 | 2420.0000 | 0.5072 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.5075 | ppm | 0.0005 | 0.11 | 427.5000 | 0.5075 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.5086 | ppm | 0.0006 | 0.12 | 981.5000 | 0.5086 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.4973 | ppm | 0.0041 | 0.82 | 571.3000 | 0.4973 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.5043 | ppm | 0.0026 | 0.51 | 440.6000 | 0.5043 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.5470 | ppm | 0.0344 | 1.35 | 5528.0000 | 2.5470 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.5151 | ppm | 0.0005 | 0.09 | 410.0000 | 0.5151 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5097 | ppm | 0.0104 | 2.05 | 159400.0000 | 0.5097 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.5074 | ppm | 0.0007 | 0.15 | 54900.0000 | 0.5074 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.5093 | ppm | 0.0042 | 0.82 | 770.9000 | 0.5093 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.5046 | ppm | 0.0006 | 0.11 | 13080.0000 | 0.5046 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.4989 | ppm | 0.0000 | 0.01 | 1047.0000 | 0.4989 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.5073 | ppm | 0.0003 | 0.05 | 11700.0000 | 0.5073 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.5020 | ppm | 0.0009 | 0.18 | 34870.0000 | 0.5020 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0060 | 380000.0000 | 0.0023 | 0.23 |
| Y_R 371.029 | 1.0250 | 55200.0000 | 0.0068 | 0.66 |

Sample Name: 580-72386-i-2-a

Date: 11/2/2017 3:22:36 PM Rack:Tube: 2:54

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0002 u | ppm | 0.0000 | 18.80 | -9.5450 | -0.0002 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0104 | ppm | 0.0010 | 10.10 | -936.2000 | 0.0104 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0046 | ppm | 0.0029 | 62.89 | 10.0000 | 0.0046 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0138 | ppm | 0.0005 | 3.51 | 151.0000 | 0.0138 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0260 | ppm | 0.0000 | 0.06 | 1900.0000 | 0.0260 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 35.8800 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 19.5800 | ppm | 0.0328 | 0.17 | 69860.0000 | 19.5800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0000 | 56.46 | -2.4580 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0005 | ppm | 0.0005 | 94.63 | -3.5190 | 0.0005 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0011 | ppm | 0.0000 | 1.13 | 8.1720 | 0.0011 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0012 | ppm | 0.0002 | 15.32 | 195.4000 | 0.0012 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0090 | ppm | 0.0065 | 0.65 | 4282.0000 | 1.0090 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.8665 | ppm | 0.0085 | 0.98 | 836.6000 | 0.8665 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0039 | ppm | 0.0014 | 35.38 | 268.6000 | 0.0039 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 8.5360 | ppm | 0.0415 | 0.49 | 19090.0000 | 8.5360 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.7318 | ppm | 0.0018 | 0.24 | 68320.0000 | 0.7318 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0027 | ppm | 0.0020 | 75.51 | 19.8400 | 0.0027 (ppm) | Y 371.029 |
| Na (589.592 nm) | 9.5650 | ppm | 0.0358 | 0.37 | 50750.0000 | 9.5650 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0005 | ppm | 0.0002 | 32.79 | 1.7730 | 0.0005 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.3722 | ppm | 0.0031 | 0.84 | 329.4000 | 0.3722 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0007 u | ppm | 0.0023 | > 100.00 | -5.7650 | -0.0007 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0075 | ppm | 0.0013 | 17.76 | 3.7180 | 0.0075 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0018 | ppm | 0.0009 | 48.84 | -0.5941 | 0.0018 (ppm) | Y 371.029 |
| Si (251.611 nm) | 22.5800 | ppm | 0.2657 | 1.18 | 48090.0000 | 22.5800 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0050 | ppm | 0.0021 | 42.51 | 0.6273 | 0.0050 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1054 | ppm | 0.0002 | 0.21 | 33200.0000 | 0.1054 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0011 | ppm | 0.0002 | 17.05 | 7.4990 | 0.0011 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0015 u | ppm | 0.0001 | 7.38 | -7.2520 | -0.0015 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0037 | ppm | 0.0001 | 1.52 | 157.7000 | 0.0037 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0030 | ppm | 0.0010 | 33.81 | -1.2460 | 0.0030 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0003 | ppm | 0.0000 | 0.58 | 94.5800 | 0.0003 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0001 | 47.58 | -13.3700 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0070 | 380600.0000 | 0.0063 | 0.63 |
| Y_R 371.029 | 1.0270 | 55300.0000 | 0.0092 | 0.90 |

Sample Name: 580-72386-i-2-b ms

Date: 11/2/2017 3:24:40 PM Rack:Tube: 2:55

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2378 | ppm | 0.0009 | 0.36 | 8221.0000 | 0.2378 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.4948 | ppm | 0.0012 | 0.25 | 10300.0000 | 0.4948 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4909 | ppm | 0.0027 | 0.55 | 399.0000 | 0.4909 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4981 | ppm | 0.0025 | 0.50 | 5517.0000 | 0.4981 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.5122 | ppm | 0.0090 | 1.76 | 37630.0000 | 0.5122 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.4867 | ppm | 0.0019 | 0.40 | 80280.0000 | 0.4867 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 22.1000 | ppm | 0.1353 | 0.61 | 78840.0000 | 22.1000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4806 | ppm | 0.0011 | 0.24 | 11920.0000 | 0.4806 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4773 | ppm | 0.0020 | 0.41 | 6435.0000 | 0.4773 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4824 | ppm | 0.0016 | 0.33 | 2894.0000 | 0.4824 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4892 | ppm | 0.0006 | 0.13 | 17350.0000 | 0.4892 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.4860 | ppm | 0.0157 | 1.06 | 6301.0000 | 1.4860 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 5.8170 | ppm | 0.0981 | 1.69 | 5994.0000 | 5.8170 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4801 | ppm | 0.0025 | 0.52 | 28140.0000 | 0.4801 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 10.9300 | ppm | 0.1823 | 1.67 | 24460.0000 | 10.9300 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.1970 | ppm | 0.0028 | 0.23 | 111900.0000 | 1.1970 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4785 | ppm | 0.0017 | 0.36 | 2528.0000 | 0.4785 (ppm) | Y 371.029 |
| Na (589.592 nm) | 14.3700 | ppm | 0.0856 | 0.60 | 75490.0000 | 14.3700 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4732 | ppm | 0.0023 | 0.48 | 2257.0000 | 0.4732 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.8498 | ppm | 0.0018 | 0.22 | 743.9000 | 0.8498 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4786 | ppm | 0.0025 | 0.53 | 923.8000 | 0.4786 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.4777 | ppm | 0.0022 | 0.47 | 548.5000 | 0.4777 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.4839 | ppm | 0.0067 | 1.38 | 422.7000 | 0.4839 (ppm) | Y 371.029 |
| Si (251.611 nm) | 24.5200 | ppm | 0.0510 | 0.21 | 52320.0000 | 24.5200 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4895 | ppm | 0.0011 | 0.23 | 389.5000 | 0.4895 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5934 | ppm | 0.0025 | 0.43 | 185800.0000 | 0.5934 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.4906 | ppm | 0.0013 | 0.26 | 53060.0000 | 0.4906 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4818 | ppm | 0.0039 | 0.81 | 729.9000 | 0.4818 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4906 | ppm | 0.0011 | 0.23 | 12740.0000 | 0.4906 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.4821 | ppm | 0.0015 | 0.31 | 1011.0000 | 0.4821 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4822 | ppm | 0.0015 | 0.32 | 11140.0000 | 0.4822 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.4831 | ppm | 0.0012 | 0.24 | 33560.0000 | 0.4831 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9997 | 377800.0000 | 0.0053 | 0.53 |
| Y_R 371.029 | 1.0160 | 54740.0000 | 0.0201 | 1.98 |

Sample Name: 580-72386-i-2-c msd

Date: 11/2/2017 3:26:45 PM Rack:Tube: 2:56

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2513 | ppm | 0.0007 | 0.28 | 8686.0000 | 0.2513 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.5213 | ppm | 0.0007 | 0.13 | 10920.0000 | 0.5213 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.5129 | ppm | 0.0038 | 0.73 | 416.6000 | 0.5129 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.5252 | ppm | 0.0010 | 0.20 | 5817.0000 | 0.5252 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.5344 | ppm | 0.0009 | 0.17 | 39260.0000 | 0.5344 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.5152 | ppm | 0.0004 | 0.07 | 84970.0000 | 0.5152 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 21.9400 | ppm | 0.1069 | 0.49 | 78270.0000 | 21.9400 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.5047 | ppm | 0.0005 | 0.10 | 12510.0000 | 0.5047 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.5018 | ppm | 0.0028 | 0.56 | 6767.0000 | 0.5018 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.5090 | ppm | 0.0012 | 0.24 | 3054.0000 | 0.5090 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.5155 | ppm | 0.0011 | 0.21 | 18280.0000 | 0.5155 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.4940 | ppm | 0.0052 | 0.35 | 6333.0000 | 1.4940 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 6.0780 | ppm | 0.0635 | 1.05 | 6266.0000 | 6.0780 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.5044 | ppm | 0.0017 | 0.34 | 29560.0000 | 0.5044 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 10.9200 | ppm | 0.0298 | 0.27 | 24420.0000 | 10.9200 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.2190 | ppm | 0.0008 | 0.06 | 113900.0000 | 1.2190 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.5072 | ppm | 0.0020 | 0.39 | 2678.0000 | 0.5072 (ppm) | Y 371.029 |
| Na (589.592 nm) | 14.4400 | ppm | 0.0244 | 0.17 | 75860.0000 | 14.4400 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4971 | ppm | 0.0016 | 0.32 | 2371.0000 | 0.4971 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.8701 | ppm | 0.0021 | 0.25 | 761.1000 | 0.8701 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.5052 | ppm | 0.0002 | 0.03 | 975.3000 | 0.5052 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.5098 | ppm | 0.0054 | 1.06 | 585.7000 | 0.5098 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.5076 | ppm | 0.0020 | 0.39 | 443.6000 | 0.5076 (ppm) | Y 371.029 |
| Si (251.611 nm) | 24.5600 | ppm | 0.1541 | 0.63 | 52390.0000 | 24.5600 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.5157 | ppm | 0.0022 | 0.42 | 410.5000 | 0.5157 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.6143 | ppm | 0.0022 | 0.35 | 192300.0000 | 0.6143 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.5176 | ppm | 0.0008 | 0.16 | 55990.0000 | 0.5176 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.5087 | ppm | 0.0010 | 0.19 | 770.8000 | 0.5087 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.5177 | ppm | 0.0015 | 0.28 | 13440.0000 | 0.5177 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.5102 | ppm | 0.0010 | 0.19 | 1071.0000 | 0.5102 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.5071 | ppm | 0.0002 | 0.03 | 11710.0000 | 0.5071 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.5086 | ppm | 0.0015 | 0.29 | 35330.0000 | 0.5086 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9982 | 377200.0000 | 0.0039 | 0.39 |
| Y_R 371.029 | 1.0220 | 55060.0000 | 0.0005 | 0.05 |

Sample Name: 580-72386-n-1-a

Date: 11/2/2017 3:28:50 PM Rack:Tube: 2:57

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0003 u | ppm | 0.0004 | > 100.00 | -11.6800 | -0.0003 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0099 | ppm | 0.0006 | 5.60 | -945.4000 | 0.0099 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0026 | ppm | 0.0025 | 98.30 | 8.3790 | 0.0026 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0240 | ppm | 0.0006 | 2.36 | 265.1000 | 0.0240 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0206 | ppm | 0.0002 | 0.95 | 1507.0000 | 0.0206 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 32.8500 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 22.3700 | ppm | 0.0737 | 0.33 | 79800.0000 | 22.3700 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 63.60 | 0.3268 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0005 u | ppm | 0.0008 | > 100.00 | -3.1390 | 0.0005 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0005 | > 100.00 | 3.9560 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0023 | ppm | 0.0001 | 6.32 | 230.4000 | 0.0023 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9519 | ppm | 0.0060 | 0.64 | 4039.0000 | 0.9519 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 2.5780 | ppm | 0.0551 | 2.14 | 2618.0000 | 2.5780 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0056 | ppm | 0.0012 | 21.15 | 381.6000 | 0.0056 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 8.2490 | ppm | 0.0838 | 1.02 | 18450.0000 | 8.2490 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.5393 | ppm | 0.0002 | 0.03 | 50400.0000 | 0.5393 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0040 | ppm | 0.0021 | 51.87 | 26.8900 | 0.0040 (ppm) | Y 371.029 |
| Na (589.592 nm) | 6.8890 | ppm | 0.0454 | 0.66 | 36990.0000 | 6.8890 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0064 | ppm | 0.0001 | 1.66 | 30.1600 | 0.0064 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.1047 | ppm | 0.0012 | 1.11 | 82.3200 | 0.1047 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0016 u | ppm | 0.0015 | 94.57 | -7.7340 | -0.0016 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0065 | ppm | 0.0031 | 47.20 | 2.5070 | 0.0065 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0025 | ppm | 0.0022 | 91.14 | -0.1048 | 0.0025 (ppm) | Y 371.029 |
| Si (251.611 nm) | 16.5700 | ppm | 0.0342 | 0.21 | 35300.0000 | 16.5700 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0020 | ppm | 0.0013 | 66.24 | -1.8280 | 0.0020 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1061 | ppm | 0.0006 | 0.61 | 33450.0000 | 0.1061 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0011 | ppm | 0.0002 | 20.36 | -4.4580 | 0.0011 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0022 | ppm | 0.0002 | 7.15 | -1.8480 | 0.0022 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0012 | ppm | 0.0003 | 24.01 | 95.4500 | 0.0012 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0021 | ppm | 0.0013 | 59.91 | -2.8290 | 0.0021 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0140 | ppm | 0.0000 | 0.13 | 406.7000 | 0.0140 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0004 | ppm | 0.0000 | 3.12 | -8.3620 | 0.0004 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0040 | 379400.0000 | 0.0041 | 0.41 |
| Y_R 371.029 | 1.0220 | 55040.0000 | 0.0064 | 0.63 |

Sample Name: 440-195219-I-9-b

Date: 11/2/2017 3:30:54 PM Rack:Tube: 2:58

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0013 u | ppm | 0.0002 | 14.03 | -104.7000 | -0.0013 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0076 | ppm | 0.0005 | 7.16 | -624.9000 | 0.0076 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0331 | ppm | 0.0006 | 1.95 | 33.2300 | 0.0331 (ppm) | Y 371.029 |
| B (249.678 nm) | 2.2660 | ppm | 0.0007 | 0.03 | 25350.0000 | 2.2660 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0491 | ppm | 0.0000 | 0.03 | 3629.0000 | 0.0491 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 53.36 | 7.8090 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 372.6000 | ppm | 1.4900 | 0.40 | 1327000.0000 | 372.6000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 61.01 | 3.6780 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0010 u | ppm | 0.0003 | 30.04 | -13.3800 | -0.0010 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | -0.0001 u | ppm | 0.0000 | 1.62 | 6.5990 | -0.0001 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0007 | ppm | 0.0002 | 31.99 | -51.2400 | 0.0007 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0059 | ppm | 0.0001 | 2.08 | 58.3600 | 0.0059 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 21.2800 | ppm | 0.0189 | 0.09 | 22190.0000 | 21.2800 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2271 | ppm | 0.0009 | 0.40 | 14720.0000 | 0.2271 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 267.7000 | ppm | 1.3530 | 0.51 | 598500.0000 | 267.7000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1241 | ppm | 0.0001 | 0.05 | 12520.0000 | 0.1241 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0178 | ppm | 0.0005 | 2.61 | 99.9500 | 0.0178 (ppm) | Y 371.029 |
| Na (589.592 nm) | 711.0000 | ppm | 0.2269 | 0.03 | 3658000.0000 | 711.0000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0009 | ppm | 0.0009 | 95.31 | -3.5570 | 0.0009 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0241 | ppm | 0.0052 | 21.65 | 4.5760 | 0.0241 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0084 u | ppm | 0.0007 | 8.81 | -13.1800 | -0.0084 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0009 u | ppm | 0.0032 | > 100.00 | -3.5160 | 0.0009 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0033 u | ppm | 0.0048 | > 100.00 | -1.8950 | 0.0033 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 29.7600 | ppm | 0.0494 | 0.17 | 63420.0000 | 29.7600 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0016 | ppm | 0.0006 | 35.73 | -1.7220 | 0.0016 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 11.7600 | ppm | 0.0402 | 0.34 | 3679000.0000 | 11.7600 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | -417.3000 | 0.0001 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0049 | ppm | 0.0015 | 29.72 | 0.4322 | 0.0049 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0007 u | ppm | 0.0004 | 54.00 | 417.7000 | -0.0007 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0026 u | ppm | 0.0002 | 7.54 | -20.8900 | -0.0026 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0165 u | ppm | 0.0001 | 0.54 | -105.0000 | -0.0165 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0001 u | ppm | 0.0001 | 73.70 | -4.6670 | -0.0001 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8865 | 335000.0000 | 0.0013 | 0.14 |
| Y_R 371.029 | 0.9428 | 50790.0000 | 0.0048 | 0.51 |

Sample Name: 440-195219-I-10-b

Date: 11/2/2017 3:32:58 PM Rack:Tube: 2:59

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0004 u | ppm | 0.0001 | 24.47 | -93.8400 | -0.0004 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0046 | ppm | 0.0005 | 11.07 | -780.3000 | 0.0046 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1125 | ppm | 0.0043 | 3.86 | 93.0500 | 0.1125 (ppm) | Y 371.029 |
| B (249.678 nm) | 3.9110 | ppm | 0.0220 | 0.56 | 43760.0000 | 3.9110 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0145 | ppm | 0.0002 | 1.53 | 1080.0000 | 0.0145 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 1.06 | -1.2920 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 618.9000 o | ppm | 2.3480 | 0.38 | 2204000.0000 | 618.9000 o (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | 3.7230 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0008 u | ppm | 0.0003 | 43.84 | -10.1300 | -0.0008 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2410 | ppm | 0.0024 | 1.01 | 1457.0000 | 0.2410 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0028 | ppm | 0.0001 | 4.64 | -153.5000 | 0.0028 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0002 u | ppm | 0.0010 | > 100.00 | 20.0100 | 0.0002 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.9620 | ppm | 0.0004 | 0.00 | 10390.0000 | 9.9620 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2042 | ppm | 0.0009 | 0.44 | 13140.0000 | 0.2042 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 100.8000 | ppm | 0.0108 | 0.01 | 225400.0000 | 100.8000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0126 | ppm | 0.0000 | 0.33 | 1621.0000 | 0.0126 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0222 | ppm | 0.0012 | 5.53 | 122.7000 | 0.0222 (ppm) | Y 371.029 |
| Na (589.592 nm) | 471.2000 | ppm | 2.4120 | 0.51 | 2425000.0000 | 471.2000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0017 | ppm | 0.0006 | 36.61 | -2.3300 | 0.0017 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0290 | ppm | 0.0027 | 9.24 | 5.3810 | 0.0290 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0062 u | ppm | 0.0011 | 17.47 | -10.7400 | -0.0062 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0004 u | ppm | 0.0024 | > 100.00 | 0.1696 | 0.0004 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0068 | ppm | 0.0009 | 12.71 | -0.2476 | 0.0068 (ppm) | Y 371.029 |
| Si (251.611 nm) | 50.2100 | ppm | 0.1608 | 0.32 | 106900.0000 | 50.2100 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0029 u | ppm | 0.0023 | 79.81 | -5.7550 | -0.0029 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 10.8500 | ppm | 0.0471 | 0.43 | 3398000.0000 | 10.8500 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0003 u | ppm | 0.0001 | 33.05 | -684.6000 | -0.0003 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0060 | ppm | 0.0021 | 34.52 | -3.0860 | 0.0060 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0426 | ppm | 0.0002 | 0.54 | 1793.0000 | 0.0426 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0020 | ppm | 0.0007 | 35.86 | -15.4900 | 0.0020 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0078 u | ppm | 0.0000 | 0.29 | -1.3530 | -0.0078 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0003 u | ppm | 0.0000 | 0.23 | 19.0800 | -0.0003 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8989 | 339700.0000 | 0.0051 | 0.56 |
| Y_R 371.029 | 0.9561 | 51500.0000 | 0.0008 | 0.08 |

Sample Name: CCV 4461459

Date: 11/2/2017 3:35:03 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4994 | ppm | 0.0026 | 0.51 | 17270.0000 | 0.4994 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0010 | ppm | 0.0020 | 0.19 | 22060.0000 | 1.0010 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0030 | ppm | 0.0043 | 0.43 | 808.3000 | 1.0030 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0040 | ppm | 0.0018 | 0.18 | 11120.0000 | 1.0040 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9907 | ppm | 0.0003 | 0.03 | 72780.0000 | 0.9907 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0010 | ppm | 0.0038 | 0.38 | 165000.0000 | 1.0010 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.0230 | ppm | 0.0238 | 0.47 | 18020.0000 | 5.0230 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9958 | ppm | 0.0040 | 0.40 | 24690.0000 | 0.9958 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0010 | ppm | 0.0037 | 0.37 | 13510.0000 | 1.0010 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9941 | ppm | 0.0034 | 0.34 | 5962.0000 | 0.9941 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0080 | ppm | 0.0009 | 0.09 | 35620.0000 | 1.0080 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0020 | ppm | 0.0047 | 0.47 | 4247.0000 | 1.0020 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.1500 | ppm | 0.1102 | 1.09 | 10500.0000 | 10.1500 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9969 | ppm | 0.0057 | 0.58 | 58360.0000 | 0.9969 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.0250 | ppm | 0.0081 | 0.16 | 11240.0000 | 5.0250 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9961 | ppm | 0.0042 | 0.42 | 93360.0000 | 0.9961 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9976 | ppm | 0.0013 | 0.13 | 5263.0000 | 0.9976 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.1000 | ppm | 0.0719 | 0.71 | 53540.0000 | 10.1000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9975 | ppm | 0.0033 | 0.33 | 4759.0000 | 0.9975 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0000 | ppm | 0.0061 | 0.60 | 854.5000 | 1.0000 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9993 | ppm | 0.0082 | 0.82 | 1933.0000 | 0.9993 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9987 | ppm | 0.0079 | 0.79 | 1152.0000 | 0.9987 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9969 | ppm | 0.0007 | 0.07 | 873.1000 | 0.9969 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.3240 | ppm | 0.1361 | 2.56 | 11530.0000 | 5.3240 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0070 | ppm | 0.0014 | 0.14 | 804.6000 | 1.0070 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0000 | ppm | 0.0073 | 0.73 | 312700.0000 | 1.0000 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0040 | ppm | 0.0036 | 0.36 | 108700.0000 | 1.0040 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0030 | ppm | 0.0027 | 0.27 | 1524.0000 | 1.0030 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0070 | ppm | 0.0019 | 0.19 | 26060.0000 | 1.0070 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9965 | ppm | 0.0041 | 0.41 | 2099.0000 | 0.9965 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0010 | ppm | 0.0031 | 0.31 | 23010.0000 | 1.0010 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9973 | ppm | 0.0025 | 0.25 | 69310.0000 | 0.9973 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0000 | 377900.0000 | 0.0042 | 0.42 |
| Y_R 371.029 | 1.0240 | 55180.0000 | 0.0012 | 0.12 |

Sample Name: CCB 4461458

Date: 11/2/2017 3:37:07 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -1.7550 | 0.0000 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0008 u | ppm | 0.0000 | 6.33 | -1199.0000 | -0.0008 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0044 | ppm | 0.0008 | 17.94 | 9.9050 | 0.0044 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0020 | ppm | 0.0005 | 27.23 | 20.1600 | 0.0020 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0001 | 34.25 | 1.7220 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 53.72 | 23.5300 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0072 u | ppm | 0.0062 | 86.90 | 108.8000 | -0.0072 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0000 | 35.78 | -1.6730 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0009 u | ppm | 0.0007 | 78.29 | -23.3600 | -0.0009 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0006 | ppm | 0.0005 | 79.42 | 4.7990 | 0.0006 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0016 | ppm | 0.0004 | 22.50 | 221.6000 | 0.0016 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0013 | ppm | 0.0003 | 18.94 | 9.6200 | 0.0013 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0913 | ppm | 0.0924 | > 100.00 | 25.6000 | 0.0913 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0049 | ppm | 0.0004 | 8.05 | 298.6000 | 0.0049 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0038 | ppm | 0.0013 | 35.04 | 16.4700 | 0.0038 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0001 | 83.73 | 82.5200 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0038 | ppm | 0.0002 | 5.61 | 25.9000 | 0.0038 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0068 | ppm | 0.0083 | > 100.00 | 1590.0000 | 0.0068 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0009 u | ppm | 0.0007 | 75.19 | -4.2730 | -0.0009 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0072 | ppm | 0.0052 | 72.29 | -7.3100 | 0.0072 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0002 u | ppm | 0.0001 | 41.23 | -5.4960 | -0.0002 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0089 | ppm | 0.0074 | 83.54 | 5.2710 | 0.0089 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0034 | ppm | 0.0010 | 30.87 | 0.7719 | 0.0034 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0114 | ppm | 0.0026 | 23.19 | 42.6900 | 0.0114 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0042 | ppm | 0.0006 | 15.44 | -0.0896 | 0.0042 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0000 | 33.38 | 49.0800 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0013 | ppm | 0.0003 | 20.79 | 40.7800 | 0.0013 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0034 | ppm | 0.0012 | 35.44 | -1.0180 | 0.0034 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0005 | ppm | 0.0001 | 14.19 | 53.8100 | 0.0005 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0016 | ppm | 0.0011 | 65.09 | -3.6730 | 0.0016 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0031 u | ppm | 0.0000 | 1.59 | 10.0100 | -0.0031 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 27.33 | -28.7300 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0090 | 381200.0000 | 0.0017 | 0.17 |
| Y_R 371.029 | 1.0260 | 55250.0000 | 0.0022 | 0.21 |

Sample Name: mb 440-438847/1-a

Date: 11/2/2017 3:48:21 PM Rack:Tube: 2:60

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0004 | ppm | 0.0002 | 39.31 | 14.2700 | 0.0004 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0015 | ppm | 0.0006 | 37.71 | -1152.0000 | 0.0015 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0049 | ppm | 0.0012 | 24.79 | 10.3200 | 0.0049 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0010 | ppm | 0.0000 | 4.79 | 9.2010 | 0.0010 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0000 | ppm | 0.0000 | > 100.00 | -8.1630 | 0.0000 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 49.08 | -3.9450 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0120 u | ppm | 0.0007 | 5.51 | 91.6500 | -0.0120 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 | ppm | 0.0000 | 42.95 | -3.1410 | 0.0000 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0008 u | ppm | 0.0003 | 38.81 | -21.4200 | -0.0008 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 | ppm | 0.0002 | 93.92 | 2.3510 | 0.0002 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0010 | ppm | 0.0003 | 33.00 | 199.3000 | 0.0010 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0033 u | ppm | 0.0011 | 34.44 | -9.9740 | -0.0033 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0277 u | ppm | 0.0836 | > 100.00 | -40.5400 | 0.0277 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0044 | ppm | 0.0024 | 55.56 | 271.8000 | 0.0044 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0017 | ppm | 0.0003 | 19.98 | 11.6300 | 0.0017 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0001 | 75.33 | 77.2700 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0010 u | ppm | 0.0000 | 2.71 | 0.2877 | -0.0010 u (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0383 u | ppm | 0.0083 | 21.67 | 1358.0000 | -0.0383 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0003 u | ppm | 0.0010 | > 100.00 | 1.7450 | 0.0003 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0036 | ppm | 0.0034 | 94.65 | -10.5100 | 0.0036 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0006 u | ppm | 0.0008 | > 100.00 | -6.1940 | -0.0006 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0037 | ppm | 0.0040 | > 100.00 | -0.6402 | 0.0037 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0019 | ppm | 0.0017 | 89.05 | -0.5534 | 0.0019 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0038 | ppm | 0.0000 | 0.75 | 25.9300 | 0.0038 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0021 | ppm | 0.0007 | 35.73 | -1.7800 | 0.0021 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0001 | 69.33 | 23.3700 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0000 | 51.23 | -93.2400 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0008 | ppm | 0.0004 | 58.07 | -5.1640 | 0.0008 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0004 | ppm | 0.0002 | 51.28 | 51.0100 | 0.0004 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0006 | ppm | 0.0002 | 27.22 | -5.8850 | 0.0006 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0026 u | ppm | 0.0001 | 4.83 | 21.2100 | -0.0026 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | -38.1100 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9959 | 376300.0000 | 0.0022 | 0.22 |
| Y_R 371.029 | 1.0090 | 54350.0000 | 0.0228 | 2.26 |

Sample Name: lcs 440-438847/2-a

Date: 11/2/2017 3:50:27 PM Rack:Tube: 3:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4683 | ppm | 0.0019 | 0.40 | 16190.0000 | 0.4683 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.9275 | ppm | 0.0014 | 0.15 | 20360.0000 | 0.9275 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9280 | ppm | 0.0029 | 0.32 | 748.5000 | 0.9280 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9292 | ppm | 0.0014 | 0.15 | 10290.0000 | 0.9292 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9263 | ppm | 0.0142 | 1.54 | 68050.0000 | 0.9263 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9309 | ppm | 0.0000 | 0.00 | 153500.0000 | 0.9309 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.6910 | ppm | 0.0474 | 1.01 | 16840.0000 | 4.6910 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9274 | ppm | 0.0001 | 0.01 | 23000.0000 | 0.9274 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9375 | ppm | 0.0010 | 0.11 | 12650.0000 | 0.9375 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9304 | ppm | 0.0017 | 0.18 | 5580.0000 | 0.9304 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9522 | ppm | 0.0046 | 0.48 | 33640.0000 | 0.9522 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9414 | ppm | 0.0045 | 0.48 | 3991.0000 | 0.9414 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.3820 | ppm | 0.0453 | 0.48 | 9705.0000 | 9.3820 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9400 | ppm | 0.0091 | 0.97 | 55030.0000 | 0.9400 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.6630 | ppm | 0.0612 | 1.31 | 10430.0000 | 4.6630 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9331 | ppm | 0.0003 | 0.04 | 87460.0000 | 0.9331 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9424 | ppm | 0.0014 | 0.14 | 4972.0000 | 0.9424 (ppm) | Y 371.029 |
| Na (589.592 nm) | 9.3340 | ppm | 0.0648 | 0.69 | 49610.0000 | 9.3340 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9336 | ppm | 0.0008 | 0.08 | 4454.0000 | 0.9336 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9280 | ppm | 0.0033 | 0.36 | 791.1000 | 0.9280 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9350 | ppm | 0.0005 | 0.05 | 1808.0000 | 0.9350 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9495 | ppm | 0.0049 | 0.51 | 1095.0000 | 0.9495 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9031 | ppm | 0.0009 | 0.10 | 791.0000 | 0.9031 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.8410 | ppm | 0.1446 | 2.99 | 10490.0000 | 4.8410 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9291 | ppm | 0.0016 | 0.17 | 742.2000 | 0.9291 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9414 | ppm | 0.0026 | 0.28 | 294400.0000 | 0.9414 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9413 | ppm | 0.0003 | 0.03 | 101900.0000 | 0.9413 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9320 | ppm | 0.0039 | 0.42 | 1415.0000 | 0.9320 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9428 | ppm | 0.0005 | 0.05 | 24400.0000 | 0.9428 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9391 | ppm | 0.0042 | 0.44 | 1977.0000 | 0.9391 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9261 | ppm | 0.0011 | 0.12 | 21300.0000 | 0.9261 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9359 | ppm | 0.0016 | 0.17 | 65040.0000 | 0.9359 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9825 | 371300.0000 | 0.0013 | 0.13 |
| Y_R 371.029 | 1.0110 | 54450.0000 | 0.0134 | 1.32 |

Sample Name: 440-195132-e-7-a

Date: 11/2/2017 3:52:32 PM Rack:Tube: 3:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0007 u | ppm | 0.0004 | 56.06 | -29.6500 | -0.0007 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0252 | ppm | 0.0006 | 2.18 | -590.9000 | 0.0252 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0058 | ppm | 0.0043 | 74.32 | 10.8500 | 0.0058 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1253 | ppm | 0.0005 | 0.40 | 1400.0000 | 0.1253 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0581 | ppm | 0.0006 | 0.96 | 4262.0000 | 0.0581 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 82.03 | 22.5400 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 62.6600 | ppm | 0.3114 | 0.50 | 223300.0000 | 62.6600 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0003 | ppm | 0.0002 | 82.65 | 3.0270 | 0.0003 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0005 | ppm | 0.0000 | 2.64 | -2.5710 | 0.0005 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0012 | ppm | 0.0001 | 11.15 | 9.2990 | 0.0012 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0006 | ppm | 0.0002 | 38.15 | 141.8000 | 0.0006 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0256 | ppm | 0.0045 | 17.68 | 113.7000 | 0.0256 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 3.1570 | ppm | 0.1549 | 4.91 | 3224.0000 | 3.1570 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0034 | ppm | 0.0000 | 0.79 | 310.0000 | 0.0034 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 8.8560 | ppm | 0.0333 | 0.38 | 19810.0000 | 8.8560 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.3019 | ppm | 0.0000 | 0.00 | 28190.0000 | 0.3019 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0030 | ppm | 0.0003 | 9.77 | 21.4300 | 0.0030 (ppm) | Y 371.029 |
| Na (589.592 nm) | 33.3200 | ppm | 0.1333 | 0.40 | 172900.0000 | 33.3200 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0010 u | ppm | 0.0006 | 57.36 | -5.9140 | -0.0010 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0111 | ppm | 0.0026 | 23.24 | -4.4100 | 0.0111 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0010 u | ppm | 0.0004 | 38.55 | -6.2630 | -0.0010 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0097 | ppm | 0.0034 | 34.97 | 6.4960 | 0.0097 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0028 | ppm | 0.0023 | 80.09 | 0.0315 | 0.0028 (ppm) | Y 371.029 |
| Si (251.611 nm) | 10.1700 | ppm | 0.0312 | 0.31 | 21680.0000 | 10.1700 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0028 | ppm | 0.0017 | 60.94 | -1.1700 | 0.0028 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.6320 | ppm | 0.0032 | 0.51 | 198200.0000 | 0.6320 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0012 | ppm | 0.0003 | 28.33 | -26.5900 | 0.0012 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0010 u | ppm | 0.0012 | > 100.00 | -7.6440 | -0.0010 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0017 u | ppm | 0.0001 | 6.79 | 62.1800 | -0.0017 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0011 | ppm | 0.0008 | 66.96 | -5.9560 | 0.0011 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0024 u | ppm | 0.0000 | 1.75 | 36.1300 | -0.0024 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0006 | ppm | 0.0001 | 21.54 | 10.2700 | 0.0006 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9722 | 367400.0000 | 0.0005 | 0.06 |
| Y_R 371.029 | 1.0100 | 54400.0000 | 0.0039 | 0.38 |

Sample Name: 440-195132-e-7-b ms

Date: 11/2/2017 3:54:37 PM Rack:Tube: 3:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4636 | ppm | 0.0005 | 0.10 | 16020.0000 | 0.4636 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.9616 | ppm | 0.0035 | 0.36 | 21150.0000 | 0.9616 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9412 | ppm | 0.0046 | 0.48 | 759.1000 | 0.9412 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0620 | ppm | 0.0027 | 0.26 | 11780.0000 | 1.0620 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9458 | ppm | 0.0022 | 0.23 | 69490.0000 | 0.9458 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9337 | ppm | 0.0037 | 0.39 | 154000.0000 | 0.9337 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 65.8500 | ppm | 0.3797 | 0.58 | 234600.0000 | 65.8500 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9011 | ppm | 0.0026 | 0.29 | 22350.0000 | 0.9011 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.8938 | ppm | 0.0010 | 0.11 | 12060.0000 | 0.8938 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9146 | ppm | 0.0017 | 0.19 | 5486.0000 | 0.9146 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9369 | ppm | 0.0057 | 0.61 | 33060.0000 | 0.9369 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9441 | ppm | 0.0053 | 0.56 | 4004.0000 | 0.9441 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 12.4300 | ppm | 0.0658 | 0.53 | 12880.0000 | 12.4300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9190 | ppm | 0.0063 | 0.69 | 53890.0000 | 0.9190 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 13.1600 | ppm | 0.0354 | 0.27 | 29430.0000 | 13.1600 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.2010 | ppm | 0.0042 | 0.35 | 112400.0000 | 1.2010 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9446 | ppm | 0.0013 | 0.14 | 4983.0000 | 0.9446 (ppm) | Y 371.029 |
| Na (589.592 nm) | 41.6800 | ppm | 0.1819 | 0.44 | 216000.0000 | 41.6800 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.8842 | ppm | 0.0020 | 0.22 | 4217.0000 | 0.8842 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9560 | ppm | 0.0011 | 0.12 | 816.6000 | 0.9560 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9005 | ppm | 0.0021 | 0.24 | 1742.0000 | 0.9005 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9591 | ppm | 0.0002 | 0.02 | 1106.0000 | 0.9591 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.8789 | ppm | 0.0036 | 0.41 | 769.7000 | 0.8789 (ppm) | Y 371.029 |
| Si (251.611 nm) | 14.6300 | ppm | 0.1695 | 1.16 | 31330.0000 | 14.6300 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9267 | ppm | 0.0064 | 0.69 | 740.3000 | 0.9267 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.5280 | ppm | 0.0104 | 0.68 | 478500.0000 | 1.5280 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9409 | ppm | 0.0028 | 0.30 | 101800.0000 | 0.9409 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.8865 | ppm | 0.0096 | 1.08 | 1344.0000 | 0.8865 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9423 | ppm | 0.0032 | 0.34 | 24450.0000 | 0.9423 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9424 | ppm | 0.0051 | 0.54 | 1982.0000 | 0.9424 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.8913 | ppm | 0.0024 | 0.27 | 20520.0000 | 0.8913 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9278 | ppm | 0.0033 | 0.35 | 64480.0000 | 0.9278 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9648 | 364600.0000 | 0.0009 | 0.09 |
| Y_R 371.029 | 1.0010 | 53940.0000 | 0.0044 | 0.44 |

Sample Name: 440-195132-e-7-c msd

Date: 11/2/2017 3:56:42 PM Rack:Tube: 3:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4726 | ppm | 0.0012 | 0.26 | 16330.0000 | 0.4726 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.9793 | ppm | 0.0030 | 0.30 | 21560.0000 | 0.9793 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9566 | ppm | 0.0012 | 0.13 | 771.3000 | 0.9566 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0780 | ppm | 0.0037 | 0.34 | 11950.0000 | 1.0780 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9717 | ppm | 0.0064 | 0.66 | 71390.0000 | 0.9717 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9508 | ppm | 0.0034 | 0.36 | 156800.0000 | 0.9508 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 66.6200 | ppm | 0.0165 | 0.02 | 237400.0000 | 66.6200 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9172 | ppm | 0.0014 | 0.15 | 22750.0000 | 0.9172 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9062 | ppm | 0.0034 | 0.37 | 12230.0000 | 0.9062 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9342 | ppm | 0.0017 | 0.18 | 5604.0000 | 0.9342 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9560 | ppm | 0.0023 | 0.24 | 33730.0000 | 0.9560 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9702 | ppm | 0.0027 | 0.28 | 4114.0000 | 0.9702 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 12.6600 | ppm | 0.0491 | 0.39 | 13130.0000 | 12.6600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9437 | ppm | 0.0034 | 0.36 | 55340.0000 | 0.9437 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 13.3400 | ppm | 0.0658 | 0.49 | 29840.0000 | 13.3400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.2180 | ppm | 0.0036 | 0.29 | 114000.0000 | 1.2180 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9626 | ppm | 0.0028 | 0.29 | 5078.0000 | 0.9626 (ppm) | Y 371.029 |
| Na (589.592 nm) | 42.0300 | ppm | 0.0734 | 0.17 | 217800.0000 | 42.0300 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9013 | ppm | 0.0038 | 0.42 | 4299.0000 | 0.9013 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9663 | ppm | 0.0018 | 0.18 | 825.1000 | 0.9663 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9154 | ppm | 0.0033 | 0.36 | 1771.0000 | 0.9154 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9730 | ppm | 0.0047 | 0.48 | 1122.0000 | 0.9730 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.8926 | ppm | 0.0060 | 0.68 | 781.8000 | 0.8926 (ppm) | Y 371.029 |
| Si (251.611 nm) | 14.7800 | ppm | 0.1690 | 1.14 | 31650.0000 | 14.7800 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9392 | ppm | 0.0075 | 0.80 | 750.4000 | 0.9392 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.5560 | ppm | 0.0115 | 0.74 | 487300.0000 | 1.5560 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9560 | ppm | 0.0016 | 0.17 | 103500.0000 | 0.9560 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9094 | ppm | 0.0067 | 0.74 | 1379.0000 | 0.9094 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9610 | ppm | 0.0027 | 0.28 | 24930.0000 | 0.9610 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9537 | ppm | 0.0024 | 0.25 | 2006.0000 | 0.9537 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9072 | ppm | 0.0024 | 0.26 | 20880.0000 | 0.9072 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9417 | ppm | 0.0023 | 0.24 | 65450.0000 | 0.9417 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9637 | 364200.0000 | 0.0026 | 0.27 |
| Y_R 371.029 | 0.9906 | 53360.0000 | 0.0060 | 0.61 |

Sample Name: 440-195132-e-7-a sd@5

Date: 11/2/2017 3:58:47 PM Rack:Tube: 3:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0001 u | ppm | 0.0003 | > 100.00 | -4.7900 | -0.0001 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0112 | ppm | 0.0002 | 1.56 | -925.7000 | 0.0112 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0047 | ppm | 0.0037 | 79.57 | 10.0700 | 0.0047 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0281 | ppm | 0.0007 | 2.56 | 313.1000 | 0.0281 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0121 | ppm | 0.0003 | 2.29 | 881.5000 | 0.0121 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0000 | 5.30 | 28.5700 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 12.5400 | ppm | 0.0406 | 0.32 | 44780.0000 | 12.5400 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0000 | 22.11 | 0.5432 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0001 u | ppm | 0.0001 | 77.77 | -12.4400 | -0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0005 | ppm | 0.0001 | 11.09 | 4.3660 | 0.0005 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0006 | ppm | 0.0006 | > 100.00 | 175.3000 | 0.0006 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0035 | ppm | 0.0009 | 25.60 | 19.2700 | 0.0035 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.6780 | ppm | 0.0124 | 1.82 | 637.9000 | 0.6780 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0042 | ppm | 0.0002 | 5.25 | 279.8000 | 0.0042 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 1.8270 | ppm | 0.0261 | 1.43 | 4094.0000 | 1.8270 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0613 | ppm | 0.0002 | 0.31 | 5782.0000 | 0.0613 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0021 | ppm | 0.0004 | 18.50 | 16.6200 | 0.0021 (ppm) | Y 371.029 |
| Na (589.592 nm) | 6.6360 | ppm | 0.0256 | 0.39 | 35690.0000 | 6.6360 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0002 u | ppm | 0.0003 | > 100.00 | -1.0020 | -0.0002 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0029 u | ppm | 0.0049 | > 100.00 | -11.3800 | 0.0029 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0009 u | ppm | 0.0016 | > 100.00 | -3.2270 | 0.0009 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0090 | ppm | 0.0010 | 11.53 | 5.4340 | 0.0090 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0015 | ppm | 0.0013 | 87.05 | -0.9116 | 0.0015 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.0340 | ppm | 0.0072 | 0.35 | 4348.0000 | 2.0340 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0033 | ppm | 0.0024 | 71.45 | -0.7584 | 0.0033 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1267 | ppm | 0.0005 | 0.38 | 39790.0000 | 0.1267 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0010 | ppm | 0.0002 | 20.15 | 3.1980 | 0.0010 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0026 | ppm | 0.0000 | 1.49 | -2.2780 | 0.0026 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | 51.8000 | -0.0001 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0016 | ppm | 0.0002 | 14.94 | -4.0120 | 0.0016 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0027 u | ppm | 0.0001 | 2.65 | 20.5800 | -0.0027 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0001 | 43.26 | -15.7600 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0090 | 381200.0000 | 0.0045 | 0.45 |
| Y_R 371.029 | 1.0300 | 55480.0000 | 0.0088 | 0.86 |

Sample Name: 440-195132-f-2-a

Date: 11/2/2017 4:00:53 PM Rack:Tube: 3:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0007 u | ppm | 0.0001 | 12.13 | -73.1800 | -0.0007 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0188 | ppm | 0.0005 | 2.41 | -617.8000 | 0.0188 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0068 | ppm | 0.0027 | 40.69 | 10.5700 | 0.0068 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.2503 | ppm | 0.0001 | 0.03 | 2800.0000 | 0.2503 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0491 | ppm | 0.0012 | 2.46 | 3616.0000 | 0.0491 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0002 | > 100.00 | 87.0100 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 377.6000 | ppm | 6.8990 | 1.83 | 1345000.0000 | 377.6000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | -1.4220 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0002 u | ppm | 0.0005 | > 100.00 | -6.7590 | -0.0002 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0000 u | ppm | 0.0003 | > 100.00 | 7.5200 | 0.0000 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0004 | 46.54 | -61.1800 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 4.0780 | ppm | 0.0649 | 1.59 | 17290.0000 | 4.0780 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 7.0970 | ppm | 0.0906 | 1.28 | 7363.0000 | 7.0970 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0049 | ppm | 0.0018 | 36.53 | 889.0000 | 0.0049 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 33.8400 | ppm | 0.8738 | 2.58 | 75690.0000 | 33.8400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0675 | ppm | 0.0000 | 0.07 | 7007.0000 | 0.0675 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0012 | ppm | 0.0001 | 4.95 | 11.9500 | 0.0012 (ppm) | Y 371.029 |
| Na (589.592 nm) | 69.5800 | ppm | 1.3770 | 1.98 | 359500.0000 | 69.5800 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0011 | ppm | 0.0006 | 52.88 | -0.7619 | 0.0011 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0044 | ppm | 0.0002 | 4.22 | -14.3200 | 0.0044 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0026 u | ppm | 0.0008 | 29.58 | -6.9130 | -0.0026 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0002 u | ppm | 0.0026 | > 100.00 | -3.6960 | -0.0002 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0095 | ppm | 0.0006 | 6.67 | 2.9990 | 0.0095 (ppm) | Y 371.029 |
| Si (251.611 nm) | 16.0500 | ppm | 0.1095 | 0.68 | 34200.0000 | 16.0500 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0007 u | ppm | 0.0019 | > 100.00 | -4.0280 | -0.0007 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 3.5220 | ppm | 0.0596 | 1.69 | 1105000.0000 | 3.5220 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | -422.3000 | 0.0001 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0016 u | ppm | 0.0021 | > 100.00 | -11.2500 | -0.0016 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0127 u | ppm | 0.0004 | 3.23 | 103.3000 | -0.0127 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0008 u | ppm | 0.0010 | > 100.00 | -16.4500 | -0.0008 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0045 u | ppm | 0.0000 | 0.39 | 24.4900 | -0.0045 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0002 u | ppm | 0.0000 | 6.60 | -0.5075 | -0.0002 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9206 | 347900.0000 | 0.0023 | 0.25 |
| Y_R 371.029 | 0.9656 | 52010.0000 | 0.0236 | 2.45 |

Sample Name: 440-195132-f-3-a

Date: 11/2/2017 4:02:57 PM Rack:Tube: 3:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0007 u | ppm | 0.0003 | 46.13 | -32.0900 | -0.0007 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0243 | ppm | 0.0003 | 1.36 | -610.3000 | 0.0243 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0027 | ppm | 0.0030 | > 100.00 | 8.3150 | 0.0027 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1519 | ppm | 0.0009 | 0.59 | 1698.0000 | 0.1519 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1001 | ppm | 0.0010 | 1.02 | 7353.0000 | 0.1001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -0.1901 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 67.3600 | ppm | 0.4929 | 0.73 | 240000.0000 | 67.3600 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | -1.6410 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0001 u | ppm | 0.0002 | > 100.00 | -11.4800 | -0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0006 | ppm | 0.0004 | 65.25 | 6.1020 | 0.0006 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0005 | ppm | 0.0002 | 37.22 | 136.3000 | 0.0005 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0389 | ppm | 0.0007 | 1.88 | 170.3000 | 0.0389 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 4.2190 | ppm | 0.0519 | 1.23 | 4331.0000 | 4.2190 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0075 | ppm | 0.0014 | 18.47 | 569.5000 | 0.0075 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 10.1600 | ppm | 0.1230 | 1.21 | 22740.0000 | 10.1600 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1295 | ppm | 0.0001 | 0.06 | 12160.0000 | 0.1295 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0015 | ppm | 0.0003 | 19.38 | 13.2800 | 0.0015 (ppm) | Y 371.029 |
| Na (589.592 nm) | 37.9400 | ppm | 0.2550 | 0.67 | 196700.0000 | 37.9400 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0017 u | ppm | 0.0010 | 57.93 | -9.1300 | -0.0017 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.3003 | ppm | 0.0011 | 0.37 | 262.5000 | 0.3003 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0008 u | ppm | 0.0013 | > 100.00 | -5.8410 | -0.0008 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0049 | ppm | 0.0023 | 47.15 | 0.9114 | 0.0049 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0056 | ppm | 0.0010 | 18.10 | 2.3260 | 0.0056 (ppm) | Y 371.029 |
| Si (251.611 nm) | 11.7500 | ppm | 0.0103 | 0.09 | 25050.0000 | 11.7500 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0044 | ppm | 0.0023 | 52.74 | 0.1234 | 0.0044 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.8387 | ppm | 0.0064 | 0.76 | 262900.0000 | 0.8387 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0001 | 51.02 | -131.5000 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0007 | ppm | 0.0003 | 40.59 | -5.3770 | 0.0007 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0018 u | ppm | 0.0001 | 3.21 | 64.4800 | -0.0018 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0001 u | ppm | 0.0012 | > 100.00 | -8.6070 | -0.0001 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0019 u | ppm | 0.0000 | 0.16 | 48.9100 | -0.0019 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 4.65 | -14.0500 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9547 | 360800.0000 | 0.0072 | 0.75 |
| Y_R 371.029 | 0.9918 | 53430.0000 | 0.0175 | 1.77 |

Sample Name: 440-195132-f-4-a

Date: 11/2/2017 4:05:03 PM Rack:Tube: 3:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0010 u | ppm | 0.0002 | 15.38 | -48.8700 | -0.0010 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0203 | ppm | 0.0005 | 2.36 | -676.3000 | 0.0203 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0032 | ppm | 0.0018 | 54.78 | 8.6690 | 0.0032 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1756 | ppm | 0.0005 | 0.31 | 1963.0000 | 0.1756 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0571 | ppm | 0.0003 | 0.56 | 4191.0000 | 0.0571 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 39.07 | -2.4710 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 100.3000 | ppm | 0.2216 | 0.22 | 357100.0000 | 100.3000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 u | ppm | 0.0004 | > 100.00 | -1.3770 | 0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0002 u | ppm | 0.0001 | 61.60 | -11.6400 | -0.0002 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0013 | ppm | 0.0004 | 29.07 | 10.4800 | 0.0013 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0005 | ppm | 0.0001 | 9.52 | 116.1000 | 0.0005 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0058 | ppm | 0.0012 | 21.21 | 31.5400 | 0.0058 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 6.3390 | ppm | 0.0128 | 0.20 | 6544.0000 | 6.3390 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0076 | ppm | 0.0028 | 36.62 | 655.1000 | 0.0076 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 21.0900 | ppm | 0.1477 | 0.70 | 47170.0000 | 21.0900 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0389 | ppm | 0.0000 | 0.05 | 3764.0000 | 0.0389 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0032 | ppm | 0.0010 | 31.73 | 22.4800 | 0.0032 (ppm) | Y 371.029 |
| Na (589.592 nm) | 57.2800 | ppm | 0.1413 | 0.25 | 296200.0000 | 57.2800 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0003 u | ppm | 0.0001 | 51.39 | -2.8750 | -0.0003 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.4752 | ppm | 0.0015 | 0.31 | 423.6000 | 0.4752 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0023 u | ppm | 0.0022 | 94.16 | -8.3800 | -0.0023 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0042 | ppm | 0.0020 | 46.87 | 0.1875 | 0.0042 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0029 u | ppm | 0.0050 | > 100.00 | -0.1879 | 0.0029 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.0210 | ppm | 0.0157 | 0.39 | 8587.0000 | 4.0210 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0010 u | ppm | 0.0019 | > 100.00 | -2.6520 | 0.0010 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.5030 | ppm | 0.0138 | 0.92 | 471000.0000 | 1.5030 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | -177.3000 | 0.0001 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0021 u | ppm | 0.0003 | 14.84 | -10.1200 | -0.0021 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0030 u | ppm | 0.0002 | 7.21 | 68.3200 | -0.0030 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0143 | ppm | 0.0003 | 1.91 | 20.8800 | 0.0143 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0032 u | ppm | 0.0001 | 4.54 | 26.8800 | -0.0032 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0002 | 80.73 | -7.5460 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9489 | 358600.0000 | 0.0019 | 0.20 |
| Y_R 371.029 | 0.9954 | 53620.0000 | 0.0067 | 0.67 |

Sample Name: 440-195132-f-5-a

Date: 11/2/2017 4:07:08 PM Rack:Tube: 3:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0009 u | ppm | 0.0000 | 0.22 | -38.2700 | -0.0009 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0178 | ppm | 0.0005 | 2.90 | -760.1000 | 0.0178 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0003 u | ppm | 0.0029 | > 100.00 | 6.4170 | 0.0003 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1271 | ppm | 0.0001 | 0.11 | 1421.0000 | 0.1271 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1134 | ppm | 0.0018 | 1.56 | 8326.0000 | 0.1134 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 46.20 | 0.1103 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 62.5200 | ppm | 0.7694 | 1.23 | 222800.0000 | 62.5200 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 | ppm | 0.0001 | > 100.00 | -2.6290 | 0.0000 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0001 u | ppm | 0.0001 | 98.45 | -11.0700 | -0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0006 | ppm | 0.0005 | 80.78 | 5.8290 | 0.0006 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0007 | ppm | 0.0000 | 3.37 | 145.0000 | 0.0007 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0163 | ppm | 0.0036 | 21.81 | 74.2800 | 0.0163 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 3.4990 | ppm | 0.0460 | 1.31 | 3580.0000 | 3.4990 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0053 | ppm | 0.0026 | 48.31 | 422.0000 | 0.0053 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 6.5260 | ppm | 0.0853 | 1.31 | 14600.0000 | 6.5260 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1898 | ppm | 0.0004 | 0.19 | 17760.0000 | 0.1898 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0018 | ppm | 0.0016 | 87.55 | 15.0100 | 0.0018 (ppm) | Y 371.029 |
| Na (589.592 nm) | 34.8400 | ppm | 0.4057 | 1.16 | 180800.0000 | 34.8400 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0012 u | ppm | 0.0006 | 50.50 | -6.7260 | -0.0012 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0110 | ppm | 0.0021 | 19.41 | -4.4200 | 0.0110 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0021 u | ppm | 0.0010 | 48.28 | -8.6070 | -0.0021 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0020 | ppm | 0.0014 | 70.42 | -2.4350 | 0.0020 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0060 | ppm | 0.0049 | 82.49 | 2.6790 | 0.0060 (ppm) | Y 371.029 |
| Si (251.611 nm) | 9.1840 | ppm | 0.0116 | 0.13 | 19570.0000 | 9.1840 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0010 u | ppm | 0.0001 | 6.03 | -4.2070 | -0.0010 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.6221 | ppm | 0.0079 | 1.27 | 195200.0000 | 0.6221 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0000 | 15.98 | -146.1000 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0009 u | ppm | 0.0016 | > 100.00 | -4.9680 | 0.0009 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0009 u | ppm | 0.0006 | 66.06 | 84.3600 | -0.0009 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0012 u | ppm | 0.0000 | 3.71 | -10.7700 | -0.0012 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0035 | ppm | 0.0000 | 0.69 | 168.0000 | 0.0035 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | -20.4800 | 0.0001 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9628 | 363900.0000 | 0.0016 | 0.16 |
| Y_R 371.029 | 0.9988 | 53810.0000 | 0.0127 | 1.28 |

Sample Name: CCV 4461459

Date: 11/2/2017 4:09:12 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5033 | ppm | 0.0024 | 0.47 | 17400.0000 | 0.5033 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0080 | ppm | 0.0029 | 0.29 | 22220.0000 | 1.0080 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0070 | ppm | 0.0051 | 0.50 | 812.1000 | 1.0070 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0090 | ppm | 0.0027 | 0.27 | 11170.0000 | 1.0090 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9988 | ppm | 0.0114 | 1.14 | 73380.0000 | 0.9988 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0080 | ppm | 0.0025 | 0.25 | 166300.0000 | 1.0080 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.0610 | ppm | 0.0098 | 0.19 | 18150.0000 | 5.0610 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0020 | ppm | 0.0026 | 0.26 | 24840.0000 | 1.0020 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0060 | ppm | 0.0037 | 0.37 | 13580.0000 | 1.0060 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9994 | ppm | 0.0001 | 0.01 | 5994.0000 | 0.9994 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0160 | ppm | 0.0004 | 0.04 | 35900.0000 | 1.0160 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0050 | ppm | 0.0034 | 0.33 | 4262.0000 | 1.0050 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.1500 | ppm | 0.0241 | 0.24 | 10510.0000 | 10.1500 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0070 | ppm | 0.0072 | 0.72 | 58930.0000 | 1.0070 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.0540 | ppm | 0.0635 | 1.26 | 11310.0000 | 5.0540 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0010 | ppm | 0.0026 | 0.26 | 93850.0000 | 1.0010 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9999 | ppm | 0.0026 | 0.26 | 5275.0000 | 0.9999 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.0400 | ppm | 0.0838 | 0.84 | 53240.0000 | 10.0400 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0030 | ppm | 0.0023 | 0.23 | 4786.0000 | 1.0030 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0080 | ppm | 0.0042 | 0.42 | 861.4000 | 1.0080 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0070 | ppm | 0.0017 | 0.16 | 1948.0000 | 1.0070 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0160 | ppm | 0.0143 | 1.41 | 1172.0000 | 1.0160 (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0030 | ppm | 0.0025 | 0.25 | 878.5000 | 1.0030 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.3130 | ppm | 0.1372 | 2.58 | 11510.0000 | 5.3130 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0050 | ppm | 0.0031 | 0.31 | 803.4000 | 1.0050 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0100 | ppm | 0.0170 | 1.68 | 315800.0000 | 1.0100 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0090 | ppm | 0.0027 | 0.27 | 109300.0000 | 1.0090 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0110 | ppm | 0.0004 | 0.04 | 1536.0000 | 1.0110 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0130 | ppm | 0.0006 | 0.06 | 26220.0000 | 1.0130 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0040 | ppm | 0.0030 | 0.30 | 2114.0000 | 1.0040 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0070 | ppm | 0.0026 | 0.26 | 23160.0000 | 1.0070 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0040 | ppm | 0.0029 | 0.29 | 69790.0000 | 1.0040 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9957 | 376300.0000 | 0.0058 | 0.58 |
| Y_R 371.029 | 1.0180 | 54850.0000 | 0.0077 | 0.75 |

Sample Name: CCB 4461458

Date: 11/2/2017 4:11:16 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0003 | ppm | 0.0002 | 56.41 | 10.5000 | 0.0003 (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0003 u | ppm | 0.0006 | > 100.00 | -1189.0000 | -0.0003 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0032 | ppm | 0.0024 | 75.15 | 8.9110 | 0.0032 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0014 | ppm | 0.0007 | 49.94 | 14.1300 | 0.0014 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0001 | 62.75 | 5.1110 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 66.19 | 25.6300 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0200 u | ppm | 0.0030 | 15.20 | 63.1900 | -0.0200 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 91.93 | -0.8241 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0007 u | ppm | 0.0006 | 78.75 | -20.7500 | -0.0007 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0008 | ppm | 0.0005 | 67.01 | 6.0210 | 0.0008 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0014 | ppm | 0.0004 | 26.45 | 213.5000 | 0.0014 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0006 | ppm | 0.0004 | 56.42 | 6.6880 | 0.0006 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0385 u | ppm | 0.1037 | > 100.00 | -29.3600 | 0.0385 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0058 | ppm | 0.0004 | 6.57 | 355.1000 | 0.0058 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0013 | ppm | 0.0010 | 72.41 | 10.8500 | 0.0013 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0001 | 60.40 | 80.3800 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0041 | ppm | 0.0002 | 4.15 | 27.3900 | 0.0041 (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0728 u | ppm | 0.0124 | 17.00 | 1181.0000 | -0.0728 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0003 u | ppm | 0.0007 | > 100.00 | 1.4930 | 0.0003 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0038 | ppm | 0.0047 | > 100.00 | -10.4600 | 0.0038 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0011 u | ppm | 0.0008 | 67.54 | -7.2630 | -0.0011 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0057 | ppm | 0.0020 | 34.43 | 1.5640 | 0.0057 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0018 u | ppm | 0.0017 | 92.79 | -3.8020 | -0.0018 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0111 | ppm | 0.0045 | 40.38 | 41.7100 | 0.0111 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0022 | ppm | 0.0008 | 35.21 | -1.6400 | 0.0022 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 | ppm | 0.0000 | 68.57 | 77.6000 | 0.0000 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0014 | ppm | 0.0002 | 17.00 | 53.9900 | 0.0014 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0010 u | ppm | 0.0024 | > 100.00 | -4.8340 | 0.0010 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0004 | ppm | 0.0005 | > 100.00 | 50.4000 | 0.0004 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0024 | ppm | 0.0010 | 40.75 | -2.1310 | 0.0024 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0032 u | ppm | 0.0001 | 2.97 | 8.6440 | -0.0032 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0001 | 36.94 | -17.1600 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0040 | 379300.0000 | 0.0035 | 0.34 |
| Y_R 371.029 | 1.0180 | 54840.0000 | 0.0051 | 0.50 |

Sample Name: 440-195456-1 ICPMS SE

Date: 11/2/2017 4:18:29 PM Rack:Tube: 3:45

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0007 u | ppm | 0.0000 | 3.04 | -33.3800 | -0.0007 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 3.2310 | ppm | 0.0008 | 0.03 | 71180.0000 | 3.2310 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1251 | ppm | 0.0003 | 0.24 | 106.6000 | 0.1251 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.3224 | ppm | 0.0003 | 0.08 | 3587.0000 | 0.3224 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.2747 | ppm | 0.0079 | 2.87 | 20180.0000 | 0.2747 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | 26.59 | 297.4000 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 40.5900 | ppm | 1.1430 | 2.82 | 144700.0000 | 40.5900 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.1142 | ppm | 0.0003 | 0.29 | 2833.0000 | 0.1142 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.1186 | ppm | 0.0005 | 0.44 | 1591.0000 | 0.1186 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1187 | ppm | 0.0001 | 0.10 | 713.4000 | 0.1187 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1500 | ppm | 0.0005 | 0.32 | 5420.0000 | 0.1500 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 13.1300 | ppm | 0.3542 | 2.70 | 55660.0000 | 13.1300 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 19.4300 | ppm | 0.5860 | 3.02 | 20160.0000 | 19.4300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1893 | ppm | 0.0063 | 3.33 | 11220.0000 | 0.1893 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 15.9400 | ppm | 0.4625 | 2.90 | 35650.0000 | 15.9400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1615 | ppm | 0.0002 | 0.12 | 16910.0000 | 0.1615 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.1380 | ppm | 0.0003 | 0.21 | 733.6000 | 0.1380 (ppm) | Y 371.029 |
| Na (589.592 nm) | 529.7000 | ppm | 12.0600 | 2.28 | 2726000.0000 | 529.7000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1244 | ppm | 0.0007 | 0.56 | 593.1000 | 0.1244 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.5705 | ppm | 0.0041 | 0.73 | 504.3000 | 0.5705 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.1161 | ppm | 0.0001 | 0.06 | 220.1000 | 0.1161 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0052 | ppm | 0.0019 | 36.49 | -0.4195 | 0.0052 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3685 | ppm | 0.0067 | 1.82 | 316.2000 | 0.3685 (ppm) | Y 371.029 |
| Si (251.611 nm) | 3.3370 | ppm | 0.0053 | 0.16 | 7135.0000 | 3.3370 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0010 u | ppm | 0.0019 | > 100.00 | -4.1590 | -0.0010 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.7980 | ppm | 0.0216 | 2.70 | 250000.0000 | 0.7980 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0134 | ppm | 0.0000 | 0.27 | 1315.0000 | 0.0134 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0005 u | ppm | 0.0008 | > 100.00 | -11.5400 | -0.0005 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1502 | ppm | 0.0007 | 0.43 | 3963.0000 | 0.1502 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0484 | ppm | 0.0074 | 15.37 | 97.1200 | 0.0484 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2258 | ppm | 0.0002 | 0.08 | 5254.0000 | 0.2258 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0028 | ppm | 0.0003 | 9.22 | 175.1000 | 0.0028 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9138 | 345300.0000 | 0.0014 | 0.15 |
| Y_R 371.029 | 0.9627 | 51860.0000 | 0.0284 | 2.95 |

Sample Name: 440-195132-f-6-a

Date: 11/2/2017 4:20:34 PM Rack:Tube: 3:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0005 u | ppm | 0.0002 | 36.98 | -24.1600 | -0.0005 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0179 | ppm | 0.0001 | 0.74 | -759.0000 | 0.0179 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0053 | ppm | 0.0009 | 17.58 | 10.4700 | 0.0053 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1314 | ppm | 0.0011 | 0.81 | 1469.0000 | 0.1314 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1082 | ppm | 0.0000 | 0.03 | 7948.0000 | 0.1082 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 79.26 | 0.5850 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 58.1000 | ppm | 0.1250 | 0.22 | 207000.0000 | 58.1000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | -1.2770 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0004 | > 100.00 | -13.4700 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0008 | ppm | 0.0001 | 17.56 | 7.2350 | 0.0008 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0003 | ppm | 0.0002 | 58.02 | 134.3000 | 0.0003 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0136 | ppm | 0.0007 | 4.96 | 62.7500 | 0.0136 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 3.3970 | ppm | 0.0482 | 1.42 | 3473.0000 | 3.3970 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0074 | ppm | 0.0011 | 14.63 | 540.2000 | 0.0074 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.5020 | ppm | 0.0403 | 0.73 | 12310.0000 | 5.5020 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0309 | ppm | 0.0001 | 0.40 | 2966.0000 | 0.0309 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0021 | ppm | 0.0014 | 68.65 | 16.7000 | 0.0021 (ppm) | Y 371.029 |
| Na (589.592 nm) | 30.6400 | ppm | 0.0847 | 0.28 | 159100.0000 | 30.6400 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0002 u | ppm | 0.0008 | > 100.00 | 0.0235 | 0.0002 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0068 | ppm | 0.0004 | 5.19 | -8.2760 | 0.0068 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0027 u | ppm | 0.0008 | 30.98 | -9.8150 | -0.0027 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0096 | ppm | 0.0004 | 4.39 | 6.3210 | 0.0096 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0024 | ppm | 0.0008 | 31.87 | -0.4582 | 0.0024 (ppm) | Y 371.029 |
| Si (251.611 nm) | 9.7530 | ppm | 0.0730 | 0.75 | 20790.0000 | 9.7530 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0039 | ppm | 0.0028 | 70.96 | -0.3177 | 0.0039 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5867 | ppm | 0.0015 | 0.25 | 184000.0000 | 0.5867 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -146.7000 | 0.0000 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0008 | ppm | 0.0011 | > 100.00 | -5.5090 | 0.0008 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0004 u | ppm | 0.0002 | 49.54 | 91.2800 | -0.0004 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0031 | ppm | 0.0011 | 35.70 | -1.6760 | 0.0031 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0020 u | ppm | 0.0001 | 3.74 | 41.3700 | -0.0020 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | -15.8400 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9584 | 362200.0000 | 0.0037 | 0.38 |
| Y_R 371.029 | 0.9917 | 53420.0000 | 0.0046 | 0.46 |

Sample Name: 440-195132-f-8-a

Date: 11/2/2017 4:22:39 PM Rack:Tube: 3:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0007 u | ppm | 0.0002 | 27.06 | -38.8700 | -0.0007 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0200 | ppm | 0.0003 | 1.69 | -690.8000 | 0.0200 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0042 | ppm | 0.0004 | 9.80 | 9.3850 | 0.0042 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1808 | ppm | 0.0009 | 0.49 | 2022.0000 | 0.1808 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1222 | ppm | 0.0008 | 0.66 | 8976.0000 | 0.1222 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 64.50 | -1.4300 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 105.6000 | ppm | 0.9871 | 0.93 | 376100.0000 | 105.6000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 77.75 | -0.7209 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0001 u | ppm | 0.0007 | > 100.00 | -7.7070 | 0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0007 | ppm | 0.0004 | 55.44 | 7.0040 | 0.0007 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0003 | ppm | 0.0000 | 3.32 | 104.2000 | 0.0003 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0043 | ppm | 0.0031 | 71.18 | 24.7100 | 0.0043 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 4.1080 | ppm | 0.0074 | 0.18 | 4220.0000 | 4.1080 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0076 | ppm | 0.0006 | 7.40 | 638.2000 | 0.0076 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 13.3700 | ppm | 0.1865 | 1.40 | 29890.0000 | 13.3700 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0651 | ppm | 0.0002 | 0.27 | 6176.0000 | 0.0651 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0025 | ppm | 0.0013 | 51.71 | 18.9400 | 0.0025 (ppm) | Y 371.029 |
| Na (589.592 nm) | 39.7400 | ppm | 0.3201 | 0.81 | 205900.0000 | 39.7400 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0004 u | ppm | 0.0003 | 60.15 | -3.6400 | -0.0004 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0051 | ppm | 0.0018 | 35.51 | -10.3700 | 0.0051 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0023 u | ppm | 0.0014 | 60.03 | -8.5710 | -0.0023 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0059 | ppm | 0.0001 | 2.30 | 2.1740 | 0.0059 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0029 | ppm | 0.0003 | 9.91 | -0.3419 | 0.0029 (ppm) | Y 371.029 |
| Si (251.611 nm) | 14.5500 | ppm | 0.0172 | 0.12 | 30990.0000 | 14.5500 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0025 | ppm | 0.0007 | 27.12 | -1.4580 | 0.0025 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9977 | ppm | 0.0090 | 0.90 | 313000.0000 | 0.9977 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -195.7000 | 0.0000 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0016 u | ppm | 0.0017 | > 100.00 | -9.3970 | -0.0016 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0026 u | ppm | 0.0005 | 19.70 | 83.6900 | -0.0026 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0005 u | ppm | 0.0003 | 53.67 | -10.2200 | -0.0005 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0015 | ppm | 0.0002 | 10.87 | 130.0000 | 0.0015 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | -14.4000 | 0.0001 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9456 | 357300.0000 | 0.0023 | 0.24 |
| Y_R 371.029 | 0.9820 | 52900.0000 | 0.0135 | 1.38 |

Sample Name: 440-195132-f-9-a

Date: 11/2/2017 4:24:44 PM Rack:Tube: 3:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0009 u | ppm | 0.0001 | 7.02 | -52.6600 | -0.0009 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0205 | ppm | 0.0011 | 5.23 | -648.2000 | 0.0205 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0019 | ppm | 0.0012 | 64.59 | 7.2710 | 0.0019 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1936 | ppm | 0.0014 | 0.70 | 2167.0000 | 0.1936 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0406 | ppm | 0.0004 | 0.87 | 2984.0000 | 0.0406 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | -3.3160 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 175.7000 | ppm | 0.2150 | 0.12 | 625700.0000 | 175.7000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 33.58 | 3.0310 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0007 | ppm | 0.0003 | 36.62 | 1.5030 | 0.0007 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0009 | ppm | 0.0000 | 3.50 | 9.2830 | 0.0009 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0012 | ppm | 0.0001 | 12.20 | 87.7200 | 0.0012 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0039 | ppm | 0.0002 | 4.71 | 24.4400 | 0.0039 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 4.7710 | ppm | 0.0559 | 1.17 | 4919.0000 | 4.7710 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0073 | ppm | 0.0004 | 5.73 | 727.0000 | 0.0073 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 21.8400 | ppm | 0.1222 | 0.56 | 48850.0000 | 21.8400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.3575 | ppm | 0.0009 | 0.25 | 33420.0000 | 0.3575 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0048 | ppm | 0.0009 | 18.33 | 31.0400 | 0.0048 (ppm) | Y 371.029 |
| Na (589.592 nm) | 51.9400 | ppm | 0.1146 | 0.22 | 268700.0000 | 51.9400 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0035 | ppm | 0.0006 | 16.24 | 13.6100 | 0.0035 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0077 | ppm | 0.0020 | 26.57 | -8.9610 | 0.0077 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0015 u | ppm | 0.0001 | 7.68 | -6.1220 | -0.0015 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0042 | ppm | 0.0009 | 21.67 | 0.4333 | 0.0042 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0010 u | ppm | 0.0060 | > 100.00 | -2.2580 | 0.0010 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 15.0000 | ppm | 0.0921 | 0.61 | 31970.0000 | 15.0000 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0052 | ppm | 0.0003 | 5.35 | 0.7516 | 0.0052 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.6000 | ppm | 0.0063 | 0.40 | 502000.0000 | 1.6000 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0001 u | ppm | 0.0000 | 25.70 | -267.9000 | -0.0001 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0021 u | ppm | 0.0003 | 12.43 | -10.0900 | -0.0021 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0048 u | ppm | 0.0002 | 4.80 | 98.3400 | -0.0048 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0008 u | ppm | 0.0012 | > 100.00 | -9.0350 | 0.0008 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0013 u | ppm | 0.0001 | 4.08 | 77.7400 | -0.0013 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 | ppm | 0.0000 | 29.31 | -14.0800 | 0.0000 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9402 | 355300.0000 | 0.0036 | 0.38 |
| Y_R 371.029 | 0.9687 | 52180.0000 | 0.0051 | 0.53 |

Sample Name: 440-194820-d-5-a@2

Date: 11/2/2017 4:26:48 PM Rack:Tube: 3:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0007 u | ppm | 0.0005 | 75.13 | -59.7500 | -0.0007 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0208 | ppm | 0.0005 | 2.18 | -598.2000 | 0.0208 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0010 | ppm | 0.0006 | 59.85 | 6.0970 | 0.0010 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0142 | ppm | 0.0007 | 4.76 | 161.2000 | 0.0142 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0067 | ppm | 0.0004 | 5.35 | 494.6000 | 0.0067 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 10.18 | -7.4150 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 286.5000 | ppm | 1.3290 | 0.46 | 1020000.0000 | 286.5000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 40.08 | 0.9514 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0005 | > 100.00 | -10.1000 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0126 | ppm | 0.0006 | 4.55 | 81.3800 | 0.0126 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | -24.1800 | 0.0001 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0015 | ppm | 0.0016 | > 100.00 | 16.2300 | 0.0015 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 6.0040 | ppm | 0.0623 | 1.04 | 6217.0000 | 6.0040 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0144 | ppm | 0.0003 | 2.15 | 1337.0000 | 0.0144 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 34.5600 | ppm | 0.6045 | 1.75 | 77280.0000 | 34.5600 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0010 u | ppm | 0.0000 | 4.64 | 105.3000 | -0.0010 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0004 u | ppm | 0.0010 | > 100.00 | 7.5170 | 0.0004 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 117.3000 | ppm | 0.3513 | 0.30 | 604600.0000 | 117.3000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0008 u | ppm | 0.0002 | 25.72 | -8.6040 | -0.0008 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0031 u | ppm | 0.0065 | > 100.00 | -14.3000 | 0.0031 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0023 u | ppm | 0.0004 | 17.74 | -6.7500 | -0.0023 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0027 | ppm | 0.0004 | 15.55 | -0.6275 | 0.0027 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0087 | ppm | 0.0020 | 23.54 | 3.5650 | 0.0087 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.0050 | ppm | 0.0113 | 0.23 | 10690.0000 | 5.0050 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0009 u | ppm | 0.0032 | > 100.00 | -2.7770 | 0.0009 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 6.6110 | ppm | 0.0227 | 0.34 | 2070000.0000 | 6.6110 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0002 u | ppm | 0.0000 | 3.04 | -376.0000 | -0.0002 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0023 | ppm | 0.0002 | 7.25 | -4.8340 | 0.0023 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0071 u | ppm | 0.0008 | 10.81 | 155.9000 | -0.0071 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0011 | ppm | 0.0008 | 74.98 | -10.6200 | 0.0011 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0032 u | ppm | 0.0002 | 5.21 | 47.4100 | -0.0032 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0000 | 99.02 | -3.7490 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9317 | 352100.0000 | 0.0003 | 0.03 |
| Y_R 371.029 | 0.9795 | 52760.0000 | 0.0097 | 0.99 |

Sample Name: 440-194820-d-6-a

Date: 11/2/2017 4:28:54 PM Rack:Tube: 3:14

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0012 u | ppm | 0.0006 | 55.33 | -97.5800 | -0.0012 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0145 | ppm | 0.0005 | 3.37 | -661.3000 | 0.0145 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0067 | ppm | 0.0040 | 59.27 | 9.9780 | 0.0067 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.2811 | ppm | 0.0007 | 0.24 | 3150.0000 | 0.2811 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0127 | ppm | 0.0001 | 0.66 | 945.8000 | 0.0127 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0002 u | ppm | 0.0000 | 12.87 | -11.2900 | -0.0002 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 458.2000 | ppm | 5.8400 | 1.27 | 1632000.0000 | 458.2000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 74.11 | 2.3790 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0007 u | ppm | 0.0001 | 8.67 | -13.1500 | -0.0007 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0337 | ppm | 0.0009 | 2.59 | 210.8000 | 0.0337 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0015 | ppm | 0.0001 | 6.99 | -93.1300 | 0.0015 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0003 u | ppm | 0.0005 | > 100.00 | 12.7400 | -0.0003 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 13.7800 | ppm | 0.1878 | 1.36 | 14340.0000 | 13.7800 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0297 | ppm | 0.0020 | 6.63 | 2541.0000 | 0.0297 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 61.6000 | ppm | 0.8393 | 1.36 | 137800.0000 | 61.6000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0021 u | ppm | 0.0001 | 4.89 | 98.9100 | -0.0021 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0006 u | ppm | 0.0002 | 29.17 | 2.5570 | -0.0006 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 411.6000 | ppm | 5.2160 | 1.27 | 2119000.0000 | 411.6000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0003 u | ppm | 0.0008 | > 100.00 | -8.8470 | -0.0003 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0173 | ppm | 0.0028 | 16.18 | -3.2060 | 0.0173 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0043 u | ppm | 0.0031 | 73.16 | -8.9330 | -0.0043 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0011 u | ppm | 0.0041 | > 100.00 | -4.0570 | -0.0011 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0127 | ppm | 0.0076 | 59.68 | 5.9950 | 0.0127 (ppm) | Y 371.029 |
| Si (251.611 nm) | 11.3900 | ppm | 0.0401 | 0.35 | 24280.0000 | 11.3900 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0030 u | ppm | 0.0006 | 18.66 | -5.8630 | -0.0030 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 10.1900 | ppm | 0.1298 | 1.27 | 3190000.0000 | 10.1900 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0005 u | ppm | 0.0001 | 20.60 | -555.0000 | -0.0005 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0029 | ppm | 0.0007 | 25.51 | -5.0690 | 0.0029 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0105 u | ppm | 0.0000 | 0.22 | 246.7000 | -0.0105 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0008 u | ppm | 0.0008 | 99.53 | -18.0400 | -0.0008 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0038 u | ppm | 0.0002 | 4.67 | 61.8100 | -0.0038 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0003 u | ppm | 0.0000 | 10.33 | -5.6730 | -0.0003 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8870 | 335200.0000 | 0.0022 | 0.25 |
| Y_R 371.029 | 0.9755 | 52550.0000 | 0.0186 | 1.91 |

Sample Name: 440-194889-d-2-a

Date: 11/2/2017 4:30:59 PM Rack:Tube: 3:15

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0009 u | ppm | 0.0001 | 13.68 | -90.6800 | -0.0009 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0158 | ppm | 0.0003 | 1.69 | -623.6000 | 0.0158 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0112 | ppm | 0.0037 | 32.60 | 13.6100 | 0.0112 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1437 | ppm | 0.0005 | 0.34 | 1614.0000 | 0.1437 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0118 | ppm | 0.0001 | 0.92 | 879.7000 | 0.0118 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 40.94 | -1.2570 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 482.8000 | ppm | 5.4260 | 1.12 | 1720000.0000 | 482.8000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 | ppm | 0.0000 | 8.21 | -1.0020 | 0.0000 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0007 u | ppm | 0.0007 | > 100.00 | -12.1500 | -0.0007 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0277 | ppm | 0.0004 | 1.54 | 175.5000 | 0.0277 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0016 | ppm | 0.0005 | 31.27 | -103.4000 | 0.0016 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0002 u | ppm | 0.0011 | > 100.00 | 13.5000 | -0.0002 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 12.7400 | ppm | 0.0261 | 0.21 | 13250.0000 | 12.7400 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0242 | ppm | 0.0012 | 4.83 | 2251.0000 | 0.0242 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 62.8400 | ppm | 0.3041 | 0.48 | 140500.0000 | 62.8400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0020 u | ppm | 0.0001 | 3.41 | 112.5000 | -0.0020 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0005 u | ppm | 0.0004 | 64.72 | 2.7020 | -0.0005 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 329.1000 | ppm | 6.0420 | 1.84 | 1694000.0000 | 329.1000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0002 u | ppm | 0.0002 | 78.46 | -8.9190 | -0.0002 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0196 | ppm | 0.0006 | 2.92 | -1.3540 | 0.0196 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0055 u | ppm | 0.0022 | 40.90 | -11.0000 | -0.0055 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0065 | ppm | 0.0013 | 19.61 | 4.7910 | 0.0065 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0100 | ppm | 0.0003 | 3.46 | 3.5110 | 0.0100 (ppm) | Y 371.029 |
| Si (251.611 nm) | 10.1900 | ppm | 0.0457 | 0.45 | 21740.0000 | 10.1900 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0036 u | ppm | 0.0024 | 66.36 | -6.3720 | -0.0036 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 11.0800 | ppm | 0.1282 | 1.16 | 3470000.0000 | 11.0800 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0005 u | ppm | 0.0000 | 6.81 | -578.5000 | -0.0005 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0019 | ppm | 0.0014 | 73.60 | -6.7930 | 0.0019 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0125 u | ppm | 0.0001 | 0.42 | 220.9000 | -0.0125 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0014 u | ppm | 0.0021 | > 100.00 | -19.7500 | -0.0014 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0017 u | ppm | 0.0001 | 6.00 | 112.2000 | -0.0017 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0004 u | ppm | 0.0002 | 34.94 | -9.1690 | -0.0004 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8904 | 336500.0000 | 0.0010 | 0.12 |
| Y_R 371.029 | 0.9389 | 50580.0000 | 0.0049 | 0.52 |

Sample Name: 440-194889-d-3-a

Date: 11/2/2017 4:33:03 PM Rack:Tube: 3:16

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0009 u | ppm | 0.0000 | 2.13 | -82.2200 | -0.0009 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0154 | ppm | 0.0001 | 0.52 | -649.6000 | 0.0154 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0053 | ppm | 0.0025 | 46.53 | 8.8410 | 0.0053 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4594 | ppm | 0.0011 | 0.25 | 5144.0000 | 0.4594 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0110 | ppm | 0.0001 | 0.76 | 820.5000 | 0.0110 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 2.45 | -5.6700 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 411.4000 | ppm | 2.7600 | 0.67 | 1465000.0000 | 411.4000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | -4.0460 | -0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0005 u | ppm | 0.0003 | 54.72 | -10.6700 | -0.0005 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0518 | ppm | 0.0000 | 0.04 | 319.0000 | 0.0518 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0023 | ppm | 0.0000 | 0.84 | -31.2800 | 0.0023 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0019 u | ppm | 0.0015 | 75.92 | 6.1030 | -0.0019 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 14.7600 | ppm | 0.1087 | 0.74 | 15350.0000 | 14.7600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0347 | ppm | 0.0003 | 0.78 | 2794.0000 | 0.0347 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 67.0700 | ppm | 0.2395 | 0.36 | 150000.0000 | 67.0700 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0021 u | ppm | 0.0000 | 1.14 | 113.0000 | -0.0021 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0000 u | ppm | 0.0010 | > 100.00 | 5.6420 | 0.0000 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 568.8000 | ppm | 5.8650 | 1.03 | 2927000.0000 | 568.8000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0011 u | ppm | 0.0001 | 7.84 | -12.0800 | -0.0011 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0048 | ppm | 0.0037 | 78.18 | -14.1800 | 0.0048 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0047 u | ppm | 0.0029 | 60.78 | -9.9570 | -0.0047 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0028 | ppm | 0.0013 | 48.41 | 0.3961 | 0.0028 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0109 | ppm | 0.0053 | 49.18 | 4.6300 | 0.0109 (ppm) | Y 371.029 |
| Si (251.611 nm) | 12.6800 | ppm | 0.0250 | 0.20 | 27050.0000 | 12.6800 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0018 u | ppm | 0.0006 | 32.38 | -4.9160 | -0.0018 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 9.3390 | ppm | 0.0495 | 0.53 | 2924000.0000 | 9.3390 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0003 u | ppm | 0.0001 | 26.66 | -498.3000 | -0.0003 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0003 u | ppm | 0.0013 | > 100.00 | -9.6550 | -0.0003 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0085 u | ppm | 0.0002 | 2.64 | 250.6000 | -0.0085 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0006 u | ppm | 0.0016 | > 100.00 | -16.6400 | -0.0006 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0020 u | ppm | 0.0002 | 8.33 | 101.1000 | -0.0020 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0005 u | ppm | 0.0001 | 28.86 | -19.5100 | -0.0005 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8712 | 329200.0000 | 0.0096 | 1.10 |
| Y_R 371.029 | 0.9243 | 49790.0000 | 0.0111 | 1.20 |

Sample Name: 440-194889-d-4-a

Date: 11/2/2017 4:35:09 PM Rack:Tube: 3:17

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0013 u | ppm | 0.0001 | 6.74 | -87.7800 | -0.0013 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0185 | ppm | 0.0007 | 3.94 | -613.1000 | 0.0185 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0071 | ppm | 0.0076 | > 100.00 | 10.2500 | 0.0071 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1307 | ppm | 0.0007 | 0.54 | 1466.0000 | 0.1307 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0277 | ppm | 0.0005 | 1.66 | 2043.0000 | 0.0277 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 13.67 | 3.8600 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 350.2000 | ppm | 4.6760 | 1.34 | 1247000.0000 | 350.2000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 1.1190 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0002 | 56.11 | -9.1690 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0701 | ppm | 0.0002 | 0.28 | 427.6000 | 0.0701 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0011 | ppm | 0.0001 | 7.44 | -32.6400 | 0.0011 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0003 u | ppm | 0.0013 | > 100.00 | 10.8600 | -0.0003 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 12.7300 | ppm | 0.1914 | 1.50 | 13230.0000 | 12.7300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0368 | ppm | 0.0013 | 3.56 | 2787.0000 | 0.0368 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 50.8900 | ppm | 1.0290 | 2.02 | 113800.0000 | 50.8900 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0008 u | ppm | 0.0000 | 3.15 | 179.7000 | -0.0008 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0003 | ppm | 0.0004 | > 100.00 | 7.1830 | 0.0003 (ppm) | Y 371.029 |
| Na (589.592 nm) | 311.7000 | ppm | 6.7660 | 2.17 | 1605000.0000 | 311.7000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0003 u | ppm | 0.0005 | > 100.00 | -4.2790 | 0.0003 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0052 | ppm | 0.0018 | 33.91 | -13.1100 | 0.0052 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0049 u | ppm | 0.0001 | 2.08 | -11.1600 | -0.0049 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0000 u | ppm | 0.0000 | 66.90 | -2.9030 | 0.0000 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0068 | ppm | 0.0009 | 13.02 | 1.4750 | 0.0068 (ppm) | Y 371.029 |
| Si (251.611 nm) | 11.5500 | ppm | 0.0150 | 0.13 | 24630.0000 | 11.5500 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0050 u | ppm | 0.0019 | 38.56 | -7.4370 | -0.0050 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 8.7810 | ppm | 0.1056 | 1.20 | 2749000.0000 | 8.7810 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0002 u | ppm | 0.0001 | 29.14 | -435.7000 | -0.0002 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0006 u | ppm | 0.0014 | > 100.00 | -7.9250 | 0.0006 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0059 u | ppm | 0.0002 | 4.20 | 253.4000 | -0.0059 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0020 u | ppm | 0.0010 | 49.88 | -18.3400 | -0.0020 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0012 u | ppm | 0.0001 | 4.62 | 104.5000 | -0.0012 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0002 u | ppm | 0.0000 | 5.13 | -9.6260 | -0.0002 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8970 | 339000.0000 | 0.0044 | 0.49 |
| Y_R 371.029 | 0.9427 | 50780.0000 | 0.0223 | 2.36 |

Sample Name: CCV 4461459

Date: 11/2/2017 4:37:13 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5133 | ppm | 0.0000 | 0.01 | 17740.0000 | 0.5133 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0290 | ppm | 0.0007 | 0.07 | 22690.0000 | 1.0290 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0250 | ppm | 0.0021 | 0.20 | 825.9000 | 1.0250 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0260 | ppm | 0.0002 | 0.02 | 11360.0000 | 1.0260 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0110 | ppm | 0.0136 | 1.35 | 74250.0000 | 1.0110 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0250 | ppm | 0.0005 | 0.05 | 169000.0000 | 1.0250 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.1940 | ppm | 0.0680 | 1.31 | 18630.0000 | 5.1940 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0170 | ppm | 0.0012 | 0.12 | 25230.0000 | 1.0170 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0250 | ppm | 0.0094 | 0.92 | 13830.0000 | 1.0250 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0170 | ppm | 0.0000 | 0.00 | 6100.0000 | 1.0170 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0380 | ppm | 0.0046 | 0.44 | 36680.0000 | 1.0380 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0240 | ppm | 0.0087 | 0.85 | 4340.0000 | 1.0240 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.4700 | ppm | 0.0530 | 0.51 | 10840.0000 | 10.4700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0300 | ppm | 0.0092 | 0.89 | 60310.0000 | 1.0300 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.1040 | ppm | 0.0798 | 1.56 | 11420.0000 | 5.1040 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0190 | ppm | 0.0005 | 0.05 | 95490.0000 | 1.0190 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0220 | ppm | 0.0017 | 0.16 | 5390.0000 | 1.0220 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.3900 | ppm | 0.1314 | 1.27 | 55030.0000 | 10.3900 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0190 | ppm | 0.0019 | 0.19 | 4863.0000 | 1.0190 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0260 | ppm | 0.0027 | 0.26 | 876.6000 | 1.0260 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0210 | ppm | 0.0006 | 0.06 | 1975.0000 | 1.0210 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0370 | ppm | 0.0033 | 0.32 | 1197.0000 | 1.0370 (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0250 | ppm | 0.0013 | 0.12 | 897.9000 | 1.0250 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.3480 | ppm | 0.1344 | 2.51 | 11580.0000 | 5.3480 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0240 | ppm | 0.0039 | 0.38 | 818.3000 | 1.0240 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0400 | ppm | 0.0041 | 0.39 | 325200.0000 | 1.0400 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0280 | ppm | 0.0005 | 0.05 | 111400.0000 | 1.0280 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0260 | ppm | 0.0059 | 0.58 | 1559.0000 | 1.0260 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0310 | ppm | 0.0008 | 0.08 | 26690.0000 | 1.0310 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0210 | ppm | 0.0036 | 0.35 | 2151.0000 | 1.0210 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0210 | ppm | 0.0016 | 0.16 | 23470.0000 | 1.0210 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0180 | ppm | 0.0030 | 0.29 | 70780.0000 | 1.0180 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0060 | 380300.0000 | 0.0017 | 0.17 |
| Y_R 371.029 | 1.0340 | 55710.0000 | 0.0108 | 1.05 |

Sample Name: CCB 4461458

Date: 11/2/2017 4:39:17 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0001 u | ppm | 0.0006 | > 100.00 | 4.1990 | 0.0001 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0003 | ppm | 0.0004 | > 100.00 | -1173.0000 | 0.0003 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0016 | ppm | 0.0012 | 71.94 | 7.6740 | 0.0016 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0008 | ppm | 0.0005 | 63.77 | 6.8310 | 0.0008 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0001 | 40.69 | 4.9070 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 65.56 | 25.0600 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0054 u | ppm | 0.0067 | > 100.00 | 115.1000 | -0.0054 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 59.54 | 1.9900 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0000 | 7.34 | -15.3500 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0001 | 29.90 | 3.3750 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0011 | ppm | 0.0004 | 39.00 | 201.6000 | 0.0011 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0012 u | ppm | 0.0018 | > 100.00 | -1.1660 | -0.0012 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0522 | ppm | 0.0550 | > 100.00 | -15.1100 | 0.0522 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0052 | ppm | 0.0004 | 7.49 | 321.9000 | 0.0052 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0020 | ppm | 0.0017 | 87.89 | 12.3000 | 0.0020 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0001 | 61.72 | 83.2200 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0040 | ppm | 0.0014 | 35.49 | 26.9100 | 0.0040 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0142 | ppm | 0.0095 | 66.84 | 1628.0000 | 0.0142 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0005 | ppm | 0.0003 | 46.25 | 2.7230 | 0.0005 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0077 | ppm | 0.0019 | 23.92 | -6.8120 | 0.0077 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0009 u | ppm | 0.0011 | > 100.00 | -6.8890 | -0.0009 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0113 Z | ppm | 0.0059 | 52.52 | 8.0850 Z | 0.0113 Z (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0028 | ppm | 0.0019 | 68.89 | 0.2596 | 0.0028 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0096 | ppm | 0.0058 | 60.92 | 38.7900 | 0.0096 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0040 | ppm | 0.0005 | 11.88 | -0.2720 | 0.0040 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | 94.4500 | 0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0015 | ppm | 0.0003 | 21.86 | 59.6200 | 0.0015 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0015 u | ppm | 0.0024 | > 100.00 | -3.9600 | 0.0015 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0005 | ppm | 0.0001 | 18.28 | 54.1300 | 0.0005 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0033 | ppm | 0.0001 | 1.63 | -0.1847 | 0.0033 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0031 u | ppm | 0.0001 | 4.17 | 9.4460 | -0.0031 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0001 | 72.58 | -25.6600 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0120 | 382400.0000 | 0.0061 | 0.60 |
| Y_R 371.029 | 1.0360 | 55780.0000 | 0.0009 | 0.09 |

Sample Name: mb 440-438849/1-a

Date: 11/2/2017 4:41:22 PM Rack:Tube: 3:18

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0003 | ppm | 0.0001 | 34.50 | 10.7700 | 0.0003 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0019 | ppm | 0.0003 | 16.01 | -1142.0000 | 0.0019 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0036 | ppm | 0.0032 | 87.48 | 9.2660 | 0.0036 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | -0.6320 | 0.0001 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -7.3920 | 0.0000 u (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | 49.53 | 13.4400 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0076 u | ppm | 0.0133 | > 100.00 | 107.4000 | -0.0076 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -4.4560 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0004 u | ppm | 0.0003 | 71.63 | -15.6900 | -0.0004 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0001 u | ppm | 0.0005 | > 100.00 | 1.6840 | 0.0001 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0009 | ppm | 0.0004 | 39.21 | 195.7000 | 0.0009 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0005 u | ppm | 0.0003 | 66.79 | 1.9630 | -0.0005 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1132 | ppm | 0.0081 | 7.18 | 48.4400 | 0.1132 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0042 | ppm | 0.0007 | 16.60 | 262.7000 | 0.0042 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0035 | ppm | 0.0019 | 54.35 | 15.6600 | 0.0035 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 71.8500 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0004 u | ppm | 0.0020 | > 100.00 | 7.9870 | 0.0004 u (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0396 u | ppm | 0.0061 | 15.41 | 1351.0000 | -0.0396 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0003 | ppm | 0.0002 | 67.50 | 1.4550 | 0.0003 (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0006 u | ppm | 0.0005 | 97.37 | -14.3700 | -0.0006 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0002 u | ppm | 0.0007 | > 100.00 | -5.5660 | -0.0002 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0104 | ppm | 0.0023 | 21.69 | 7.1630 | 0.0104 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0008 | ppm | 0.0000 | 1.21 | -1.5050 | 0.0008 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0017 | ppm | 0.0005 | 30.68 | 21.5000 | 0.0017 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0059 | ppm | 0.0008 | 13.94 | 1.2740 | 0.0059 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0001 | ppm | 0.0000 | 27.49 | 87.6200 | 0.0001 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0004 | ppm | 0.0001 | 35.78 | -54.6900 | 0.0004 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0011 | ppm | 0.0007 | 62.22 | -4.6340 | 0.0011 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0002 u | ppm | 0.0001 | 55.19 | 36.4400 | -0.0002 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0010 | ppm | 0.0006 | 63.07 | -5.0470 | 0.0010 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0030 u | ppm | 0.0001 | 2.38 | 12.1400 | -0.0030 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 6.16 | -23.5300 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0270 | 388300.0000 | 0.0004 | 0.04 |
| Y_R 371.029 | 1.0520 | 56680.0000 | 0.0038 | 0.36 |

Sample Name: lcs 440-438849/2-a

Date: 11/2/2017 4:43:27 PM Rack:Tube: 3:19

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2268 | ppm | 0.0047 | 2.07 | 7845.0000 | 0.2268 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.4780 | ppm | 0.0013 | 0.27 | 9909.0000 | 0.4780 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4895 | ppm | 0.0076 | 1.55 | 397.8000 | 0.4895 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4778 | ppm | 0.0037 | 0.78 | 5292.0000 | 0.4778 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4841 | ppm | 0.0008 | 0.17 | 35560.0000 | 0.4841 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.4818 | ppm | 0.0015 | 0.31 | 79450.0000 | 0.4818 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 2.4400 | ppm | 0.0043 | 0.18 | 8821.0000 | 2.4400 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4862 | ppm | 0.0003 | 0.05 | 12050.0000 | 0.4862 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4866 | ppm | 0.0030 | 0.62 | 6561.0000 | 0.4866 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4809 | ppm | 0.0014 | 0.29 | 2885.0000 | 0.4809 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4924 | ppm | 0.0023 | 0.47 | 17480.0000 | 0.4924 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.4826 | ppm | 0.0010 | 0.21 | 2048.0000 | 0.4826 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 4.9550 | ppm | 0.0011 | 0.02 | 5093.0000 | 4.9550 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4870 | ppm | 0.0020 | 0.41 | 28510.0000 | 0.4870 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 2.4320 | ppm | 0.0069 | 0.28 | 5443.0000 | 2.4320 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4862 | ppm | 0.0016 | 0.34 | 45600.0000 | 0.4862 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4721 | ppm | 0.0028 | 0.59 | 2493.0000 | 0.4721 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.8370 | ppm | 0.0104 | 0.21 | 26460.0000 | 4.8370 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4845 | ppm | 0.0013 | 0.27 | 2312.0000 | 0.4845 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.4844 | ppm | 0.0081 | 1.68 | 406.9000 | 0.4844 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4877 | ppm | 0.0042 | 0.87 | 941.0000 | 0.4877 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.4751 | ppm | 0.0012 | 0.25 | 545.5000 | 0.4751 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.4876 | ppm | 0.0010 | 0.20 | 425.8000 | 0.4876 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.4430 | ppm | 0.0408 | 1.67 | 5304.0000 | 2.4430 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4924 | ppm | 0.0042 | 0.85 | 391.8000 | 0.4924 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.4928 | ppm | 0.0020 | 0.40 | 154200.0000 | 0.4928 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.4853 | ppm | 0.0017 | 0.35 | 52500.0000 | 0.4853 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4886 | ppm | 0.0015 | 0.31 | 739.4000 | 0.4886 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4833 | ppm | 0.0009 | 0.18 | 12530.0000 | 0.4833 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.4753 | ppm | 0.0009 | 0.19 | 997.4000 | 0.4753 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4865 | ppm | 0.0014 | 0.29 | 11230.0000 | 0.4865 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.4802 | ppm | 0.0031 | 0.64 | 33350.0000 | 0.4802 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9887 | 373600.0000 | 0.0057 | 0.58 |
| Y_R 371.029 | 1.0080 | 54290.0000 | 0.0049 | 0.48 |

Sample Name: 440-195149-g-1-d

Date: 11/2/2017 4:45:33 PM Rack:Tube: 3:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0014 u | ppm | 0.0005 | 39.02 | -93.4600 | -0.0014 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0154 | ppm | 0.0004 | 2.85 | -601.7000 | 0.0154 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.2528 | ppm | 0.0174 | 6.90 | 210.2000 | 0.2528 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.7900 | ppm | 0.0253 | 1.41 | 20030.0000 | 1.7900 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0192 | ppm | 0.0002 | 0.81 | 1418.0000 | 0.0192 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 16.1000 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 345.1000 | ppm | 0.9978 | 0.29 | 1229000.0000 | 345.1000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0000 | 63.36 | -0.3046 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0000 u | ppm | 0.0005 | > 100.00 | -3.4270 | 0.0000 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0010 | ppm | 0.0011 | > 100.00 | 12.6900 | 0.0010 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0016 | ppm | 0.0001 | 4.57 | -8.2660 | 0.0016 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0005 u | ppm | 0.0021 | > 100.00 | 16.0700 | -0.0005 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 20.0500 | ppm | 0.0702 | 0.35 | 20860.0000 | 20.0500 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2759 | ppm | 0.0021 | 0.78 | 17050.0000 | 0.2759 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 117.2000 | ppm | 0.4377 | 0.37 | 262100.0000 | 117.2000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1035 | ppm | 0.0013 | 1.26 | 10110.0000 | 0.1035 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0291 | ppm | 0.0022 | 7.47 | 159.2000 | 0.0291 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1028.0000 o | ppm | 3.5880 | 0.35 | 5286000.0000 | 1028.0000 o (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0007 | ppm | 0.0003 | 40.89 | -2.8070 | 0.0007 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0189 | ppm | 0.0000 | 0.07 | -0.7039 | 0.0189 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0067 u | ppm | 0.0014 | 21.17 | -13.1700 | -0.0067 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0053 | ppm | 0.0052 | 99.18 | 1.6460 | 0.0053 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0176 | ppm | 0.0016 | 9.36 | 10.8800 | 0.0176 (ppm) | Y 371.029 |
| Si (251.611 nm) | 58.0400 | ppm | 0.6779 | 1.17 | 123600.0000 | 58.0400 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0000 u | ppm | 0.0058 | > 100.00 | -3.3320 | 0.0000 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 8.1930 | ppm | 0.0292 | 0.36 | 2565000.0000 | 8.1930 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0012 | ppm | 0.0003 | 25.20 | -277.5000 | 0.0012 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0061 | ppm | 0.0007 | 11.63 | -6.6030 | 0.0061 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2244 | ppm | 0.0025 | 1.10 | 6238.0000 | 0.2244 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0071 | ppm | 0.0004 | 6.07 | 0.5126 | 0.0071 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0085 u | ppm | 0.0003 | 2.95 | -17.9000 | -0.0085 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0016 | ppm | 0.0001 | 4.27 | 112.5000 | 0.0016 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8590 | 324600.0000 | 0.0087 | 1.01 |
| Y_R 371.029 | 0.9343 | 50330.0000 | 0.0006 | 0.07 |

Sample Name: 440-195149-g-1-e ms

Date: 11/2/2017 4:47:38 PM Rack:Tube: 3:21

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2682 | ppm | 0.0001 | 0.03 | 9222.0000 | 0.2682 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.5749 | ppm | 0.0002 | 0.04 | 12350.0000 | 0.5749 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.7972 | ppm | 0.0042 | 0.53 | 646.1000 | 0.7972 (ppm) | Y 371.029 |
| B (249.678 nm) | 2.3310 | ppm | 0.0039 | 0.17 | 26020.0000 | 2.3310 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4974 | ppm | 0.0170 | 3.41 | 36560.0000 | 0.4974 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.5301 | ppm | 0.0005 | 0.09 | 87420.0000 | 0.5301 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 342.0000 | ppm | 9.6110 | 2.81 | 1218000.0000 | 342.0000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4846 | ppm | 0.0036 | 0.73 | 12020.0000 | 0.4846 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4889 | ppm | 0.0005 | 0.11 | 6600.0000 | 0.4889 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4977 | ppm | 0.0005 | 0.09 | 2991.0000 | 0.4977 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.5517 | ppm | 0.0000 | 0.00 | 19340.0000 | 0.5517 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.5028 | ppm | 0.0145 | 2.89 | 2148.0000 | 0.5028 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 24.8600 | ppm | 0.8289 | 3.33 | 25870.0000 | 24.8600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.7904 | ppm | 0.0185 | 2.35 | 47170.0000 | 0.7904 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 123.9000 | ppm | 4.3130 | 3.48 | 277000.0000 | 123.9000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.6032 | ppm | 0.0005 | 0.08 | 56930.0000 | 0.6032 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.5355 | ppm | 0.0023 | 0.43 | 2828.0000 | 0.5355 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1010.0000 o | ppm | 22.0600 | 2.18 | 5197000.0000 | 1010.0000 o (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4895 | ppm | 0.0011 | 0.23 | 2329.0000 | 0.4895 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.5743 | ppm | 0.0020 | 0.35 | 482.9000 | 0.5743 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4751 | ppm | 0.0008 | 0.18 | 921.2000 | 0.4751 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.5385 | ppm | 0.0032 | 0.59 | 619.5000 | 0.5385 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.5220 | ppm | 0.0003 | 0.06 | 453.9000 | 0.5220 (ppm) | Y 371.029 |
| Si (251.611 nm) | 60.8800 | ppm | 0.0764 | 0.13 | 129800.0000 | 60.8800 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.5067 | ppm | 0.0045 | 0.89 | 403.4000 | 0.5067 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 8.5320 | ppm | 0.2417 | 2.83 | 2671000.0000 | 8.5320 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.5276 | ppm | 0.0011 | 0.20 | 56780.0000 | 0.5276 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4502 | ppm | 0.0090 | 2.00 | 667.4000 | 0.4502 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.7491 | ppm | 0.0013 | 0.17 | 19790.0000 | 0.7491 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.5185 | ppm | 0.0000 | 0.01 | 1081.0000 | 0.5185 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4843 | ppm | 0.0001 | 0.02 | 11290.0000 | 0.4843 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.5145 | ppm | 0.0016 | 0.30 | 35780.0000 | 0.5145 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8602 | 325100.0000 | 0.0101 | 1.17 |
| Y_R 371.029 | 0.9049 | 48740.0000 | 0.0209 | 2.30 |

Sample Name: 440-195149-g-1-f msd

Date: 11/2/2017 4:49:43 PM Rack:Tube: 3:22

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2669 | ppm | 0.0005 | 0.17 | 9177.0000 | 0.2669 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.5731 | ppm | 0.0026 | 0.45 | 12320.0000 | 0.5731 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.7951 | ppm | 0.0008 | 0.10 | 644.3000 | 0.7951 (ppm) | Y 371.029 |
| B (249.678 nm) | 2.3490 | ppm | 0.0063 | 0.27 | 26220.0000 | 2.3490 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4912 | ppm | 0.0039 | 0.79 | 36100.0000 | 0.4912 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.5288 | ppm | 0.0002 | 0.03 | 87200.0000 | 0.5288 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 353.5000 | ppm | 2.7310 | 0.77 | 1259000.0000 | 353.5000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4811 | ppm | 0.0004 | 0.08 | 11930.0000 | 0.4811 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4890 | ppm | 0.0026 | 0.53 | 6602.0000 | 0.4890 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4968 | ppm | 0.0045 | 0.90 | 2986.0000 | 0.4968 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.5508 | ppm | 0.0019 | 0.35 | 19300.0000 | 0.5508 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.5037 | ppm | 0.0016 | 0.31 | 2152.0000 | 0.5037 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 25.9100 | ppm | 0.0932 | 0.36 | 26970.0000 | 25.9100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.8155 | ppm | 0.0051 | 0.63 | 48660.0000 | 0.8155 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 123.9000 | ppm | 0.9352 | 0.75 | 277000.0000 | 123.9000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.6019 | ppm | 0.0020 | 0.32 | 56810.0000 | 0.6019 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.5425 | ppm | 0.0012 | 0.22 | 2865.0000 | 0.5425 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1055.0000 o | ppm | 0.9539 | 0.09 | 5427000.0000 | 1055.0000 o (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4874 | ppm | 0.0017 | 0.36 | 2319.0000 | 0.4874 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.5749 | ppm | 0.0041 | 0.72 | 483.1000 | 0.5749 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4731 | ppm | 0.0004 | 0.08 | 917.3000 | 0.4731 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.5418 | ppm | 0.0037 | 0.69 | 623.3000 | 0.5418 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.5145 | ppm | 0.0061 | 1.18 | 447.3000 | 0.5145 (ppm) | Y 371.029 |
| Si (251.611 nm) | 61.5300 | ppm | 0.2855 | 0.46 | 131100.0000 | 61.5300 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.5050 | ppm | 0.0004 | 0.09 | 402.0000 | 0.5050 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 8.8010 | ppm | 0.0716 | 0.81 | 2755000.0000 | 8.8010 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.5281 | ppm | 0.0017 | 0.32 | 56820.0000 | 0.5281 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4565 | ppm | 0.0056 | 1.23 | 677.0000 | 0.4565 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.7515 | ppm | 0.0022 | 0.29 | 19860.0000 | 0.7515 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.5212 | ppm | 0.0033 | 0.64 | 1086.0000 | 0.5212 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4819 | ppm | 0.0016 | 0.33 | 11230.0000 | 0.4819 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.5160 | ppm | 0.0015 | 0.28 | 35880.0000 | 0.5160 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8418 | 318100.0000 | 0.0015 | 0.18 |
| Y_R 371.029 | 0.8941 | 48170.0000 | 0.0050 | 0.56 |

Sample Name: 440-195149-g-2-b@5

Date: 11/2/2017 4:51:47 PM Rack:Tube: 3:23

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0015 b | ppm | 0.0003 | 17.38 | -45.3000 | 0.0015 b (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0474 b | ppm | 0.0005 | 1.12 | -680.2000 | 0.0474 b (ppm) | Y 371.029 |
| As (188.980 nm) | -0.0084 bu | ppm | 0.0044 | 52.32 | 8.3450 | -0.0084 bu (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0149 b | ppm | 0.0043 | 29.03 | -594.3000 | 0.0149 b (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0076 b | ppm | 0.0003 | 3.54 | 617.5000 | 0.0076 b (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0027 b | ppm | 0.0009 | 34.07 | 16220.0000 | 0.0027 b (ppm) | Y 371.029 |
| Ca (422.673 nm) | 83.6800 b | ppm | 1.2210 | 1.46 | 298000.0000 | 83.6800 b (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0056 b | ppm | 0.0003 | 5.59 | 339.1000 | 0.0056 b (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0061 bu | ppm | 0.0006 | 9.68 | -14.2800 | -0.0061 bu (ppm) | Y 371.029 |
| Cr (205.560 nm) | -0.0034 bu | ppm | 0.0005 | 14.58 | 6.0970 | -0.0034 bu (ppm) | Y 371.029 |
| Cu (324.754 nm) | -0.0072 bu | ppm | 0.0001 | 1.93 | 454.4000 | -0.0072 bu (ppm) | Y 371.029 |
| Fe (238.204 nm) | 732.2000 bo | ppm | 8.4940 | 1.16 | 3103000.0000 | 732.2000 bo (ppm) | Y_R 371.029 |
| K (766.491 nm) | 1.6660 b | ppm | 0.0547 | 3.28 | 1810.0000 | 1.6660 b (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0457 b | ppm | 0.0006 | 1.27 | 1519.0000 | 0.0457 b (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 8.3740 b | ppm | 0.2852 | 3.41 | 18430.0000 | 8.3740 b (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 36.9700 bo | ppm | 0.6210 | 1.68 | 3535000.0000 | 36.9700 bo (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0010 bu | ppm | 0.0023 | > 100.00 | 31.8000 | 0.0010 bu (ppm) | Y 371.029 |
| Na (589.592 nm) | 105.3000 b | ppm | 2.0990 | 1.99 | 543400.0000 | 105.3000 b (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0016 b | ppm | 0.0020 | > 100.00 | 11.4200 | 0.0016 b (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0026 bu | ppm | 0.0040 | > 100.00 | -26.3700 | 0.0026 bu (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0051 b | ppm | 0.0011 | 22.05 | 0.0264 | 0.0051 b (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0026 bu | ppm | 0.0018 | 71.18 | -6.0990 | -0.0026 bu (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0018 bu | ppm | 0.0075 | > 100.00 | -121.6000 | 0.0018 bu (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0224 b | ppm | 0.0137 | 61.01 | 30.7700 | 0.0224 b (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0037 bu | ppm | 0.0026 | 69.89 | -5.0070 | -0.0037 bu (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0450 b | ppm | 0.0143 | 1.37 | 327900.0000 | 1.0450 b (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0006 b | ppm | 0.0002 | 30.92 | -75.3000 | 0.0006 b (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0075 bu | ppm | 0.0005 | 6.11 | 76.0500 | -0.0075 bu (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0226 b | ppm | 0.0000 | 0.18 | 731.0000 | 0.0226 b (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0026 b | ppm | 0.0014 | 54.88 | -12.7400 | 0.0026 b (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0047 b | ppm | 0.0002 | 5.15 | 188.9000 | 0.0047 b (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0037 b | ppm | 0.0001 | 3.00 | 775.8000 | 0.0037 b (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9453 | 357200.0000 | 0.0012 | 0.13 |
| Y_R 371.029 | 0.9907 | 53370.0000 | 0.0163 | 1.64 |

Sample Name: 440-195149-g-2-b@10

Date: 11/2/2017 4:53:52 PM Rack:Tube: 3:24

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0010 | ppm | 0.0002 | 23.15 | -16.5300 | 0.0010 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0284 | ppm | 0.0001 | 0.32 | -848.2000 | 0.0284 (ppm) | Y 371.029 |
| As (188.980 nm) | -0.0025 u | ppm | 0.0050 | > 100.00 | 9.0180 | -0.0025 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0083 | ppm | 0.0030 | 36.09 | -313.8000 | 0.0083 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0039 | ppm | 0.0001 | 2.79 | 312.5000 | 0.0039 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0007 | ppm | 0.0001 | 11.38 | 8551.0000 | 0.0007 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 43.0600 | ppm | 0.2265 | 0.53 | 153400.0000 | 43.0600 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0026 | ppm | 0.0004 | 14.76 | 167.9000 | 0.0026 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0042 u | ppm | 0.0000 | 0.88 | -24.7700 | -0.0042 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | -0.0023 u | ppm | 0.0000 | 1.34 | 0.7262 | -0.0023 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | -0.0037 u | ppm | 0.0000 | 0.17 | 326.5000 | -0.0037 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | 392.0000 | ppm | 0.4912 | 0.13 | 1661000.0000 | 392.0000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.8817 | ppm | 0.0167 | 1.89 | 925.7000 | 0.8817 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0273 | ppm | 0.0007 | 2.45 | 988.3000 | 0.0273 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.3340 | ppm | 0.0339 | 0.78 | 9536.0000 | 4.3340 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 19.5700 | ppm | 0.0050 | 0.03 | 1871000.0000 | 19.5700 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0015 u | ppm | 0.0016 | > 100.00 | 8.7620 | -0.0015 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 54.8800 | ppm | 0.2319 | 0.42 | 283800.0000 | 54.8800 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0006 | ppm | 0.0003 | 40.24 | 5.1210 | 0.0006 (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0041 u | ppm | 0.0048 | > 100.00 | -25.5400 | -0.0041 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0008 u | ppm | 0.0023 | > 100.00 | -6.0620 | 0.0008 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0011 u | ppm | 0.0038 | > 100.00 | -2.6230 | 0.0011 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0048 | ppm | 0.0019 | 39.28 | -62.7700 | 0.0048 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0048 | ppm | 0.0026 | 54.26 | 9.1670 | 0.0048 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0003 u | ppm | 0.0047 | > 100.00 | -2.4070 | 0.0003 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5396 | ppm | 0.0016 | 0.30 | 169300.0000 | 0.5396 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0002 | 98.57 | -99.4000 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0051 u | ppm | 0.0018 | 35.28 | 35.6200 | -0.0051 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0112 | ppm | 0.0006 | 5.23 | 385.3000 | 0.0112 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0018 | ppm | 0.0009 | 51.69 | -9.3140 | 0.0018 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0017 | ppm | 0.0001 | 5.27 | 120.7000 | 0.0017 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0016 | ppm | 0.0001 | 3.50 | 371.4000 | 0.0016 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9679 | 365800.0000 | 0.0000 | 0.00 |
| Y_R 371.029 | 1.0070 | 54220.0000 | 0.0072 | 0.72 |

Sample Name: 440-195149-g-3-b@2

Date: 11/2/2017 4:55:57 PM Rack:Tube: 3:25

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0021 u | ppm | 0.0003 | 12.17 | -109.0000 | -0.0021 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0115 | ppm | 0.0004 | 3.71 | -647.5000 | 0.0115 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1061 | ppm | 0.0000 | 0.03 | 92.3700 | 0.1061 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0260 | ppm | 0.0141 | 1.37 | 11480.0000 | 1.0260 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0215 | ppm | 0.0004 | 1.84 | 1594.0000 | 0.0215 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | 1.5600 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 242.1000 | ppm | 2.8280 | 1.17 | 862300.0000 | 242.1000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | -3.2720 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0030 | ppm | 0.0008 | 25.80 | 37.0400 | 0.0030 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0003 | ppm | 0.0004 | > 100.00 | 7.2970 | 0.0003 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0011 | ppm | 0.0003 | 28.86 | 51.6600 | 0.0011 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0498 | ppm | 0.0012 | 2.50 | 236.6000 | 0.0498 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 23.5400 | ppm | 0.3624 | 1.54 | 24510.0000 | 23.5400 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2322 | ppm | 0.0010 | 0.45 | 14590.0000 | 0.2322 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 199.2000 | ppm | 4.1350 | 2.08 | 445400.0000 | 199.2000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.3500 | ppm | 0.0163 | 1.21 | 126300.0000 | 1.3500 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0110 | ppm | 0.0012 | 10.67 | 63.7400 | 0.0110 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1884.0000 o | ppm | 20.7000 | 1.10 | 9689000.0000 | 1884.0000 o (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0018 | ppm | 0.0009 | 47.98 | 2.7650 | 0.0018 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9487 | ppm | 0.0218 | 2.30 | 859.2000 | 0.9487 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0058 u | ppm | 0.0001 | 1.66 | -9.9710 | -0.0058 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0011 u | ppm | 0.0051 | > 100.00 | -6.1630 | -0.0011 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0022 u | ppm | 0.0016 | 75.28 | -5.1260 | -0.0022 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 20.6100 | ppm | 0.3472 | 1.68 | 43930.0000 | 20.6100 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0075 u | ppm | 0.0037 | 48.98 | -9.1170 | -0.0075 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 8.4780 | ppm | 0.0891 | 1.05 | 2653000.0000 | 8.4780 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0003 | ppm | 0.0001 | 23.05 | -275.5000 | 0.0003 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0026 | ppm | 0.0026 | > 100.00 | -0.0571 | 0.0026 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0057 | ppm | 0.0001 | 2.54 | 448.3000 | 0.0057 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0011 u | ppm | 0.0033 | > 100.00 | -14.9800 | -0.0011 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0119 u | ppm | 0.0002 | 1.28 | -50.4400 | -0.0119 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0005 | ppm | 0.0002 | 47.43 | 22.2400 | 0.0005 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8227 | 310900.0000 | 0.0068 | 0.83 |
| Y_R 371.029 | 0.9256 | 49860.0000 | 0.0135 | 1.45 |

Sample Name: 440-195149-g-4-b@2

Date: 11/2/2017 4:58:10 PM Rack:Tube: 3:26

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0013 u | ppm | 0.0007 | 51.49 | -75.3700 | -0.0013 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0144 | ppm | 0.0011 | 7.70 | -632.9000 | 0.0144 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1129 | ppm | 0.0010 | 0.86 | 97.8300 | 0.1129 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9792 | ppm | 0.0177 | 1.81 | 10950.0000 | 0.9792 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0198 | ppm | 0.0002 | 1.13 | 1460.0000 | 0.0198 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 11.62 | -7.7410 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 205.7000 | ppm | 0.9945 | 0.48 | 732800.0000 | 205.7000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0003 | ppm | 0.0003 | 85.17 | 5.3090 | 0.0003 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0033 | ppm | 0.0004 | 12.84 | 40.0600 | 0.0033 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 u | ppm | 0.0005 | > 100.00 | 6.1680 | 0.0002 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0013 | ppm | 0.0000 | 0.11 | 79.2000 | 0.0013 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0123 | ppm | 0.0006 | 5.08 | 73.6600 | 0.0123 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 25.1700 | ppm | 0.1722 | 0.68 | 26200.0000 | 25.1700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1996 | ppm | 0.0026 | 1.30 | 12500.0000 | 0.1996 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 161.2000 | ppm | 0.6145 | 0.38 | 360400.0000 | 161.2000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.4430 | ppm | 0.0279 | 1.93 | 134900.0000 | 1.4430 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0124 | ppm | 0.0005 | 4.10 | 71.4100 | 0.0124 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1465.0000 o | ppm | 4.9040 | 0.33 | 7535000.0000 | 1465.0000 o (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0033 | ppm | 0.0002 | 6.35 | 10.6900 | 0.0033 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.3723 | ppm | 0.0045 | 1.20 | 327.4000 | 0.3723 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0057 u | ppm | 0.0018 | 32.04 | -10.7900 | -0.0057 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0029 u | ppm | 0.0023 | 79.64 | -8.3520 | -0.0029 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0034 | ppm | 0.0020 | 58.96 | 0.0645 | 0.0034 (ppm) | Y 371.029 |
| Si (251.611 nm) | 25.4700 | ppm | 0.4572 | 1.79 | 54270.0000 | 25.4700 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0002 u | ppm | 0.0032 | > 100.00 | -3.2620 | -0.0002 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 6.9840 | ppm | 0.0322 | 0.46 | 2185000.0000 | 6.9840 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0000 | 21.89 | -254.8000 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0041 | ppm | 0.0002 | 4.19 | 1.8020 | 0.0041 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0271 | ppm | 0.0002 | 0.58 | 965.1000 | 0.0271 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0015 u | ppm | 0.0027 | > 100.00 | -14.9200 | -0.0015 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0110 u | ppm | 0.0003 | 3.03 | -55.9800 | -0.0110 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 u | ppm | 0.0004 | > 100.00 | 1.6170 | 0.0002 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8435 | 318800.0000 | 0.0145 | 1.72 |
| Y_R 371.029 | 0.9695 | 52220.0000 | 0.0052 | 0.53 |

Sample Name: 440-195149-g-5-b@2

Date: 11/2/2017 5:00:15 PM Rack:Tube: 3:27

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0016 u | ppm | 0.0000 | 2.95 | -91.1800 | -0.0016 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0403 | ppm | 0.0002 | 0.38 | -0.1042 | 0.0403 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1279 | ppm | 0.0055 | 4.32 | 110.0000 | 0.1279 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0520 | ppm | 0.0397 | 3.77 | 11770.0000 | 1.0520 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0195 | ppm | 0.0006 | 3.26 | 1441.0000 | 0.0195 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 66.24 | 10.8000 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 258.7000 | ppm | 10.7400 | 4.15 | 921500.0000 | 258.7000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0000 | 1.75 | 2.9350 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0025 | ppm | 0.0005 | 21.23 | 30.0900 | 0.0025 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0003 u | ppm | 0.0008 | > 100.00 | 7.5960 | 0.0003 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0018 | ppm | 0.0002 | 10.88 | 63.8700 | 0.0018 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0506 | ppm | 0.0039 | 7.61 | 239.8000 | 0.0506 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 20.9900 | ppm | 0.7595 | 3.62 | 21850.0000 | 20.9900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2349 | ppm | 0.0107 | 4.56 | 14750.0000 | 0.2349 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 196.9000 | ppm | 4.9780 | 2.53 | 440300.0000 | 196.9000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.7880 | ppm | 0.0704 | 3.94 | 167100.0000 | 1.7880 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0137 | ppm | 0.0003 | 2.24 | 78.0900 | 0.0137 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1774.0000 o | ppm | 73.2800 | 4.13 | 9126000.0000 | 1774.0000 o (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0015 | ppm | 0.0003 | 17.71 | 0.9578 | 0.0015 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.5926 | ppm | 0.0265 | 4.47 | 530.1000 | 0.5926 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0069 u | ppm | 0.0006 | 8.77 | -11.7600 | -0.0069 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0016 | ppm | 0.0013 | 77.59 | -3.0130 | 0.0016 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0020 u | ppm | 0.0038 | > 100.00 | -4.8170 | -0.0020 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 20.3800 | ppm | 0.7781 | 3.82 | 43430.0000 | 20.3800 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0035 u | ppm | 0.0036 | > 100.00 | -5.8890 | -0.0035 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 9.2350 | ppm | 0.3776 | 4.09 | 2890000.0000 | 9.2350 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0007 | ppm | 0.0003 | 38.61 | -247.1000 | 0.0007 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0043 | ppm | 0.0046 | > 100.00 | 3.5750 | 0.0043 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0018 | ppm | 0.0002 | 12.35 | 362.9000 | 0.0018 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0059 | ppm | 0.0007 | 11.15 | -0.5870 | 0.0059 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0130 u | ppm | 0.0003 | 2.20 | -74.3000 | -0.0130 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0001 | 56.93 | 7.6140 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8787 | 332000.0000 | 0.0222 | 2.52 |
| Y_R 371.029 | 0.9750 | 52520.0000 | 0.0385 | 3.95 |

Sample Name: CCV 4461459

Date: 11/2/2017 5:02:19 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5205 | ppm | 0.0052 | 1.00 | 17990.0000 | 0.5205 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0420 | ppm | 0.0091 | 0.88 | 23000.0000 | 1.0420 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0430 | ppm | 0.0112 | 1.07 | 840.6000 | 1.0430 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0430 | ppm | 0.0091 | 0.87 | 11550.0000 | 1.0430 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0160 | ppm | 0.0017 | 0.17 | 74630.0000 | 1.0160 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0390 | ppm | 0.0093 | 0.89 | 171300.0000 | 1.0390 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.2270 | ppm | 0.0274 | 0.52 | 18750.0000 | 5.2270 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0270 | ppm | 0.0093 | 0.90 | 25480.0000 | 1.0270 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0340 | ppm | 0.0113 | 1.09 | 13960.0000 | 1.0340 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0280 | ppm | 0.0093 | 0.91 | 6163.0000 | 1.0280 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0540 | ppm | 0.0081 | 0.77 | 37210.0000 | 1.0540 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0500 | ppm | 0.0024 | 0.22 | 4449.0000 | 1.0500 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.6800 | ppm | 0.0398 | 0.37 | 11060.0000 | 10.6800 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0420 | ppm | 0.0098 | 0.94 | 60980.0000 | 1.0420 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.1450 | ppm | 0.0239 | 0.47 | 11510.0000 | 5.1450 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0340 | ppm | 0.0079 | 0.76 | 96860.0000 | 1.0340 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0330 | ppm | 0.0105 | 1.02 | 5451.0000 | 1.0330 (ppm) | Y 371.029 |
| Na (589.592 nm) | 11.1200 Q | ppm | 0.0441 | 0.40 | 58790.0000 Q | 11.1200 Q (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0310 | ppm | 0.0091 | 0.88 | 4921.0000 | 1.0310 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0390 | ppm | 0.0161 | 1.55 | 888.2000 | 1.0390 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0310 | ppm | 0.0093 | 0.90 | 1995.0000 | 1.0310 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0470 | ppm | 0.0157 | 1.50 | 1208.0000 | 1.0470 (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0370 | ppm | 0.0092 | 0.89 | 908.3000 | 1.0370 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.5540 Q | ppm | 0.1723 | 3.10 | 12020.0000 Q | 5.5540 Q (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0410 | ppm | 0.0088 | 0.85 | 831.7000 | 1.0410 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0450 | ppm | 0.0021 | 0.20 | 326800.0000 | 1.0450 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0420 | ppm | 0.0084 | 0.81 | 112900.0000 | 1.0420 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0350 | ppm | 0.0050 | 0.48 | 1572.0000 | 1.0350 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0400 | ppm | 0.0088 | 0.85 | 26920.0000 | 1.0400 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0340 | ppm | 0.0088 | 0.85 | 2178.0000 | 1.0340 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0310 | ppm | 0.0099 | 0.96 | 23710.0000 | 1.0310 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0310 | ppm | 0.0086 | 0.84 | 71670.0000 | 1.0310 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0180 | 384500.0000 | 0.0131 | 1.28 |
| Y_R 371.029 | 1.0510 | 56640.0000 | 0.0027 | 0.26 |

Sample Name: CCB 4461458

Date: 11/2/2017 5:04:23 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0002 | ppm | 0.0000 | 8.93 | 7.4440 | 0.0002 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0006 | ppm | 0.0007 | > 100.00 | -1168.0000 | 0.0006 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0059 | ppm | 0.0010 | 16.82 | 11.1100 | 0.0059 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0020 | ppm | 0.0005 | 25.90 | 19.9500 | 0.0020 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0003 | ppm | 0.0001 | 18.11 | 10.4300 | 0.0003 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0000 | 33.22 | 27.2600 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0113 u | ppm | 0.0047 | 41.53 | 94.1700 | -0.0113 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0003 | ppm | 0.0001 | 44.71 | 2.0480 | 0.0003 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0007 u | ppm | 0.0002 | 33.65 | -20.3000 | -0.0007 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0005 | ppm | 0.0006 | > 100.00 | 4.2030 | 0.0005 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0013 | ppm | 0.0002 | 13.53 | 208.1000 | 0.0013 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0002 u | ppm | 0.0013 | > 100.00 | 3.0960 | -0.0002 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1779 | ppm | 0.0145 | 8.15 | 115.8000 | 0.1779 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0052 | ppm | 0.0007 | 12.82 | 319.0000 | 0.0052 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0026 | ppm | 0.0015 | 55.85 | 13.7500 | 0.0026 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0000 | 6.35 | 93.0200 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0035 | ppm | 0.0006 | 18.31 | 23.8100 | 0.0035 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.4764 | ppm | 0.0171 | 3.60 | 4005.0000 | 0.4764 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0002 u | ppm | 0.0007 | > 100.00 | -0.9453 | -0.0002 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0041 | ppm | 0.0018 | 43.39 | -10.1300 | 0.0041 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0004 u | ppm | 0.0009 | > 100.00 | -4.2740 | 0.0004 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0093 | ppm | 0.0036 | 38.33 | 5.7290 | 0.0093 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0010 | ppm | 0.0011 | > 100.00 | -1.2770 | 0.0010 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0124 | ppm | 0.0030 | 24.41 | 44.7700 | 0.0124 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0032 | ppm | 0.0008 | 25.50 | -0.8557 | 0.0032 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 63.2400 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0012 | ppm | 0.0002 | 20.42 | 29.6400 | 0.0012 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0035 | ppm | 0.0004 | 12.83 | -0.8670 | 0.0035 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0003 | ppm | 0.0002 | 53.04 | 49.3800 | 0.0003 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0030 | ppm | 0.0001 | 3.20 | -0.8904 | 0.0030 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0030 u | ppm | 0.0000 | 1.44 | 13.2500 | -0.0030 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0001 | 67.88 | -29.3600 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9998 | 377800.0000 | 0.0111 | 1.11 |
| Y_R 371.029 | 0.9883 | 53240.0000 | 0.0002 | 0.02 |

Sample Name: 440-195149-g-6-b

Date: 11/2/2017 5:06:29 PM Rack:Tube: 3:28

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0012 u | ppm | 0.0001 | 11.92 | -76.1900 | -0.0012 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0183 | ppm | 0.0016 | 8.79 | -545.4000 | 0.0183 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1400 | ppm | 0.0081 | 5.81 | 119.5000 | 0.1400 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.6360 | ppm | 0.0060 | 0.37 | 18300.0000 | 1.6360 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0278 | ppm | 0.0003 | 1.17 | 2049.0000 | 0.0278 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 8.8090 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 237.8000 | ppm | 0.0192 | 0.01 | 847100.0000 | 237.8000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | 1.2240 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0004 | > 100.00 | -9.1610 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0005 | ppm | 0.0004 | 66.21 | 8.3610 | 0.0005 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0002 | 25.36 | 36.7500 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0006 | ppm | 0.0005 | 77.82 | 21.6600 | 0.0006 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 24.6300 | ppm | 0.0345 | 0.14 | 25620.0000 | 24.6300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2334 | ppm | 0.0009 | 0.39 | 14460.0000 | 0.2334 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 135.6000 | ppm | 1.8250 | 1.35 | 303100.0000 | 135.6000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.8330 | ppm | 0.0032 | 0.39 | 78050.0000 | 0.8330 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0368 | ppm | 0.0004 | 1.17 | 199.5000 | 0.0368 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1016.0000 o | ppm | 2.1720 | 0.21 | 5229000.0000 | 1016.0000 o (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0008 | ppm | 0.0006 | 78.48 | -1.2710 | 0.0008 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0860 | ppm | 0.0030 | 3.46 | 62.3500 | 0.0860 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0054 u | ppm | 0.0016 | 30.29 | -10.8500 | -0.0054 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0031 u | ppm | 0.0007 | 23.52 | -8.8290 | -0.0031 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0089 | ppm | 0.0013 | 15.12 | 4.3250 | 0.0089 (ppm) | Y 371.029 |
| Si (251.611 nm) | 39.8500 | ppm | 0.1733 | 0.43 | 84870.0000 | 39.8500 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0038 u | ppm | 0.0008 | 21.57 | -6.2960 | -0.0038 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 6.1330 | ppm | 0.0034 | 0.06 | 1920000.0000 | 6.1330 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0004 | ppm | 0.0000 | 4.29 | -270.1000 | 0.0004 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0010 u | ppm | 0.0020 | > 100.00 | -7.4320 | 0.0010 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1022 | ppm | 0.0004 | 0.36 | 2945.0000 | 0.1022 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0021 | ppm | 0.0015 | 72.63 | -7.8500 | 0.0021 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0091 u | ppm | 0.0003 | 2.86 | -26.0100 | -0.0091 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0006 | ppm | 0.0001 | 10.69 | 30.1600 | 0.0006 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8798 | 332500.0000 | 0.0086 | 0.97 |
| Y_R 371.029 | 0.9216 | 49650.0000 | 0.0001 | 0.01 |

Sample Name: 440-195152-i-1-b

Date: 11/2/2017 5:08:34 PM Rack:Tube: 3:29

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0013 u | ppm | 0.0003 | 19.88 | -64.1600 | -0.0013 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0194 | ppm | 0.0001 | 0.33 | -618.1000 | 0.0194 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0292 | ppm | 0.0064 | 21.92 | 30.0000 | 0.0292 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.8345 | ppm | 0.0025 | 0.30 | 9334.0000 | 0.8345 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0655 | ppm | 0.0008 | 1.20 | 4812.0000 | 0.0655 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 47.21 | 11.6800 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 128.4000 | ppm | 0.9162 | 0.71 | 457500.0000 | 128.4000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | -1.9410 | 0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0001 u | ppm | 0.0005 | > 100.00 | -7.9450 | -0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0007 | ppm | 0.0004 | 62.19 | 7.4890 | 0.0007 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0006 | ppm | 0.0004 | 74.97 | 102.1000 | 0.0006 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.2160 | ppm | 0.0045 | 2.07 | 929.4000 | 0.2160 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 15.2500 | ppm | 0.0494 | 0.32 | 15840.0000 | 15.2500 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1509 | ppm | 0.0010 | 0.65 | 9358.0000 | 0.1509 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 92.2900 | ppm | 1.0030 | 1.09 | 206400.0000 | 92.2900 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1178 | ppm | 0.0004 | 0.35 | 11370.0000 | 0.1178 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0070 | ppm | 0.0003 | 3.68 | 42.8700 | 0.0070 (ppm) | Y 371.029 |
| Na (589.592 nm) | 302.8000 | ppm | 2.9130 | 0.96 | 1559000.0000 | 302.8000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0000 u | ppm | 0.0005 | > 100.00 | -2.5970 | 0.0000 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0805 | ppm | 0.0025 | 3.14 | 59.1500 | 0.0805 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0020 u | ppm | 0.0001 | 4.67 | -6.0000 | -0.0020 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0005 u | ppm | 0.0013 | > 100.00 | -5.3770 | -0.0005 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0014 u | ppm | 0.0021 | > 100.00 | -1.8740 | 0.0014 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 29.7200 | ppm | 0.1280 | 0.43 | 63310.0000 | 29.7200 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0027 | ppm | 0.0029 | > 100.00 | -1.1100 | 0.0027 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 4.4810 | ppm | 0.0466 | 1.04 | 1402000.0000 | 4.4810 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0002 | 71.88 | -183.8000 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0024 | ppm | 0.0020 | 85.68 | -2.6370 | 0.0024 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0033 u | ppm | 0.0000 | 0.34 | 92.9700 | -0.0033 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0027 u | ppm | 0.0013 | 49.71 | -15.6100 | -0.0027 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0067 u | ppm | 0.0004 | 5.66 | -6.8780 | -0.0067 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0001 | 26.42 | -1.4110 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9258 | 349900.0000 | 0.0013 | 0.14 |
| Y_R 371.029 | 0.9709 | 52300.0000 | 0.0120 | 1.24 |

Sample Name: 440-195152-i-2-b

Date: 11/2/2017 5:10:39 PM Rack:Tube: 3:30

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0010 bu | ppm | 0.0001 | 9.39 | -139.4000 | -0.0010 bu (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0052 bu | ppm | 0.0008 | 14.90 | -649.8000 | -0.0052 bu (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1600 b | ppm | 0.0021 | 1.30 | 135.4000 | 0.1600 b (ppm) | Y 371.029 |
| B (249.678 nm) | 2.5780 b | ppm | 0.0656 | 2.54 | 28850.0000 | 2.5780 b (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0354 b | ppm | 0.0006 | 1.76 | 2643.0000 | 0.0354 b (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 bu | ppm | 0.0000 | 6.77 | -1.7210 | -0.0001 bu (ppm) | Y 371.029 |
| Ca (422.673 nm) | 696.3000 bo | ppm | 6.3270 | 0.91 | 2480000.0000 | 696.3000 bo (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 bu | ppm | 0.0003 | > 100.00 | 3.0460 | 0.0001 bu (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0006 bu | ppm | 0.0003 | 52.30 | -0.9659 | -0.0006 bu (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0090 b | ppm | 0.0003 | 3.43 | 67.2300 | 0.0090 b (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0029 b | ppm | 0.0003 | 10.24 | -181.8000 | 0.0029 b (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0050 bu | ppm | 0.0006 | 12.83 | 30.4100 | -0.0050 bu (ppm) | Y_R 371.029 |
| K (766.491 nm) | 39.9600 b | ppm | 0.0377 | 0.09 | 41700.0000 | 39.9600 b (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.5382 b | ppm | 0.0015 | 0.28 | 33940.0000 | 0.5382 b (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 430.7000 b | ppm | 9.4210 | 2.19 | 963100.0000 | 430.7000 b (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9708 b | ppm | 0.0236 | 2.44 | 91840.0000 | 0.9708 b (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0222 b | ppm | 0.0003 | 1.56 | 123.3000 | 0.0222 b (ppm) | Y 371.029 |
| Na (589.592 nm) | 2889.0000 bo | ppm | 11.6400 | 0.40 | 14860000.0000 | 2889.0000 bo (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0020 b | ppm | 0.0005 | 25.37 | -5.0470 | 0.0020 b (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0296 b | ppm | 0.0029 | 9.88 | 6.0780 | 0.0296 b (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0106 bu | ppm | 0.0002 | 2.02 | -11.4300 | -0.0106 bu (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0009 bu | ppm | 0.0025 | > 100.00 | -4.6530 | -0.0009 bu (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0026 b | ppm | 0.0004 | 14.29 | -4.3190 | 0.0026 b (ppm) | Y 371.029 |
| Si (251.611 nm) | 50.9300 b | ppm | 0.9152 | 1.80 | 108500.0000 | 50.9300 b (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0079 bu | ppm | 0.0104 | > 100.00 | -9.0910 | -0.0079 bu (ppm) | Y 371.029 |
| Sr (421.552 nm) | 25.9000 b | ppm | 0.0931 | 0.36 | 8104000.0000 | 25.9000 b (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0008 bu | ppm | 0.0001 | 6.85 | -799.3000 | -0.0008 bu (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0039 b | ppm | 0.0000 | 0.53 | -2.6290 | 0.0039 b (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0521 b | ppm | 0.0023 | 4.36 | 2135.0000 | 0.0521 b (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0002 bu | ppm | 0.0040 | > 100.00 | -22.1100 | 0.0002 bu (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0268 bu | ppm | 0.0002 | 0.57 | -218.7000 | -0.0268 bu (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0005 bu | ppm | 0.0001 | 9.69 | 2.2900 | -0.0005 bu (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.7707 | 291200.0000 | 0.0135 | 1.76 |
| Y_R 371.029 | 0.8455 | 45550.0000 | 0.0143 | 1.69 |

Sample Name: 440-195152-i-3-b

Date: 11/2/2017 5:12:44 PM Rack:Tube: 3:31

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0009 u | ppm | 0.0002 | 25.27 | -121.1000 | -0.0009 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0162 | ppm | 0.0001 | 0.59 | -268.1000 | 0.0162 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0223 | ppm | 0.0056 | 25.17 | 23.4500 | 0.0223 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.7190 | ppm | 0.0030 | 0.17 | 19240.0000 | 1.7190 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.1126 | ppm | 0.0008 | 0.75 | 8309.0000 | 0.1126 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0002 u | ppm | 0.0000 | 32.92 | -3.9110 | -0.0002 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 584.7000 o | ppm | 3.7550 | 0.64 | 2082000.0000 | 584.7000 o (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | -0.0001 u | ppm | 0.0003 | > 100.00 | -1.4620 | -0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0014 u | ppm | 0.0000 | 3.39 | -13.4600 | -0.0014 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0831 | ppm | 0.0008 | 1.02 | 509.5000 | 0.0831 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0021 | ppm | 0.0001 | 6.40 | -137.2000 | 0.0021 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0288 | ppm | 0.0013 | 4.56 | 167.4000 | 0.0288 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 29.9500 | ppm | 0.2117 | 0.71 | 31260.0000 | 29.9500 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3228 | ppm | 0.0008 | 0.25 | 20970.0000 | 0.3228 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 374.2000 | ppm | 0.2056 | 0.05 | 836600.0000 | 374.2000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0213 | ppm | 0.0000 | 0.19 | 3307.0000 | 0.0213 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0074 | ppm | 0.0009 | 12.74 | 45.0600 | 0.0074 (ppm) | Y 371.029 |
| Na (589.592 nm) | 906.2000 o | ppm | 2.4960 | 0.28 | 4662000.0000 | 906.2000 o (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0020 | ppm | 0.0002 | 10.93 | -2.6290 | 0.0020 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0252 | ppm | 0.0012 | 4.93 | 3.5470 | 0.0252 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0109 u | ppm | 0.0003 | 2.54 | -14.2600 | -0.0109 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0025 u | ppm | 0.0045 | > 100.00 | 0.3278 | 0.0025 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0005 u | ppm | 0.0010 | > 100.00 | -6.7000 | -0.0005 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 35.1900 | ppm | 0.0645 | 0.18 | 74990.0000 | 35.1900 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0018 u | ppm | 0.0041 | > 100.00 | -4.3020 | -0.0018 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 17.3100 | ppm | 0.1520 | 0.88 | 5416000.0000 | 17.3100 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0001 u | ppm | 0.0001 | 50.48 | -618.3000 | -0.0001 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0020 | ppm | 0.0011 | 55.71 | -5.0730 | 0.0020 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0096 u | ppm | 0.0004 | 4.28 | 415.2000 | -0.0096 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0012 u | ppm | 0.0017 | > 100.00 | -21.0100 | -0.0012 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0649 | ppm | 0.0005 | 0.75 | 1822.0000 | 0.0649 (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0006 u | ppm | 0.0002 | 33.82 | -15.5700 | -0.0006 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8356 | 315800.0000 | 0.0010 | 0.12 |
| Y_R 371.029 | 0.9123 | 49150.0000 | 0.0001 | 0.01 |

Sample Name: 440-195152-i-4-b

Date: 11/2/2017 5:14:49 PM Rack:Tube: 3:32

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0010 u | ppm | 0.0006 | 59.62 | -130.0000 | -0.0010 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0012 u | ppm | 0.0004 | 31.53 | -680.0000 | -0.0012 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1325 | ppm | 0.0014 | 1.02 | 109.3000 | 0.1325 (ppm) | Y 371.029 |
| B (249.678 nm) | 6.0350 | ppm | 0.0436 | 0.72 | 67520.0000 | 6.0350 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0259 | ppm | 0.0004 | 1.48 | 1933.0000 | 0.0259 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0002 u | ppm | 0.0000 | 0.04 | -6.9490 | -0.0002 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 666.8000 o | ppm | 12.0700 | 1.81 | 2375000.0000 | 666.8000 o (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | 1.6190 | 0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0002 | ppm | 0.0001 | 88.93 | 7.4830 | 0.0002 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.3417 | ppm | 0.0031 | 0.91 | 2062.0000 | 0.3417 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0030 | ppm | 0.0004 | 13.13 | -166.9000 | 0.0030 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0080 u | ppm | 0.0008 | 9.59 | 6.0160 | -0.0080 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 29.0800 | ppm | 0.2556 | 0.88 | 30350.0000 | 29.0800 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4534 | ppm | 0.0049 | 1.08 | 28550.0000 | 0.4534 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 314.2000 | ppm | 3.4060 | 1.08 | 702500.0000 | 314.2000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.2981 | ppm | 0.0021 | 0.70 | 28870.0000 | 0.2981 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0278 | ppm | 0.0005 | 1.86 | 152.6000 | 0.0278 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1696.0000 o | ppm | 2.6730 | 0.16 | 8722000.0000 | 1696.0000 o (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0013 | ppm | 0.0001 | 6.42 | -6.6430 | 0.0013 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0169 | ppm | 0.0047 | 27.97 | -5.7390 | 0.0169 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0091 u | ppm | 0.0009 | 10.14 | -11.3500 | -0.0091 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0018 u | ppm | 0.0072 | > 100.00 | -1.6250 | -0.0018 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0075 | ppm | 0.0005 | 6.35 | 0.0087 | 0.0075 (ppm) | Y 371.029 |
| Si (251.611 nm) | 45.4300 | ppm | 0.2081 | 0.46 | 96800.0000 | 45.4300 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0060 u | ppm | 0.0028 | 46.87 | -7.7850 | -0.0060 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 17.7400 | ppm | 0.3126 | 1.76 | 5552000.0000 | 17.7400 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0008 u | ppm | 0.0002 | 23.40 | -772.9000 | -0.0008 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0046 | ppm | 0.0018 | 40.20 | -3.2590 | 0.0046 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0409 | ppm | 0.0007 | 1.70 | 1806.0000 | 0.0409 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0014 u | ppm | 0.0002 | 12.96 | -24.2800 | -0.0014 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0194 u | ppm | 0.0000 | 0.03 | -136.2000 | -0.0194 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0009 u | ppm | 0.0002 | 18.27 | -21.2900 | -0.0009 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8116 | 306700.0000 | 0.0233 | 2.87 |
| Y_R 371.029 | 0.8374 | 45110.0000 | 0.0077 | 0.92 |

Sample Name: 440-195152-i-5-d

Date: 11/2/2017 5:16:54 PM Rack:Tube: 3:33

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0005 bu | ppm | 0.0007 | > 100.00 | -113.9000 | -0.0005 bu (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0068 bu | ppm | 0.0004 | 5.48 | -872.7000 | -0.0068 bu (ppm) | Y 371.029 |
| As (188.980 nm) | 0.2631 b | ppm | 0.0129 | 4.91 | 216.0000 | 0.2631 b (ppm) | Y 371.029 |
| B (249.678 nm) | 6.2190 b | ppm | 0.2729 | 4.39 | 69580.0000 | 6.2190 b (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0113 b | ppm | 0.0002 | 1.76 | 859.9000 | 0.0113 b (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 bu | ppm | 0.0000 | 43.97 | 2.5530 | -0.0001 bu (ppm) | Y 371.029 |
| Ca (422.673 nm) | 717.6000 bo | ppm | 20.8900 | 2.91 | 2555000.0000 | 717.6000 bo (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 bu | ppm | 0.0003 | > 100.00 | -0.4612 | 0.0000 bu (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0012 bu | ppm | 0.0000 | 1.87 | -12.2100 | -0.0012 bu (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1660 b | ppm | 0.0074 | 4.48 | 1009.0000 | 0.1660 b (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0032 b | ppm | 0.0001 | 1.66 | -197.6000 | 0.0032 b (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0006 bu | ppm | 0.0014 | > 100.00 | 29.9800 | -0.0006 bu (ppm) | Y_R 371.029 |
| K (766.491 nm) | 15.5800 b | ppm | 0.5489 | 3.52 | 16280.0000 | 15.5800 b (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3884 b | ppm | 0.0108 | 2.77 | 24520.0000 | 0.3884 b (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 228.2000 b | ppm | 0.4633 | 0.20 | 510200.0000 | 228.2000 b (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0066 bu | ppm | 0.0001 | 1.01 | 256.4000 | -0.0066 bu (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0334 b | ppm | 0.0012 | 3.47 | 181.6000 | 0.0334 b (ppm) | Y 371.029 |
| Na (589.592 nm) | 1065.0000 bo | ppm | 27.0200 | 2.54 | 5479000.0000 | 1065.0000 bo (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0016 b | ppm | 0.0005 | 33.54 | -5.4980 | 0.0016 b (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0135 b | ppm | 0.0043 | 32.02 | -9.8710 | 0.0135 b (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0069 bu | ppm | 0.0002 | 2.55 | -8.7250 | -0.0069 bu (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0026 bu | ppm | 0.0050 | > 100.00 | -4.3230 | -0.0026 bu (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0183 b | ppm | 0.0042 | 23.03 | 9.0620 | 0.0183 b (ppm) | Y 371.029 |
| Si (251.611 nm) | 47.0900 b | ppm | 2.0250 | 4.30 | 100300.0000 | 47.0900 b (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0076 bu | ppm | 0.0000 | 0.36 | -9.3310 | -0.0076 bu (ppm) | Y 371.029 |
| Sr (421.552 nm) | 13.4200 b | ppm | 0.4012 | 2.99 | 4204000.0000 | 13.4200 b (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0010 bu | ppm | 0.0003 | 30.35 | -840.3000 | -0.0010 bu (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0046 b | ppm | 0.0058 | > 100.00 | -6.5720 | 0.0046 b (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0820 b | ppm | 0.0051 | 6.21 | 2923.0000 | 0.0820 b (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0026 b | ppm | 0.0008 | 31.86 | -16.7700 | 0.0026 b (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0154 bu | ppm | 0.0006 | 3.85 | -88.3100 | -0.0154 bu (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0009 bu | ppm | 0.0000 | 1.73 | -14.2700 | -0.0009 bu (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8437 | 318800.0000 | 0.0257 | 3.05 |
| Y_R 371.029 | 0.9319 | 50200.0000 | 0.0153 | 1.64 |

Sample Name: 440-195152-i-5-e ms

Date: 11/2/2017 5:19:00 PM Rack:Tube: 3:34

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2777 b | ppm | 0.0038 | 1.36 | 9500.0000 | 0.2777 b (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.5663 b | ppm | 0.0089 | 1.57 | 12370.0000 | 0.5663 b (ppm) | Y 371.029 |
| As (188.980 nm) | 0.8124 b | ppm | 0.0142 | 1.74 | 655.8000 | 0.8124 b (ppm) | Y 371.029 |
| B (249.678 nm) | 6.7560 b | ppm | 0.1052 | 1.56 | 75530.0000 | 6.7560 b (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4559 b | ppm | 0.0009 | 0.20 | 33520.0000 | 0.4559 b (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.5382 b | ppm | 0.0101 | 1.87 | 88760.0000 | 0.5382 b (ppm) | Y 371.029 |
| Ca (422.673 nm) | 696.3000 bo | ppm | 4.3200 | 0.62 | 2480000.0000 | 696.3000 bo (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4718 b | ppm | 0.0073 | 1.55 | 11700.0000 | 0.4718 b (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4820 b | ppm | 0.0093 | 1.94 | 6514.0000 | 0.4820 b (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.6694 b | ppm | 0.0120 | 1.79 | 4027.0000 | 0.6694 b (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.5584 b | ppm | 0.0087 | 1.56 | 19340.0000 | 0.5584 b (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.4865 b | ppm | 0.0017 | 0.34 | 2092.0000 | 0.4865 b (ppm) | Y_R 371.029 |
| K (766.491 nm) | 20.6000 b | ppm | 0.2404 | 1.17 | 21500.0000 | 20.6000 b (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9095 b | ppm | 0.0066 | 0.72 | 54970.0000 | 0.9095 b (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 225.2000 b | ppm | 1.6280 | 0.72 | 503500.0000 | 225.2000 b (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4967 b | ppm | 0.0091 | 1.82 | 47370.0000 | 0.4967 b (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.5458 b | ppm | 0.0090 | 1.65 | 2882.0000 | 0.5458 b (ppm) | Y 371.029 |
| Na (589.592 nm) | 1042.0000 bo | ppm | 6.9010 | 0.66 | 5360000.0000 | 1042.0000 bo (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4762 b | ppm | 0.0082 | 1.72 | 2259.0000 | 0.4762 b (ppm) | Y 371.029 |
| P (213.618 nm) | 0.5718 b | ppm | 0.0019 | 0.34 | 476.2000 | 0.5718 b (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4678 b | ppm | 0.0091 | 1.94 | 911.5000 | 0.4678 b (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.5471 b | ppm | 0.0124 | 2.26 | 632.7000 | 0.5471 b (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.5237 b | ppm | 0.0204 | 3.90 | 453.0000 | 0.5237 b (ppm) | Y 371.029 |
| Si (251.611 nm) | 49.5600 b | ppm | 0.7597 | 1.53 | 105700.0000 | 49.5600 b (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.5001 b | ppm | 0.0079 | 1.58 | 398.1000 | 0.5001 b (ppm) | Y 371.029 |
| Sr (421.552 nm) | 13.5100 b | ppm | 0.0469 | 0.35 | 4230000.0000 | 13.5100 b (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.5322 b | ppm | 0.0091 | 1.72 | 56970.0000 | 0.5322 b (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4498 b | ppm | 0.0013 | 0.28 | 668.9000 | 0.4498 b (ppm) | Y 371.029 |
| V (292.401 nm) | 0.6114 b | ppm | 0.0107 | 1.75 | 16580.0000 | 0.6114 b (ppm) | Y 371.029 |
| W (207.912 nm) | 0.5163 b | ppm | 0.0100 | 1.93 | 1069.0000 | 0.5163 b (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4510 b | ppm | 0.0087 | 1.93 | 10610.0000 | 0.4510 b (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.5192 b | ppm | 0.0076 | 1.46 | 36140.0000 | 0.5192 b (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8559 | 323400.0000 | 0.0243 | 2.84 |
| Y_R 371.029 | 0.9671 | 52100.0000 | 0.0111 | 1.15 |

Sample Name: 440-195152-i-5-f msd

Date: 11/2/2017 5:21:05 PM Rack:Tube: 3:35

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2664 b | ppm | 0.0020 | 0.76 | 9101.0000 | 0.2664 b (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.5421 b | ppm | 0.0034 | 0.62 | 11870.0000 | 0.5421 b (ppm) | Y 371.029 |
| As (188.980 nm) | 0.7887 b | ppm | 0.0118 | 1.49 | 636.7000 | 0.7887 b (ppm) | Y 371.029 |
| B (249.678 nm) | 6.6570 b | ppm | 0.0456 | 0.68 | 74420.0000 | 6.6570 b (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4946 b | ppm | 0.0034 | 0.70 | 36370.0000 | 0.4946 b (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.5193 b | ppm | 0.0047 | 0.90 | 85650.0000 | 0.5193 b (ppm) | Y 371.029 |
| Ca (422.673 nm) | 772.8000 bo | ppm | 22.7400 | 2.94 | 2752000.0000 | 772.8000 bo (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4553 b | ppm | 0.0021 | 0.47 | 11290.0000 | 0.4553 b (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4641 b | ppm | 0.0040 | 0.87 | 6274.0000 | 0.4641 b (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.6478 b | ppm | 0.0053 | 0.81 | 3899.0000 | 0.6478 b (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.5375 b | ppm | 0.0036 | 0.67 | 18550.0000 | 0.5375 b (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.5265 b | ppm | 0.0134 | 2.55 | 2265.0000 | 0.5265 b (ppm) | Y_R 371.029 |
| K (766.491 nm) | 22.2900 b | ppm | 0.6536 | 2.93 | 23270.0000 | 22.2900 b (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9913 b | ppm | 0.0277 | 2.80 | 59980.0000 | 0.9913 b (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 250.9000 b | ppm | 1.2650 | 0.50 | 561100.0000 | 250.9000 b (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4759 b | ppm | 0.0031 | 0.65 | 45530.0000 | 0.4759 b (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.5342 b | ppm | 0.0048 | 0.89 | 2821.0000 | 0.5342 b (ppm) | Y 371.029 |
| Na (589.592 nm) | 1149.0000 bo | ppm | 30.9100 | 2.69 | 5913000.0000 | 1149.0000 bo (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4593 b | ppm | 0.0005 | 0.11 | 2177.0000 | 0.4593 b (ppm) | Y 371.029 |
| P (213.618 nm) | 0.5534 b | ppm | 0.0023 | 0.42 | 459.3000 | 0.5534 b (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4478 b | ppm | 0.0026 | 0.58 | 873.8000 | 0.4478 b (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.5362 b | ppm | 0.0040 | 0.75 | 620.2000 | 0.5362 b (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.5043 b | ppm | 0.0018 | 0.35 | 435.5000 | 0.5043 b (ppm) | Y 371.029 |
| Si (251.611 nm) | 49.0400 b | ppm | 0.4572 | 0.93 | 104600.0000 | 49.0400 b (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4794 b | ppm | 0.0003 | 0.07 | 381.5000 | 0.4794 b (ppm) | Y 371.029 |
| Sr (421.552 nm) | 14.9600 b | ppm | 0.4653 | 3.11 | 4684000.0000 | 14.9600 b (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.5143 b | ppm | 0.0031 | 0.60 | 54960.0000 | 0.5143 b (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4396 b | ppm | 0.0046 | 1.06 | 653.4000 | 0.4396 b (ppm) | Y 371.029 |
| V (292.401 nm) | 0.5870 b | ppm | 0.0048 | 0.83 | 16030.0000 | 0.5870 b (ppm) | Y 371.029 |
| W (207.912 nm) | 0.5017 b | ppm | 0.0040 | 0.80 | 1036.0000 | 0.5017 b (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4338 b | ppm | 0.0024 | 0.55 | 10230.0000 | 0.4338 b (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.5021 b | ppm | 0.0036 | 0.72 | 34960.0000 | 0.5021 b (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8501 | 321300.0000 | 0.0091 | 1.07 |
| Y_R 371.029 | 0.8532 | 45960.0000 | 0.0086 | 1.01 |

Sample Name: 440-195152-i-6-b

Date: 11/2/2017 5:23:10 PM Rack:Tube: 3:36

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0008 bu | ppm | 0.0002 | 22.03 | -129.0000 | -0.0008 bu (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0087 bu | ppm | 0.0018 | 21.18 | -907.8000 | -0.0087 bu (ppm) | Y 371.029 |
| As (188.980 nm) | 0.2813 b | ppm | 0.0124 | 4.40 | 230.6000 | 0.2813 b (ppm) | Y 371.029 |
| B (249.678 nm) | 6.7060 b | ppm | 0.2173 | 3.24 | 75030.0000 | 6.7060 b (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0112 b | ppm | 0.0000 | 0.32 | 852.8000 | 0.0112 b (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 bu | ppm | 0.0000 | 7.01 | 4.8820 | -0.0001 bu (ppm) | Y 371.029 |
| Ca (422.673 nm) | 735.2000 bo | ppm | 2.8820 | 0.39 | 2618000.0000 | 735.2000 bo (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 b | ppm | 0.0001 | 97.37 | 1.9340 | 0.0001 b (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0012 bu | ppm | 0.0004 | 37.85 | -11.5800 | -0.0012 bu (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1782 b | ppm | 0.0063 | 3.51 | 1082.0000 | 0.1782 b (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0026 b | ppm | 0.0002 | 9.06 | -230.6000 | 0.0026 b (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0103 b | ppm | 0.0027 | 26.55 | 76.0400 | 0.0103 b (ppm) | Y_R 371.029 |
| K (766.491 nm) | 15.9900 b | ppm | 0.1038 | 0.65 | 16710.0000 | 15.9900 b (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4011 b | ppm | 0.0026 | 0.66 | 25280.0000 | 0.4011 b (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 225.0000 b | ppm | 3.3840 | 1.50 | 503100.0000 | 225.0000 b (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0062 bu | ppm | 0.0002 | 2.60 | 284.0000 | -0.0062 bu (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0406 b | ppm | 0.0010 | 2.41 | 219.7000 | 0.0406 b (ppm) | Y 371.029 |
| Na (589.592 nm) | 1091.0000 bo | ppm | 5.1040 | 0.47 | 5615000.0000 | 1091.0000 bo (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0027 b | ppm | 0.0016 | 59.83 | -0.3257 | 0.0027 b (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0109 b | ppm | 0.0053 | 48.09 | -12.6000 | 0.0109 b (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0085 bu | ppm | 0.0021 | 24.63 | -11.8400 | -0.0085 bu (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0014 b | ppm | 0.0019 | > 100.00 | 0.4048 | 0.0014 b (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0156 b | ppm | 0.0005 | 3.12 | 6.5580 | 0.0156 b (ppm) | Y 371.029 |
| Si (251.611 nm) | 50.6100 b | ppm | 1.7410 | 3.44 | 107800.0000 | 50.6100 b (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0062 bu | ppm | 0.0058 | 93.45 | -8.1770 | -0.0062 bu (ppm) | Y 371.029 |
| Sr (421.552 nm) | 13.8500 b | ppm | 0.0591 | 0.43 | 4336000.0000 | 13.8500 b (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0004 bu | ppm | 0.0004 | 90.62 | -793.2000 | -0.0004 bu (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0086 b | ppm | 0.0009 | 10.15 | -0.7311 | 0.0086 b (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0901 b | ppm | 0.0047 | 5.17 | 3150.0000 | 0.0901 b (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0043 b | ppm | 0.0038 | 89.07 | -13.4500 | 0.0043 b (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0160 bu | ppm | 0.0004 | 2.26 | -102.8000 | -0.0160 bu (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0001 bu | ppm | 0.0002 | > 100.00 | 41.9200 | -0.0001 bu (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.7922 | 299400.0000 | 0.0430 | 5.42 |
| Y_R 371.029 | 0.9524 | 51300.0000 | 0.0011 | 0.12 |

Sample Name: 440-195219-f-1-b

Date: 11/2/2017 5:25:15 PM Rack:Tube: 3:37

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0010 u | ppm | 0.0002 | 18.38 | -122.0000 | -0.0010 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0025 u | ppm | 0.0007 | 26.32 | -771.3000 | -0.0025 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.2032 | ppm | 0.0182 | 8.98 | 161.5000 | 0.2032 (ppm) | Y 371.029 |
| B (249.678 nm) | 11.8300 | ppm | 0.0811 | 0.69 | 132300.0000 | 11.8300 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0224 | ppm | 0.0009 | 3.81 | 1675.0000 | 0.0224 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0001 | 72.51 | 0.4226 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 617.7000 o | ppm | 7.6660 | 1.24 | 2200000.0000 | 617.7000 o (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 0.5714 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0005 u | ppm | 0.0004 | 70.18 | -3.2720 | -0.0005 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.8130 | ppm | 0.0065 | 0.80 | 4888.0000 | 0.8130 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0030 | ppm | 0.0003 | 11.45 | -134.4000 | 0.0030 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0038 u | ppm | 0.0017 | 45.14 | 17.2200 | -0.0038 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 17.3700 | ppm | 0.1915 | 1.10 | 18130.0000 | 17.3700 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3824 | ppm | 0.0044 | 1.16 | 24110.0000 | 0.3824 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 254.2000 | ppm | 10.1300 | 3.98 | 568500.0000 | 254.2000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0023 | ppm | 0.0000 | 0.89 | 1171.0000 | 0.0023 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0496 | ppm | 0.0011 | 2.16 | 267.2000 | 0.0496 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1332.0000 o | ppm | 13.1900 | 0.99 | 6850000.0000 | 1332.0000 o (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0024 | ppm | 0.0005 | 20.53 | -0.3980 | 0.0024 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0068 | ppm | 0.0028 | 41.22 | -15.0300 | 0.0068 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0076 u | ppm | 0.0010 | 12.64 | -10.2200 | -0.0076 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0005 u | ppm | 0.0031 | > 100.00 | 6.2310 | 0.0005 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0112 | ppm | 0.0035 | 31.21 | 3.4290 | 0.0112 (ppm) | Y 371.029 |
| Si (251.611 nm) | 45.9800 | ppm | 0.3293 | 0.72 | 97950.0000 | 45.9800 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0053 u | ppm | 0.0018 | 33.79 | -7.3940 | -0.0053 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 14.7300 | ppm | 0.2342 | 1.59 | 4611000.0000 | 14.7300 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0006 u | ppm | 0.0002 | 24.32 | -712.8000 | -0.0006 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0037 | ppm | 0.0017 | 44.84 | -6.1170 | 0.0037 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0676 | ppm | 0.0001 | 0.13 | 2446.0000 | 0.0676 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0005 u | ppm | 0.0004 | 76.18 | -21.3400 | -0.0005 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0160 u | ppm | 0.0001 | 0.53 | -116.0000 | -0.0160 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0004 u | ppm | 0.0001 | 22.68 | 4.3590 | -0.0004 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.7994 | 302100.0000 | 0.0097 | 1.21 |
| Y_R 371.029 | 0.9023 | 48610.0000 | 0.0184 | 2.04 |

Sample Name: CCV 4461459

Date: 11/2/2017 5:27:20 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5272 | ppm | 0.0065 | 1.23 | 18230.0000 | 0.5272 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0540 | ppm | 0.0110 | 1.04 | 23280.0000 | 1.0540 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0570 | ppm | 0.0095 | 0.90 | 851.5000 | 1.0570 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0720 | ppm | 0.0085 | 0.79 | 11880.0000 | 1.0720 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0450 | ppm | 0.0020 | 0.19 | 76760.0000 | 1.0450 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0550 | ppm | 0.0142 | 1.35 | 173900.0000 | 1.0550 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.3290 | ppm | 0.0195 | 0.37 | 19110.0000 | 5.3290 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0440 | ppm | 0.0134 | 1.28 | 25900.0000 | 1.0440 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0540 | ppm | 0.0129 | 1.23 | 14230.0000 | 1.0540 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0430 | ppm | 0.0164 | 1.57 | 6258.0000 | 1.0430 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0700 | ppm | 0.0132 | 1.23 | 37800.0000 | 1.0700 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0610 | ppm | 0.0031 | 0.29 | 4498.0000 | 1.0610 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.8300 | ppm | 0.0191 | 0.18 | 11220.0000 | 10.8300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0600 | ppm | 0.0036 | 0.34 | 62050.0000 | 1.0600 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.3120 | ppm | 0.0256 | 0.48 | 11880.0000 | 5.3120 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0470 | ppm | 0.0143 | 1.36 | 98160.0000 | 1.0470 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0500 | ppm | 0.0146 | 1.39 | 5539.0000 | 1.0500 (ppm) | Y 371.029 |
| Na (589.592 nm) | 11.5800 Q | ppm | 0.0360 | 0.31 | 61170.0000 Q | 11.5800 Q (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0490 | ppm | 0.0111 | 1.05 | 5004.0000 | 1.0490 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0560 | ppm | 0.0110 | 1.04 | 903.5000 | 1.0560 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0480 | ppm | 0.0173 | 1.65 | 2028.0000 | 1.0480 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0570 | ppm | 0.0189 | 1.79 | 1220.0000 | 1.0570 (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0570 | ppm | 0.0070 | 0.67 | 926.2000 | 1.0570 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.6610 Q | ppm | 0.1762 | 3.11 | 12250.0000 Q | 5.6610 Q (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0510 | ppm | 0.0131 | 1.25 | 840.3000 | 1.0510 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0750 | ppm | 0.0046 | 0.43 | 336300.0000 | 1.0750 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0570 | ppm | 0.0143 | 1.36 | 114400.0000 | 1.0570 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0530 | ppm | 0.0069 | 0.66 | 1600.0000 | 1.0530 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0590 | ppm | 0.0150 | 1.42 | 27410.0000 | 1.0590 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0500 | ppm | 0.0107 | 1.02 | 2212.0000 | 1.0500 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0500 | ppm | 0.0157 | 1.50 | 24140.0000 | 1.0500 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0500 | ppm | 0.0167 | 1.59 | 73000.0000 | 1.0500 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9633 | 364000.0000 | 0.0161 | 1.67 |
| Y_R 371.029 | 0.9812 | 52860.0000 | 0.0024 | 0.24 |

Sample Name: CCB 4461458

Date: 11/2/2017 5:29:24 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0004 | ppm | 0.0003 | 79.89 | 13.7700 | 0.0004 (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0029 u | ppm | 0.0003 | 9.25 | -1247.0000 | -0.0029 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0030 | ppm | 0.0019 | 63.50 | 8.7910 | 0.0030 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0064 | ppm | 0.0004 | 6.21 | 69.5900 | 0.0064 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0001 | 51.31 | 3.7810 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 51.30 | 26.9500 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0131 u | ppm | 0.0023 | 17.39 | 87.6300 | -0.0131 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0002 | > 100.00 | -0.8677 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0003 | > 100.00 | -14.5100 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0008 | ppm | 0.0005 | 56.38 | 6.1230 | 0.0008 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0018 | ppm | 0.0002 | 12.19 | 226.2000 | 0.0018 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0008 u | ppm | 0.0027 | > 100.00 | 7.2770 | 0.0008 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1509 | ppm | 0.0138 | 9.16 | 87.7000 | 0.1509 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0065 | ppm | 0.0001 | 0.97 | 395.7000 | 0.0065 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0025 | ppm | 0.0010 | 40.99 | 13.4700 | 0.0025 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0001 | 51.82 | 94.1700 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0040 | ppm | 0.0008 | 20.31 | 26.5100 | 0.0040 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.7524 Z | ppm | 0.0215 | 2.85 | 5424.0000 Z | 0.7524 Z (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0003 u | ppm | 0.0007 | > 100.00 | -1.3300 | -0.0003 u (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0033 u | ppm | 0.0069 | > 100.00 | -17.0100 | -0.0033 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0010 u | ppm | 0.0003 | 28.76 | -6.9670 | -0.0010 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0092 | ppm | 0.0074 | 80.09 | 5.6650 | 0.0092 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0008 u | ppm | 0.0014 | > 100.00 | -1.5190 | 0.0008 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0141 | ppm | 0.0051 | 36.43 | 48.4400 | 0.0141 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0032 | ppm | 0.0036 | > 100.00 | -0.9066 | 0.0032 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 52.7900 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0014 | ppm | 0.0002 | 11.46 | 47.1600 | 0.0014 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0011 u | ppm | 0.0024 | > 100.00 | -4.7020 | 0.0011 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0009 | ppm | 0.0003 | 33.23 | 63.4400 | 0.0009 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0044 | ppm | 0.0018 | 41.40 | 2.1240 | 0.0044 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0030 u | ppm | 0.0001 | 4.98 | 13.1700 | -0.0030 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 23.86 | -23.0800 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9468 | 357800.0000 | 0.0014 | 0.15 |
| Y_R 371.029 | 0.9657 | 52020.0000 | 0.0087 | 0.90 |

Sample Name: 440-195219-f-2-b

Date: 11/2/2017 5:32:46 PM Rack:Tube: 3:38

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0009 u | ppm | 0.0005 | 55.82 | -36.1700 | -0.0009 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0104 | ppm | 0.0008 | 8.11 | -916.6000 | 0.0104 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0518 | ppm | 0.0019 | 3.68 | 47.9100 | 0.0518 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.8336 | ppm | 0.0038 | 0.46 | 9324.0000 | 0.8336 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0223 | ppm | 0.0001 | 0.65 | 1631.0000 | 0.0223 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 5.6340 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 34.6500 | ppm | 0.3440 | 0.99 | 123500.0000 | 34.6500 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | -1.8750 | 0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0006 u | ppm | 0.0009 | > 100.00 | -17.8700 | -0.0006 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0324 | ppm | 0.0002 | 0.69 | 196.0000 | 0.0324 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0013 | ppm | 0.0002 | 13.17 | 186.4000 | 0.0013 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0016 u | ppm | 0.0015 | 93.80 | -0.7477 | -0.0016 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.5180 | ppm | 0.0115 | 0.12 | 9845.0000 | 9.5180 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0793 | ppm | 0.0007 | 0.85 | 4776.0000 | 0.0793 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 16.7500 | ppm | 0.0001 | 0.00 | 37460.0000 | 16.7500 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0004 u | ppm | 0.0001 | 14.74 | 90.7500 | -0.0004 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0106 | ppm | 0.0011 | 10.39 | 61.6500 | 0.0106 (ppm) | Y 371.029 |
| Na (589.592 nm) | 123.9000 | ppm | 1.2190 | 0.98 | 638500.0000 | 123.9000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0011 u | ppm | 0.0003 | 31.29 | -5.7690 | -0.0011 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0092 | ppm | 0.0079 | 86.55 | -6.0010 | 0.0092 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0023 u | ppm | 0.0018 | 81.30 | -8.9310 | -0.0023 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0029 | ppm | 0.0026 | 87.89 | -1.4000 | 0.0029 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0045 | ppm | 0.0062 | > 100.00 | 1.4470 | 0.0045 (ppm) | Y 371.029 |
| Si (251.611 nm) | 28.4800 | ppm | 0.2605 | 0.91 | 60650.0000 | 28.4800 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0024 | ppm | 0.0007 | 29.46 | -1.4610 | 0.0024 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.6540 | ppm | 0.0227 | 1.37 | 517300.0000 | 1.6540 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0001 | 29.31 | -106.8000 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0023 | ppm | 0.0027 | > 100.00 | -3.7600 | 0.0023 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0253 | ppm | 0.0002 | 0.62 | 734.9000 | 0.0253 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0010 u | ppm | 0.0021 | > 100.00 | -9.8940 | -0.0010 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0026 u | ppm | 0.0001 | 5.38 | 33.7600 | -0.0026 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0003 | 95.28 | -10.4200 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9141 | 345400.0000 | 0.0060 | 0.66 |
| Y_R 371.029 | 0.9371 | 50480.0000 | 0.0000 | 0.00 |

Sample Name: 440-195219-f-3-b

Date: 11/2/2017 5:34:52 PM Rack:Tube: 3:39

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0011 u | ppm | 0.0000 | 1.70 | -120.9000 | -0.0011 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0004 u | ppm | 0.0000 | 9.30 | -762.8000 | -0.0004 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.2956 | ppm | 0.0105 | 3.55 | 241.9000 | 0.2956 (ppm) | Y 371.029 |
| B (249.678 nm) | 8.5000 | ppm | 0.1428 | 1.68 | 95090.0000 | 8.5000 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0147 | ppm | 0.0001 | 0.73 | 1104.0000 | 0.0147 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 85.20 | 12.2100 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 582.1000 o | ppm | 5.8020 | 1.00 | 2073000.0000 | 582.1000 o (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 25.94 | 4.5410 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0012 u | ppm | 0.0002 | 19.74 | -13.6400 | -0.0012 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2589 | ppm | 0.0045 | 1.72 | 1564.0000 | 0.2589 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0034 | ppm | 0.0005 | 14.14 | -99.2600 | 0.0034 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0056 u | ppm | 0.0015 | 26.99 | 7.4890 | -0.0056 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 15.6200 | ppm | 0.1485 | 0.95 | 16310.0000 | 15.6200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4029 | ppm | 0.0030 | 0.75 | 25200.0000 | 0.4029 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 228.4000 | ppm | 3.1280 | 1.37 | 510700.0000 | 228.4000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0057 u | ppm | 0.0000 | 0.86 | 333.2000 | -0.0057 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0416 | ppm | 0.0017 | 4.19 | 225.2000 | 0.0416 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1151.0000 o | ppm | 9.5100 | 0.83 | 5919000.0000 | 1151.0000 o (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0008 | ppm | 0.0003 | 44.34 | -7.2690 | 0.0008 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0114 | ppm | 0.0007 | 6.39 | -10.4000 | 0.0114 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0100 u | ppm | 0.0008 | 8.26 | -15.6800 | -0.0100 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0009 u | ppm | 0.0001 | 6.91 | -2.0190 | -0.0009 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0209 | ppm | 0.0051 | 24.27 | 12.0700 | 0.0209 (ppm) | Y 371.029 |
| Si (251.611 nm) | 44.8900 | ppm | 0.6657 | 1.48 | 95630.0000 | 44.8900 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0044 u | ppm | 0.0005 | 12.27 | -6.7090 | -0.0044 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 12.4300 | ppm | 0.1398 | 1.13 | 3891000.0000 | 12.4300 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0007 u | ppm | 0.0001 | 8.10 | -693.9000 | -0.0007 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0039 | ppm | 0.0021 | 55.07 | -6.4480 | 0.0039 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0825 | ppm | 0.0019 | 2.33 | 2797.0000 | 0.0825 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -19.4700 | 0.0000 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0153 u | ppm | 0.0004 | 2.34 | -96.4300 | -0.0153 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0005 u | ppm | 0.0002 | 40.31 | -4.5670 | -0.0005 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8181 | 309200.0000 | 0.0046 | 0.56 |
| Y_R 371.029 | 0.8898 | 47930.0000 | 0.0031 | 0.34 |

Sample Name: 440-195219-f-4-b

Date: 11/2/2017 5:36:57 PM Rack:Tube: 3:40

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0016 u | ppm | 0.0002 | 10.39 | -91.8000 | -0.0016 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0165 | ppm | 0.0004 | 2.71 | -575.6000 | 0.0165 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1295 | ppm | 0.0082 | 6.36 | 110.9000 | 0.1295 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.7830 | ppm | 0.0277 | 1.55 | 19950.0000 | 1.7830 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0282 | ppm | 0.0001 | 0.26 | 2079.0000 | 0.0282 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 29.82 | -4.9610 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 247.6000 | ppm | 0.2136 | 0.09 | 881900.0000 | 247.6000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0000 | 0.52 | 0.9359 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0007 | ppm | 0.0002 | 28.56 | 4.5060 | 0.0007 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0005 | ppm | 0.0004 | 93.83 | 8.0420 | 0.0005 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0023 | ppm | 0.0001 | 2.98 | 83.8100 | 0.0023 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0002 u | ppm | 0.0030 | > 100.00 | 18.7600 | -0.0002 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 26.9100 | ppm | 0.0546 | 0.20 | 28000.0000 | 26.9100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2431 | ppm | 0.0017 | 0.69 | 15060.0000 | 0.2431 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 137.6000 | ppm | 1.6440 | 1.19 | 307700.0000 | 137.6000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4035 | ppm | 0.0064 | 1.59 | 38100.0000 | 0.4035 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0442 | ppm | 0.0019 | 4.26 | 238.4000 | 0.0442 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1095.0000 o | ppm | 14.3000 | 1.31 | 5633000.0000 | 1095.0000 o (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0030 | ppm | 0.0011 | 36.98 | 9.2220 | 0.0030 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.2093 | ppm | 0.0014 | 0.67 | 175.9000 | 0.2093 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0085 u | ppm | 0.0006 | 6.99 | -16.8700 | -0.0085 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0011 | ppm | 0.0009 | 81.15 | -4.0930 | 0.0011 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0037 | ppm | 0.0032 | 85.90 | -0.5230 | 0.0037 (ppm) | Y 371.029 |
| Si (251.611 nm) | 46.5600 | ppm | 0.4292 | 0.92 | 99170.0000 | 46.5600 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0060 u | ppm | 0.0017 | 28.89 | -8.0410 | -0.0060 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 6.4700 | ppm | 0.0020 | 0.03 | 2025000.0000 | 6.4700 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0001 u | ppm | 0.0000 | 23.44 | -334.5000 | -0.0001 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0031 | ppm | 0.0020 | 63.46 | -5.6660 | 0.0031 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1140 | ppm | 0.0017 | 1.53 | 3262.0000 | 0.1140 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0029 u | ppm | 0.0008 | 28.67 | -18.5600 | -0.0029 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0096 u | ppm | 0.0001 | 1.22 | -36.6500 | -0.0096 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0001 u | ppm | 0.0000 | 0.73 | -16.0000 | -0.0001 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8174 | 308900.0000 | 0.0144 | 1.76 |
| Y_R 371.029 | 0.9656 | 52010.0000 | 0.0135 | 1.39 |

Sample Name: 440-195219-f-5-b

Date: 11/2/2017 5:39:03 PM Rack:Tube: 3:41

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0002 b | ppm | 0.0001 | 49.17 | -134.0000 | 0.0002 b (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0329 bu | ppm | 0.0008 | 2.39 | -917.1000 | -0.0329 bu (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1247 b | ppm | 0.0143 | 11.47 | 107.9000 | 0.1247 b (ppm) | Y 371.029 |
| B (249.678 nm) | 2.6100 b | ppm | 0.0314 | 1.20 | 29200.0000 | 2.6100 b (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0452 b | ppm | 0.0009 | 1.90 | 3388.0000 | 0.0452 b (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0002 bu | ppm | 0.0001 | 29.19 | -2.1330 | -0.0002 bu (ppm) | Y 371.029 |
| Ca (422.673 nm) | 907.5000 bo | ppm | 7.9640 | 0.88 | 3232000.0000 | 907.5000 bo (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | -0.0001 bu | ppm | 0.0002 | > 100.00 | 0.4078 | -0.0001 bu (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 bu | ppm | 0.0002 | 48.35 | 12.3000 | -0.0003 bu (ppm) | Y 371.029 |
| Cr (205.560 nm) | -0.0009 bu | ppm | 0.0004 | 46.92 | 11.7600 | -0.0009 bu (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0043 b | ppm | 0.0005 | 12.04 | -262.2000 | 0.0043 b (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.1170 b | ppm | 0.0033 | 2.79 | 577.5000 | 0.1170 b (ppm) | Y_R 371.029 |
| K (766.491 nm) | 27.7000 b | ppm | 0.3267 | 1.18 | 29050.0000 | 27.7000 b (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.6085 b | ppm | 0.0068 | 1.11 | 39230.0000 | 0.6085 b (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 717.4000 bo | ppm | 8.3950 | 1.17 | 1604000.0000 | 717.4000 bo (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 3.0890 b | ppm | 0.0337 | 1.09 | 289900.0000 | 3.0890 b (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0222 b | ppm | 0.0005 | 2.06 | 123.8000 | 0.0222 b (ppm) | Y 371.029 |
| Na (589.592 nm) | 1653.0000 bo | ppm | 16.0700 | 0.97 | 8504000.0000 | 1653.0000 bo (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0051 b | ppm | 0.0009 | 17.78 | 3.2890 | 0.0051 b (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0694 b | ppm | 0.0021 | 2.97 | 40.9500 | 0.0694 b (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0153 bu | ppm | 0.0012 | 8.02 | -12.1100 | -0.0153 bu (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0019 bu | ppm | 0.0065 | > 100.00 | -5.9270 | -0.0019 bu (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0032 b | ppm | 0.0005 | 16.40 | -4.3040 | 0.0032 b (ppm) | Y 371.029 |
| Si (251.611 nm) | 42.6700 b | ppm | 0.4744 | 1.11 | 90980.0000 | 42.6700 b (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0051 bu | ppm | 0.0024 | 46.20 | -6.2760 | -0.0051 bu (ppm) | Y 371.029 |
| Sr (421.552 nm) | 27.0300 bo | ppm | 0.2689 | 0.99 | 8460000.0000 | 27.0300 bo (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0017 bu | ppm | 0.0001 | 5.09 | -1067.0000 | -0.0017 bu (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0029 b | ppm | 0.0020 | 67.98 | 3.9090 | 0.0029 b (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0340 bu | ppm | 0.0001 | 0.23 | 131.8000 | -0.0340 bu (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0027 b | ppm | 0.0004 | 15.34 | -22.0500 | 0.0027 b (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0385 bu | ppm | 0.0002 | 0.61 | -291.5000 | -0.0385 bu (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0011 bu | ppm | 0.0004 | 36.36 | -16.1900 | -0.0011 bu (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.7896 | 298400.0000 | 0.0124 | 1.56 |
| Y_R 371.029 | 0.8925 | 48080.0000 | 0.0151 | 1.70 |

Sample Name: 440-195219-f-6-b

Date: 11/2/2017 5:41:08 PM Rack:Tube: 3:42

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0007 u | ppm | 0.0001 | 18.41 | -103.6000 | -0.0007 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0019 | ppm | 0.0005 | 24.64 | -618.8000 | 0.0019 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0563 | ppm | 0.0024 | 4.24 | 51.9100 | 0.0563 (ppm) | Y 371.029 |
| B (249.678 nm) | 2.1930 | ppm | 0.0159 | 0.72 | 24540.0000 | 2.1930 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0458 | ppm | 0.0001 | 0.17 | 3394.0000 | 0.0458 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 31.82 | 3.3060 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 518.0000 | ppm | 2.2490 | 0.43 | 1845000.0000 | 518.0000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | 1.2470 | 0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0004 u | ppm | 0.0005 | > 100.00 | -1.8430 | -0.0004 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | -0.0006 u | ppm | 0.0002 | 31.39 | 6.5530 | -0.0006 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0018 | ppm | 0.0004 | 20.21 | -104.4000 | 0.0018 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0481 | ppm | 0.0028 | 5.78 | 246.9000 | 0.0481 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 24.9600 | ppm | 0.0658 | 0.26 | 26060.0000 | 24.9600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2641 | ppm | 0.0020 | 0.75 | 17360.0000 | 0.2641 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 354.2000 | ppm | 2.2710 | 0.64 | 791900.0000 | 354.2000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.3827 | ppm | 0.0036 | 0.95 | 36870.0000 | 0.3827 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0193 | ppm | 0.0003 | 1.47 | 107.7000 | 0.0193 (ppm) | Y 371.029 |
| Na (589.592 nm) | 721.6000 | ppm | 2.4760 | 0.34 | 3713000.0000 | 721.6000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0015 | ppm | 0.0000 | 0.48 | -4.2340 | 0.0015 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0301 | ppm | 0.0059 | 19.69 | 8.5630 | 0.0301 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0087 u | ppm | 0.0011 | 12.17 | -10.7200 | -0.0087 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0015 u | ppm | 0.0028 | > 100.00 | -2.4690 | 0.0015 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0042 | ppm | 0.0036 | 85.22 | -1.9610 | 0.0042 (ppm) | Y 371.029 |
| Si (251.611 nm) | 28.4900 | ppm | 0.2214 | 0.78 | 60740.0000 | 28.4900 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0052 u | ppm | 0.0050 | 96.56 | -7.0430 | -0.0052 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 16.8500 | ppm | 0.0011 | 0.01 | 5274000.0000 | 16.8500 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0007 u | ppm | 0.0001 | 10.79 | -627.7000 | -0.0007 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0023 | ppm | 0.0024 | > 100.00 | -3.0470 | 0.0023 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0181 u | ppm | 0.0001 | 0.82 | 122.9000 | -0.0181 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0004 u | ppm | 0.0000 | 10.65 | -19.4900 | -0.0004 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0220 u | ppm | 0.0003 | 1.22 | -166.7000 | -0.0220 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0005 u | ppm | 0.0001 | 15.39 | -13.7800 | -0.0005 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8696 | 328600.0000 | 0.0078 | 0.89 |
| Y_R 371.029 | 0.9510 | 51230.0000 | 0.0065 | 0.69 |

Sample Name: 440-195219-f-7-b

Date: 11/2/2017 5:43:13 PM Rack:Tube: 3:43

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0008 u | ppm | 0.0001 | 11.72 | -32.7900 | -0.0008 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0527 | ppm | 0.0022 | 4.25 | 43.0800 | 0.0527 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0331 | ppm | 0.0024 | 7.22 | 32.9800 | 0.0331 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9113 | ppm | 0.0173 | 1.89 | 10190.0000 | 0.9113 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0222 | ppm | 0.0002 | 1.07 | 1621.0000 | 0.0222 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 42.11 | -2.9020 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 43.4900 | ppm | 0.0281 | 0.06 | 155000.0000 | 43.4900 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -3.4000 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0012 u | ppm | 0.0006 | 47.73 | -25.5500 | -0.0012 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0175 | ppm | 0.0005 | 3.14 | 106.9000 | 0.0175 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0020 | ppm | 0.0001 | 5.89 | 205.4000 | 0.0020 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0070 | ppm | 0.0041 | 59.01 | 36.7700 | 0.0070 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 8.5790 | ppm | 0.1341 | 1.56 | 8872.0000 | 8.5790 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0870 | ppm | 0.0010 | 1.12 | 5280.0000 | 0.0870 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 28.2000 | ppm | 0.5011 | 1.78 | 63060.0000 | 28.2000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0006 u | ppm | 0.0000 | 5.93 | 112.6000 | -0.0006 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0106 | ppm | 0.0009 | 8.37 | 61.5200 | 0.0106 (ppm) | Y 371.029 |
| Na (589.592 nm) | 160.0000 | ppm | 0.7720 | 0.48 | 824600.0000 | 160.0000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0012 u | ppm | 0.0004 | 36.72 | -6.5040 | -0.0012 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0427 | ppm | 0.0061 | 14.25 | 24.8400 | 0.0427 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0040 u | ppm | 0.0031 | 76.88 | -11.9600 | -0.0040 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0036 | ppm | 0.0005 | 12.79 | -0.7079 | 0.0036 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0049 | ppm | 0.0023 | 46.35 | 1.7460 | 0.0049 (ppm) | Y 371.029 |
| Si (251.611 nm) | 14.9400 | ppm | 0.2837 | 1.90 | 31820.0000 | 14.9400 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0012 u | ppm | 0.0021 | > 100.00 | -2.4460 | 0.0012 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.8570 | ppm | 0.0234 | 1.26 | 581000.0000 | 1.8570 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0000 | 16.10 | -122.3000 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0022 | ppm | 0.0011 | 48.33 | -3.6450 | 0.0022 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0189 | ppm | 0.0001 | 0.48 | 576.7000 | 0.0189 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0012 u | ppm | 0.0001 | 9.01 | -10.5300 | -0.0012 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0000 | ppm | 0.0001 | > 100.00 | 101.5000 | 0.0000 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0089 | ppm | 0.0008 | 9.46 | 589.7000 | 0.0089 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9345 | 353100.0000 | 0.0351 | 3.76 |
| Y_R 371.029 | 0.9453 | 50930.0000 | 0.0009 | 0.10 |

Sample Name: 440-195219-f-8-b

Date: 11/2/2017 5:45:19 PM Rack:Tube: 3:44

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0010 u | ppm | 0.0002 | 15.76 | -111.1000 | -0.0010 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0005 u | ppm | 0.0003 | 51.07 | -687.7000 | -0.0005 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0537 | ppm | 0.0018 | 3.36 | 49.8100 | 0.0537 (ppm) | Y 371.029 |
| B (249.678 nm) | 2.2920 | ppm | 0.0285 | 1.24 | 25640.0000 | 2.2920 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0468 | ppm | 0.0002 | 0.35 | 3466.0000 | 0.0468 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0002 u | ppm | 0.0000 | 12.43 | -11.3300 | -0.0002 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 506.5000 | ppm | 3.4690 | 0.68 | 1804000.0000 | 506.5000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | -0.0001 u | ppm | 0.0002 | > 100.00 | -2.1690 | -0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0006 u | ppm | 0.0003 | 59.36 | -4.1950 | -0.0006 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0001 u | ppm | 0.0005 | > 100.00 | 10.4100 | 0.0001 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0027 | ppm | 0.0001 | 4.73 | -64.6300 | 0.0027 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0091 u | ppm | 0.0030 | 32.42 | 3.6560 | -0.0091 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 21.8800 | ppm | 0.2008 | 0.92 | 22850.0000 | 21.8800 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3173 | ppm | 0.0015 | 0.49 | 20450.0000 | 0.3173 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 348.4000 | ppm | 3.7090 | 1.06 | 779000.0000 | 348.4000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.7081 | ppm | 0.0090 | 1.28 | 67120.0000 | 0.7081 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0133 | ppm | 0.0003 | 2.21 | 76.0900 | 0.0133 (ppm) | Y 371.029 |
| Na (589.592 nm) | 963.9000 o | ppm | 0.3327 | 0.03 | 4959000.0000 | 963.9000 o (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0006 | ppm | 0.0001 | 13.13 | -8.1800 | 0.0006 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0491 | ppm | 0.0020 | 4.14 | 26.2100 | 0.0491 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0096 u | ppm | 0.0011 | 11.60 | -12.5900 | -0.0096 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0015 u | ppm | 0.0011 | 71.61 | -5.8470 | -0.0015 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0072 | ppm | 0.0011 | 15.59 | 0.9015 | 0.0072 (ppm) | Y 371.029 |
| Si (251.611 nm) | 39.7900 | ppm | 0.4841 | 1.22 | 84790.0000 | 39.7900 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0074 u | ppm | 0.0037 | 49.95 | -8.8210 | -0.0074 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 15.6800 | ppm | 0.1580 | 1.01 | 4908000.0000 | 15.6800 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0007 u | ppm | 0.0001 | 18.10 | -610.2000 | -0.0007 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0016 | ppm | 0.0023 | > 100.00 | -3.5610 | 0.0016 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0112 u | ppm | 0.0007 | 6.36 | 288.6000 | -0.0112 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0025 | ppm | 0.0008 | 33.46 | -12.9500 | 0.0025 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0121 u | ppm | 0.0003 | 2.72 | 53.8400 | -0.0121 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0001 u | ppm | 0.0002 | > 100.00 | 10.4400 | -0.0001 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8112 | 306600.0000 | 0.0171 | 2.10 |
| Y_R 371.029 | 0.8861 | 47730.0000 | 0.0046 | 0.52 |

Sample Name: CCV 4461459

Date: 11/2/2017 5:47:23 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5474 | ppm | 0.0255 | 4.65 | 18920.0000 | 0.5474 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0950 | ppm | 0.0514 | 4.69 | 24240.0000 | 1.0950 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0950 | ppm | 0.0601 | 5.49 | 882.3000 | 1.0950 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.1030 Q | ppm | 0.0521 | 4.72 | 12220.0000 Q | 1.1030 Q (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9487 | ppm | 0.0200 | 2.10 | 69700.0000 | 0.9487 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0940 | ppm | 0.0529 | 4.83 | 180500.0000 | 1.0940 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.8560 | ppm | 0.0827 | 1.70 | 17420.0000 | 4.8560 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0820 | ppm | 0.0537 | 4.96 | 26830.0000 | 1.0820 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0910 | ppm | 0.0485 | 4.45 | 14720.0000 | 1.0910 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0790 | ppm | 0.0580 | 5.38 | 6473.0000 | 1.0790 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.1150 Q | ppm | 0.0512 | 4.59 | 39360.0000 Q | 1.1150 Q (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9687 | ppm | 0.0212 | 2.19 | 4106.0000 | 0.9687 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.8660 | ppm | 0.3241 | 3.29 | 10210.0000 | 9.8660 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9766 | ppm | 0.0194 | 1.99 | 57120.0000 | 0.9766 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.8330 | ppm | 0.1437 | 2.97 | 10810.0000 | 4.8330 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0870 | ppm | 0.0528 | 4.86 | 101800.0000 | 1.0870 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0880 | ppm | 0.0536 | 4.92 | 5741.0000 | 1.0880 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.4400 | ppm | 0.1981 | 1.90 | 55340.0000 | 10.4400 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0860 | ppm | 0.0522 | 4.81 | 5181.0000 | 1.0860 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.1020 Q | ppm | 0.0541 | 4.91 | 943.1000 Q | 1.1020 Q (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0850 | ppm | 0.0507 | 4.67 | 2100.0000 | 1.0850 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.1020 Q | ppm | 0.0421 | 3.81 | 1272.0000 Q | 1.1020 Q (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0940 | ppm | 0.0542 | 4.95 | 958.4000 | 1.0940 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.7300 Q | ppm | 0.1457 | 2.54 | 12410.0000 Q | 5.7300 Q (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0920 | ppm | 0.0579 | 5.31 | 872.9000 | 1.0920 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9827 | ppm | 0.0188 | 1.91 | 307300.0000 | 0.9827 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0970 | ppm | 0.0522 | 4.76 | 118800.0000 | 1.0970 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0870 | ppm | 0.0510 | 4.69 | 1652.0000 | 1.0870 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0970 | ppm | 0.0529 | 4.82 | 28390.0000 | 1.0970 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0880 | ppm | 0.0547 | 5.03 | 2291.0000 | 1.0880 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0890 | ppm | 0.0561 | 5.16 | 25020.0000 | 1.0890 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0890 | ppm | 0.0494 | 4.53 | 75670.0000 | 1.0890 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9523 | 359900.0000 | 0.0358 | 3.76 |
| Y_R 371.029 | 1.1070 | 59660.0000 | 0.0112 | 1.01 |

Sample Name: CCB 4461458

Date: 11/2/2017 5:49:27 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -0.8162 | 0.0000 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0042 | ppm | 0.0008 | 19.75 | -1089.0000 | 0.0042 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0036 | ppm | 0.0029 | 82.93 | 9.2250 | 0.0036 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0042 | ppm | 0.0008 | 17.78 | 45.0800 | 0.0042 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0001 | 30.16 | 5.1520 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 75.39 | 24.0200 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0151 u | ppm | 0.0047 | 31.08 | 80.6000 | -0.0151 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 47.90 | -0.6077 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0003 | 83.59 | -15.3000 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0006 | ppm | 0.0001 | 20.99 | 4.5850 | 0.0006 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0010 | ppm | 0.0003 | 31.73 | 200.0000 | 0.0010 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0010 u | ppm | 0.0020 | > 100.00 | -0.3720 | -0.0010 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1279 | ppm | 0.0702 | 54.86 | 63.7700 | 0.1279 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0085 | ppm | 0.0005 | 6.27 | 514.1000 | 0.0085 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0030 | ppm | 0.0020 | 64.67 | 14.6600 | 0.0030 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0001 | 83.24 | 83.5500 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0029 | ppm | 0.0002 | 8.18 | 20.9400 | 0.0029 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.5569 Z | ppm | 0.0050 | 0.89 | 4419.0000 Z | 0.5569 Z (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0002 u | ppm | 0.0004 | > 100.00 | 1.0510 | 0.0002 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0056 | ppm | 0.0015 | 26.59 | -8.6850 | 0.0056 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0001 u | ppm | 0.0006 | > 100.00 | -5.3730 | -0.0001 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0080 | ppm | 0.0033 | 41.60 | 4.2560 | 0.0080 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0017 | ppm | 0.0023 | > 100.00 | -0.7295 | 0.0017 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0096 | ppm | 0.0044 | 45.47 | 38.8800 | 0.0096 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0019 | ppm | 0.0017 | 90.60 | -1.9060 | 0.0019 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 78.8000 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0013 | ppm | 0.0003 | 25.10 | 45.4800 | 0.0013 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0015 | ppm | 0.0006 | 37.47 | -4.0440 | 0.0015 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0003 | ppm | 0.0002 | 61.34 | 47.4100 | 0.0003 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0046 | ppm | 0.0002 | 3.99 | 2.6520 | 0.0046 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0030 u | ppm | 0.0001 | 2.21 | 11.1700 | -0.0030 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 8.35 | -20.1000 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0830 | 409400.0000 | 0.0004 | 0.03 |
| Y_R 371.029 | 1.1200 | 60350.0000 | 0.0115 | 1.03 |

Sample Name: CCV 4461459

Date: 11/2/2017 6:02:03 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4921 | ppm | 0.0017 | 0.35 | 17010.0000 | 0.4921 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.9842 | ppm | 0.0029 | 0.29 | 21670.0000 | 0.9842 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9867 | ppm | 0.0000 | 0.00 | 795.5000 | 0.9867 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9864 | ppm | 0.0035 | 0.36 | 10930.0000 | 0.9864 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9749 | ppm | 0.0062 | 0.63 | 71630.0000 | 0.9749 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9816 | ppm | 0.0026 | 0.26 | 161900.0000 | 0.9816 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.9360 | ppm | 0.0315 | 0.64 | 17710.0000 | 4.9360 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9728 | ppm | 0.0027 | 0.27 | 24120.0000 | 0.9728 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9793 | ppm | 0.0001 | 0.01 | 13210.0000 | 0.9793 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9700 | ppm | 0.0026 | 0.27 | 5818.0000 | 0.9700 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9976 | ppm | 0.0021 | 0.21 | 35240.0000 | 0.9976 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9744 | ppm | 0.0017 | 0.17 | 4130.0000 | 0.9744 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.9670 | ppm | 0.1023 | 1.03 | 10310.0000 | 9.9670 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9881 | ppm | 0.0047 | 0.48 | 57840.0000 | 0.9881 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.9310 | ppm | 0.0361 | 0.73 | 11030.0000 | 4.9310 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9722 | ppm | 0.0027 | 0.28 | 91130.0000 | 0.9722 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9752 | ppm | 0.0031 | 0.31 | 5145.0000 | 0.9752 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.2200 | ppm | 0.0549 | 0.54 | 54190.0000 | 10.2200 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9752 | ppm | 0.0036 | 0.36 | 4653.0000 | 0.9752 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9776 | ppm | 0.0035 | 0.36 | 834.4000 | 0.9776 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9768 | ppm | 0.0046 | 0.47 | 1890.0000 | 0.9768 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9831 | ppm | 0.0089 | 0.90 | 1134.0000 | 0.9831 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9828 | ppm | 0.0006 | 0.06 | 860.7000 | 0.9828 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.1250 | ppm | 0.1336 | 2.61 | 11100.0000 | 5.1250 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9805 | ppm | 0.0043 | 0.44 | 783.5000 | 0.9805 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9868 | ppm | 0.0007 | 0.08 | 308600.0000 | 0.9868 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9824 | ppm | 0.0041 | 0.42 | 106400.0000 | 0.9824 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9828 | ppm | 0.0002 | 0.02 | 1493.0000 | 0.9828 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9887 | ppm | 0.0046 | 0.47 | 25580.0000 | 0.9887 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9750 | ppm | 0.0042 | 0.43 | 2053.0000 | 0.9750 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9768 | ppm | 0.0030 | 0.31 | 22460.0000 | 0.9768 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9801 | ppm | 0.0032 | 0.32 | 68110.0000 | 0.9801 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0340 | 390900.0000 | 0.0062 | 0.60 |
| Y_R 371.029 | 1.0500 | 56590.0000 | 0.0029 | 0.28 |

Sample Name: CCB 4461458

Date: 11/2/2017 6:04:07 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0004 | ppm | 0.0003 | 62.89 | 15.1200 | 0.0004 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0020 | ppm | 0.0002 | 11.33 | -1136.0000 | 0.0020 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0002 u | ppm | 0.0003 | > 100.00 | 6.4820 | 0.0002 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0030 | ppm | 0.0010 | 33.64 | 31.6700 | 0.0030 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0001 | 34.96 | 2.4740 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 64.91 | 29.9600 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0217 u | ppm | 0.0186 | 85.51 | 56.9400 | -0.0217 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0000 | 8.22 | 1.2390 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0005 u | ppm | 0.0006 | > 100.00 | -18.1500 | -0.0005 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0001 | 18.29 | 3.8650 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0011 | ppm | 0.0002 | 18.00 | 202.6000 | 0.0011 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0022 u | ppm | 0.0018 | 82.70 | -5.3870 | -0.0022 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1291 | ppm | 0.0100 | 7.74 | 65.0200 | 0.1291 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0092 | ppm | 0.0013 | 13.84 | 556.4000 | 0.0092 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0028 | ppm | 0.0005 | 17.53 | 14.1900 | 0.0028 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | 77.6900 | 0.0001 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0048 | ppm | 0.0000 | 0.29 | 30.7400 | 0.0048 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.3079 | ppm | 0.0051 | 1.67 | 3139.0000 | 0.3079 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0003 u | ppm | 0.0002 | 59.55 | -1.3510 | -0.0003 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0058 | ppm | 0.0034 | 58.50 | -8.6010 | 0.0058 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0011 u | ppm | 0.0019 | > 100.00 | -7.2890 | -0.0011 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0036 | ppm | 0.0020 | 57.55 | -0.9917 | 0.0036 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0017 u | ppm | 0.0060 | > 100.00 | -0.7417 | 0.0017 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0088 | ppm | 0.0038 | 43.15 | 37.0400 | 0.0088 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0039 | ppm | 0.0012 | 30.10 | -0.3483 | 0.0039 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0002 u | ppm | 0.0001 | 37.97 | 7.3930 | -0.0002 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0014 | ppm | 0.0003 | 23.00 | 54.3200 | 0.0014 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0018 | ppm | 0.0003 | 16.22 | -3.5870 | 0.0018 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0004 | ppm | 0.0002 | 43.85 | 51.6700 | 0.0004 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0021 | ppm | 0.0004 | 19.45 | -2.6510 | 0.0021 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0031 u | ppm | 0.0001 | 4.17 | 9.0420 | -0.0031 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0001 | 64.40 | -24.4300 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0390 | 392700.0000 | 0.0027 | 0.26 |
| Y_R 371.029 | 1.0560 | 56890.0000 | 0.0022 | 0.21 |

Sample Name: RINSE 4461469

Date: 11/2/2017 7:58:13 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | -0.0683 | 0.0000 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0035 | ppm | 0.0007 | 19.21 | -1104.0000 | 0.0035 (ppm) | Y 371.029 |
| As (188.980 nm) | -0.0002 u | ppm | 0.0006 | > 100.00 | 6.1960 | -0.0002 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0002 u | ppm | 0.0005 | > 100.00 | 0.7739 | 0.0002 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0000 | ppm | 0.0000 | 35.71 | -6.6880 | 0.0000 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | 96.33 | 11.4900 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0069 u | ppm | 0.0131 | > 100.00 | 109.9000 | -0.0069 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -4.1520 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0002 u | ppm | 0.0006 | > 100.00 | -12.9400 | -0.0002 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0003 | ppm | 0.0003 | 91.47 | 2.9660 | 0.0003 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0013 | ppm | 0.0001 | 5.48 | 208.1000 | 0.0013 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0005 u | ppm | 0.0012 | > 100.00 | 6.2500 | 0.0005 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0744 | ppm | 0.0158 | 21.25 | 8.0070 | 0.0744 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0105 | ppm | 0.0008 | 7.45 | 628.5000 | 0.0105 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0000 u | ppm | 0.0040 | > 100.00 | 7.7610 | 0.0000 u (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0000 | 46.64 | 78.3200 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0012 | ppm | 0.0001 | 6.86 | 11.7900 | 0.0012 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0050 u | ppm | 0.0078 | > 100.00 | 1581.0000 | 0.0050 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0008 | ppm | 0.0003 | 37.40 | 4.1490 | 0.0008 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0119 | ppm | 0.0012 | 9.97 | -2.9060 | 0.0119 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0013 u | ppm | 0.0005 | 38.31 | -7.5680 | -0.0013 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0035 | ppm | 0.0001 | 3.19 | -0.9763 | 0.0035 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0016 | ppm | 0.0014 | 91.16 | -0.8280 | 0.0016 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0042 | ppm | 0.0008 | 18.15 | 27.0000 | 0.0042 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0019 | ppm | 0.0007 | 38.05 | -1.9030 | 0.0019 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0000 | 4.58 | 23.7900 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0000 | 55.24 | -90.9900 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0011 | ppm | 0.0004 | 36.93 | -4.6280 | 0.0011 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0000 u | ppm | 0.0004 | > 100.00 | 40.0900 | 0.0000 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0011 | ppm | 0.0005 | 42.81 | -4.8450 | 0.0011 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0026 u | ppm | 0.0000 | 0.87 | 22.5300 | -0.0026 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | -30.1300 | 0.0001 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0440 | 394400.0000 | 0.0047 | 0.45 |
| Y_R 371.029 | 1.0620 | 57240.0000 | 0.0043 | 0.40 |

Sample Name: CCV 4461459

Date: 11/2/2017 8:00:18 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4943 | ppm | 0.0016 | 0.33 | 17090.0000 | 0.4943 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.9906 | ppm | 0.0016 | 0.16 | 21820.0000 | 0.9906 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9817 | ppm | 0.0022 | 0.22 | 791.4000 | 0.9817 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9850 | ppm | 0.0019 | 0.19 | 10910.0000 | 0.9850 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9644 | ppm | 0.0124 | 1.28 | 70850.0000 | 0.9644 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9848 | ppm | 0.0032 | 0.32 | 162400.0000 | 0.9848 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.9490 | ppm | 0.0263 | 0.53 | 17750.0000 | 4.9490 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9709 | ppm | 0.0034 | 0.35 | 24080.0000 | 0.9709 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9826 | ppm | 0.0004 | 0.04 | 13260.0000 | 0.9826 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9722 | ppm | 0.0012 | 0.12 | 5831.0000 | 0.9722 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0020 | ppm | 0.0010 | 0.10 | 35400.0000 | 1.0020 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9711 | ppm | 0.0076 | 0.78 | 4117.0000 | 0.9711 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.9530 | ppm | 0.0110 | 0.11 | 10300.0000 | 9.9530 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9904 | ppm | 0.0022 | 0.22 | 57970.0000 | 0.9904 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.8620 | ppm | 0.0628 | 1.29 | 10880.0000 | 4.8620 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9742 | ppm | 0.0023 | 0.24 | 91320.0000 | 0.9742 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9762 | ppm | 0.0010 | 0.10 | 5150.0000 | 0.9762 (ppm) | Y 371.029 |
| Na (589.592 nm) | 9.8310 | ppm | 0.0610 | 0.62 | 52170.0000 | 9.8310 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9766 | ppm | 0.0000 | 0.00 | 4659.0000 | 0.9766 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9833 | ppm | 0.0003 | 0.03 | 839.4000 | 0.9833 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9778 | ppm | 0.0017 | 0.18 | 1891.0000 | 0.9778 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9810 | ppm | 0.0099 | 1.01 | 1131.0000 | 0.9810 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9799 | ppm | 0.0002 | 0.02 | 858.3000 | 0.9799 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.0630 | ppm | 0.1447 | 2.86 | 10970.0000 | 5.0630 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9785 | ppm | 0.0022 | 0.23 | 781.9000 | 0.9785 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9791 | ppm | 0.0017 | 0.17 | 306200.0000 | 0.9791 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9864 | ppm | 0.0019 | 0.19 | 106800.0000 | 0.9864 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9827 | ppm | 0.0014 | 0.14 | 1493.0000 | 0.9827 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9962 | ppm | 0.0025 | 0.25 | 25780.0000 | 0.9962 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9738 | ppm | 0.0017 | 0.17 | 2051.0000 | 0.9738 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9728 | ppm | 0.0027 | 0.28 | 22370.0000 | 0.9728 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9849 | ppm | 0.0030 | 0.30 | 68440.0000 | 0.9849 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0260 | 387900.0000 | 0.0041 | 0.40 |
| Y_R 371.029 | 1.0580 | 56970.0000 | 0.0120 | 1.13 |

Sample Name: CCB 4461458

Date: 11/2/2017 8:02:22 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0002 | ppm | 0.0000 | 6.87 | 7.6590 | 0.0002 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0018 | ppm | 0.0006 | 34.08 | -1142.0000 | 0.0018 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0005 u | ppm | 0.0037 | > 100.00 | 6.7750 | 0.0005 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0008 | ppm | 0.0004 | 52.44 | 6.4020 | 0.0008 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | 3.2820 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 59.87 | 26.6000 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0163 u | ppm | 0.0041 | 25.29 | 76.2100 | -0.0163 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 56.97 | 0.2387 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0006 | > 100.00 | -14.9700 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0009 | ppm | 0.0002 | 17.03 | 6.8210 | 0.0009 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0000 | 3.01 | 193.3000 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0000 u | ppm | 0.0005 | > 100.00 | 4.0150 | 0.0000 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0088 | ppm | 0.0002 | 1.71 | -60.1900 | 0.0088 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0101 | ppm | 0.0002 | 2.05 | 606.4000 | 0.0101 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0024 | ppm | 0.0027 | > 100.00 | 13.2700 | 0.0024 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 80.3200 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0043 | ppm | 0.0003 | 6.43 | 28.3500 | 0.0043 (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0102 u | ppm | 0.0072 | 71.03 | 1503.0000 | -0.0102 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0004 | ppm | 0.0003 | 76.08 | 2.2400 | 0.0004 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0109 | ppm | 0.0028 | 25.46 | -3.8550 | 0.0109 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0002 u | ppm | 0.0010 | > 100.00 | -5.4880 | -0.0002 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0044 u | ppm | 0.0073 | > 100.00 | 0.0387 | 0.0044 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0024 | ppm | 0.0022 | 91.89 | -0.0824 | 0.0024 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0086 | ppm | 0.0029 | 33.83 | 36.7500 | 0.0086 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0023 | ppm | 0.0026 | > 100.00 | -1.6370 | 0.0023 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 55.3000 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0015 | ppm | 0.0004 | 30.28 | 58.8900 | 0.0015 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0014 | ppm | 0.0003 | 17.97 | -4.0940 | 0.0014 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0002 | ppm | 0.0000 | 8.21 | 46.4100 | 0.0002 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0025 | ppm | 0.0023 | 93.80 | -1.8880 | 0.0025 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0031 u | ppm | 0.0001 | 1.66 | 10.0500 | -0.0031 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -34.8400 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0400 | 392900.0000 | 0.0046 | 0.44 |
| Y_R 371.029 | 1.0610 | 57150.0000 | 0.0086 | 0.81 |

Sample Name: mb 440-439097/1-a@5

Date: 11/2/2017 8:10:50 PM Rack:Tube: 3:46

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0003 | ppm | 0.0001 | 39.90 | 11.2700 | 0.0003 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0060 | ppm | 0.0005 | 7.88 | -1052.0000 | 0.0060 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0033 | ppm | 0.0037 | > 100.00 | 9.0350 | 0.0033 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0006 | ppm | 0.0000 | 0.18 | 4.6250 | 0.0006 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0000 | 5.67 | 5.1220 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 23.93 | -3.9850 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0052 | ppm | 0.0006 | 11.46 | 152.8000 | 0.0052 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | -2.5340 | 0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0004 u | ppm | 0.0001 | 28.06 | -16.0500 | -0.0004 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 | ppm | 0.0001 | 45.09 | 2.6230 | 0.0002 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0026 | ppm | 0.0000 | 1.47 | 254.7000 | 0.0026 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0110 | ppm | 0.0006 | 5.47 | 50.5600 | 0.0110 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0824 | ppm | 0.0081 | 9.81 | 16.3800 | 0.0824 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0078 | ppm | 0.0002 | 2.27 | 473.5000 | 0.0078 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0037 | ppm | 0.0025 | 67.75 | 16.0700 | 0.0037 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0003 | ppm | 0.0001 | 22.02 | 95.1300 | 0.0003 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0004 u | ppm | 0.0002 | 52.15 | 3.2680 | -0.0004 u (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0114 u | ppm | 0.0039 | 34.09 | 1496.0000 | -0.0114 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0003 | ppm | 0.0002 | 52.93 | 1.4820 | 0.0003 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0031 u | ppm | 0.0059 | > 100.00 | -11.0200 | 0.0031 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0004 u | ppm | 0.0007 | > 100.00 | -5.8380 | -0.0004 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0049 | ppm | 0.0063 | > 100.00 | 0.7066 | 0.0049 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0029 | ppm | 0.0004 | 12.15 | 0.3099 | 0.0029 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0131 | ppm | 0.0020 | 15.33 | 45.8400 | 0.0131 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0061 | ppm | 0.0001 | 1.88 | 1.4500 | 0.0061 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | 89.6700 | 0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0000 | 21.55 | -80.7900 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0001 u | ppm | 0.0035 | > 100.00 | -6.1260 | 0.0001 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0002 | ppm | 0.0002 | 97.08 | 46.9900 | 0.0002 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0006 | ppm | 0.0002 | 37.43 | -5.7400 | 0.0006 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0024 u | ppm | 0.0000 | 1.09 | 26.8500 | -0.0024 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0004 | ppm | 0.0000 | 7.48 | -5.1490 | 0.0004 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0240 | 386800.0000 | 0.0039 | 0.38 |
| Y_R 371.029 | 1.0570 | 56940.0000 | 0.0127 | 1.20 |

Sample Name: lcs 440-439097/2-a@5

Date: 11/2/2017 8:12:55 PM Rack:Tube: 3:47

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1914 | ppm | 0.0007 | 0.36 | 6616.0000 | 0.1914 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.3799 | ppm | 0.0014 | 0.36 | 7639.0000 | 0.3799 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.3793 | ppm | 0.0021 | 0.54 | 309.7000 | 0.3793 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.3695 | ppm | 0.0010 | 0.27 | 4090.0000 | 0.3695 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.3777 | ppm | 0.0029 | 0.76 | 27740.0000 | 0.3777 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3739 | ppm | 0.0010 | 0.28 | 61660.0000 | 0.3739 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 1.9550 | ppm | 0.0141 | 0.72 | 7094.0000 | 1.9550 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3730 | ppm | 0.0026 | 0.70 | 9248.0000 | 0.3730 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.3847 | ppm | 0.0023 | 0.59 | 5185.0000 | 0.3847 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.3795 | ppm | 0.0004 | 0.11 | 2277.0000 | 0.3795 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.3933 | ppm | 0.0013 | 0.33 | 13990.0000 | 0.3933 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.3918 | ppm | 0.0022 | 0.55 | 1663.0000 | 0.3918 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 3.9200 | ppm | 0.0511 | 1.30 | 4014.0000 | 3.9200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3930 | ppm | 0.0009 | 0.22 | 23020.0000 | 0.3930 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 1.9040 | ppm | 0.0227 | 1.19 | 4264.0000 | 1.9040 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.3834 | ppm | 0.0009 | 0.24 | 35980.0000 | 0.3834 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.3813 | ppm | 0.0012 | 0.32 | 2015.0000 | 0.3813 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.8810 | ppm | 0.0102 | 0.26 | 21540.0000 | 3.8810 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.3824 | ppm | 0.0018 | 0.48 | 1824.0000 | 0.3824 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.3771 | ppm | 0.0052 | 1.39 | 313.0000 | 0.3771 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.3815 | ppm | 0.0022 | 0.58 | 734.9000 | 0.3815 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.3784 | ppm | 0.0023 | 0.62 | 433.2000 | 0.3784 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3519 | ppm | 0.0041 | 1.17 | 307.0000 | 0.3519 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.1546 | ppm | 0.0066 | 4.27 | 414.8000 | 0.1546 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.3871 | ppm | 0.0025 | 0.65 | 307.3000 | 0.3871 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.3855 | ppm | 0.0012 | 0.30 | 120600.0000 | 0.3855 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.3854 | ppm | 0.0015 | 0.38 | 41670.0000 | 0.3854 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3764 | ppm | 0.0034 | 0.90 | 567.7000 | 0.3764 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3847 | ppm | 0.0010 | 0.25 | 9978.0000 | 0.3847 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.3799 | ppm | 0.0015 | 0.39 | 795.6000 | 0.3799 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.3705 | ppm | 0.0012 | 0.31 | 8573.0000 | 0.3705 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.3766 | ppm | 0.0023 | 0.62 | 26150.0000 | 0.3766 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0090 | 381400.0000 | 0.0014 | 0.14 |
| Y_R 371.029 | 1.0360 | 55820.0000 | 0.0075 | 0.73 |

Sample Name: 440-195348-a-15-a@5

Date: 11/2/2017 8:15:00 PM Rack:Tube: 3:48

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0004 u | ppm | 0.0002 | 50.01 | -39.4500 | -0.0004 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 43.2100 | ppm | 0.1014 | 0.23 | 965000.0000 | 43.2100 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0339 | ppm | 0.0026 | 7.72 | 34.1900 | 0.0339 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0169 | ppm | 0.0001 | 0.89 | 118.7000 | 0.0169 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.3900 | ppm | 0.0051 | 1.32 | 28660.0000 | 0.3900 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0017 | ppm | 0.0001 | 3.58 | 1750.0000 | 0.0017 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 13.6900 | ppm | 0.1595 | 1.16 | 48860.0000 | 13.6900 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0030 | ppm | 0.0000 | 1.39 | 89.7400 | 0.0030 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0203 | ppm | 0.0003 | 1.67 | 330.9000 | 0.0203 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0719 | ppm | 0.0001 | 0.11 | 435.3000 | 0.0719 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0802 | ppm | 0.0006 | 0.70 | 3050.0000 | 0.0802 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 66.7700 | ppm | 0.9420 | 1.41 | 283000.0000 | 66.7700 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 14.1800 | ppm | 0.1551 | 1.09 | 14720.0000 | 14.1800 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0548 | ppm | 0.0003 | 0.63 | 3441.0000 | 0.0548 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 15.5000 | ppm | 0.2282 | 1.47 | 34640.0000 | 15.5000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9494 | ppm | 0.0008 | 0.08 | 97180.0000 | 0.9494 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0071 | ppm | 0.0001 | 0.73 | 51.5200 | 0.0071 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.9480 | ppm | 0.0154 | 1.63 | 6455.0000 | 0.9480 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0465 | ppm | 0.0003 | 0.75 | 223.3000 | 0.0465 (ppm) | Y 371.029 |
| P (213.618 nm) | 2.0990 | ppm | 0.0035 | 0.17 | 1920.0000 | 2.0990 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.1451 | ppm | 0.0006 | 0.41 | 270.1000 | 0.1451 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0045 | ppm | 0.0001 | 1.65 | 2.4230 | 0.0045 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0051 | ppm | 0.0008 | 15.15 | -10.6600 | 0.0051 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.7130 | ppm | 0.0006 | 0.03 | 3688.0000 | 1.7130 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0062 | ppm | 0.0000 | 0.68 | 1.4540 | 0.0062 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1624 | ppm | 0.0016 | 1.01 | 51000.0000 | 0.1624 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 2.8820 | ppm | 0.0011 | 0.04 | 312300.0000 | 2.8820 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0007 u | ppm | 0.0025 | > 100.00 | -51.9300 | -0.0007 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1265 | ppm | 0.0004 | 0.32 | 3411.0000 | 0.1265 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0024 | ppm | 0.0013 | 53.71 | 0.5026 | 0.0024 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2598 | ppm | 0.0001 | 0.03 | 6017.0000 | 0.2598 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0122 | ppm | 0.0005 | 4.01 | 865.0000 | 0.0122 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0010 | 378200.0000 | 0.0009 | 0.09 |
| Y_R 371.029 | 1.0320 | 55610.0000 | 0.0146 | 1.42 |

Sample Name: 440-195348-a-15-b ms@5

Date: 11/2/2017 8:17:05 PM Rack:Tube: 3:49

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1788 | ppm | 0.0001 | 0.06 | 6151.0000 | 0.1788 (ppm) | Y 371.029 |
| Al (396.152 nm) | 71.7700 | ppm | 0.3289 | 0.46 | 1604000.0000 | 71.7700 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.3688 | ppm | 0.0072 | 1.95 | 301.8000 | 0.3688 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.3705 | ppm | 0.0005 | 0.13 | 4047.0000 | 0.3705 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.7690 | ppm | 0.0028 | 0.36 | 56500.0000 | 0.7690 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3542 | ppm | 0.0023 | 0.64 | 59910.0000 | 0.3542 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 16.7700 | ppm | 0.0914 | 0.54 | 59850.0000 | 16.7700 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3458 | ppm | 0.0002 | 0.05 | 8591.0000 | 0.3458 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.3702 | ppm | 0.0026 | 0.71 | 5081.0000 | 0.3702 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4453 | ppm | 0.0053 | 1.19 | 2675.0000 | 0.4453 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4467 | ppm | 0.0014 | 0.30 | 15940.0000 | 0.4467 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 69.1600 | ppm | 0.5184 | 0.75 | 293100.0000 | 69.1600 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 18.7900 | ppm | 0.1663 | 0.88 | 19520.0000 | 18.7900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4298 | ppm | 0.0003 | 0.07 | 25530.0000 | 0.4298 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 20.2800 | ppm | 0.0563 | 0.28 | 45320.0000 | 20.2800 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.2620 | ppm | 0.0055 | 0.43 | 126700.0000 | 1.2620 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.3571 | ppm | 0.0002 | 0.06 | 1901.0000 | 0.3571 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.6750 | ppm | 0.0187 | 0.40 | 25650.0000 | 4.6750 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.3944 | ppm | 0.0000 | 0.00 | 1883.0000 | 0.3944 (ppm) | Y 371.029 |
| P (213.618 nm) | 2.4170 | ppm | 0.0154 | 0.64 | 2194.0000 | 2.4170 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4787 | ppm | 0.0007 | 0.14 | 913.8000 | 0.4787 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.2614 | ppm | 0.0007 | 0.27 | 300.0000 | 0.2614 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3355 | ppm | 0.0010 | 0.29 | 278.0000 | 0.3355 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.7970 | ppm | 0.0027 | 0.06 | 10310.0000 | 4.7970 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.3510 | ppm | 0.0034 | 0.96 | 278.1000 | 0.3510 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5326 | ppm | 0.0033 | 0.63 | 166800.0000 | 0.5326 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.4650 | ppm | 0.0199 | 0.45 | 483800.0000 | 4.4650 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3364 | ppm | 0.0037 | 1.10 | 441.4000 | 0.3364 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.5333 | ppm | 0.0021 | 0.38 | 13960.0000 | 0.5333 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.2470 | ppm | 0.0014 | 0.57 | 518.2000 | 0.2470 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.5767 | ppm | 0.0022 | 0.37 | 13290.0000 | 0.5767 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.3508 | ppm | 0.0027 | 0.76 | 24410.0000 | 0.3508 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9890 | 373800.0000 | 0.0003 | 0.03 |
| Y_R 371.029 | 1.0260 | 55250.0000 | 0.0065 | 0.64 |

Sample Name: 440-195348-a-15-c msd@5

Date: 11/2/2017 8:19:10 PM Rack:Tube: 3:50

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1860 | ppm | 0.0006 | 0.32 | 6395.0000 | 0.1860 (ppm) | Y 371.029 |
| Al (396.152 nm) | 81.3000 | ppm | 0.1064 | 0.13 | 1817000.0000 | 81.3000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.3998 | ppm | 0.0027 | 0.67 | 326.9000 | 0.3998 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.3816 | ppm | 0.0004 | 0.10 | 4158.0000 | 0.3816 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.8862 | ppm | 0.0056 | 0.63 | 65120.0000 | 0.8862 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3677 | ppm | 0.0003 | 0.08 | 62380.0000 | 0.3677 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 17.7000 | ppm | 0.1047 | 0.59 | 63140.0000 | 17.7000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3576 | ppm | 0.0036 | 0.99 | 8886.0000 | 0.3576 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.3862 | ppm | 0.0019 | 0.48 | 5304.0000 | 0.3862 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4691 | ppm | 0.0001 | 0.02 | 2818.0000 | 0.4691 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4709 | ppm | 0.0014 | 0.30 | 16800.0000 | 0.4709 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 80.5800 | ppm | 0.4061 | 0.50 | 341500.0000 | 80.5800 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 19.8100 | ppm | 0.1968 | 0.99 | 20590.0000 | 19.8100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4475 | ppm | 0.0021 | 0.47 | 26590.0000 | 0.4475 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 21.7000 | ppm | 0.1299 | 0.60 | 48480.0000 | 21.7000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.5800 | ppm | 0.0023 | 0.14 | 157800.0000 | 1.5800 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.3703 | ppm | 0.0008 | 0.21 | 1972.0000 | 0.3703 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.9450 | ppm | 0.0222 | 0.45 | 27040.0000 | 4.9450 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4079 | ppm | 0.0007 | 0.17 | 1948.0000 | 0.4079 (ppm) | Y 371.029 |
| P (213.618 nm) | 2.4120 | ppm | 0.0055 | 0.23 | 2188.0000 | 2.4120 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4909 | ppm | 0.0003 | 0.05 | 936.5000 | 0.4909 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.2740 | ppm | 0.0009 | 0.34 | 314.8000 | 0.2740 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3445 | ppm | 0.0005 | 0.15 | 283.8000 | 0.3445 (ppm) | Y 371.029 |
| Si (251.611 nm) | 3.9130 | ppm | 0.0154 | 0.39 | 8433.0000 | 3.9130 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.3646 | ppm | 0.0014 | 0.38 | 289.0000 | 0.3646 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5553 | ppm | 0.0047 | 0.85 | 173900.0000 | 0.5553 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.7190 | ppm | 0.0092 | 0.19 | 511300.0000 | 4.7190 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3541 | ppm | 0.0021 | 0.60 | 465.2000 | 0.3541 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.5667 | ppm | 0.0010 | 0.17 | 14830.0000 | 0.5667 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.2534 | ppm | 0.0012 | 0.48 | 532.3000 | 0.2534 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.6300 | ppm | 0.0008 | 0.13 | 14510.0000 | 0.6300 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.3667 | ppm | 0.0005 | 0.15 | 25530.0000 | 0.3667 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9872 | 373100.0000 | 0.0025 | 0.25 |
| Y_R 371.029 | 1.0210 | 54990.0000 | 0.0073 | 0.72 |

Sample Name: 440-195348-a-15-aPDS@5

Date: 11/2/2017 8:21:16 PM Rack:Tube: 3:51

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2016 | ppm | 0.0012 | 0.58 | 6948.0000 | 0.2016 (ppm) | Y 371.029 |
| Al (396.152 nm) | 43.9200 | ppm | 0.1796 | 0.41 | 981300.0000 | 43.9200 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4281 | ppm | 0.0138 | 3.22 | 349.5000 | 0.4281 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4122 | ppm | 0.0011 | 0.26 | 4496.0000 | 0.4122 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.7790 | ppm | 0.0028 | 0.37 | 57240.0000 | 0.7790 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.3952 | ppm | 0.0023 | 0.59 | 66630.0000 | 0.3952 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 15.6300 | ppm | 0.0307 | 0.20 | 55780.0000 | 15.6300 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.3877 | ppm | 0.0003 | 0.09 | 9630.0000 | 0.3877 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4134 | ppm | 0.0017 | 0.42 | 5641.0000 | 0.4134 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4654 | ppm | 0.0025 | 0.53 | 2795.0000 | 0.4654 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4945 | ppm | 0.0018 | 0.36 | 17610.0000 | 0.4945 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 67.5400 | ppm | 0.0298 | 0.04 | 286200.0000 | 67.5400 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 18.3200 | ppm | 0.0202 | 0.11 | 19030.0000 | 18.3200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4570 | ppm | 0.0010 | 0.23 | 26980.0000 | 0.4570 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 17.3800 | ppm | 0.0789 | 0.45 | 38820.0000 | 17.3800 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.3440 | ppm | 0.0055 | 0.41 | 134200.0000 | 1.3440 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4298 | ppm | 0.0021 | 0.49 | 2279.0000 | 0.4298 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.9500 | ppm | 0.0178 | 0.36 | 27060.0000 | 4.9500 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4373 | ppm | 0.0034 | 0.77 | 2087.0000 | 0.4373 (ppm) | Y 371.029 |
| P (213.618 nm) | 2.5210 | ppm | 0.0138 | 0.55 | 2286.0000 | 2.5210 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.5358 | ppm | 0.0037 | 0.70 | 1028.0000 | 0.5358 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.4233 | ppm | 0.0010 | 0.25 | 487.2000 | 0.4233 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.3763 | ppm | 0.0001 | 0.03 | 315.5000 | 0.3763 (ppm) | Y 371.029 |
| Si (251.611 nm) | 3.7600 | ppm | 0.0247 | 0.66 | 8117.0000 | 3.7600 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4194 | ppm | 0.0011 | 0.26 | 333.1000 | 0.4194 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5638 | ppm | 0.0011 | 0.19 | 176500.0000 | 0.5638 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 3.3140 | ppm | 0.0138 | 0.42 | 359100.0000 | 3.3140 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.3867 | ppm | 0.0041 | 1.05 | 538.2000 | 0.3867 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.5297 | ppm | 0.0023 | 0.43 | 13820.0000 | 0.5297 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.4063 | ppm | 0.0032 | 0.79 | 853.8000 | 0.4063 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.6398 | ppm | 0.0030 | 0.47 | 14730.0000 | 0.6398 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.4300 | ppm | 0.0016 | 0.37 | 29910.0000 | 0.4300 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9989 | 377500.0000 | 0.0012 | 0.12 |
| Y_R 371.029 | 1.0390 | 55980.0000 | 0.0011 | 0.10 |

Sample Name: 440-195348-a-15-aSD@25

Date: 11/2/2017 8:23:21 PM Rack:Tube: 3:52

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0001 u | ppm | 0.0003 | > 100.00 | -7.5820 | -0.0001 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 8.3420 | ppm | 0.0020 | 0.02 | 185400.0000 | 8.3420 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0086 | ppm | 0.0033 | 37.84 | 13.3900 | 0.0086 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0039 | ppm | 0.0002 | 3.82 | 28.4100 | 0.0039 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0784 | ppm | 0.0007 | 0.88 | 5753.0000 | 0.0784 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0005 | ppm | 0.0001 | 17.58 | 377.3000 | 0.0005 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 2.6820 | ppm | 0.0312 | 1.16 | 9683.0000 | 2.6820 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0006 | ppm | 0.0002 | 24.57 | 15.5500 | 0.0006 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0038 | ppm | 0.0005 | 12.82 | 54.2100 | 0.0038 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0147 | ppm | 0.0002 | 1.30 | 89.7500 | 0.0147 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0166 | ppm | 0.0001 | 0.43 | 759.3000 | 0.0166 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 13.3700 | ppm | 0.0669 | 0.50 | 56680.0000 | 13.3700 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 2.9270 | ppm | 0.0572 | 1.95 | 2983.0000 | 2.9270 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0172 | ppm | 0.0012 | 6.99 | 1067.0000 | 0.0172 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 3.1090 | ppm | 0.0330 | 1.06 | 6952.0000 | 3.1090 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1906 | ppm | 0.0003 | 0.16 | 19560.0000 | 0.1906 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0015 | ppm | 0.0016 | > 100.00 | 15.3300 | 0.0015 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.1363 | ppm | 0.0135 | 9.92 | 2261.0000 | 0.1363 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0089 | ppm | 0.0005 | 5.46 | 42.8400 | 0.0089 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.4280 | ppm | 0.0044 | 1.04 | 380.5000 | 0.4280 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0302 | ppm | 0.0020 | 6.55 | 52.2100 | 0.0302 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0074 | ppm | 0.0059 | 79.40 | 4.0490 | 0.0074 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0032 | ppm | 0.0002 | 6.36 | -1.9940 | 0.0032 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.3415 | ppm | 0.0011 | 0.31 | 749.6000 | 0.3415 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0025 | ppm | 0.0006 | 25.39 | -1.4300 | 0.0025 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0320 | ppm | 0.0003 | 1.01 | 10100.0000 | 0.0320 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.5649 | ppm | 0.0005 | 0.09 | 61130.0000 | 0.5649 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0002 u | ppm | 0.0013 | > 100.00 | -15.3500 | -0.0002 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0247 | ppm | 0.0002 | 0.88 | 699.2000 | 0.0247 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0028 | ppm | 0.0005 | 17.79 | -0.7052 | 0.0028 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0502 | ppm | 0.0002 | 0.38 | 1228.0000 | 0.0502 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0022 | ppm | 0.0000 | 1.40 | 127.9000 | 0.0022 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0400 | 393100.0000 | 0.0033 | 0.32 |
| Y_R 371.029 | 1.0600 | 57080.0000 | 0.0083 | 0.78 |

Sample Name: 440-195348-a-17-a@5

Date: 11/2/2017 8:25:26 PM Rack:Tube: 3:53

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0006 u | ppm | 0.0000 | 2.52 | -39.2700 | -0.0006 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 23.8800 | ppm | 0.5736 | 2.40 | 532900.0000 | 23.8800 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0144 | ppm | 0.0019 | 13.54 | 18.1700 | 0.0144 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0092 | ppm | 0.0007 | 7.49 | 56.1600 | 0.0092 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4653 | ppm | 0.0124 | 2.67 | 34190.0000 | 0.4653 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0008 | ppm | 0.0002 | 22.33 | 1081.0000 | 0.0008 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 14.1700 | ppm | 0.1652 | 1.17 | 50580.0000 | 14.1700 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0013 | ppm | 0.0000 | 3.78 | 40.0300 | 0.0013 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0088 | ppm | 0.0009 | 9.70 | 168.6000 | 0.0088 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0455 | ppm | 0.0013 | 2.78 | 275.8000 | 0.0455 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0261 | ppm | 0.0004 | 1.69 | 1123.0000 | 0.0261 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 43.6100 | ppm | 0.3283 | 0.75 | 184800.0000 | 43.6100 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.3600 | ppm | 0.0832 | 0.80 | 10730.0000 | 10.3600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0389 | ppm | 0.0005 | 1.20 | 2444.0000 | 0.0389 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 8.7870 | ppm | 0.2359 | 2.68 | 19630.0000 | 8.7870 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4179 | ppm | 0.0114 | 2.72 | 44670.0000 | 0.4179 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0035 | ppm | 0.0005 | 15.67 | 29.2900 | 0.0035 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.2660 | ppm | 0.0027 | 0.21 | 8082.0000 | 1.2660 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0211 | ppm | 0.0004 | 2.11 | 101.4000 | 0.0211 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.5320 | ppm | 0.0390 | 2.54 | 1399.0000 | 1.5320 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0225 | ppm | 0.0004 | 1.67 | 33.8500 | 0.0225 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0057 | ppm | 0.0040 | 69.95 | 3.3050 | 0.0057 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0056 | ppm | 0.0051 | 90.78 | -5.8960 | 0.0056 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.6890 | ppm | 0.0384 | 2.27 | 3634.0000 | 1.6890 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0060 | ppm | 0.0011 | 18.08 | 1.1930 | 0.0060 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1825 | ppm | 0.0022 | 1.21 | 57280.0000 | 0.1825 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 2.6810 | ppm | 0.0650 | 2.42 | 290500.0000 | 2.6810 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0010 u | ppm | 0.0007 | 66.90 | -49.3200 | -0.0010 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0782 | ppm | 0.0022 | 2.85 | 2150.0000 | 0.0782 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0017 | ppm | 0.0013 | 77.60 | -0.2597 | 0.0017 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2682 | ppm | 0.0060 | 2.25 | 6194.0000 | 0.2682 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0061 | ppm | 0.0002 | 3.45 | 421.1000 | 0.0061 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0030 | 379000.0000 | 0.0006 | 0.05 |
| Y_R 371.029 | 1.0430 | 56190.0000 | 0.0034 | 0.32 |

Sample Name: 440-195348-a-19-a@5

Date: 11/2/2017 8:27:31 PM Rack:Tube: 3:54

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0007 u | ppm | 0.0005 | 75.06 | -60.5900 | -0.0007 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 85.5800 | ppm | 1.5200 | 1.78 | 1913000.0000 | 85.5800 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1553 | ppm | 0.0052 | 3.38 | 132.2000 | 0.1553 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0352 | ppm | 0.0008 | 2.20 | 273.9000 | 0.0352 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.7025 | ppm | 0.0079 | 1.12 | 51630.0000 | 0.7025 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0035 | ppm | 0.0002 | 4.39 | 3096.0000 | 0.0035 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 31.6800 | ppm | 0.1460 | 0.46 | 112900.0000 | 31.6800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0069 | ppm | 0.0002 | 2.41 | 198.5000 | 0.0069 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0428 | ppm | 0.0015 | 3.50 | 647.0000 | 0.0428 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1935 | ppm | 0.0030 | 1.53 | 1167.0000 | 0.1935 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4379 | ppm | 0.0080 | 1.83 | 15650.0000 | 0.4379 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 115.6000 | ppm | 0.0748 | 0.06 | 489700.0000 | 115.6000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 19.0900 | ppm | 0.0466 | 0.24 | 19840.0000 | 19.0900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0894 | ppm | 0.0011 | 1.20 | 5597.0000 | 0.0894 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 27.0200 | ppm | 0.2496 | 0.92 | 60370.0000 | 27.0200 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.7320 | ppm | 0.0350 | 2.02 | 176400.0000 | 1.7320 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0082 | ppm | 0.0008 | 9.96 | 64.9300 | 0.0082 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.6360 | ppm | 0.0107 | 0.65 | 10010.0000 | 1.6360 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1111 | ppm | 0.0017 | 1.54 | 532.2000 | 0.1111 (ppm) | Y 371.029 |
| P (213.618 nm) | 2.7160 | ppm | 0.0576 | 2.12 | 2476.0000 | 2.7160 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.2818 | ppm | 0.0069 | 2.46 | 531.1000 | 0.2818 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0037 | ppm | 0.0027 | 72.26 | 3.8800 | 0.0037 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0069 | ppm | 0.0019 | 27.51 | -18.5800 | 0.0069 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.2830 | ppm | 0.0283 | 2.20 | 2776.0000 | 1.2830 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0135 | ppm | 0.0006 | 4.20 | 7.3970 | 0.0135 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.2760 | ppm | 0.0010 | 0.37 | 86710.0000 | 0.2760 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 3.2050 | ppm | 0.0580 | 1.81 | 347300.0000 | 3.2050 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0042 u | ppm | 0.0014 | 34.07 | -63.8700 | -0.0042 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2461 | ppm | 0.0048 | 1.94 | 6557.0000 | 0.2461 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0023 u | ppm | 0.0019 | 82.60 | -1.2610 | -0.0023 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.8312 | ppm | 0.0135 | 1.63 | 19090.0000 | 0.8312 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0189 | ppm | 0.0000 | 0.01 | 1371.0000 | 0.0189 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0120 | 382500.0000 | 0.0016 | 0.16 |
| Y_R 371.029 | 1.0530 | 56710.0000 | 0.0095 | 0.90 |

Sample Name: 440-195348-a-21-a@5

Date: 11/2/2017 8:29:36 PM Rack:Tube: 3:55

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0014 u | ppm | 0.0001 | 3.63 | -97.9700 | -0.0014 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 123.2000 | ppm | 2.8870 | 2.34 | 2753000.0000 | 123.2000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.2706 | ppm | 0.0010 | 0.37 | 226.6000 | 0.2706 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0456 | ppm | 0.0001 | 0.12 | 357.4000 | 0.0456 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.6473 | ppm | 0.0265 | 4.09 | 47570.0000 | 0.6473 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0054 | ppm | 0.0008 | 14.02 | 4108.0000 | 0.0054 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 32.9300 | ppm | 0.6133 | 1.86 | 117400.0000 | 32.9300 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0043 | ppm | 0.0002 | 3.62 | 143.6000 | 0.0043 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0510 | ppm | 0.0006 | 1.18 | 787.1000 | 0.0510 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1637 | ppm | 0.0041 | 2.50 | 989.4000 | 0.1637 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1485 | ppm | 0.0041 | 2.74 | 5516.0000 | 0.1485 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 147.9000 | ppm | 3.2420 | 2.19 | 626900.0000 | 147.9000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 23.1500 | ppm | 0.5973 | 2.58 | 24090.0000 | 23.1500 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1300 | ppm | 0.0042 | 3.20 | 8187.0000 | 0.1300 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 42.9100 | ppm | 1.7390 | 4.05 | 95870.0000 | 42.9100 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.5690 | ppm | 0.0657 | 2.56 | 258500.0000 | 2.5690 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0127 | ppm | 0.0008 | 6.10 | 95.0600 | 0.0127 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.7420 | ppm | 0.0885 | 1.87 | 26000.0000 | 4.7420 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1010 | ppm | 0.0000 | 0.04 | 484.4000 | 0.1010 (ppm) | Y 371.029 |
| P (213.618 nm) | 2.9840 | ppm | 0.0445 | 1.49 | 2733.0000 | 2.9840 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.3620 | ppm | 0.0316 | 2.32 | 2625.0000 | 1.3620 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0044 | ppm | 0.0033 | 73.86 | 4.9870 | 0.0044 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0093 | ppm | 0.0000 | 0.14 | -22.5500 | 0.0093 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.9450 | ppm | 0.0618 | 3.18 | 4195.0000 | 1.9450 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0103 | ppm | 0.0011 | 10.62 | 4.7950 | 0.0103 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.2813 | ppm | 0.0050 | 1.78 | 88380.0000 | 0.2813 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.4600 | ppm | 0.1055 | 2.37 | 483300.0000 | 4.4600 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0006 u | ppm | 0.0038 | > 100.00 | -77.1100 | -0.0006 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3178 | ppm | 0.0079 | 2.47 | 8455.0000 | 0.3178 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0000 u | ppm | 0.0021 | > 100.00 | -2.4320 | 0.0000 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.5354 | ppm | 0.0125 | 2.34 | 12320.0000 | 0.5354 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0142 | ppm | 0.0001 | 0.48 | 1068.0000 | 0.0142 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9968 | 376700.0000 | 0.0000 | 0.00 |
| Y_R 371.029 | 1.0450 | 56290.0000 | 0.0172 | 1.64 |

Sample Name: CCV 4461459

Date: 11/2/2017 8:31:41 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4924 | ppm | 0.0059 | 1.20 | 17020.0000 | 0.4924 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0060 | ppm | 0.0042 | 0.41 | 22170.0000 | 1.0060 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9815 | ppm | 0.0100 | 1.02 | 791.2000 | 0.9815 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9828 | ppm | 0.0101 | 1.02 | 10890.0000 | 0.9828 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9680 | ppm | 0.0038 | 0.39 | 71110.0000 | 0.9680 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9825 | ppm | 0.0114 | 1.16 | 162000.0000 | 0.9825 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.9840 | ppm | 0.0284 | 0.57 | 17880.0000 | 4.9840 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9709 | ppm | 0.0112 | 1.15 | 24080.0000 | 0.9709 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9830 | ppm | 0.0079 | 0.80 | 13270.0000 | 0.9830 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9698 | ppm | 0.0099 | 1.03 | 5816.0000 | 0.9698 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9996 | ppm | 0.0079 | 0.79 | 35310.0000 | 0.9996 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0150 | ppm | 0.0153 | 1.51 | 4301.0000 | 1.0150 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.9870 | ppm | 0.0247 | 0.25 | 10330.0000 | 9.9870 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9968 | ppm | 0.0066 | 0.67 | 58350.0000 | 0.9968 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.8880 | ppm | 0.0208 | 0.43 | 10930.0000 | 4.8880 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9740 | ppm | 0.0099 | 1.02 | 91300.0000 | 0.9740 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9751 | ppm | 0.0111 | 1.14 | 5144.0000 | 0.9751 (ppm) | Y 371.029 |
| Na (589.592 nm) | 9.8720 | ppm | 0.0673 | 0.68 | 52380.0000 | 9.8720 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9747 | ppm | 0.0097 | 0.99 | 4650.0000 | 0.9747 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9810 | ppm | 0.0071 | 0.73 | 837.4000 | 0.9810 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9750 | ppm | 0.0074 | 0.76 | 1886.0000 | 0.9750 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9749 | ppm | 0.0169 | 1.73 | 1124.0000 | 0.9749 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9773 | ppm | 0.0105 | 1.07 | 855.9000 | 0.9773 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.0750 | ppm | 0.1818 | 3.58 | 11000.0000 | 5.0750 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9779 | ppm | 0.0053 | 0.55 | 781.4000 | 0.9779 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9945 | ppm | 0.0024 | 0.24 | 311000.0000 | 0.9945 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9900 | ppm | 0.0110 | 1.12 | 107200.0000 | 0.9900 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9799 | ppm | 0.0105 | 1.07 | 1488.0000 | 0.9799 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9903 | ppm | 0.0136 | 1.38 | 25620.0000 | 0.9903 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9749 | ppm | 0.0109 | 1.12 | 2053.0000 | 0.9749 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9748 | ppm | 0.0104 | 1.07 | 22420.0000 | 0.9748 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9821 | ppm | 0.0129 | 1.31 | 68250.0000 | 0.9821 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0380 | 392200.0000 | 0.0119 | 1.14 |
| Y_R 371.029 | 1.0640 | 57340.0000 | 0.0029 | 0.27 |

Sample Name: CCB 4461458

Date: 11/2/2017 8:33:45 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0004 | ppm | 0.0001 | 21.82 | 14.1000 | 0.0004 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0020 | ppm | 0.0004 | 20.20 | -1137.0000 | 0.0020 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0028 | ppm | 0.0036 | > 100.00 | 8.5730 | 0.0028 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0008 | ppm | 0.0005 | 70.97 | 6.5750 | 0.0008 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0003 | ppm | 0.0000 | 9.46 | 8.6220 | 0.0003 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 72.32 | 29.9800 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0103 u | ppm | 0.0008 | 7.52 | 97.6600 | -0.0103 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | 0.5502 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0005 u | ppm | 0.0004 | 85.01 | -17.9100 | -0.0005 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0001 | 27.62 | 3.5730 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0012 | ppm | 0.0002 | 12.51 | 206.9000 | 0.0012 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0023 | ppm | 0.0016 | 70.00 | 13.8600 | 0.0023 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1496 | ppm | 0.0601 | 40.17 | 86.3500 | 0.1496 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0093 | ppm | 0.0004 | 4.65 | 558.3000 | 0.0093 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0012 | ppm | 0.0016 | > 100.00 | 10.6100 | 0.0012 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0002 | > 100.00 | 85.5700 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0034 | ppm | 0.0024 | 71.00 | 23.5000 | 0.0034 (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0694 u | ppm | 0.0092 | 13.21 | 1198.0000 | -0.0694 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0012 | ppm | 0.0009 | 73.35 | 5.8710 | 0.0012 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0051 | ppm | 0.0003 | 5.98 | -9.2420 | 0.0051 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0002 u | ppm | 0.0009 | > 100.00 | -4.7310 | 0.0002 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0070 | ppm | 0.0095 | > 100.00 | 3.0500 | 0.0070 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0014 u | ppm | 0.0033 | > 100.00 | -1.0080 | 0.0014 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0086 | ppm | 0.0044 | 51.22 | 36.6800 | 0.0086 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0013 | ppm | 0.0005 | 41.86 | -2.4050 | 0.0013 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 | ppm | 0.0001 | > 100.00 | 82.0500 | 0.0000 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0012 | ppm | 0.0002 | 17.17 | 30.2100 | 0.0012 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0017 | ppm | 0.0009 | 50.42 | -3.6130 | 0.0017 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0002 | ppm | 0.0001 | 59.79 | 46.9800 | 0.0002 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0027 | ppm | 0.0018 | 65.75 | -1.4000 | 0.0027 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0031 u | ppm | 0.0001 | 1.70 | 10.0600 | -0.0031 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 33.12 | -28.3000 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0420 | 393600.0000 | 0.0004 | 0.04 |
| Y_R 371.029 | 1.0640 | 57330.0000 | 0.0167 | 1.57 |

Sample Name: 440-195348-a-23-a@5

Date: 11/2/2017 8:35:50 PM Rack:Tube: 3:56

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0009 u | ppm | 0.0003 | 37.07 | -76.5900 | -0.0009 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 102.5000 | ppm | 2.4320 | 2.37 | 2290000.0000 | 102.5000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1366 | ppm | 0.0070 | 5.11 | 117.9000 | 0.1366 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0697 | ppm | 0.0004 | 0.58 | 645.0000 | 0.0697 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.3516 | ppm | 0.0136 | 3.86 | 25850.0000 | 0.3516 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0041 | ppm | 0.0003 | 7.03 | 3537.0000 | 0.0041 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 46.4800 | ppm | 0.8661 | 1.86 | 165600.0000 | 46.4800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0039 | ppm | 0.0004 | 9.80 | 129.1000 | 0.0039 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0594 | ppm | 0.0012 | 2.02 | 882.7000 | 0.0594 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1430 | ppm | 0.0042 | 2.97 | 864.5000 | 0.1430 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1677 | ppm | 0.0035 | 2.08 | 6161.0000 | 0.1677 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 130.4000 | ppm | 2.3210 | 1.78 | 552600.0000 | 130.4000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 18.9300 | ppm | 0.3260 | 1.72 | 19690.0000 | 18.9300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1208 | ppm | 0.0011 | 0.89 | 7569.0000 | 0.1208 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 37.0700 | ppm | 1.4130 | 3.81 | 82820.0000 | 37.0700 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.2710 | ppm | 0.0610 | 2.69 | 228600.0000 | 2.2710 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0117 | ppm | 0.0009 | 8.08 | 86.6000 | 0.0117 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.5510 | ppm | 0.0682 | 1.92 | 19870.0000 | 3.5510 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1623 | ppm | 0.0040 | 2.48 | 776.6000 | 0.1623 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.2940 | ppm | 0.1316 | 3.07 | 3942.0000 | 4.2940 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.7287 | ppm | 0.0186 | 2.55 | 1398.0000 | 0.7287 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0083 | ppm | 0.0061 | 73.03 | 8.8720 | 0.0083 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0071 | ppm | 0.0055 | 77.69 | -21.3000 | 0.0071 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.6760 | ppm | 0.0735 | 2.75 | 5745.0000 | 2.6760 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0128 | ppm | 0.0001 | 1.01 | 6.8100 | 0.0128 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.1854 | ppm | 0.0030 | 1.64 | 58540.0000 | 0.1854 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 3.7040 | ppm | 0.0892 | 2.41 | 401300.0000 | 3.7040 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | -64.4400 | 0.0000 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2852 | ppm | 0.0069 | 2.40 | 7602.0000 | 0.2852 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0028 u | ppm | 0.0011 | 37.94 | -7.2550 | -0.0028 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.5838 | ppm | 0.0146 | 2.49 | 13420.0000 | 0.5838 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0163 | ppm | 0.0004 | 2.25 | 1204.0000 | 0.0163 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9914 | 374700.0000 | 0.0026 | 0.26 |
| Y_R 371.029 | 1.0310 | 55510.0000 | 0.0163 | 1.58 |

Sample Name: 440-195348-a-25-a@5

Date: 11/2/2017 8:37:55 PM Rack:Tube: 3:57

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0015 u | ppm | 0.0003 | 23.31 | -91.9600 | -0.0015 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 79.0600 | ppm | 1.0990 | 1.39 | 1767000.0000 | 79.0600 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0779 | ppm | 0.0013 | 1.73 | 70.1400 | 0.0779 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0278 | ppm | 0.0003 | 1.01 | 206.3000 | 0.0278 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.6719 | ppm | 0.0023 | 0.35 | 49380.0000 | 0.6719 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0034 | ppm | 0.0003 | 7.53 | 2781.0000 | 0.0034 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 50.1800 | ppm | 0.1505 | 0.30 | 178800.0000 | 50.1800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0027 | ppm | 0.0002 | 5.65 | 91.1000 | 0.0027 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0340 | ppm | 0.0003 | 0.79 | 552.8000 | 0.0340 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1014 | ppm | 0.0009 | 0.84 | 614.4000 | 0.1014 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0875 | ppm | 0.0008 | 0.95 | 3321.0000 | 0.0875 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 101.4000 | ppm | 1.3430 | 1.33 | 429500.0000 | 101.4000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 18.9600 | ppm | 0.0798 | 0.42 | 19710.0000 | 18.9600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0624 | ppm | 0.0002 | 0.32 | 4088.0000 | 0.0624 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 26.3900 | ppm | 0.1225 | 0.46 | 58960.0000 | 26.3900 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.5450 | ppm | 0.0228 | 1.47 | 157200.0000 | 1.5450 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0070 | ppm | 0.0003 | 4.01 | 57.8900 | 0.0070 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.7160 | ppm | 0.0165 | 0.35 | 25850.0000 | 4.7160 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0724 | ppm | 0.0001 | 0.14 | 346.9000 | 0.0724 (ppm) | Y 371.029 |
| P (213.618 nm) | 5.7180 | ppm | 0.0973 | 1.70 | 5259.0000 | 5.7180 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0938 | ppm | 0.0005 | 0.56 | 166.0000 | 0.0938 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0068 | ppm | 0.0029 | 42.34 | 6.4810 | 0.0068 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0064 | ppm | 0.0022 | 35.31 | -16.5600 | 0.0064 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.9080 | ppm | 0.0276 | 1.44 | 4115.0000 | 1.9080 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0095 | ppm | 0.0006 | 6.72 | 3.9990 | 0.0095 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.3249 | ppm | 0.0014 | 0.42 | 102200.0000 | 0.3249 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.4680 | ppm | 0.0606 | 1.36 | 484200.0000 | 4.4680 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0023 u | ppm | 0.0025 | > 100.00 | -79.1500 | -0.0023 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2087 | ppm | 0.0029 | 1.41 | 5626.0000 | 0.2087 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0007 u | ppm | 0.0000 | 0.86 | -7.0350 | -0.0007 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2939 | ppm | 0.0034 | 1.15 | 6805.0000 | 0.2939 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0218 | ppm | 0.0004 | 1.88 | 1561.0000 | 0.0218 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9936 | 375500.0000 | 0.0029 | 0.29 |
| Y_R 371.029 | 1.0290 | 55410.0000 | 0.0069 | 0.67 |

Sample Name: 440-195348-a-27-a@5

Date: 11/2/2017 8:40:00 PM Rack:Tube: 3:58

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0005 u | ppm | 0.0001 | 17.03 | -47.2800 | -0.0005 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 82.9600 | ppm | 3.3850 | 4.08 | 1854000.0000 | 82.9600 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0724 | ppm | 0.0060 | 8.25 | 65.4700 | 0.0724 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0288 | ppm | 0.0008 | 2.85 | 225.6000 | 0.0288 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.5621 | ppm | 0.0244 | 4.34 | 41310.0000 | 0.5621 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0036 | ppm | 0.0004 | 12.01 | 2626.0000 | 0.0036 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 21.8100 | ppm | 0.2021 | 0.93 | 77760.0000 | 21.8100 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0040 | ppm | 0.0001 | 2.77 | 121.3000 | 0.0040 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0336 | ppm | 0.0015 | 4.54 | 513.8000 | 0.0336 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1325 | ppm | 0.0056 | 4.20 | 799.9000 | 0.1325 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1085 | ppm | 0.0050 | 4.58 | 4062.0000 | 0.1085 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 92.5300 | ppm | 0.7421 | 0.80 | 392100.0000 | 92.5300 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 13.1000 | ppm | 0.0704 | 0.54 | 13610.0000 | 13.1000 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0818 | ppm | 0.0020 | 2.41 | 5167.0000 | 0.0818 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 23.0800 | ppm | 1.0180 | 4.41 | 51570.0000 | 23.0800 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.6430 | ppm | 0.0695 | 4.23 | 165100.0000 | 1.6430 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0049 | ppm | 0.0005 | 10.36 | 46.8700 | 0.0049 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.0160 | ppm | 0.0440 | 1.46 | 17110.0000 | 3.0160 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0662 | ppm | 0.0027 | 4.14 | 317.7000 | 0.0662 (ppm) | Y 371.029 |
| P (213.618 nm) | 2.9210 | ppm | 0.1427 | 4.89 | 2678.0000 | 2.9210 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.3378 | ppm | 0.0143 | 4.22 | 640.9000 | 0.3378 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0076 | ppm | 0.0035 | 46.63 | 7.4130 | 0.0076 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0041 | ppm | 0.0010 | 25.15 | -16.6100 | 0.0041 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.3920 | ppm | 0.1050 | 4.39 | 5134.0000 | 2.3920 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0106 | ppm | 0.0019 | 18.35 | 5.0260 | 0.0106 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.3165 | ppm | 0.0034 | 1.07 | 99250.0000 | 0.3165 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 2.9520 | ppm | 0.1211 | 4.10 | 319800.0000 | 2.9520 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0015 u | ppm | 0.0024 | > 100.00 | -55.0200 | -0.0015 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2127 | ppm | 0.0087 | 4.10 | 5672.0000 | 0.2127 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0014 | ppm | 0.0010 | 66.42 | -0.8799 | 0.0014 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.3589 | ppm | 0.0140 | 3.90 | 8281.0000 | 0.3589 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0090 | ppm | 0.0001 | 1.24 | 668.5000 | 0.0090 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9981 | 377200.0000 | 0.0009 | 0.09 |
| Y_R 371.029 | 1.0310 | 55540.0000 | 0.0039 | 0.38 |

Sample Name: 440-195348-a-29-a@5

Date: 11/2/2017 8:42:05 PM Rack:Tube: 3:59

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0006 u | ppm | 0.0002 | 36.37 | -59.2700 | -0.0006 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 85.4800 | ppm | 2.1960 | 2.57 | 1910000.0000 | 85.4800 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1469 | ppm | 0.0032 | 2.19 | 125.6000 | 0.1469 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0278 | ppm | 0.0006 | 2.20 | 190.3000 | 0.0278 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.6523 | ppm | 0.0175 | 2.68 | 47940.0000 | 0.6523 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0037 | ppm | 0.0003 | 9.37 | 3155.0000 | 0.0037 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 28.1900 | ppm | 0.0791 | 0.28 | 100500.0000 | 28.1900 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0064 | ppm | 0.0001 | 0.84 | 185.5000 | 0.0064 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0455 | ppm | 0.0018 | 3.92 | 679.6000 | 0.0455 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1726 | ppm | 0.0041 | 2.37 | 1042.0000 | 0.1726 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.5631 | ppm | 0.0142 | 2.52 | 20060.0000 | 0.5631 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 115.4000 | ppm | 0.3262 | 0.28 | 489100.0000 | 115.4000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 18.3300 | ppm | 0.1395 | 0.76 | 19050.0000 | 18.3300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0959 | ppm | 0.0002 | 0.19 | 5945.0000 | 0.0959 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 28.1100 | ppm | 0.7171 | 2.55 | 62800.0000 | 28.1100 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.7700 | ppm | 0.0494 | 2.79 | 180000.0000 | 1.7700 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0081 | ppm | 0.0005 | 6.46 | 64.9900 | 0.0081 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.8090 | ppm | 0.0069 | 0.38 | 10900.0000 | 1.8090 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1013 | ppm | 0.0014 | 1.42 | 485.5000 | 0.1013 (ppm) | Y 371.029 |
| P (213.618 nm) | 2.7910 | ppm | 0.0622 | 2.23 | 2541.0000 | 2.7910 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.2881 | ppm | 0.0069 | 2.39 | 543.5000 | 0.2881 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0029 | ppm | 0.0030 | > 100.00 | 2.6560 | 0.0029 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0041 | ppm | 0.0055 | > 100.00 | -21.0900 | 0.0041 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.5470 | ppm | 0.0457 | 2.95 | 3337.0000 | 1.5470 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0131 | ppm | 0.0021 | 15.70 | 7.0740 | 0.0131 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.2486 | ppm | 0.0008 | 0.34 | 78110.0000 | 0.2486 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 3.0390 | ppm | 0.0766 | 2.52 | 329200.0000 | 3.0390 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0014 u | ppm | 0.0021 | > 100.00 | -57.0000 | -0.0014 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2540 | ppm | 0.0063 | 2.49 | 6755.0000 | 0.2540 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0017 u | ppm | 0.0000 | 1.79 | 7.7590 | -0.0017 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.2930 | ppm | 0.0319 | 2.46 | 29610.0000 | 1.2930 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0160 | ppm | 0.0004 | 2.38 | 1172.0000 | 0.0160 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0080 | 380800.0000 | 0.0030 | 0.30 |
| Y_R 371.029 | 1.0390 | 55950.0000 | 0.0021 | 0.20 |

Sample Name: 440-195348-a-30-a@5

Date: 11/2/2017 8:44:10 PM Rack:Tube: 3:60

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0016 u | ppm | 0.0004 | 21.78 | -104.1000 | -0.0016 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 121.4000 | ppm | 2.6390 | 2.17 | 2713000.0000 | 121.4000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.2267 | ppm | 0.0047 | 2.06 | 191.0000 | 0.2267 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0474 | ppm | 0.0007 | 1.50 | 382.1000 | 0.0474 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.5906 | ppm | 0.0135 | 2.29 | 43410.0000 | 0.5906 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0044 | ppm | 0.0005 | 11.97 | 3874.0000 | 0.0044 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 34.6900 | ppm | 0.2174 | 0.63 | 123700.0000 | 34.6900 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0041 | ppm | 0.0001 | 1.78 | 137.2000 | 0.0041 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0506 | ppm | 0.0008 | 1.61 | 779.6000 | 0.0506 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1609 | ppm | 0.0035 | 2.17 | 972.5000 | 0.1609 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1461 | ppm | 0.0032 | 2.18 | 5426.0000 | 0.1461 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 143.3000 | ppm | 0.9234 | 0.64 | 607300.0000 | 143.3000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 20.9300 | ppm | 0.1024 | 0.49 | 21780.0000 | 20.9300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1337 | ppm | 0.0008 | 0.62 | 8399.0000 | 0.1337 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 41.3600 | ppm | 0.8896 | 2.15 | 92420.0000 | 41.3600 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.5590 | ppm | 0.0576 | 2.25 | 257100.0000 | 2.5590 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0119 | ppm | 0.0000 | 0.22 | 90.5900 | 0.0119 (ppm) | Y 371.029 |
| Na (589.592 nm) | 5.0140 | ppm | 0.0432 | 0.86 | 27400.0000 | 5.0140 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0985 | ppm | 0.0009 | 0.92 | 472.3000 | 0.0985 (ppm) | Y 371.029 |
| P (213.618 nm) | 3.0860 | ppm | 0.0532 | 1.72 | 2828.0000 | 3.0860 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.2250 | ppm | 0.0246 | 2.01 | 2360.0000 | 1.2250 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0095 | ppm | 0.0106 | > 100.00 | 10.8500 | 0.0095 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0025 | ppm | 0.0024 | 95.72 | -27.7600 | 0.0025 (ppm) | Y 371.029 |
| Si (251.611 nm) | 1.6180 | ppm | 0.0416 | 2.57 | 3498.0000 | 1.6180 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0084 | ppm | 0.0009 | 10.60 | 3.2860 | 0.0084 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.2939 | ppm | 0.0020 | 0.69 | 92340.0000 | 0.2939 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 4.3850 | ppm | 0.0876 | 2.00 | 475200.0000 | 4.3850 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0022 | ppm | 0.0021 | 95.45 | -71.2800 | 0.0022 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3176 | ppm | 0.0069 | 2.16 | 8449.0000 | 0.3176 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0007 u | ppm | 0.0002 | 28.50 | -3.7390 | -0.0007 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.5398 | ppm | 0.0111 | 2.05 | 12420.0000 | 0.5398 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0138 | ppm | 0.0002 | 1.76 | 1042.0000 | 0.0138 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9979 | 377100.0000 | 0.0019 | 0.19 |
| Y_R 371.029 | 1.0470 | 56410.0000 | 0.0003 | 0.03 |

Sample Name: 440-195348-a-31-a@5

Date: 11/2/2017 8:46:16 PM Rack:Tube: 4:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0008 u | ppm | 0.0000 | 5.55 | -71.2300 | -0.0008 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 95.1000 | ppm | 1.7120 | 1.80 | 2125000.0000 | 95.1000 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1295 | ppm | 0.0013 | 1.02 | 112.1000 | 0.1295 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0658 | ppm | 0.0010 | 1.59 | 607.5000 | 0.0658 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.3376 | ppm | 0.0073 | 2.17 | 24810.0000 | 0.3376 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0037 | ppm | 0.0006 | 16.38 | 3332.0000 | 0.0037 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 44.9700 | ppm | 0.1610 | 0.36 | 160300.0000 | 44.9700 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0040 | ppm | 0.0002 | 4.57 | 129.2000 | 0.0040 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0568 | ppm | 0.0014 | 2.38 | 839.8000 | 0.0568 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1348 | ppm | 0.0022 | 1.64 | 815.4000 | 0.1348 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.1594 | ppm | 0.0030 | 1.90 | 5864.0000 | 0.1594 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 123.5000 | ppm | 1.0130 | 0.82 | 523500.0000 | 123.5000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 18.7200 | ppm | 0.1899 | 1.01 | 19470.0000 | 18.7200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1118 | ppm | 0.0001 | 0.06 | 7008.0000 | 0.1118 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 34.7900 | ppm | 0.6851 | 1.97 | 77740.0000 | 34.7900 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 2.1980 | ppm | 0.0447 | 2.04 | 220900.0000 | 2.1980 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0119 | ppm | 0.0001 | 0.59 | 86.1300 | 0.0119 (ppm) | Y 371.029 |
| Na (589.592 nm) | 3.2770 | ppm | 0.0098 | 0.30 | 18460.0000 | 3.2770 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.1018 | ppm | 0.0026 | 2.53 | 487.5000 | 0.1018 (ppm) | Y 371.029 |
| P (213.618 nm) | 4.3950 | ppm | 0.0749 | 1.70 | 4036.0000 | 4.3950 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.7018 | ppm | 0.0124 | 1.77 | 1346.0000 | 0.7018 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0100 | ppm | 0.0010 | 9.86 | 10.6200 | 0.0100 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0090 | ppm | 0.0005 | 5.05 | -18.3500 | 0.0090 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.0330 | ppm | 0.0501 | 2.46 | 4374.0000 | 2.0330 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0109 | ppm | 0.0024 | 22.39 | 5.2940 | 0.0109 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.2066 | ppm | 0.0008 | 0.37 | 65140.0000 | 0.2066 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 3.3760 | ppm | 0.0645 | 1.91 | 365700.0000 | 3.3760 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0006 u | ppm | 0.0011 | > 100.00 | -60.3000 | -0.0006 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2708 | ppm | 0.0055 | 2.04 | 7217.0000 | 0.2708 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0004 | ppm | 0.0005 | > 100.00 | -0.6763 | 0.0004 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.5669 | ppm | 0.0113 | 1.99 | 13030.0000 | 0.5669 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0128 | ppm | 0.0001 | 0.40 | 956.9000 | 0.0128 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0040 | 379400.0000 | 0.0020 | 0.20 |
| Y_R 371.029 | 1.0520 | 56680.0000 | 0.0029 | 0.28 |

Sample Name: CCV 4461459

Date: 11/2/2017 8:48:20 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4839 | ppm | 0.0073 | 1.50 | 16730.0000 | 0.4839 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.9867 | ppm | 0.0038 | 0.38 | 21720.0000 | 0.9867 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9604 | ppm | 0.0179 | 1.87 | 774.3000 | 0.9604 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9620 | ppm | 0.0172 | 1.79 | 10650.0000 | 0.9620 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9583 | ppm | 0.0008 | 0.08 | 70410.0000 | 0.9583 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9631 | ppm | 0.0172 | 1.78 | 158800.0000 | 0.9631 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.8720 | ppm | 0.0358 | 0.73 | 17480.0000 | 4.8720 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9513 | ppm | 0.0166 | 1.74 | 23590.0000 | 0.9513 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9681 | ppm | 0.0136 | 1.40 | 13060.0000 | 0.9681 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9497 | ppm | 0.0163 | 1.71 | 5696.0000 | 0.9497 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9772 | ppm | 0.0181 | 1.85 | 34520.0000 | 0.9772 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9946 | ppm | 0.0026 | 0.26 | 4216.0000 | 0.9946 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.9530 | ppm | 0.0355 | 0.36 | 10300.0000 | 9.9530 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9838 | ppm | 0.0043 | 0.43 | 57590.0000 | 0.9838 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.8270 | ppm | 0.0005 | 0.01 | 10800.0000 | 4.8270 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9547 | ppm | 0.0161 | 1.68 | 89500.0000 | 0.9547 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9567 | ppm | 0.0167 | 1.75 | 5047.0000 | 0.9567 (ppm) | Y 371.029 |
| Na (589.592 nm) | 9.7070 | ppm | 0.0573 | 0.59 | 51540.0000 | 9.7070 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9541 | ppm | 0.0154 | 1.62 | 4552.0000 | 0.9541 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9669 | ppm | 0.0073 | 0.75 | 825.3000 | 0.9669 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9571 | ppm | 0.0137 | 1.43 | 1851.0000 | 0.9571 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9568 | ppm | 0.0227 | 2.37 | 1103.0000 | 0.9568 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9572 | ppm | 0.0209 | 2.18 | 838.3000 | 0.9572 (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.9930 | ppm | 0.2093 | 4.19 | 10820.0000 | 4.9930 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9636 | ppm | 0.0156 | 1.62 | 769.9000 | 0.9636 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9843 | ppm | 0.0029 | 0.29 | 307800.0000 | 0.9843 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9715 | ppm | 0.0170 | 1.75 | 105200.0000 | 0.9715 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9646 | ppm | 0.0151 | 1.57 | 1465.0000 | 0.9646 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9733 | ppm | 0.0150 | 1.54 | 25190.0000 | 0.9733 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9545 | ppm | 0.0161 | 1.69 | 2010.0000 | 0.9545 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9522 | ppm | 0.0159 | 1.67 | 21900.0000 | 0.9522 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9626 | ppm | 0.0166 | 1.73 | 66900.0000 | 0.9626 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0540 | 398300.0000 | 0.0178 | 1.69 |
| Y_R 371.029 | 1.0710 | 57680.0000 | 0.0007 | 0.06 |

Sample Name: CCB 4461458

Date: 11/2/2017 8:50:24 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0004 | ppm | 0.0002 | 66.67 | 12.0400 | 0.0004 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0024 | ppm | 0.0004 | 18.46 | -1128.0000 | 0.0024 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0018 | ppm | 0.0012 | 66.78 | 7.8370 | 0.0018 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0009 | ppm | 0.0006 | 60.88 | 8.2620 | 0.0009 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | -4.3650 | 0.0001 u (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 57.27 | 26.4500 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0149 u | ppm | 0.0024 | 15.94 | 81.1800 | -0.0149 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | -0.8354 | 0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0002 | 58.70 | -14.9100 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0003 | ppm | 0.0000 | 3.22 | 2.9150 | 0.0003 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0006 | ppm | 0.0002 | 25.93 | 185.0000 | 0.0006 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0028 | ppm | 0.0007 | 25.91 | 15.7900 | 0.0028 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0609 | ppm | 0.0114 | 18.65 | -6.0070 | 0.0609 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0115 | ppm | 0.0009 | 7.92 | 688.6000 | 0.0115 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0031 | ppm | 0.0008 | 24.99 | 14.7800 | 0.0031 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0000 | 35.68 | 82.4400 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0029 | ppm | 0.0005 | 18.78 | 20.8000 | 0.0029 (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0912 u | ppm | 0.0015 | 1.66 | 1086.0000 | -0.0912 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0002 u | ppm | 0.0004 | > 100.00 | 0.9326 | 0.0002 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0049 | ppm | 0.0048 | 97.16 | -9.3680 | 0.0049 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0011 u | ppm | 0.0003 | 23.42 | -7.3240 | -0.0011 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0071 | ppm | 0.0042 | 58.93 | 3.1740 | 0.0071 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0036 | ppm | 0.0010 | 28.40 | 0.9055 | 0.0036 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0095 | ppm | 0.0052 | 54.50 | 38.4400 | 0.0095 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0025 | ppm | 0.0007 | 30.44 | -1.4730 | 0.0025 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 | ppm | 0.0000 | 16.32 | 81.0800 | 0.0000 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0013 | ppm | 0.0003 | 22.83 | 36.8600 | 0.0013 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0016 u | ppm | 0.0028 | > 100.00 | -3.8560 | 0.0016 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0002 | ppm | 0.0002 | 62.62 | 46.6400 | 0.0002 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0037 | ppm | 0.0002 | 5.02 | 0.5761 | 0.0037 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0030 u | ppm | 0.0001 | 2.07 | 12.3500 | -0.0030 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 5.87 | -21.3300 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0430 | 394200.0000 | 0.0050 | 0.48 |
| Y_R 371.029 | 1.0590 | 57060.0000 | 0.0062 | 0.58 |

Sample Name: mb 440-438849/1-a

Date: 11/2/2017 9:27:11 PM Rack:Tube: 4:2

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | 5.9380 | 0.0002 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0030 | ppm | 0.0004 | 14.27 | -1118.0000 | 0.0030 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0033 | ppm | 0.0005 | 15.46 | 9.0300 | 0.0033 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0000 u | ppm | 0.0008 | > 100.00 | -1.9200 | 0.0000 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0000 | 38.62 | -1.9120 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 1.4990 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0073 u | ppm | 0.0007 | 9.74 | 108.5000 | -0.0073 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 55.14 | 0.3270 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0001 u | ppm | 0.0006 | > 100.00 | -12.4500 | -0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | 1.6040 | 0.0001 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0003 | 34.77 | 193.8000 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0017 | ppm | 0.0016 | 94.72 | 11.2000 | 0.0017 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0723 | ppm | 0.0487 | 67.31 | 5.8850 | 0.0723 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0093 | ppm | 0.0013 | 14.25 | 561.2000 | 0.0093 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0026 | ppm | 0.0016 | 62.17 | 13.6000 | 0.0026 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 77.1100 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0004 u | ppm | 0.0009 | > 100.00 | 7.6850 | 0.0004 u (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.1087 u | ppm | 0.0043 | 4.00 | 995.9000 | -0.1087 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0007 u | ppm | 0.0002 | 27.38 | -3.2670 | -0.0007 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0046 | ppm | 0.0001 | 2.76 | -9.5930 | 0.0046 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0007 | ppm | 0.0002 | 30.22 | -3.7700 | 0.0007 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0041 | ppm | 0.0056 | > 100.00 | -0.3046 | 0.0041 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0034 | ppm | 0.0048 | > 100.00 | 0.7796 | 0.0034 (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0024 u | ppm | 0.0028 | > 100.00 | 13.0600 | -0.0024 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0034 | ppm | 0.0007 | 20.45 | -0.7552 | 0.0034 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0002 u | ppm | 0.0000 | 2.63 | -4.0200 | -0.0002 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0001 | 55.06 | -86.9700 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0019 | ppm | 0.0007 | 35.73 | -3.3920 | 0.0019 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0005 u | ppm | 0.0001 | 24.37 | 28.8200 | -0.0005 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0014 | ppm | 0.0005 | 37.13 | -4.0830 | 0.0014 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0029 u | ppm | 0.0001 | 2.43 | 14.2900 | -0.0029 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -36.2900 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0580 | 399700.0000 | 0.0020 | 0.19 |
| Y_R 371.029 | 1.0780 | 58050.0000 | 0.0146 | 1.36 |

Sample Name: lcs 440-438849/2-a

Date: 11/2/2017 9:29:17 PM Rack:Tube: 4:3

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2091 | ppm | 0.0023 | 1.09 | 7237.0000 | 0.2091 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.4584 | ppm | 0.0014 | 0.32 | 9458.0000 | 0.4584 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4657 | ppm | 0.0041 | 0.89 | 378.8000 | 0.4657 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4522 | ppm | 0.0058 | 1.28 | 5007.0000 | 0.4522 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4640 | ppm | 0.0005 | 0.11 | 34080.0000 | 0.4640 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.4581 | ppm | 0.0013 | 0.27 | 75540.0000 | 0.4581 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 2.3220 | ppm | 0.0040 | 0.17 | 8402.0000 | 2.3220 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4611 | ppm | 0.0054 | 1.16 | 11430.0000 | 0.4611 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4636 | ppm | 0.0017 | 0.36 | 6250.0000 | 0.4636 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4546 | ppm | 0.0006 | 0.14 | 2727.0000 | 0.4546 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.4721 | ppm | 0.0003 | 0.07 | 16760.0000 | 0.4721 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.4504 | ppm | 0.0037 | 0.82 | 1912.0000 | 0.4504 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 4.7270 | ppm | 0.0615 | 1.30 | 4855.0000 | 4.7270 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4736 | ppm | 0.0019 | 0.40 | 27730.0000 | 0.4736 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 2.3310 | ppm | 0.0009 | 0.04 | 5218.0000 | 2.3310 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4610 | ppm | 0.0005 | 0.12 | 43240.0000 | 0.4610 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4453 | ppm | 0.0033 | 0.74 | 2352.0000 | 0.4453 (ppm) | Y 371.029 |
| Na (589.592 nm) | 4.5620 | ppm | 0.0328 | 0.72 | 25040.0000 | 4.5620 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4603 | ppm | 0.0016 | 0.35 | 2196.0000 | 0.4603 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.4612 | ppm | 0.0055 | 1.19 | 386.5000 | 0.4612 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4633 | ppm | 0.0007 | 0.16 | 893.6000 | 0.4633 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.4517 | ppm | 0.0072 | 1.59 | 518.4000 | 0.4517 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.4625 | ppm | 0.0001 | 0.01 | 403.8000 | 0.4625 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.3130 | ppm | 0.0264 | 1.14 | 5024.0000 | 2.3130 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4658 | ppm | 0.0020 | 0.43 | 370.4000 | 0.4658 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.4719 | ppm | 0.0075 | 1.60 | 147600.0000 | 0.4719 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.4601 | ppm | 0.0011 | 0.23 | 49770.0000 | 0.4601 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4617 | ppm | 0.0024 | 0.52 | 698.2000 | 0.4617 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4617 | ppm | 0.0023 | 0.49 | 11970.0000 | 0.4617 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.4497 | ppm | 0.0000 | 0.01 | 943.5000 | 0.4497 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4588 | ppm | 0.0005 | 0.12 | 10590.0000 | 0.4588 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.4551 | ppm | 0.0028 | 0.62 | 31610.0000 | 0.4551 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0500 | 397000.0000 | 0.0066 | 0.63 |
| Y_R 371.029 | 1.0580 | 57000.0000 | 0.0062 | 0.58 |

Sample Name: 440-195149-g-1-d@2

Date: 11/2/2017 9:31:22 PM Rack:Tube: 4:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0011 u | ppm | 0.0003 | 30.29 | -60.0900 | -0.0011 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0221 | ppm | 0.0004 | 1.85 | -573.1000 | 0.0221 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1215 | ppm | 0.0014 | 1.19 | 104.3000 | 0.1215 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.8452 | ppm | 0.0021 | 0.25 | 9455.0000 | 0.8452 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0096 | ppm | 0.0000 | 0.16 | 706.0000 | 0.0096 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 8.5790 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 161.7000 | ppm | 3.0320 | 1.87 | 576100.0000 | 161.7000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0000 | 15.62 | -1.2810 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0004 u | ppm | 0.0003 | 72.69 | -12.6700 | -0.0004 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0005 | ppm | 0.0000 | 7.39 | 6.7420 | 0.0005 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0002 | 21.76 | 83.8400 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0004 u | ppm | 0.0016 | > 100.00 | 9.5360 | -0.0004 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.0320 | ppm | 0.3494 | 3.87 | 9363.0000 | 9.0320 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1335 | ppm | 0.0006 | 0.44 | 8257.0000 | 0.1335 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 57.4600 | ppm | 1.8510 | 3.22 | 128500.0000 | 57.4600 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0498 | ppm | 0.0001 | 0.17 | 4906.0000 | 0.0498 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0146 | ppm | 0.0012 | 8.35 | 82.7800 | 0.0146 (ppm) | Y 371.029 |
| Na (589.592 nm) | 496.9000 | ppm | 9.2750 | 1.87 | 2557000.0000 | 496.9000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0002 u | ppm | 0.0004 | > 100.00 | -4.0190 | -0.0002 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0103 | ppm | 0.0075 | 73.01 | -6.3980 | 0.0103 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0024 u | ppm | 0.0000 | 0.56 | -7.4870 | -0.0024 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0024 | ppm | 0.0013 | 56.69 | -2.0910 | 0.0024 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0083 | ppm | 0.0069 | 83.26 | 3.9630 | 0.0083 (ppm) | Y 371.029 |
| Si (251.611 nm) | 27.4900 | ppm | 0.0616 | 0.22 | 58550.0000 | 27.4900 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0002 u | ppm | 0.0020 | > 100.00 | -3.2480 | 0.0002 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 3.8170 | ppm | 0.0713 | 1.87 | 1195000.0000 | 3.8170 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0014 | ppm | 0.0004 | 29.79 | -99.6100 | 0.0014 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0045 | ppm | 0.0004 | 9.71 | -3.9220 | 0.0045 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.1081 | ppm | 0.0001 | 0.10 | 3023.0000 | 0.1081 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0023 | ppm | 0.0001 | 2.62 | -5.7120 | 0.0023 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0049 u | ppm | 0.0000 | 0.27 | 16.8800 | -0.0049 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0013 | ppm | 0.0001 | 9.53 | 71.7000 | 0.0013 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9441 | 356800.0000 | 0.0059 | 0.62 |
| Y_R 371.029 | 0.9910 | 53380.0000 | 0.0253 | 2.55 |

Sample Name: 440-195149-g-1-e ms@2

Date: 11/2/2017 9:33:27 PM Rack:Tube: 4:5

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1213 | ppm | 0.0005 | 0.40 | 4172.0000 | 0.1213 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.2790 | ppm | 0.0003 | 0.10 | 5374.0000 | 0.2790 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.3653 | ppm | 0.0009 | 0.24 | 299.4000 | 0.3653 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0800 | ppm | 0.0004 | 0.04 | 12060.0000 | 1.0800 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.2263 | ppm | 0.0006 | 0.26 | 16630.0000 | 0.2263 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.2450 | ppm | 0.0009 | 0.37 | 40410.0000 | 0.2450 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 160.6000 | ppm | 1.4310 | 0.89 | 572200.0000 | 160.6000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.2290 | ppm | 0.0008 | 0.33 | 5676.0000 | 0.2290 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.2322 | ppm | 0.0008 | 0.32 | 3129.0000 | 0.2322 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2325 | ppm | 0.0004 | 0.18 | 1398.0000 | 0.2325 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.2556 | ppm | 0.0004 | 0.15 | 9042.0000 | 0.2556 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.2400 | ppm | 0.0028 | 1.18 | 1027.0000 | 0.2400 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 11.4300 | ppm | 0.0082 | 0.07 | 11860.0000 | 11.4300 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3762 | ppm | 0.0021 | 0.57 | 22450.0000 | 0.3762 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 55.7400 | ppm | 0.1278 | 0.23 | 124600.0000 | 55.7400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.2824 | ppm | 0.0010 | 0.37 | 26690.0000 | 0.2824 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.2523 | ppm | 0.0004 | 0.15 | 1335.0000 | 0.2523 (ppm) | Y 371.029 |
| Na (589.592 nm) | 490.9000 | ppm | 1.3160 | 0.27 | 2526000.0000 | 490.9000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.2293 | ppm | 0.0028 | 1.22 | 1091.0000 | 0.2293 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.2663 | ppm | 0.0078 | 2.93 | 216.2000 | 0.2663 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.2269 | ppm | 0.0009 | 0.39 | 437.3000 | 0.2269 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.2516 | ppm | 0.0040 | 1.59 | 286.7000 | 0.2516 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.2440 | ppm | 0.0023 | 0.92 | 211.0000 | 0.2440 (ppm) | Y 371.029 |
| Si (251.611 nm) | 28.2700 | ppm | 0.0783 | 0.28 | 60270.0000 | 28.2700 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.2432 | ppm | 0.0003 | 0.14 | 191.8000 | 0.2432 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 4.0080 | ppm | 0.0497 | 1.24 | 1255000.0000 | 4.0080 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.2447 | ppm | 0.0007 | 0.27 | 26280.0000 | 0.2447 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.2156 | ppm | 0.0072 | 3.34 | 316.6000 | 0.2156 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3520 | ppm | 0.0015 | 0.43 | 9322.0000 | 0.3520 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.2408 | ppm | 0.0003 | 0.13 | 498.3000 | 0.2408 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2292 | ppm | 0.0013 | 0.55 | 5382.0000 | 0.2292 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.2376 | ppm | 0.0002 | 0.10 | 16500.0000 | 0.2376 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9393 | 355000.0000 | 0.0046 | 0.49 |
| Y_R 371.029 | 1.0210 | 55000.0000 | 0.0005 | 0.05 |

Sample Name: 440-195149-g-1-f msd@2

Date: 11/2/2017 9:35:32 PM Rack:Tube: 4:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1205 | ppm | 0.0000 | 0.03 | 4145.0000 | 0.1205 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.2787 | ppm | 0.0002 | 0.08 | 5371.0000 | 0.2787 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.3715 | ppm | 0.0056 | 1.51 | 304.4000 | 0.3715 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0860 | ppm | 0.0013 | 0.12 | 12120.0000 | 1.0860 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.2299 | ppm | 0.0012 | 0.51 | 16890.0000 | 0.2299 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.2434 | ppm | 0.0011 | 0.44 | 40150.0000 | 0.2434 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 164.6000 | ppm | 2.5170 | 1.53 | 586400.0000 | 164.6000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.2274 | ppm | 0.0005 | 0.22 | 5637.0000 | 0.2274 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.2308 | ppm | 0.0011 | 0.46 | 3110.0000 | 0.2308 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.2309 | ppm | 0.0002 | 0.11 | 1389.0000 | 0.2309 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.2547 | ppm | 0.0007 | 0.26 | 9009.0000 | 0.2547 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.2313 | ppm | 0.0020 | 0.86 | 990.4000 | 0.2313 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 11.6900 | ppm | 0.0038 | 0.03 | 12130.0000 | 11.6900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3797 | ppm | 0.0047 | 1.23 | 22670.0000 | 0.3797 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 57.3200 | ppm | 0.2053 | 0.36 | 128200.0000 | 57.3200 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.2809 | ppm | 0.0006 | 0.22 | 26550.0000 | 0.2809 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.2524 | ppm | 0.0017 | 0.69 | 1336.0000 | 0.2524 (ppm) | Y 371.029 |
| Na (589.592 nm) | 499.9000 | ppm | 3.6660 | 0.73 | 2573000.0000 | 499.9000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.2280 | ppm | 0.0027 | 1.19 | 1085.0000 | 0.2280 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.2586 | ppm | 0.0017 | 0.64 | 209.1000 | 0.2586 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.2231 | ppm | 0.0027 | 1.21 | 429.9000 | 0.2231 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.2530 | ppm | 0.0019 | 0.74 | 288.3000 | 0.2530 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.2395 | ppm | 0.0007 | 0.31 | 207.0000 | 0.2395 (ppm) | Y 371.029 |
| Si (251.611 nm) | 28.5200 | ppm | 0.0965 | 0.34 | 60780.0000 | 28.5200 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.2409 | ppm | 0.0006 | 0.24 | 189.9000 | 0.2409 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 4.1030 | ppm | 0.0715 | 1.74 | 1284000.0000 | 4.1030 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.2443 | ppm | 0.0005 | 0.20 | 26230.0000 | 0.2443 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.2157 | ppm | 0.0043 | 1.99 | 316.9000 | 0.2157 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3498 | ppm | 0.0009 | 0.25 | 9270.0000 | 0.3498 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.2396 | ppm | 0.0001 | 0.04 | 495.7000 | 0.2396 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2252 | ppm | 0.0001 | 0.07 | 5292.0000 | 0.2252 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.2388 | ppm | 0.0006 | 0.25 | 16590.0000 | 0.2388 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9567 | 361500.0000 | 0.0024 | 0.25 |
| Y_R 371.029 | 1.0150 | 54670.0000 | 0.0086 | 0.85 |

Sample Name: 440-195149-g-2-b@10

Date: 11/2/2017 9:37:37 PM Rack:Tube: 4:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0011 | ppm | 0.0002 | 20.47 | -12.8800 | 0.0011 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0302 | ppm | 0.0000 | 0.08 | -793.7000 | 0.0302 (ppm) | Y 371.029 |
| As (188.980 nm) | -0.0109 u | ppm | 0.0088 | 81.02 | 2.0810 | -0.0109 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0098 | ppm | 0.0018 | 18.12 | -280.2000 | 0.0098 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0038 | ppm | 0.0002 | 5.06 | 305.6000 | 0.0038 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0005 u | ppm | 0.0016 | > 100.00 | 8167.0000 | 0.0005 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 40.9300 | ppm | 0.5358 | 1.31 | 145800.0000 | 40.9300 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0027 | ppm | 0.0001 | 5.04 | 166.8000 | 0.0027 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0033 u | ppm | 0.0000 | 0.78 | -15.3300 | -0.0033 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | -0.0014 u | ppm | 0.0012 | 89.81 | 5.9420 | -0.0014 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | -0.0038 u | ppm | 0.0004 | 9.21 | 308.8000 | -0.0038 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | 369.5000 | ppm | 5.7070 | 1.54 | 1566000.0000 | 369.5000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.7332 | ppm | 0.0118 | 1.61 | 768.0000 | 0.7332 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0299 | ppm | 0.0017 | 5.55 | 1171.0000 | 0.0299 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.1090 | ppm | 0.0626 | 1.52 | 9041.0000 | 4.1090 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 18.3900 | ppm | 0.0587 | 0.32 | 1760000.0000 | 18.3900 (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0006 u | ppm | 0.0013 | > 100.00 | 13.2500 | -0.0006 u (ppm) | Y 371.029 |
| Na (589.592 nm) | 52.2700 | ppm | 0.6577 | 1.26 | 270400.0000 | 52.2700 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0005 u | ppm | 0.0015 | > 100.00 | 4.3210 | 0.0005 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0071 | ppm | 0.0027 | 37.38 | -14.9300 | 0.0071 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0012 | ppm | 0.0011 | 97.29 | -5.3720 | 0.0012 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0234 | ppm | 0.0060 | 25.79 | 23.3700 | 0.0234 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0055 | ppm | 0.0001 | 1.60 | -59.5300 | 0.0055 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0115 | ppm | 0.0047 | 40.75 | 24.2400 | 0.0115 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0005 u | ppm | 0.0024 | > 100.00 | -3.0890 | -0.0005 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.5117 | ppm | 0.0070 | 1.37 | 160600.0000 | 0.5117 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0004 | ppm | 0.0001 | 22.67 | -74.2600 | 0.0004 (ppm) | Y 371.029 |
| Tl (190.794 nm) | -0.0055 u | ppm | 0.0022 | 40.39 | 32.6000 | -0.0055 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0107 | ppm | 0.0004 | 4.12 | 369.1000 | 0.0107 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | -12.5300 | 0.0001 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0014 | ppm | 0.0000 | 0.64 | 114.0000 | 0.0014 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0018 | ppm | 0.0002 | 8.74 | 372.3000 | 0.0018 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0060 | 380200.0000 | 0.0022 | 0.22 |
| Y_R 371.029 | 1.0410 | 56090.0000 | 0.0141 | 1.35 |

Sample Name: 440-195149-g-3-b@10

Date: 11/2/2017 9:39:43 PM Rack:Tube: 4:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0008 u | ppm | 0.0000 | 1.51 | -36.2400 | -0.0008 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0136 | ppm | 0.0007 | 5.33 | -824.8000 | 0.0136 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0196 | ppm | 0.0033 | 16.74 | 22.2800 | 0.0196 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1922 | ppm | 0.0004 | 0.20 | 2149.0000 | 0.1922 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0045 | ppm | 0.0001 | 2.40 | 321.9000 | 0.0045 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 4.8530 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 44.9300 | ppm | 0.4388 | 0.98 | 160100.0000 | 44.9300 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -4.3300 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0004 | ppm | 0.0001 | 28.37 | -3.5590 | 0.0004 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0005 | ppm | 0.0000 | 4.93 | 5.0890 | 0.0005 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0010 | ppm | 0.0001 | 8.31 | 170.2000 | 0.0010 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0324 | ppm | 0.0046 | 14.12 | 145.6000 | 0.0324 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 3.9730 | ppm | 0.0049 | 0.12 | 4081.0000 | 3.9730 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0486 | ppm | 0.0007 | 1.49 | 3055.0000 | 0.0486 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 39.5800 | ppm | 0.0786 | 0.20 | 88490.0000 | 39.5800 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.2587 | ppm | 0.0011 | 0.44 | 24280.0000 | 0.2587 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0018 | ppm | 0.0002 | 13.19 | 15.1700 | 0.0018 (ppm) | Y 371.029 |
| Na (589.592 nm) | 388.3000 | ppm | 3.8370 | 0.99 | 1998000.0000 | 388.3000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0000 u | ppm | 0.0008 | > 100.00 | -0.9105 | 0.0000 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.1761 | ppm | 0.0072 | 4.09 | 148.3000 | 0.1761 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0004 u | ppm | 0.0012 | > 100.00 | -3.1210 | 0.0004 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0018 u | ppm | 0.0030 | > 100.00 | -2.8810 | 0.0018 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0024 | ppm | 0.0027 | > 100.00 | -0.3568 | 0.0024 (ppm) | Y 371.029 |
| Si (251.611 nm) | 3.7710 | ppm | 0.0017 | 0.05 | 8052.0000 | 3.7710 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0015 | ppm | 0.0019 | > 100.00 | -2.1930 | 0.0015 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.5790 | ppm | 0.0101 | 0.64 | 494200.0000 | 1.5790 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0005 | ppm | 0.0002 | 39.04 | -88.2100 | 0.0005 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0056 | ppm | 0.0010 | 18.41 | 2.9560 | 0.0056 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0015 | ppm | 0.0001 | 3.66 | 127.9000 | 0.0015 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0008 u | ppm | 0.0012 | > 100.00 | -9.8700 | -0.0008 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0040 u | ppm | 0.0000 | 0.92 | 17.3000 | -0.0040 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0001 | 24.01 | -9.8600 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9896 | 374000.0000 | 0.0015 | 0.15 |
| Y_R 371.029 | 1.0470 | 56410.0000 | 0.0009 | 0.08 |

Sample Name: 440-195149-g-4-b@10

Date: 11/2/2017 9:41:48 PM Rack:Tube: 4:9

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0007 u | ppm | 0.0002 | 37.19 | -28.4800 | -0.0007 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0128 | ppm | 0.0002 | 1.79 | -850.0000 | 0.0128 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0224 | ppm | 0.0008 | 3.55 | 24.5400 | 0.0224 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1817 | ppm | 0.0014 | 0.79 | 2031.0000 | 0.1817 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0042 | ppm | 0.0000 | 0.61 | 302.4000 | 0.0042 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 69.96 | 4.8730 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 38.9500 | ppm | 0.2497 | 0.64 | 138800.0000 | 38.9500 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -3.9460 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0004 | ppm | 0.0001 | 17.88 | -3.6130 | 0.0004 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 1.9280 | 0.0000 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0002 | 18.27 | 168.5000 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0061 | ppm | 0.0022 | 35.82 | 33.3800 | 0.0061 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 4.4060 | ppm | 0.0512 | 1.16 | 4530.0000 | 4.4060 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0432 | ppm | 0.0014 | 3.28 | 2707.0000 | 0.0432 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 33.1400 | ppm | 0.4595 | 1.39 | 74100.0000 | 33.1400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.2743 | ppm | 0.0009 | 0.32 | 25710.0000 | 0.2743 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0027 | ppm | 0.0000 | 1.68 | 19.6900 | 0.0027 (ppm) | Y 371.029 |
| Na (589.592 nm) | 298.5000 | ppm | 2.0630 | 0.69 | 1537000.0000 | 298.5000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0002 u | ppm | 0.0009 | > 100.00 | 0.2954 | 0.0002 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0705 | ppm | 0.0028 | 3.97 | 50.7800 | 0.0705 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0031 u | ppm | 0.0028 | 89.66 | -9.9720 | -0.0031 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0020 | ppm | 0.0020 | > 100.00 | -2.7630 | 0.0020 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0008 u | ppm | 0.0017 | > 100.00 | -1.6420 | 0.0008 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.6500 | ppm | 0.0113 | 0.24 | 9923.0000 | 4.6500 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0016 | ppm | 0.0021 | > 100.00 | -2.0540 | 0.0016 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.3270 | ppm | 0.0090 | 0.68 | 415400.0000 | 1.3270 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0004 | ppm | 0.0001 | 19.07 | -93.0100 | 0.0004 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0010 | ppm | 0.0011 | > 100.00 | -4.4330 | 0.0010 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0050 | ppm | 0.0003 | 6.15 | 212.6000 | 0.0050 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0003 u | ppm | 0.0014 | > 100.00 | -7.2940 | 0.0003 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0038 u | ppm | 0.0001 | 2.39 | 16.6900 | -0.0038 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0000 | 14.97 | -13.4500 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9872 | 373100.0000 | 0.0043 | 0.43 |
| Y_R 371.029 | 1.0270 | 55320.0000 | 0.0070 | 0.69 |

Sample Name: 440-195149-g-5-b@10

Date: 11/2/2017 9:43:53 PM Rack:Tube: 4:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0008 u | ppm | 0.0002 | 28.44 | -35.0600 | -0.0008 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0195 | ppm | 0.0004 | 1.95 | -689.0000 | 0.0195 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0231 | ppm | 0.0003 | 1.44 | 25.0900 | 0.0231 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.2178 | ppm | 0.0024 | 1.11 | 2435.0000 | 0.2178 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0044 | ppm | 0.0000 | 0.63 | 315.0000 | 0.0044 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 50.59 | -2.6550 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 52.6300 | ppm | 0.3906 | 0.74 | 187500.0000 | 52.6300 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 65.99 | -0.1071 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0005 | ppm | 0.0002 | 45.32 | -2.1850 | 0.0005 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0007 | ppm | 0.0001 | 8.19 | 6.5230 | 0.0007 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0011 | ppm | 0.0001 | 8.35 | 168.5000 | 0.0011 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0124 | ppm | 0.0007 | 5.74 | 61.0900 | 0.0124 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 3.9310 | ppm | 0.0169 | 0.43 | 4039.0000 | 3.9310 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0540 | ppm | 0.0007 | 1.29 | 3386.0000 | 0.0540 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 42.2000 | ppm | 0.5921 | 1.40 | 94360.0000 | 42.2000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.3792 | ppm | 0.0042 | 1.12 | 35490.0000 | 0.3792 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0026 | ppm | 0.0014 | 53.42 | 19.2700 | 0.0026 (ppm) | Y 371.029 |
| Na (589.592 nm) | 400.1000 | ppm | 1.4100 | 0.35 | 2059000.0000 | 400.1000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0012 u | ppm | 0.0005 | 37.57 | -6.9280 | -0.0012 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.1266 | ppm | 0.0013 | 0.99 | 102.4000 | 0.1266 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0011 u | ppm | 0.0010 | 97.01 | -5.7000 | -0.0011 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0045 | ppm | 0.0021 | 47.36 | 0.2342 | 0.0045 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0011 u | ppm | 0.0044 | > 100.00 | -1.4540 | 0.0011 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.1390 | ppm | 0.0402 | 0.97 | 8836.0000 | 4.1390 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0026 | ppm | 0.0017 | 64.55 | -1.2810 | 0.0026 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.8770 | ppm | 0.0100 | 0.53 | 587500.0000 | 1.8770 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0004 | ppm | 0.0000 | 2.23 | -97.9800 | 0.0004 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0010 | ppm | 0.0012 | > 100.00 | -4.1220 | 0.0010 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0007 | ppm | 0.0002 | 23.37 | 116.4000 | 0.0007 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0010 u | ppm | 0.0011 | > 100.00 | -10.4500 | -0.0010 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0038 u | ppm | 0.0001 | 1.71 | 24.1800 | -0.0038 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0001 | 29.72 | -15.1700 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9893 | 373900.0000 | 0.0084 | 0.85 |
| Y_R 371.029 | 1.0660 | 57450.0000 | 0.0191 | 1.79 |

Sample Name: 440-195149-g-6-b@5

Date: 11/2/2017 9:45:58 PM Rack:Tube: 4:11

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0009 u | ppm | 0.0001 | 6.11 | -38.0000 | -0.0009 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0157 | ppm | 0.0006 | 3.52 | -783.0000 | 0.0157 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0290 | ppm | 0.0019 | 6.38 | 29.8000 | 0.0290 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.3455 | ppm | 0.0006 | 0.18 | 3864.0000 | 0.3455 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0061 | ppm | 0.0003 | 4.26 | 438.7000 | 0.0061 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 0.6064 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 49.7100 | ppm | 0.4711 | 0.95 | 177100.0000 | 49.7100 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | 0.2660 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0000 u | ppm | 0.0003 | > 100.00 | -9.7090 | 0.0000 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0001 | 30.81 | 4.7370 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0010 | ppm | 0.0000 | 2.42 | 165.4000 | 0.0010 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0006 | ppm | 0.0003 | 51.11 | 9.7230 | 0.0006 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 4.9250 | ppm | 0.1078 | 2.19 | 5070.0000 | 4.9250 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0580 | ppm | 0.0026 | 4.56 | 3577.0000 | 0.0580 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 28.9700 | ppm | 0.5214 | 1.80 | 64780.0000 | 28.9700 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1792 | ppm | 0.0010 | 0.55 | 16850.0000 | 0.1792 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0078 | ppm | 0.0001 | 1.76 | 46.8900 | 0.0078 (ppm) | Y 371.029 |
| Na (589.592 nm) | 219.0000 | ppm | 2.3040 | 1.05 | 1128000.0000 | 219.0000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0002 u | ppm | 0.0019 | > 100.00 | -1.9950 | -0.0002 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0189 | ppm | 0.0013 | 6.69 | 2.8850 | 0.0189 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0003 u | ppm | 0.0013 | > 100.00 | -4.6900 | -0.0003 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0045 | ppm | 0.0006 | 13.60 | 0.2136 | 0.0045 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0047 | ppm | 0.0021 | 43.92 | 1.5880 | 0.0047 (ppm) | Y 371.029 |
| Si (251.611 nm) | 8.3390 | ppm | 0.0430 | 0.52 | 17780.0000 | 8.3390 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0010 u | ppm | 0.0022 | > 100.00 | -2.5670 | 0.0010 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.2910 | ppm | 0.0119 | 0.92 | 404200.0000 | 1.2910 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0003 | ppm | 0.0001 | 31.46 | -111.1000 | 0.0003 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0034 | ppm | 0.0003 | 7.81 | -1.6410 | 0.0034 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0223 | ppm | 0.0001 | 0.41 | 672.4000 | 0.0223 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0000 u | ppm | 0.0004 | > 100.00 | -8.2420 | 0.0000 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0037 u | ppm | 0.0000 | 0.35 | 18.1800 | -0.0037 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0004 | ppm | 0.0000 | 6.94 | -3.9630 | 0.0004 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0060 | 380200.0000 | 0.0105 | 1.05 |
| Y_R 371.029 | 1.0470 | 56420.0000 | 0.0043 | 0.41 |

Sample Name: CCV 4461459

Date: 11/2/2017 9:48:03 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5189 | ppm | 0.0036 | 0.70 | 17940.0000 | 0.5189 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0440 | ppm | 0.0072 | 0.69 | 23050.0000 | 1.0440 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0360 | ppm | 0.0091 | 0.88 | 835.0000 | 1.0360 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0370 | ppm | 0.0074 | 0.71 | 11480.0000 | 1.0370 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 1.0050 | ppm | 0.0049 | 0.48 | 73840.0000 | 1.0050 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0360 | ppm | 0.0077 | 0.74 | 170900.0000 | 1.0360 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.1760 | ppm | 0.0241 | 0.47 | 18570.0000 | 5.1760 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0250 | ppm | 0.0070 | 0.69 | 25410.0000 | 1.0250 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0390 | ppm | 0.0123 | 1.19 | 14020.0000 | 1.0390 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0210 | ppm | 0.0095 | 0.93 | 6123.0000 | 1.0210 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0600 | ppm | 0.0086 | 0.81 | 37450.0000 | 1.0600 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 1.0310 | ppm | 0.0034 | 0.33 | 4371.0000 | 1.0310 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.3900 | ppm | 0.1429 | 1.38 | 10750.0000 | 10.3900 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0440 | ppm | 0.0039 | 0.37 | 61120.0000 | 1.0440 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.0720 | ppm | 0.0252 | 0.50 | 11350.0000 | 5.0720 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0290 | ppm | 0.0064 | 0.63 | 96460.0000 | 1.0290 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0280 | ppm | 0.0070 | 0.68 | 5422.0000 | 1.0280 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.4900 | ppm | 0.0404 | 0.39 | 55570.0000 | 10.4900 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0310 | ppm | 0.0068 | 0.66 | 4918.0000 | 1.0310 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0320 | ppm | 0.0054 | 0.53 | 881.3000 | 1.0320 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0300 | ppm | 0.0080 | 0.77 | 1993.0000 | 1.0300 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0460 | ppm | 0.0138 | 1.32 | 1207.0000 | 1.0460 (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0340 | ppm | 0.0054 | 0.52 | 906.0000 | 1.0340 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.4350 | ppm | 0.1553 | 2.86 | 11770.0000 | 5.4350 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0370 | ppm | 0.0097 | 0.94 | 828.8000 | 1.0370 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0440 | ppm | 0.0012 | 0.12 | 326400.0000 | 1.0440 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0410 | ppm | 0.0073 | 0.71 | 112700.0000 | 1.0410 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0340 | ppm | 0.0061 | 0.59 | 1570.0000 | 1.0340 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0440 | ppm | 0.0073 | 0.69 | 27020.0000 | 1.0440 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0290 | ppm | 0.0066 | 0.65 | 2167.0000 | 1.0290 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0260 | ppm | 0.0069 | 0.67 | 23590.0000 | 1.0260 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0340 | ppm | 0.0079 | 0.76 | 71870.0000 | 1.0340 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0180 | 384700.0000 | 0.0078 | 0.76 |
| Y_R 371.029 | 1.0610 | 57130.0000 | 0.0038 | 0.36 |

Sample Name: CCB 4461458

Date: 11/2/2017 9:50:08 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | 2.2510 | 0.0001 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0010 | ppm | 0.0006 | 64.56 | -1160.0000 | 0.0010 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0047 | ppm | 0.0004 | 7.42 | 10.1900 | 0.0047 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0005 | ppm | 0.0006 | > 100.00 | 3.1700 | 0.0005 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0001 | 59.68 | 3.0890 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 88.55 | 21.6000 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0059 u | ppm | 0.0205 | > 100.00 | 113.4000 | -0.0059 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 82.42 | -0.9129 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0004 u | ppm | 0.0004 | > 100.00 | -15.6000 | -0.0004 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0003 | ppm | 0.0003 | 96.00 | 3.1450 | 0.0003 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0013 | ppm | 0.0002 | 17.49 | 211.2000 | 0.0013 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0005 | ppm | 0.0006 | > 100.00 | 6.0340 | 0.0005 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0408 | ppm | 0.0409 | > 100.00 | -26.9500 | 0.0408 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0109 | ppm | 0.0009 | 8.05 | 656.5000 | 0.0109 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0015 | ppm | 0.0020 | > 100.00 | 11.3000 | 0.0015 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0001 | 72.22 | 85.5900 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0035 | ppm | 0.0022 | 62.64 | 23.9800 | 0.0035 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0515 | ppm | 0.0021 | 4.05 | 1820.0000 | 0.0515 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0001 u | ppm | 0.0005 | > 100.00 | 0.5403 | 0.0001 u (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0014 u | ppm | 0.0030 | > 100.00 | -15.2500 | -0.0014 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0007 u | ppm | 0.0023 | > 100.00 | -3.7430 | 0.0007 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0080 | ppm | 0.0025 | 31.35 | 4.2360 | 0.0080 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0002 u | ppm | 0.0018 | > 100.00 | -2.3070 | -0.0002 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0053 | ppm | 0.0059 | > 100.00 | 29.7500 | 0.0053 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0040 | ppm | 0.0003 | 8.35 | -0.2253 | 0.0040 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0001 | 71.03 | 39.7200 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0013 | ppm | 0.0003 | 25.02 | 39.3200 | 0.0013 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0017 | ppm | 0.0001 | 3.60 | -3.6400 | 0.0017 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0003 | ppm | 0.0001 | 38.66 | 48.5800 | 0.0003 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0027 | ppm | 0.0029 | > 100.00 | -1.4740 | 0.0027 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0025 u | ppm | 0.0000 | 0.95 | 23.3400 | -0.0025 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 | ppm | 0.0000 | 51.71 | -33.7800 | 0.0000 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0230 | 386700.0000 | 0.0017 | 0.17 |
| Y_R 371.029 | 1.0640 | 57320.0000 | 0.0065 | 0.61 |

Sample Name: 440-195152-i-1-b

Date: 11/2/2017 10:07:40 PM Rack:Tube: 4:12

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0012 u | ppm | 0.0002 | 15.61 | -63.5100 | -0.0012 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0208 | ppm | 0.0001 | 0.49 | -581.6000 | 0.0208 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0226 | ppm | 0.0015 | 6.67 | 24.6600 | 0.0226 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.8429 | ppm | 0.0036 | 0.43 | 9428.0000 | 0.8429 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0661 | ppm | 0.0002 | 0.35 | 4856.0000 | 0.0661 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 11.3000 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 131.2000 | ppm | 0.6572 | 0.50 | 467300.0000 | 131.2000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | -1.3510 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0001 u | ppm | 0.0002 | > 100.00 | -8.2250 | -0.0001 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0010 | ppm | 0.0004 | 42.65 | 9.4080 | 0.0010 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0003 | ppm | 0.0002 | 50.18 | 90.4000 | 0.0003 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.2122 | ppm | 0.0043 | 2.01 | 913.7000 | 0.2122 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 15.4100 | ppm | 0.0264 | 0.17 | 16010.0000 | 15.4100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1618 | ppm | 0.0011 | 0.69 | 10010.0000 | 0.1618 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 93.1400 | ppm | 0.1904 | 0.20 | 208300.0000 | 93.1400 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1194 | ppm | 0.0006 | 0.48 | 11520.0000 | 0.1194 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0049 | ppm | 0.0006 | 12.30 | 31.7700 | 0.0049 (ppm) | Y 371.029 |
| Na (589.592 nm) | 309.9000 | ppm | 3.2550 | 1.05 | 1596000.0000 | 309.9000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0003 | ppm | 0.0003 | > 100.00 | -1.5900 | 0.0003 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0788 | ppm | 0.0015 | 1.87 | 57.5600 | 0.0788 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0036 u | ppm | 0.0012 | 32.91 | -9.0710 | -0.0036 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0016 u | ppm | 0.0009 | 58.00 | -6.6260 | -0.0016 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0024 | ppm | 0.0009 | 35.70 | -1.0110 | 0.0024 (ppm) | Y 371.029 |
| Si (251.611 nm) | 30.5100 | ppm | 0.0739 | 0.24 | 64990.0000 | 30.5100 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0026 | ppm | 0.0004 | 15.31 | -1.1820 | 0.0026 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 4.5750 | ppm | 0.0288 | 0.63 | 1432000.0000 | 4.5750 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | -200.3000 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0011 u | ppm | 0.0019 | > 100.00 | -4.7070 | 0.0011 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0043 u | ppm | 0.0005 | 10.88 | 71.5800 | -0.0043 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0024 u | ppm | 0.0005 | 20.41 | -15.1400 | -0.0024 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0062 u | ppm | 0.0001 | 1.29 | 6.6230 | -0.0062 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0001 | 54.36 | -3.5710 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9696 | 366400.0000 | 0.0061 | 0.62 |
| Y_R 371.029 | 1.0200 | 54960.0000 | 0.0004 | 0.04 |

Sample Name: 440-195152-i-2-b@2

Date: 11/2/2017 10:09:46 PM Rack:Tube: 4:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0017 u | ppm | 0.0002 | 12.04 | -112.0000 | -0.0017 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0128 | ppm | 0.0008 | 6.56 | -564.5000 | 0.0128 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0824 | ppm | 0.0024 | 2.86 | 72.9100 | 0.0824 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.3130 | ppm | 0.0053 | 0.41 | 14690.0000 | 1.3130 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0181 | ppm | 0.0002 | 0.92 | 1349.0000 | 0.0181 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 34.63 | 7.4660 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 340.8000 | ppm | 3.4370 | 1.01 | 1214000.0000 | 340.8000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0000 | 21.55 | -0.4851 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0006 u | ppm | 0.0007 | > 100.00 | -9.1470 | -0.0006 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0049 | ppm | 0.0000 | 0.84 | 36.4200 | 0.0049 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0017 | ppm | 0.0002 | 8.89 | 1.5490 | 0.0017 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0050 u | ppm | 0.0015 | 29.79 | 7.7190 | -0.0050 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 18.5000 | ppm | 0.1689 | 0.91 | 19270.0000 | 18.5000 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2609 | ppm | 0.0007 | 0.26 | 16520.0000 | 0.2609 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 220.3000 | ppm | 3.0590 | 1.39 | 492700.0000 | 220.3000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4986 | ppm | 0.0014 | 0.29 | 47210.0000 | 0.4986 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0109 | ppm | 0.0000 | 0.18 | 63.4900 | 0.0109 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1574.0000 o | ppm | 10.9900 | 0.70 | 8095000.0000 | 1574.0000 o (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0004 u | ppm | 0.0014 | > 100.00 | -5.4140 | 0.0004 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0182 | ppm | 0.0065 | 35.49 | -0.7091 | 0.0182 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0060 u | ppm | 0.0006 | 9.55 | -9.3760 | -0.0060 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0034 u | ppm | 0.0013 | 39.43 | -8.3590 | -0.0034 u (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0018 u | ppm | 0.0023 | > 100.00 | -5.9020 | -0.0018 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 25.8100 | ppm | 0.1245 | 0.48 | 55000.0000 | 25.8100 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0027 u | ppm | 0.0030 | > 100.00 | -5.2410 | -0.0027 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 12.7500 | ppm | 0.1129 | 0.89 | 3990000.0000 | 12.7500 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0003 u | ppm | 0.0000 | 12.51 | -431.7000 | -0.0003 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0021 | ppm | 0.0019 | 88.24 | -4.1950 | 0.0021 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0283 | ppm | 0.0002 | 0.85 | 1142.0000 | 0.0283 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0020 u | ppm | 0.0007 | 36.00 | -18.9100 | -0.0020 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0148 u | ppm | 0.0001 | 0.76 | -96.0900 | -0.0148 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0002 u | ppm | 0.0001 | 32.89 | -12.4800 | -0.0002 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8485 | 320600.0000 | 0.0068 | 0.80 |
| Y_R 371.029 | 0.9455 | 50930.0000 | 0.0179 | 1.90 |

Sample Name: 440-195152-i-3-b@2

Date: 11/2/2017 10:11:51 PM Rack:Tube: 4:14

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0010 u | ppm | 0.0001 | 9.98 | -81.3500 | -0.0010 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0254 | ppm | 0.0004 | 1.64 | -332.8000 | 0.0254 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0203 | ppm | 0.0046 | 22.65 | 22.3400 | 0.0203 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.8434 | ppm | 0.0032 | 0.38 | 9437.0000 | 0.8434 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0576 | ppm | 0.0009 | 1.54 | 4243.0000 | 0.0576 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 21.92 | 2.0810 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 292.0000 | ppm | 2.0420 | 0.70 | 1040000.0000 | 292.0000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0000 | 21.18 | 3.5240 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0004 u | ppm | 0.0002 | 51.41 | -8.1170 | -0.0004 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0414 | ppm | 0.0001 | 0.33 | 254.6000 | 0.0414 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0006 | ppm | 0.0000 | 7.95 | -4.4570 | 0.0006 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0103 | ppm | 0.0011 | 10.95 | 69.0200 | 0.0103 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 14.4500 | ppm | 0.0246 | 0.17 | 15050.0000 | 14.4500 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1675 | ppm | 0.0023 | 1.37 | 10880.0000 | 0.1675 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 190.2000 | ppm | 1.1550 | 0.61 | 425300.0000 | 190.2000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0102 | ppm | 0.0002 | 1.71 | 1671.0000 | 0.0102 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0033 | ppm | 0.0001 | 3.99 | 23.4400 | 0.0033 (ppm) | Y 371.029 |
| Na (589.592 nm) | 458.5000 | ppm | 3.8110 | 0.83 | 2359000.0000 | 458.5000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0005 u | ppm | 0.0004 | 72.77 | -8.5850 | -0.0005 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0136 | ppm | 0.0003 | 2.06 | -4.2420 | 0.0136 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0042 u | ppm | 0.0005 | 11.71 | -7.1610 | -0.0042 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0003 u | ppm | 0.0027 | > 100.00 | -4.1370 | -0.0003 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0013 u | ppm | 0.0060 | > 100.00 | -3.1160 | 0.0013 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 17.3600 | ppm | 0.0498 | 0.29 | 37010.0000 | 17.3600 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0034 u | ppm | 0.0008 | 22.89 | -5.8450 | -0.0034 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 8.7650 | ppm | 0.0591 | 0.67 | 2743000.0000 | 8.7650 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0000 | 10.75 | -331.1000 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0027 | ppm | 0.0011 | 42.68 | -3.0960 | 0.0027 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0048 u | ppm | 0.0002 | 4.56 | 231.6000 | -0.0048 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0015 u | ppm | 0.0002 | 13.45 | -16.0100 | -0.0015 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0318 | ppm | 0.0001 | 0.23 | 940.8000 | 0.0318 (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0002 u | ppm | 0.0001 | 68.61 | -16.2200 | -0.0002 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9362 | 353800.0000 | 0.0013 | 0.14 |
| Y_R 371.029 | 1.0030 | 54050.0000 | 0.0016 | 0.16 |

Sample Name: 440-195152-i-4-b@2

Date: 11/2/2017 10:13:57 PM Rack:Tube: 4:15

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0009 u | ppm | 0.0003 | 38.09 | -78.5800 | -0.0009 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0172 | ppm | 0.0013 | 7.35 | -534.1000 | 0.0172 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0729 | ppm | 0.0033 | 4.58 | 63.1000 | 0.0729 (ppm) | Y 371.029 |
| B (249.678 nm) | 3.0640 | ppm | 0.0020 | 0.07 | 34270.0000 | 3.0640 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0126 | ppm | 0.0002 | 1.28 | 937.5000 | 0.0126 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0001 | 92.07 | 0.4558 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 331.2000 | ppm | 2.9220 | 0.88 | 1180000.0000 | 331.2000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 47.32 | 2.2820 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0005 u | ppm | 0.0003 | 55.09 | -9.2900 | -0.0005 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1747 | ppm | 0.0012 | 0.69 | 1054.0000 | 0.1747 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0011 | ppm | 0.0004 | 34.55 | -17.2600 | 0.0011 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0029 u | ppm | 0.0029 | > 100.00 | 9.8190 | -0.0029 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 13.7600 | ppm | 0.0742 | 0.54 | 14330.0000 | 13.7600 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2305 | ppm | 0.0035 | 1.51 | 14500.0000 | 0.2305 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 152.9000 | ppm | 0.2586 | 0.17 | 341800.0000 | 152.9000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.1529 | ppm | 0.0008 | 0.50 | 14820.0000 | 0.1529 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0139 | ppm | 0.0005 | 3.50 | 78.9800 | 0.0139 (ppm) | Y 371.029 |
| Na (589.592 nm) | 871.9000 | ppm | 6.6600 | 0.76 | 4486000.0000 | 871.9000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0006 u | ppm | 0.0009 | > 100.00 | -9.1150 | -0.0006 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0148 | ppm | 0.0006 | 4.10 | -3.9460 | 0.0148 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0071 u | ppm | 0.0024 | 33.17 | -13.2600 | -0.0071 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0001 u | ppm | 0.0027 | > 100.00 | -2.3510 | -0.0001 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0021 | ppm | 0.0018 | 81.66 | -2.5180 | 0.0021 (ppm) | Y 371.029 |
| Si (251.611 nm) | 23.2700 | ppm | 0.0603 | 0.26 | 49590.0000 | 23.2700 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0038 u | ppm | 0.0031 | 81.07 | -6.2670 | -0.0038 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 8.9310 | ppm | 0.0834 | 0.93 | 2795000.0000 | 8.9310 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0002 u | ppm | 0.0001 | 35.36 | -420.2000 | -0.0002 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0028 | ppm | 0.0032 | > 100.00 | -4.1270 | 0.0028 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0216 | ppm | 0.0002 | 1.13 | 956.0000 | 0.0216 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0003 u | ppm | 0.0014 | > 100.00 | -13.7200 | 0.0003 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0098 u | ppm | 0.0000 | 0.12 | -31.9000 | -0.0098 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0002 u | ppm | 0.0002 | > 100.00 | -12.2700 | -0.0002 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9069 | 342700.0000 | 0.0007 | 0.08 |
| Y_R 371.029 | 0.9867 | 53150.0000 | 0.0000 | 0.00 |

Sample Name: 440-195152-i-5-d@2

Date: 11/2/2017 10:16:02 PM Rack:Tube: 4:16

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0015 u | ppm | 0.0000 | 0.47 | -101.5000 | -0.0015 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0122 | ppm | 0.0005 | 4.03 | -663.5000 | 0.0122 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1370 | ppm | 0.0086 | 6.29 | 115.5000 | 0.1370 (ppm) | Y 371.029 |
| B (249.678 nm) | 3.1960 | ppm | 0.0179 | 0.56 | 35760.0000 | 3.1960 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0063 | ppm | 0.0001 | 1.80 | 474.9000 | 0.0063 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 8.1750 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 368.5000 | ppm | 0.4967 | 0.13 | 1312000.0000 | 368.5000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | -2.9670 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0006 u | ppm | 0.0001 | 19.74 | -11.1300 | -0.0006 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0859 | ppm | 0.0009 | 1.01 | 522.5000 | 0.0859 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0015 | ppm | 0.0003 | 18.83 | -30.7600 | 0.0015 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0027 u | ppm | 0.0005 | 17.43 | 7.7120 | -0.0027 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 7.7230 | ppm | 0.0486 | 0.63 | 8039.0000 | 7.7230 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2052 | ppm | 0.0013 | 0.64 | 12970.0000 | 0.2052 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 122.1000 | ppm | 0.2312 | 0.19 | 273100.0000 | 122.1000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0034 u | ppm | 0.0001 | 1.96 | 185.0000 | -0.0034 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0177 | ppm | 0.0003 | 1.46 | 99.1200 | 0.0177 (ppm) | Y 371.029 |
| Na (589.592 nm) | 561.3000 | ppm | 0.4809 | 0.09 | 2888000.0000 | 561.3000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0004 | ppm | 0.0000 | 9.39 | -4.9940 | 0.0004 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0097 | ppm | 0.0015 | 15.06 | -9.3270 | 0.0097 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0060 u | ppm | 0.0008 | 12.80 | -11.5800 | -0.0060 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0006 | ppm | 0.0001 | 10.03 | -2.3590 | 0.0006 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0039 | ppm | 0.0033 | 84.61 | -1.2460 | 0.0039 (ppm) | Y 371.029 |
| Si (251.611 nm) | 24.3900 | ppm | 0.1467 | 0.60 | 51970.0000 | 24.3900 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0039 u | ppm | 0.0016 | 41.19 | -6.4060 | -0.0039 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 6.8420 | ppm | 0.0167 | 0.24 | 2143000.0000 | 6.8420 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0003 u | ppm | 0.0000 | 8.94 | -462.0000 | -0.0003 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0036 | ppm | 0.0003 | 8.95 | -4.6170 | 0.0036 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0436 | ppm | 0.0001 | 0.14 | 1566.0000 | 0.0436 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0016 u | ppm | 0.0014 | 83.82 | -18.3500 | -0.0016 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0092 u | ppm | 0.0001 | 0.68 | -29.9400 | -0.0092 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0003 u | ppm | 0.0000 | 9.88 | -10.0900 | -0.0003 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9006 | 340300.0000 | 0.0028 | 0.31 |
| Y_R 371.029 | 0.9593 | 51680.0000 | 0.0034 | 0.35 |

Sample Name: 440-195152-i-5-e ms@2

Date: 11/2/2017 10:18:08 PM
Rack:Tube: 4:17
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1332 | ppm | 0.0002 | 0.14 | 4555.0000 | 0.1332 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.2958 | ppm | 0.0011 | 0.38 | 5887.0000 | 0.2958 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.3968 | ppm | 0.0009 | 0.22 | 323.4000 | 0.3968 (ppm) | Y 371.029 |
| B (249.678 nm) | 3.3570 | ppm | 0.0220 | 0.66 | 37520.0000 | 3.3570 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.2342 | ppm | 0.0021 | 0.91 | 17210.0000 | 0.2342 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.2662 | ppm | 0.0022 | 0.83 | 43910.0000 | 0.2662 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 352.8000 | ppm | 1.4070 | 0.40 | 1257000.0000 | 352.8000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.2411 | ppm | 0.0007 | 0.30 | 5978.0000 | 0.2411 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.2460 | ppm | 0.0023 | 0.94 | 3319.0000 | 0.2460 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.3360 | ppm | 0.0019 | 0.56 | 2022.0000 | 0.3360 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.2767 | ppm | 0.0017 | 0.62 | 9656.0000 | 0.2767 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.2450 | ppm | 0.0010 | 0.39 | 1056.0000 | 0.2450 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.0500 | ppm | 0.1286 | 1.28 | 10460.0000 | 10.0500 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4588 | ppm | 0.0040 | 0.87 | 27750.0000 | 0.4588 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 114.4000 | ppm | 1.0890 | 0.95 | 255800.0000 | 114.4000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.2491 | ppm | 0.0017 | 0.68 | 23810.0000 | 0.2491 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.2749 | ppm | 0.0029 | 1.06 | 1454.0000 | 0.2749 (ppm) | Y 371.029 |
| Na (589.592 nm) | 537.5000 | ppm | 1.9270 | 0.36 | 2766000.0000 | 537.5000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.2414 | ppm | 0.0030 | 1.26 | 1145.0000 | 0.2414 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.2837 | ppm | 0.0051 | 1.80 | 228.9000 | 0.2837 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.2360 | ppm | 0.0015 | 0.65 | 457.4000 | 0.2360 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.2739 | ppm | 0.0074 | 2.71 | 314.2000 | 0.2739 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.2612 | ppm | 0.0077 | 2.96 | 224.8000 | 0.2612 (ppm) | Y 371.029 |
| Si (251.611 nm) | 24.7400 | ppm | 0.1478 | 0.60 | 52770.0000 | 24.7400 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.2535 | ppm | 0.0016 | 0.62 | 200.2000 | 0.2535 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 6.7870 | ppm | 0.0177 | 0.26 | 2125000.0000 | 6.7870 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.2637 | ppm | 0.0015 | 0.58 | 28170.0000 | 0.2637 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.2289 | ppm | 0.0072 | 3.16 | 337.5000 | 0.2289 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.3074 | ppm | 0.0020 | 0.65 | 8363.0000 | 0.3074 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.2530 | ppm | 0.0026 | 1.03 | 519.9000 | 0.2530 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2301 | ppm | 0.0022 | 0.96 | 5452.0000 | 0.2301 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.2531 | ppm | 0.0002 | 0.09 | 17600.0000 | 0.2531 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9001 | 340100.0000 | 0.0106 | 1.18 |
| Y_R 371.029 | 0.9995 | 53840.0000 | 0.0135 | 1.35 |

Sample Name: 440-195152-i-5-f msd@2

Date: 11/2/2017 10:20:13 PM Rack:Tube: 4:18

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.1292 | ppm | 0.0005 | 0.40 | 4418.0000 | 0.1292 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.2861 | ppm | 0.0003 | 0.11 | 5664.0000 | 0.2861 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.3929 | ppm | 0.0078 | 1.99 | 320.4000 | 0.3929 (ppm) | Y 371.029 |
| B (249.678 nm) | 3.3000 | ppm | 0.0172 | 0.52 | 36890.0000 | 3.3000 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.2316 | ppm | 0.0125 | 5.39 | 17020.0000 | 0.2316 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.2554 | ppm | 0.0006 | 0.22 | 42130.0000 | 0.2554 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 347.6000 | ppm | 8.2970 | 2.39 | 1238000.0000 | 347.6000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.2319 | ppm | 0.0009 | 0.39 | 5751.0000 | 0.2319 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.2362 | ppm | 0.0005 | 0.19 | 3187.0000 | 0.2362 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.3241 | ppm | 0.0005 | 0.17 | 1950.0000 | 0.3241 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.2666 | ppm | 0.0008 | 0.28 | 9307.0000 | 0.2666 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.2351 | ppm | 0.0044 | 1.86 | 1014.0000 | 0.2351 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.8050 | ppm | 0.2419 | 2.47 | 10200.0000 | 9.8050 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4454 | ppm | 0.0106 | 2.39 | 26960.0000 | 0.4454 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 115.7000 | ppm | 6.2180 | 5.37 | 258700.0000 | 115.7000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.2449 | ppm | 0.0009 | 0.35 | 23420.0000 | 0.2449 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.2683 | ppm | 0.0022 | 0.81 | 1419.0000 | 0.2683 (ppm) | Y 371.029 |
| Na (589.592 nm) | 528.2000 | ppm | 12.8500 | 2.43 | 2718000.0000 | 528.2000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.2338 | ppm | 0.0013 | 0.55 | 1109.0000 | 0.2338 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.2722 | ppm | 0.0033 | 1.23 | 218.9000 | 0.2722 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.2243 | ppm | 0.0014 | 0.62 | 434.7000 | 0.2243 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.2668 | ppm | 0.0004 | 0.13 | 305.9000 | 0.2668 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.2536 | ppm | 0.0025 | 0.98 | 218.2000 | 0.2536 (ppm) | Y 371.029 |
| Si (251.611 nm) | 24.3600 | ppm | 0.0789 | 0.32 | 51940.0000 | 24.3600 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.2489 | ppm | 0.0007 | 0.27 | 196.4000 | 0.2489 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 6.6890 | ppm | 0.1471 | 2.20 | 2095000.0000 | 6.6890 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.2558 | ppm | 0.0008 | 0.31 | 27310.0000 | 0.2558 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.2255 | ppm | 0.0064 | 2.84 | 332.7000 | 0.2255 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.2968 | ppm | 0.0009 | 0.32 | 8083.0000 | 0.2968 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.2507 | ppm | 0.0005 | 0.18 | 515.1000 | 0.2507 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.2209 | ppm | 0.0010 | 0.44 | 5242.0000 | 0.2209 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.2504 | ppm | 0.0008 | 0.33 | 17410.0000 | 0.2504 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9238 | 349100.0000 | 0.0208 | 2.25 |
| Y_R 371.029 | 0.9986 | 53800.0000 | 0.0356 | 3.57 |

Sample Name: 440-195152-i-6-b@2

Date: 11/2/2017 10:22:18 PM Rack:Tube: 4:19

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0009 u | ppm | 0.0006 | 63.69 | -83.2400 | -0.0009 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0140 | ppm | 0.0015 | 10.64 | -613.4000 | 0.0140 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1394 | ppm | 0.0049 | 3.50 | 117.5000 | 0.1394 (ppm) | Y 371.029 |
| B (249.678 nm) | 3.1380 | ppm | 0.0871 | 2.78 | 35110.0000 | 3.1380 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0066 | ppm | 0.0002 | 2.66 | 492.6000 | 0.0066 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 17.95 | 0.3422 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 378.6000 | ppm | 3.0880 | 0.82 | 1348000.0000 | 378.6000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | 0.4207 | 0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0006 u | ppm | 0.0002 | 36.21 | -11.2400 | -0.0006 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0840 | ppm | 0.0020 | 2.38 | 511.4000 | 0.0840 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0015 | ppm | 0.0001 | 8.34 | -35.1100 | 0.0015 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0022 | ppm | 0.0023 | > 100.00 | 29.5200 | 0.0022 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 7.8500 | ppm | 0.0025 | 0.03 | 8173.0000 | 7.8500 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2094 | ppm | 0.0004 | 0.20 | 13250.0000 | 0.2094 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 129.1000 | ppm | 0.2480 | 0.19 | 288600.0000 | 129.1000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0038 u | ppm | 0.0002 | 4.26 | 178.6000 | -0.0038 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0184 | ppm | 0.0002 | 0.96 | 102.9000 | 0.0184 (ppm) | Y 371.029 |
| Na (589.592 nm) | 574.5000 | ppm | 3.4280 | 0.60 | 2956000.0000 | 574.5000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0009 u | ppm | 0.0010 | > 100.00 | -11.2000 | -0.0009 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0104 | ppm | 0.0011 | 10.72 | -8.7970 | 0.0104 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0064 u | ppm | 0.0013 | 20.17 | -12.1800 | -0.0064 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0038 | ppm | 0.0007 | 17.08 | 1.3240 | 0.0038 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0098 | ppm | 0.0120 | > 100.00 | 3.8560 | 0.0098 (ppm) | Y 371.029 |
| Si (251.611 nm) | 23.9100 | ppm | 0.6663 | 2.79 | 50950.0000 | 23.9100 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0003 u | ppm | 0.0043 | > 100.00 | -3.0920 | 0.0003 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 7.0050 | ppm | 0.0523 | 0.75 | 2194000.0000 | 7.0050 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0005 | ppm | 0.0001 | 23.22 | -381.5000 | 0.0005 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0060 | ppm | 0.0013 | 21.08 | -0.7529 | 0.0060 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0422 | ppm | 0.0022 | 5.19 | 1538.0000 | 0.0422 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0007 | ppm | 0.0007 | 97.13 | -13.7300 | 0.0007 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0094 u | ppm | 0.0000 | 0.22 | -31.2900 | -0.0094 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 19.33 | 17.4400 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9257 | 349800.0000 | 0.0469 | 5.07 |
| Y_R 371.029 | 0.9133 | 49200.0000 | 0.0214 | 2.34 |

Sample Name: 440-195219-f-1-b

Date: 11/2/2017 10:24:23 PM Rack:Tube: 4:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0016 u | ppm | 0.0006 | 38.16 | -140.3000 | -0.0016 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0039 u | ppm | 0.0006 | 14.58 | -812.1000 | -0.0039 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1824 | ppm | 0.0055 | 3.03 | 144.8000 | 0.1824 (ppm) | Y 371.029 |
| B (249.678 nm) | 11.5500 | ppm | 0.0575 | 0.50 | 129200.0000 | 11.5500 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0215 | ppm | 0.0004 | 1.83 | 1605.0000 | 0.0215 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0001 | 51.66 | 1.3030 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 596.8000 o | ppm | 3.0040 | 0.50 | 2126000.0000 | 596.8000 o (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | 3.7590 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0014 u | ppm | 0.0001 | 3.89 | -15.8000 | -0.0014 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.7911 | ppm | 0.0022 | 0.28 | 4756.0000 | 0.7911 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0029 | ppm | 0.0002 | 5.57 | -132.0000 | 0.0029 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0048 u | ppm | 0.0004 | 8.71 | 12.4200 | -0.0048 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 16.8000 | ppm | 0.1221 | 0.73 | 17540.0000 | 16.8000 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.3750 | ppm | 0.0005 | 0.13 | 23650.0000 | 0.3750 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 244.3000 | ppm | 2.0140 | 0.82 | 546100.0000 | 244.3000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0023 | ppm | 0.0000 | 0.27 | 1145.0000 | 0.0023 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0478 | ppm | 0.0005 | 1.12 | 258.2000 | 0.0478 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1287.0000 o | ppm | 3.5610 | 0.28 | 6622000.0000 | 1287.0000 o (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0018 | ppm | 0.0002 | 9.00 | -2.7540 | 0.0018 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0087 | ppm | 0.0011 | 12.42 | -13.1300 | 0.0087 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0080 u | ppm | 0.0021 | 25.90 | -11.2300 | -0.0080 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0024 u | ppm | 0.0012 | 48.27 | 2.6660 | -0.0024 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0120 | ppm | 0.0010 | 8.64 | 4.1850 | 0.0120 (ppm) | Y 371.029 |
| Si (251.611 nm) | 45.2000 | ppm | 0.0840 | 0.19 | 96290.0000 | 45.2000 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0034 u | ppm | 0.0014 | 41.27 | -5.8870 | -0.0034 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 14.1300 | ppm | 0.1760 | 1.25 | 4423000.0000 | 14.1300 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0008 u | ppm | 0.0000 | 3.88 | -718.7000 | -0.0008 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0052 | ppm | 0.0018 | 35.43 | -3.7860 | 0.0052 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0666 | ppm | 0.0003 | 0.44 | 2407.0000 | 0.0666 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0013 | ppm | 0.0006 | 48.27 | -17.2200 | 0.0013 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0150 u | ppm | 0.0003 | 1.97 | -97.1900 | -0.0150 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0003 u | ppm | 0.0000 | 6.22 | 11.5300 | -0.0003 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8162 | 308500.0000 | 0.0027 | 0.33 |
| Y_R 371.029 | 0.9395 | 50610.0000 | 0.0083 | 0.89 |

Sample Name: CCV 4461459

Date: 11/2/2017 10:26:27 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.5132 | ppm | 0.0101 | 1.96 | 17740.0000 | 0.5132 (ppm) | Y 371.029 |
| Al (396.152 nm) | 1.0300 | ppm | 0.0199 | 1.94 | 22730.0000 | 1.0300 (ppm) | Y 371.029 |
| As (188.980 nm) | 1.0220 | ppm | 0.0134 | 1.31 | 823.8000 | 1.0220 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0330 | ppm | 0.0204 | 1.98 | 11440.0000 | 1.0330 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9931 | ppm | 0.0037 | 0.37 | 72960.0000 | 0.9931 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 1.0240 | ppm | 0.0186 | 1.81 | 168900.0000 | 1.0240 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 5.0480 | ppm | 0.0015 | 0.03 | 18110.0000 | 5.0480 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 1.0110 | ppm | 0.0162 | 1.61 | 25080.0000 | 1.0110 (ppm) | Y 371.029 |
| Co (228.615 nm) | 1.0260 | ppm | 0.0140 | 1.37 | 13850.0000 | 1.0260 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 1.0130 | ppm | 0.0194 | 1.92 | 6075.0000 | 1.0130 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 1.0490 | ppm | 0.0168 | 1.60 | 37030.0000 | 1.0490 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9925 | ppm | 0.0009 | 0.09 | 4207.0000 | 0.9925 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.2800 | ppm | 0.0450 | 0.44 | 10640.0000 | 10.2800 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 1.0220 | ppm | 0.0024 | 0.23 | 59830.0000 | 1.0220 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 5.0260 | ppm | 0.0014 | 0.03 | 11240.0000 | 5.0260 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.0150 | ppm | 0.0198 | 1.95 | 95180.0000 | 1.0150 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 1.0150 | ppm | 0.0149 | 1.47 | 5354.0000 | 1.0150 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.7100 | ppm | 0.0175 | 0.16 | 56710.0000 | 10.7100 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 1.0170 | ppm | 0.0241 | 2.37 | 4854.0000 | 1.0170 (ppm) | Y 371.029 |
| P (213.618 nm) | 1.0200 | ppm | 0.0121 | 1.19 | 870.7000 | 1.0200 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 1.0180 | ppm | 0.0192 | 1.88 | 1970.0000 | 1.0180 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 1.0200 | ppm | 0.0090 | 0.88 | 1177.0000 | 1.0200 (ppm) | Y 371.029 |
| Se (196.026 nm) | 1.0270 | ppm | 0.0173 | 1.68 | 899.2000 | 1.0270 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.3760 | ppm | 0.0023 | 0.04 | 11650.0000 | 5.3760 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 1.0190 | ppm | 0.0138 | 1.35 | 814.4000 | 1.0190 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.0080 | ppm | 0.0040 | 0.40 | 315100.0000 | 1.0080 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 1.0270 | ppm | 0.0199 | 1.94 | 111300.0000 | 1.0270 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 1.0230 | ppm | 0.0165 | 1.62 | 1555.0000 | 1.0230 (ppm) | Y 371.029 |
| V (292.401 nm) | 1.0370 | ppm | 0.0166 | 1.60 | 26820.0000 | 1.0370 (ppm) | Y 371.029 |
| W (207.912 nm) | 1.0160 | ppm | 0.0173 | 1.70 | 2140.0000 | 1.0160 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 1.0130 | ppm | 0.0178 | 1.76 | 23300.0000 | 1.0130 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 1.0270 | ppm | 0.0172 | 1.68 | 71350.0000 | 1.0270 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9645 | 364500.0000 | 0.0141 | 1.46 |
| Y_R 371.029 | 1.0030 | 54060.0000 | 0.0080 | 0.80 |

Sample Name: CCB 4461458

Date: 11/2/2017 10:28:31 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0003 | ppm | 0.0001 | 44.68 | 11.0800 | 0.0003 (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0021 u | ppm | 0.0006 | 27.93 | -1228.0000 | -0.0021 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0083 | ppm | 0.0000 | 0.13 | 13.0400 | 0.0083 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0035 | ppm | 0.0006 | 16.35 | 37.5200 | 0.0035 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0000 | 1.64 | 6.1760 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 90.33 | 22.2900 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0042 u | ppm | 0.0108 | > 100.00 | 119.5000 | -0.0042 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | -1.5800 | 0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0004 u | ppm | 0.0000 | 2.13 | -15.9600 | -0.0004 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0003 u | ppm | 0.0004 | > 100.00 | 2.7340 | 0.0003 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0017 | ppm | 0.0001 | 8.83 | 223.0000 | 0.0017 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0001 u | ppm | 0.0023 | > 100.00 | 3.5640 | -0.0001 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1624 | ppm | 0.1024 | 63.07 | 99.6300 | 0.1624 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0135 | ppm | 0.0009 | 6.88 | 805.2000 | 0.0135 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0043 | ppm | 0.0004 | 8.61 | 17.4400 | 0.0043 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0001 | ppm | 0.0001 | 49.62 | 84.4200 | 0.0001 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0042 | ppm | 0.0018 | 43.26 | 27.8100 | 0.0042 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.4349 | ppm | 0.0031 | 0.72 | 3792.0000 | 0.4349 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0003 u | ppm | 0.0005 | > 100.00 | -1.1790 | -0.0003 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0023 u | ppm | 0.0132 | > 100.00 | -11.8200 | 0.0023 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0001 | ppm | 0.0001 | 96.44 | -4.8810 | 0.0001 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0058 | ppm | 0.0003 | 5.21 | 1.6690 | 0.0058 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0024 u | ppm | 0.0054 | > 100.00 | -0.1083 | 0.0024 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0065 | ppm | 0.0069 | > 100.00 | 32.3300 | 0.0065 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0036 | ppm | 0.0023 | 62.23 | -0.5241 | 0.0036 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | 35.9800 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0013 | ppm | 0.0003 | 23.77 | 39.6900 | 0.0013 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0016 | ppm | 0.0008 | 48.64 | -3.8570 | 0.0016 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0003 | ppm | 0.0002 | 56.56 | 47.7200 | 0.0003 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0037 | ppm | 0.0001 | 2.57 | 0.7618 | 0.0037 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0025 u | ppm | 0.0002 | 8.32 | 23.1700 | -0.0025 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -34.4700 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9780 | 369600.0000 | 0.0161 | 1.65 |
| Y_R 371.029 | 0.9688 | 52190.0000 | 0.0084 | 0.87 |

Sample Name: 440-195219-f-2-b

Date: 11/2/2017 10:39:02 PM Rack:Tube: 4:21

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0007 u | ppm | 0.0004 | 60.98 | -28.5300 | -0.0007 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0094 | ppm | 0.0010 | 10.83 | -940.5000 | 0.0094 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0518 | ppm | 0.0003 | 0.64 | 47.9200 | 0.0518 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.7903 | ppm | 0.0059 | 0.74 | 8840.0000 | 0.7903 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0219 | ppm | 0.0002 | 0.95 | 1602.0000 | 0.0219 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 19.23 | -3.7400 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 33.1700 | ppm | 0.1953 | 0.59 | 118300.0000 | 33.1700 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -4.1750 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0005 | > 100.00 | -13.7100 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0311 | ppm | 0.0007 | 2.40 | 188.3000 | 0.0311 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0000 | 4.66 | 169.2000 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0016 u | ppm | 0.0016 | > 100.00 | -0.8317 | -0.0016 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.0530 | ppm | 0.0417 | 0.46 | 9361.0000 | 9.0530 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0814 | ppm | 0.0005 | 0.59 | 4900.0000 | 0.0814 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 16.3500 | ppm | 0.0231 | 0.14 | 36560.0000 | 16.3500 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0003 u | ppm | 0.0001 | 23.96 | 100.2000 | -0.0003 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0090 | ppm | 0.0018 | 19.83 | 52.9700 | 0.0090 (ppm) | Y 371.029 |
| Na (589.592 nm) | 118.8000 | ppm | 0.8512 | 0.72 | 612500.0000 | 118.8000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0002 | ppm | 0.0001 | 27.29 | 0.6057 | 0.0002 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0112 | ppm | 0.0082 | 73.17 | -4.1210 | 0.0112 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0029 u | ppm | 0.0004 | 12.99 | -10.1600 | -0.0029 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0007 | ppm | 0.0009 | > 100.00 | -3.9730 | 0.0007 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0044 | ppm | 0.0015 | 34.98 | 1.3450 | 0.0044 (ppm) | Y 371.029 |
| Si (251.611 nm) | 27.4200 | ppm | 0.1450 | 0.53 | 58390.0000 | 27.4200 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0007 u | ppm | 0.0046 | > 100.00 | -2.8580 | 0.0007 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.5960 | ppm | 0.0106 | 0.66 | 499400.0000 | 1.5960 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -126.8000 | 0.0000 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0011 | ppm | 0.0012 | > 100.00 | -5.5550 | 0.0011 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0237 | ppm | 0.0001 | 0.29 | 691.0000 | 0.0237 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0014 u | ppm | 0.0017 | > 100.00 | -10.7600 | -0.0014 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0027 u | ppm | 0.0002 | 8.07 | 31.5900 | -0.0027 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0001 | 25.74 | -17.3800 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9266 | 350200.0000 | 0.0086 | 0.93 |
| Y_R 371.029 | 0.9298 | 50090.0000 | 0.0051 | 0.55 |

Sample Name: 440-195219-f-3-b@2

Date: 11/2/2017 10:41:07 PM Rack:Tube: 4:22

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0016 u | ppm | 0.0004 | 26.90 | -99.8900 | -0.0016 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0121 | ppm | 0.0005 | 3.85 | -688.5000 | 0.0121 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.1507 | ppm | 0.0065 | 4.29 | 126.4000 | 0.1507 (ppm) | Y 371.029 |
| B (249.678 nm) | 4.4250 | ppm | 0.0727 | 1.64 | 49500.0000 | 4.4250 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0076 | ppm | 0.0000 | 0.04 | 569.0000 | 0.0076 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 4.9340 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 303.7000 | ppm | 1.1980 | 0.39 | 1082000.0000 | 303.7000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | -0.2761 | 0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0008 u | ppm | 0.0004 | 43.40 | -15.1200 | -0.0008 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.1345 | ppm | 0.0027 | 2.02 | 812.9000 | 0.1345 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0018 | ppm | 0.0000 | 1.36 | 23.3600 | 0.0018 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0045 u | ppm | 0.0019 | 42.02 | -0.9676 | -0.0045 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 7.7380 | ppm | 0.0484 | 0.63 | 8047.0000 | 7.7380 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2146 | ppm | 0.0019 | 0.86 | 13420.0000 | 0.2146 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 118.3000 | ppm | 1.4080 | 1.19 | 264400.0000 | 118.3000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0028 u | ppm | 0.0001 | 3.14 | 232.1000 | -0.0028 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0220 | ppm | 0.0000 | 0.20 | 121.8000 | 0.0220 (ppm) | Y 371.029 |
| Na (589.592 nm) | 614.8000 | ppm | 2.7450 | 0.45 | 3164000.0000 | 614.8000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0008 u | ppm | 0.0006 | 76.86 | -9.6180 | -0.0008 u (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0013 u | ppm | 0.0054 | > 100.00 | -18.8100 | -0.0013 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0069 u | ppm | 0.0018 | 26.97 | -13.7600 | -0.0069 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0065 | ppm | 0.0012 | 18.29 | 4.6790 | 0.0065 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0109 | ppm | 0.0009 | 7.88 | 5.1990 | 0.0109 (ppm) | Y 371.029 |
| Si (251.611 nm) | 23.2000 | ppm | 0.3506 | 1.51 | 49430.0000 | 23.2000 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0047 u | ppm | 0.0017 | 36.06 | -7.1060 | -0.0047 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 6.4390 | ppm | 0.0295 | 0.46 | 2016000.0000 | 6.4390 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0003 u | ppm | 0.0001 | 28.86 | -399.8000 | -0.0003 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0030 | ppm | 0.0006 | 19.86 | -4.8980 | 0.0030 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0447 | ppm | 0.0009 | 1.96 | 1524.0000 | 0.0447 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0025 u | ppm | 0.0017 | 67.90 | -18.7600 | -0.0025 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0091 u | ppm | 0.0004 | 4.60 | -36.8200 | -0.0091 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0003 u | ppm | 0.0003 | 86.07 | -21.8900 | -0.0003 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8259 | 312100.0000 | 0.0019 | 0.24 |
| Y_R 371.029 | 0.9021 | 48600.0000 | 0.0002 | 0.02 |

Sample Name: 440-195219-f-4-b@10

Date: 11/2/2017 10:43:12 PM Rack:Tube: 4:23

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0003 u | ppm | 0.0002 | 70.86 | -14.1500 | -0.0003 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0070 | ppm | 0.0017 | 24.30 | -1003.0000 | 0.0070 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0127 | ppm | 0.0004 | 3.39 | 16.6400 | 0.0127 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.1651 | ppm | 0.0010 | 0.60 | 1845.0000 | 0.1651 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0031 | ppm | 0.0002 | 6.31 | 220.7000 | 0.0031 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 4.0310 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 24.1700 | ppm | 0.1458 | 0.60 | 86190.0000 | 24.1700 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 64.88 | -0.0166 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0001 | 38.54 | -14.6300 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0006 | ppm | 0.0003 | 49.96 | 5.1110 | 0.0006 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0009 | ppm | 0.0003 | 27.66 | 180.7000 | 0.0009 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0026 u | ppm | 0.0009 | 35.78 | -5.2300 | -0.0026 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 2.4410 | ppm | 0.0460 | 1.89 | 2478.0000 | 2.4410 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0344 | ppm | 0.0002 | 0.49 | 2118.0000 | 0.0344 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 14.5500 | ppm | 0.1056 | 0.73 | 32540.0000 | 14.5500 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0383 | ppm | 0.0002 | 0.60 | 3686.0000 | 0.0383 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0040 | ppm | 0.0005 | 12.50 | 26.9700 | 0.0040 (ppm) | Y 371.029 |
| Na (589.592 nm) | 112.7000 | ppm | 0.3227 | 0.29 | 581400.0000 | 112.7000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0011 u | ppm | 0.0003 | 28.95 | -5.7510 | -0.0011 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0232 | ppm | 0.0004 | 1.72 | 7.1770 | 0.0232 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0023 u | ppm | 0.0010 | 42.87 | -8.9810 | -0.0023 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0043 | ppm | 0.0044 | > 100.00 | -0.0089 | 0.0043 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0009 u | ppm | 0.0031 | > 100.00 | -1.5340 | 0.0009 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 4.2210 | ppm | 0.0049 | 0.12 | 9008.0000 | 4.2210 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0005 u | ppm | 0.0017 | > 100.00 | -3.0560 | 0.0005 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.6333 | ppm | 0.0024 | 0.39 | 198300.0000 | 0.6333 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0000 | ppm | 0.0000 | 20.74 | -116.9000 | 0.0000 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0005 u | ppm | 0.0008 | > 100.00 | -5.8700 | 0.0005 u (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0108 | ppm | 0.0001 | 1.03 | 348.7000 | 0.0108 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0002 u | ppm | 0.0007 | > 100.00 | -7.1080 | 0.0002 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0030 u | ppm | 0.0001 | 2.67 | 23.5500 | -0.0030 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -30.6300 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9492 | 358700.0000 | 0.0165 | 1.73 |
| Y_R 371.029 | 0.9842 | 53020.0000 | 0.0119 | 1.20 |

Sample Name: 440-195219-f-5-b@2

Date: 11/2/2017 10:45:17 PM Rack:Tube: 4:24

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0010 u | ppm | 0.0000 | 2.52 | -106.3000 | -0.0010 u (ppm) | Y 371.029 |
| Al (396.152 nm) | -0.0001 u | ppm | 0.0009 | > 100.00 | -670.7000 | -0.0001 u (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0642 | ppm | 0.0065 | 10.08 | 58.7200 | 0.0642 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.2600 | ppm | 0.0042 | 0.33 | 14090.0000 | 1.2600 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0232 | ppm | 0.0004 | 1.53 | 1735.0000 | 0.0232 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0002 u | ppm | 0.0000 | 20.04 | -7.4310 | -0.0002 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 442.2000 | ppm | 8.6550 | 1.96 | 1575000.0000 | 442.2000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 | ppm | 0.0000 | 73.60 | 0.0018 | 0.0000 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0002 u | ppm | 0.0006 | > 100.00 | 0.0508 | -0.0002 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0001 u | ppm | 0.0001 | > 100.00 | 9.5420 | 0.0001 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0018 | ppm | 0.0002 | 11.58 | -56.5400 | 0.0018 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0556 | ppm | 0.0004 | 0.72 | 279.6000 | 0.0556 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 12.7200 | ppm | 0.1236 | 0.97 | 13320.0000 | 12.7200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2910 | ppm | 0.0023 | 0.78 | 18890.0000 | 0.2910 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 368.0000 | ppm | 5.2490 | 1.43 | 822800.0000 | 368.0000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 1.5110 | ppm | 0.0050 | 0.33 | 141900.0000 | 1.5110 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0105 | ppm | 0.0003 | 2.81 | 61.5200 | 0.0105 (ppm) | Y 371.029 |
| Na (589.592 nm) | 829.5000 | ppm | 9.7590 | 1.18 | 4268000.0000 | 829.5000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0004 u | ppm | 0.0005 | > 100.00 | -12.6400 | -0.0004 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0316 | ppm | 0.0015 | 4.89 | 10.8200 | 0.0316 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0090 u | ppm | 0.0005 | 6.01 | -10.9800 | -0.0090 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0004 u | ppm | 0.0010 | > 100.00 | -4.9290 | -0.0004 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0030 | ppm | 0.0029 | 97.97 | -2.0100 | 0.0030 (ppm) | Y 371.029 |
| Si (251.611 nm) | 20.4900 | ppm | 0.0532 | 0.26 | 43690.0000 | 20.4900 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0035 u | ppm | 0.0029 | 82.17 | -5.5860 | -0.0035 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 13.0800 | ppm | 0.2716 | 2.08 | 4092000.0000 | 13.0800 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0004 u | ppm | 0.0002 | 49.19 | -526.9000 | -0.0004 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0032 | ppm | 0.0027 | 83.69 | 1.6540 | 0.0032 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0159 u | ppm | 0.0000 | 0.09 | 108.8000 | -0.0159 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0000 u | ppm | 0.0031 | > 100.00 | -17.2100 | 0.0000 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0204 u | ppm | 0.0001 | 0.30 | -121.1000 | -0.0204 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0004 u | ppm | 0.0003 | 72.67 | -17.1800 | -0.0004 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8557 | 323400.0000 | 0.0061 | 0.71 |
| Y_R 371.029 | 0.9263 | 49900.0000 | 0.0112 | 1.21 |

Sample Name: 440-195219-f-6-b

Date: 11/2/2017 10:47:23 PM Rack:Tube: 4:25

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0011 u | ppm | 0.0004 | 34.51 | -116.3000 | -0.0011 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0008 | ppm | 0.0001 | 7.15 | -654.7000 | 0.0008 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0504 | ppm | 0.0019 | 3.72 | 47.1500 | 0.0504 (ppm) | Y 371.029 |
| B (249.678 nm) | 2.0730 | ppm | 0.0023 | 0.11 | 23190.0000 | 2.0730 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0442 | ppm | 0.0007 | 1.68 | 3278.0000 | 0.0442 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0000 | 62.71 | 6.7580 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 498.4000 | ppm | 8.0730 | 1.62 | 1775000.0000 | 498.4000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -0.4190 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0006 u | ppm | 0.0002 | 35.80 | -4.3820 | -0.0006 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | 9.5820 | 0.0000 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0013 | ppm | 0.0004 | 32.83 | -113.4000 | 0.0013 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0454 | ppm | 0.0021 | 4.63 | 234.6000 | 0.0454 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 23.9100 | ppm | 0.3012 | 1.26 | 24960.0000 | 23.9100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.2603 | ppm | 0.0014 | 0.53 | 17100.0000 | 0.2603 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 342.7000 | ppm | 5.1730 | 1.51 | 766300.0000 | 342.7000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.3637 | ppm | 0.0004 | 0.10 | 35090.0000 | 0.3637 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0181 | ppm | 0.0008 | 4.65 | 101.3000 | 0.0181 (ppm) | Y 371.029 |
| Na (589.592 nm) | 693.3000 | ppm | 6.3670 | 0.92 | 3567000.0000 | 693.3000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0009 | ppm | 0.0007 | 73.49 | -6.6490 | 0.0009 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0273 | ppm | 0.0078 | 28.49 | 6.0920 | 0.0273 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0104 u | ppm | 0.0006 | 6.22 | -14.3300 | -0.0104 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0032 u | ppm | 0.0014 | 44.12 | -7.9950 | -0.0032 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0059 | ppm | 0.0010 | 17.47 | -0.4036 | 0.0059 (ppm) | Y 371.029 |
| Si (251.611 nm) | 27.3600 | ppm | 0.0105 | 0.04 | 58310.0000 | 27.3600 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0017 u | ppm | 0.0008 | 46.29 | -4.2240 | -0.0017 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 16.3000 | ppm | 0.2923 | 1.79 | 5099000.0000 | 16.3000 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0006 u | ppm | 0.0001 | 20.63 | -600.0000 | -0.0006 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0026 | ppm | 0.0012 | 45.95 | -2.5110 | 0.0026 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0179 u | ppm | 0.0005 | 2.94 | 111.3000 | -0.0179 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0016 u | ppm | 0.0009 | 54.83 | -21.6000 | -0.0016 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0218 u | ppm | 0.0004 | 1.67 | -167.8000 | -0.0218 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | -0.0004 u | ppm | 0.0001 | 26.23 | -11.6100 | -0.0004 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8641 | 326600.0000 | 0.0015 | 0.17 |
| Y_R 371.029 | 0.9310 | 50150.0000 | 0.0134 | 1.43 |

Sample Name: 440-195219-f-7-b

Date: 11/2/2017 10:49:28 PM Rack:Tube: 4:26

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0008 u | ppm | 0.0003 | 41.39 | -31.3400 | -0.0008 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0493 | ppm | 0.0007 | 1.37 | -35.1400 | 0.0493 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0313 | ppm | 0.0009 | 2.86 | 31.4700 | 0.0313 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.8522 | ppm | 0.0065 | 0.77 | 9531.0000 | 0.8522 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0205 | ppm | 0.0001 | 0.44 | 1497.0000 | 0.0205 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 0.5726 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 41.1200 | ppm | 0.0034 | 0.01 | 146600.0000 | 41.1200 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -5.0190 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0004 u | ppm | 0.0001 | 32.72 | -15.1600 | -0.0004 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0161 | ppm | 0.0003 | 1.76 | 98.2300 | 0.0161 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0017 | ppm | 0.0003 | 19.28 | 195.3000 | 0.0017 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0053 | ppm | 0.0021 | 40.26 | 29.5500 | 0.0053 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 7.9760 | ppm | 0.0568 | 0.71 | 8243.0000 | 7.9760 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0890 | ppm | 0.0000 | 0.05 | 5388.0000 | 0.0890 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 25.9900 | ppm | 0.4003 | 1.54 | 58110.0000 | 25.9900 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0006 u | ppm | 0.0001 | 17.48 | 108.4000 | -0.0006 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0110 | ppm | 0.0009 | 7.96 | 63.6500 | 0.0110 (ppm) | Y 371.029 |
| Na (589.592 nm) | 150.1000 | ppm | 0.2517 | 0.17 | 773500.0000 | 150.1000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0009 u | ppm | 0.0000 | 1.82 | -5.2870 | -0.0009 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0444 | ppm | 0.0037 | 8.39 | 26.4300 | 0.0444 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0025 u | ppm | 0.0035 | > 100.00 | -9.0270 | -0.0025 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0022 | ppm | 0.0001 | 3.65 | -2.4060 | 0.0022 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0048 | ppm | 0.0008 | 15.84 | 1.6430 | 0.0048 (ppm) | Y 371.029 |
| Si (251.611 nm) | 14.1500 | ppm | 0.0960 | 0.68 | 30140.0000 | 14.1500 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0024 u | ppm | 0.0041 | > 100.00 | -1.4550 | 0.0024 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 1.7090 | ppm | 0.0083 | 0.49 | 534700.0000 | 1.7090 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0001 | 47.44 | -118.3000 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0016 | ppm | 0.0007 | 42.92 | -4.6450 | 0.0016 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0181 | ppm | 0.0002 | 0.98 | 555.4000 | 0.0181 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0014 | ppm | 0.0005 | 33.22 | -4.9420 | 0.0014 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | 101.5000 | 0.0001 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0079 | ppm | 0.0008 | 10.08 | 517.4000 | 0.0079 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9547 | 360800.0000 | 0.0069 | 0.72 |
| Y_R 371.029 | 0.9883 | 53240.0000 | 0.0029 | 0.29 |

Sample Name: 440-195219-f-8-b@2

Date: 11/2/2017 10:51:34 PM Rack:Tube: 4:27

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0015 u | ppm | 0.0004 | 28.43 | -88.7500 | -0.0015 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0142 | ppm | 0.0004 | 3.06 | -615.8000 | 0.0142 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0222 | ppm | 0.0050 | 22.36 | 24.3700 | 0.0222 (ppm) | Y 371.029 |
| B (249.678 nm) | 1.0830 | ppm | 0.0045 | 0.42 | 12120.0000 | 1.0830 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0227 | ppm | 0.0006 | 2.77 | 1679.0000 | 0.0227 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 u | ppm | 0.0001 | 91.12 | 1.5180 | -0.0001 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 242.6000 | ppm | 2.5890 | 1.07 | 864000.0000 | 242.6000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | -2.8630 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0000 u | ppm | 0.0003 | > 100.00 | -3.7790 | 0.0000 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0000 u | ppm | 0.0004 | > 100.00 | 5.6210 | 0.0000 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0010 | ppm | 0.0004 | 37.47 | 41.9500 | 0.0010 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0058 u | ppm | 0.0004 | 6.87 | -1.4600 | -0.0058 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.1200 | ppm | 0.0153 | 0.15 | 10540.0000 | 10.1200 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1587 | ppm | 0.0005 | 0.31 | 10220.0000 | 0.1587 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 170.3000 | ppm | 3.1290 | 1.84 | 380700.0000 | 170.3000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.3393 | ppm | 0.0020 | 0.58 | 32220.0000 | 0.3393 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0051 | ppm | 0.0021 | 41.61 | 32.5400 | 0.0051 (ppm) | Y 371.029 |
| Na (589.592 nm) | 474.2000 | ppm | 5.0550 | 1.07 | 2440000.0000 | 474.2000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0006 u | ppm | 0.0004 | 56.28 | -8.4160 | -0.0006 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0237 | ppm | 0.0046 | 19.58 | 5.5040 | 0.0237 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0066 u | ppm | 0.0016 | 23.80 | -12.4100 | -0.0066 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0052 u | ppm | 0.0002 | 3.56 | -10.7200 | -0.0052 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0025 | ppm | 0.0015 | 59.46 | -1.5950 | 0.0025 (ppm) | Y 371.029 |
| Si (251.611 nm) | 18.8700 | ppm | 0.0627 | 0.33 | 40210.0000 | 18.8700 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0010 u | ppm | 0.0020 | > 100.00 | -3.9560 | -0.0010 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 7.4720 | ppm | 0.0719 | 0.96 | 2338000.0000 | 7.4720 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0002 u | ppm | 0.0001 | 46.64 | -330.4000 | -0.0002 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0025 | ppm | 0.0025 | 99.29 | -2.2840 | 0.0025 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0050 u | ppm | 0.0003 | 6.00 | 172.8000 | -0.0050 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0011 u | ppm | 0.0030 | > 100.00 | -14.8100 | -0.0011 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0073 u | ppm | 0.0001 | 1.38 | 37.5600 | -0.0073 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0003 | ppm | 0.0001 | 23.45 | 9.3050 | 0.0003 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8878 | 335500.0000 | 0.0061 | 0.68 |
| Y_R 371.029 | 0.9529 | 51330.0000 | 0.0150 | 1.57 |

Sample Name: 440-195219-f-1-b@2

Date: 11/2/2017 10:53:40 PM Rack:Tube: 4:20

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | -0.0017 u | ppm | 0.0000 | 2.99 | -101.2000 | -0.0017 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0144 | ppm | 0.0001 | 0.71 | -623.3000 | 0.0144 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0912 | ppm | 0.0040 | 4.33 | 75.6100 | 0.0912 (ppm) | Y 371.029 |
| B (249.678 nm) | 5.7780 | ppm | 0.1007 | 1.74 | 64640.0000 | 5.7780 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0117 | ppm | 0.0005 | 4.49 | 868.9000 | 0.0117 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 10.9300 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | 297.2000 | ppm | 4.2590 | 1.43 | 1059000.0000 | 297.2000 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0000 | 8.07 | -0.1689 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0008 u | ppm | 0.0003 | 39.72 | -13.5700 | -0.0008 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.3956 | ppm | 0.0056 | 1.43 | 2379.0000 | 0.3956 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0009 | ppm | 0.0001 | 10.64 | -0.2072 | 0.0009 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0022 u | ppm | 0.0019 | 83.63 | 9.9140 | -0.0022 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 8.1220 | ppm | 0.0189 | 0.23 | 8450.0000 | 8.1220 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1866 | ppm | 0.0016 | 0.88 | 11810.0000 | 0.1866 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 132.0000 | ppm | 4.5540 | 3.45 | 295200.0000 | 132.0000 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0010 | ppm | 0.0002 | 15.46 | 629.6000 | 0.0010 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0243 | ppm | 0.0003 | 1.07 | 133.9000 | 0.0243 (ppm) | Y 371.029 |
| Na (589.592 nm) | 667.9000 | ppm | 11.5100 | 1.72 | 3437000.0000 | 667.9000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0004 u | ppm | 0.0003 | 70.22 | -7.4560 | -0.0004 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0037 | ppm | 0.0013 | 34.15 | -14.0100 | 0.0037 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0074 u | ppm | 0.0006 | 7.85 | -14.5200 | -0.0074 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0023 u | ppm | 0.0003 | 13.74 | -2.4780 | -0.0023 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0077 | ppm | 0.0000 | 0.44 | 2.4140 | 0.0077 (ppm) | Y 371.029 |
| Si (251.611 nm) | 22.2600 | ppm | 0.3780 | 1.70 | 47440.0000 | 22.2600 (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0012 u | ppm | 0.0021 | > 100.00 | -4.2200 | -0.0012 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | 7.0210 | ppm | 0.0856 | 1.22 | 2198000.0000 | 7.0210 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | -0.0003 u | ppm | 0.0000 | 0.05 | -396.6000 | -0.0003 u (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0043 | ppm | 0.0006 | 12.92 | -2.2640 | 0.0043 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0338 | ppm | 0.0006 | 1.68 | 1237.0000 | 0.0338 (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0003 u | ppm | 0.0004 | > 100.00 | -14.0500 | -0.0003 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0077 u | ppm | 0.0001 | 1.61 | -7.4290 | -0.0077 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -3.1460 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.8673 | 327700.0000 | 0.0052 | 0.59 |
| Y_R 371.029 | 0.9262 | 49900.0000 | 0.0199 | 2.15 |

Sample Name: CCV 4461459

Date: 11/2/2017 10:55:44 PM Rack:Tube: S1:4

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.4828 | ppm | 0.0023 | 0.47 | 16690.0000 | 0.4828 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.9726 | ppm | 0.0042 | 0.43 | 21400.0000 | 0.9726 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.9634 | ppm | 0.0136 | 1.41 | 776.7000 | 0.9634 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.9668 | ppm | 0.0072 | 0.75 | 10710.0000 | 0.9668 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.9221 | ppm | 0.0101 | 1.10 | 67750.0000 | 0.9221 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.9624 | ppm | 0.0041 | 0.43 | 158700.0000 | 0.9624 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 4.7760 | ppm | 0.0262 | 0.55 | 17140.0000 | 4.7760 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.9488 | ppm | 0.0035 | 0.37 | 23530.0000 | 0.9488 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.9700 | ppm | 0.0089 | 0.92 | 13090.0000 | 0.9700 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.9499 | ppm | 0.0043 | 0.45 | 5697.0000 | 0.9499 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.9869 | ppm | 0.0062 | 0.63 | 34860.0000 | 0.9869 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.9421 | ppm | 0.0062 | 0.66 | 3994.0000 | 0.9421 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 9.6980 | ppm | 0.1854 | 1.91 | 10030.0000 | 9.6980 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.9679 | ppm | 0.0119 | 1.23 | 56660.0000 | 0.9679 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 4.6590 | ppm | 0.0432 | 0.93 | 10420.0000 | 4.6590 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.9534 | ppm | 0.0051 | 0.53 | 89370.0000 | 0.9534 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.9524 | ppm | 0.0060 | 0.63 | 5025.0000 | 0.9524 (ppm) | Y 371.029 |
| Na (589.592 nm) | 9.9470 | ppm | 0.1021 | 1.03 | 52770.0000 | 9.9470 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.9526 | ppm | 0.0041 | 0.43 | 4545.0000 | 0.9526 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.9561 | ppm | 0.0026 | 0.27 | 815.1000 | 0.9561 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.9564 | ppm | 0.0035 | 0.37 | 1850.0000 | 0.9564 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.9668 | ppm | 0.0000 | 0.00 | 1115.0000 | 0.9668 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.9604 | ppm | 0.0129 | 1.34 | 841.2000 | 0.9604 (ppm) | Y 371.029 |
| Si (251.611 nm) | 5.0030 | ppm | 0.0885 | 1.77 | 10840.0000 | 5.0030 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.9637 | ppm | 0.0027 | 0.28 | 770.0000 | 0.9637 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.9542 | ppm | 0.0124 | 1.29 | 298400.0000 | 0.9542 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.9646 | ppm | 0.0048 | 0.50 | 104400.0000 | 0.9646 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.9641 | ppm | 0.0053 | 0.55 | 1464.0000 | 0.9641 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.9715 | ppm | 0.0055 | 0.57 | 25140.0000 | 0.9715 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.9522 | ppm | 0.0044 | 0.47 | 2005.0000 | 0.9522 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.9497 | ppm | 0.0042 | 0.44 | 21850.0000 | 0.9497 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.9616 | ppm | 0.0076 | 0.79 | 66830.0000 | 0.9616 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0620 | 401400.0000 | 0.0180 | 1.69 |
| Y_R 371.029 | 1.1190 | 60280.0000 | 0.0014 | 0.12 |

Sample Name: CCB 4461458

Date: 11/2/2017 10:57:48 PM Rack:Tube: S1:1

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0005 | ppm | 0.0003 | 51.45 | 16.5200 | 0.0005 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0055 | ppm | 0.0001 | 1.15 | -1058.0000 | 0.0055 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0017 u | ppm | 0.0024 | > 100.00 | 7.6860 | 0.0017 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0025 | ppm | 0.0004 | 14.78 | 25.6200 | 0.0025 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0001 | 52.73 | 2.3700 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | 68.24 | 21.8300 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0157 u | ppm | 0.0012 | 7.43 | 78.4100 | -0.0157 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0000 | 20.24 | -0.3567 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0002 u | ppm | 0.0000 | 10.14 | -13.4200 | -0.0002 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0002 | 57.65 | 3.5480 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0002 | 29.59 | 191.9000 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | -0.0011 u | ppm | 0.0005 | 47.58 | -0.5423 | -0.0011 u (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1397 | ppm | 0.0061 | 4.36 | 75.9800 | 0.1397 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0119 | ppm | 0.0001 | 1.13 | 716.1000 | 0.0119 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0014 | ppm | 0.0009 | 68.69 | 10.9500 | 0.0014 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | 74.0300 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0035 | ppm | 0.0030 | 86.56 | 23.8800 | 0.0035 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.2226 | ppm | 0.0067 | 2.99 | 2700.0000 | 0.2226 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0005 | ppm | 0.0002 | 39.49 | 2.3680 | 0.0005 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0057 | ppm | 0.0008 | 14.18 | -8.6280 | 0.0057 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0002 u | ppm | 0.0004 | > 100.00 | -5.3960 | -0.0002 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0056 | ppm | 0.0006 | 9.91 | 1.4720 | 0.0056 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0043 | ppm | 0.0020 | 47.68 | 1.5180 | 0.0043 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0069 | ppm | 0.0027 | 38.77 | 32.9400 | 0.0069 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0046 | ppm | 0.0012 | 26.06 | 0.2449 | 0.0046 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 78.4300 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0014 | ppm | 0.0004 | 25.54 | 55.1900 | 0.0014 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0008 | ppm | 0.0006 | 70.69 | -5.1390 | 0.0008 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0002 u | ppm | 0.0005 | > 100.00 | 36.3500 | -0.0002 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0028 | ppm | 0.0004 | 15.49 | -1.2100 | 0.0028 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0025 u | ppm | 0.0001 | 2.42 | 23.3700 | -0.0025 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 19.50 | -26.2300 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.1120 | 420400.0000 | 0.0109 | 0.98 |
| Y_R 371.029 | 1.1330 | 61050.0000 | 0.0086 | 0.76 |

Sample Name: CRI 4461466

Date: 11/2/2017 11:00:31 PM Rack:Tube: S1:10

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0203 | ppm | 0.0002 | 1.13 | 723.3000 | 0.0203 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.1030 | ppm | 0.0007 | 0.68 | 1189.0000 | 0.1030 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0237 | ppm | 0.0004 | 1.53 | 25.5700 | 0.0237 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0960 | ppm | 0.0003 | 0.31 | 1049.0000 | 0.0960 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0191 | ppm | 0.0003 | 1.49 | 1393.0000 | 0.0191 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0038 | ppm | 0.0000 | 0.39 | 638.0000 | 0.0038 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.1800 | ppm | 0.0075 | 4.15 | 774.6000 | 0.1800 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0098 | ppm | 0.0002 | 1.84 | 238.1000 | 0.0098 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0189 | ppm | 0.0004 | 1.87 | 245.0000 | 0.0189 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0098 | ppm | 0.0001 | 0.84 | 60.1800 | 0.0098 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0208 | ppm | 0.0003 | 1.50 | 897.0000 | 0.0208 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0761 | ppm | 0.0000 | 0.05 | 326.6000 | 0.0761 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 1.0270 | ppm | 0.0661 | 6.43 | 1000.0000 | 1.0270 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.1076 | ppm | 0.0026 | 2.42 | 6322.0000 | 0.1076 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0399 | ppm | 0.0006 | 1.45 | 96.7500 | 0.0399 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0397 | ppm | 0.0000 | 0.07 | 3791.0000 | 0.0397 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0405 | ppm | 0.0000 | 0.05 | 219.2000 | 0.0405 (ppm) | Y 371.029 |
| Na (589.592 nm) | 1.1010 | ppm | 0.0112 | 1.02 | 7224.0000 | 1.1010 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0195 | ppm | 0.0009 | 4.82 | 93.2200 | 0.0195 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0889 | ppm | 0.0020 | 2.20 | 66.5800 | 0.0889 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0088 | ppm | 0.0000 | 0.02 | 11.9400 | 0.0088 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0256 | ppm | 0.0011 | 4.12 | 23.9800 | 0.0256 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0213 | ppm | 0.0022 | 10.18 | 17.9500 | 0.0213 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0985 | ppm | 0.0021 | 2.09 | 255.5000 | 0.0985 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.1946 | ppm | 0.0004 | 0.21 | 152.7000 | 0.1946 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0397 | ppm | 0.0007 | 1.64 | 12490.0000 | 0.0397 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0102 | ppm | 0.0001 | 1.47 | 1013.0000 | 0.0102 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0216 | ppm | 0.0003 | 1.52 | 26.9600 | 0.0216 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0192 | ppm | 0.0001 | 0.51 | 533.8000 | 0.0192 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.1892 | ppm | 0.0014 | 0.71 | 390.4000 | 0.1892 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.0373 | ppm | 0.0001 | 0.38 | 934.6000 | 0.0373 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.1854 | ppm | 0.0003 | 0.18 | 12860.0000 | 0.1854 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.1160 | 421700.0000 | 0.0041 | 0.37 |
| Y_R 371.029 | 1.1520 | 62070.0000 | 0.0136 | 1.18 |

Sample Name: ICSA 4461463

Date: 11/2/2017 11:02:36 PM Rack:Tube: S1:6

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0014 | ppm | 0.0001 | 7.08 | -192.8000 | 0.0014 (ppm) | Y 371.029 |
| Al (396.152 nm) | 576.4000 o | ppm | 0.5593 | 0.10 | 12890000.0000 | 576.4000 o (ppm) | Y 371.029 |
| As (188.980 nm) | -0.0066 u | ppm | 0.0122 | > 100.00 | 14.5000 | -0.0066 u (ppm) | Y 371.029 |
| B (249.678 nm) | -0.0062 u | ppm | 0.0006 | 10.39 | -592.5000 | -0.0062 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0035 | ppm | 0.0001 | 1.65 | 343.7000 | 0.0035 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0002 | ppm | 0.0003 | > 100.00 | 11560.0000 | 0.0002 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 596.8000 o | ppm | 1.4430 | 0.24 | 2125000.0000 | 596.8000 o (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0047 | ppm | 0.0007 | 14.23 | 255.5000 | 0.0047 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0048 u | ppm | 0.0004 | 7.57 | 0.9879 | -0.0048 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | -0.0003 u | ppm | 0.0006 | > 100.00 | 27.9600 | -0.0003 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | -0.0029 u | ppm | 0.0002 | 6.09 | 136.4000 | -0.0029 u (ppm) | Y 371.029 |
| Fe (238.204 nm) | 525.4000 | ppm | 5.7490 | 1.09 | 2226000.0000 | 525.4000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.0155 u | ppm | 0.0892 | > 100.00 | 297.1000 | -0.0155 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | -0.0575 u | ppm | 0.0001 | 0.17 | 1112.0000 | -0.0575 u (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 545.9000 o | ppm | 9.8340 | 1.80 | 1220000.0000 | 545.9000 o (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0128 u | ppm | 0.0026 | 20.42 | 69580.0000 | -0.0128 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0005 | ppm | 0.0006 | > 100.00 | 105.3000 | 0.0005 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.4763 | ppm | 0.0013 | 0.28 | 4355.0000 | 0.4763 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0015 u | ppm | 0.0023 | > 100.00 | 6.9010 | 0.0015 u (ppm) | Y 371.029 |
| P (213.618 nm) | -0.0093 u | ppm | 0.0114 | > 100.00 | -33.7600 | -0.0093 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0006 u | ppm | 0.0045 | > 100.00 | -50.7300 | 0.0006 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0041 u | ppm | 0.0098 | > 100.00 | 1.2450 | -0.0041 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0029 | ppm | 0.0016 | 55.79 | -108.9000 | 0.0029 (ppm) | Y 371.029 |
| Si (251.611 nm) | -0.0164 u | ppm | 0.0050 | 30.66 | 38.4800 | -0.0164 u (ppm) | Y 371.029 |
| Sn (189.925 nm) | -0.0060 u | ppm | 0.0015 | 25.42 | -6.7330 | -0.0060 u (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0169 u | ppm | 0.0000 | 0.11 | 948.6000 | -0.0169 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0011 | ppm | 0.0000 | 4.51 | -471.7000 | 0.0011 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0071 | ppm | 0.0027 | 37.98 | 12.0200 | 0.0071 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0069 u | ppm | 0.0004 | 6.45 | 583.8000 | -0.0069 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0010 u | ppm | 0.0018 | > 100.00 | -33.0500 | 0.0010 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0194 u | ppm | 0.0003 | 1.38 | 26.9500 | -0.0194 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0027 | ppm | 0.0002 | 6.75 | 675.1000 | 0.0027 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9461 | 357500.0000 | 0.0033 | 0.34 |
| Y_R 371.029 | 1.0300 | 55460.0000 | 0.0163 | 1.58 |

Sample Name: ICSAB 4461464

Date: 11/2/2017 11:04:41 PM Rack:Tube: S1:13

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0006 G | ppm | 0.0000 | 4.91 | 22.1200 G | 0.0006 G (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.1144 G | ppm | 0.0835 | 73.00 | 1374.0000 G | 0.1144 G (ppm) | Y 371.029 |
| As (188.980 nm) | -0.0019 Gu | ppm | 0.0006 | 30.25 | 4.8450 G | -0.0019 Gu (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0006 G | ppm | 0.0001 | 25.37 | 4.0700 G | 0.0006 G (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 G | ppm | 0.0001 | 96.15 | -4.7950 G | 0.0001 G (ppm) | Y_R 371.029 |
| Be (234.861 nm) | -0.0001 Gu | ppm | 0.0000 | 17.30 | -2.7830 G | -0.0001 Gu (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0043 Gu | ppm | 0.0031 | 71.75 | 119.2000 G | -0.0043 Gu (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 G | ppm | 0.0000 | 29.16 | -1.9010 G | 0.0001 G (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.0000 Gu | ppm | 0.0003 | > 100.00 | -11.3700 G | 0.0000 Gu (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0000 Gu | ppm | 0.0001 | > 100.00 | 1.3750 G | 0.0000 Gu (ppm) | Y 371.029 |
| Cu (324.754 nm) | -0.0032 Gu | ppm | 0.0001 | 4.11 | 52.4900 G | -0.0032 Gu (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0720 G | ppm | 0.0171 | 23.71 | 309.1000 G | 0.0720 G (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.1046 G | ppm | 0.0313 | 29.90 | 39.5900 G | 0.1046 G (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0088 G | ppm | 0.0001 | 0.95 | 533.6000 G | 0.0088 G (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0906 G | ppm | 0.0889 | 98.12 | 210.3000 G | 0.0906 G (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0003 Gu | ppm | 0.0001 | 36.58 | 56.4400 G | -0.0003 Gu (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0001 G | ppm | 0.0000 | 25.49 | 6.2700 G | 0.0001 G (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0309 Gu | ppm | 0.0218 | 70.49 | 1396.0000 G | -0.0309 Gu (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0001 Gu | ppm | 0.0000 | 29.25 | -0.3686 G | -0.0001 Gu (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0036 G | ppm | 0.0004 | 12.38 | -10.2900 G | 0.0036 G (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0009 G | ppm | 0.0000 | 3.43 | -3.2770 G | 0.0009 G (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0047 G | ppm | 0.0011 | 23.96 | 0.4176 G | 0.0047 G (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0025 G | ppm | 0.0011 | 43.96 | 0.0136 G | 0.0025 G (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0144 G | ppm | 0.0056 | 39.31 | 49.0400 G | 0.0144 G (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0043 G | ppm | 0.0023 | 53.53 | 0.0356 G | 0.0043 G (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0002 Gu | ppm | 0.0000 | 19.87 | 14.3800 G | -0.0002 Gu (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 G | ppm | 0.0000 | 25.59 | -80.7100 G | 0.0002 G (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0017 G | ppm | 0.0006 | 33.34 | -3.7190 G | 0.0017 G (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0006 Gu | ppm | 0.0002 | 23.93 | 24.3200 G | -0.0006 Gu (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0042 G | ppm | 0.0005 | 11.27 | 1.6030 G | 0.0042 G (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0033 Gu | ppm | 0.0000 | 0.18 | 4.7700 G | -0.0033 Gu (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0006 G | ppm | 0.0000 | 3.75 | 8.2400 G | 0.0006 G (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.9440 | 734600.0000 | 0.0043 | 0.22 |
| Y_R 371.029 | 1.7310 | 93270.0000 | 0.1510 | 8.72 |

Sample Name: RINSE 4461469

Date: 1/1/0001 12:00:00 AM
Rack:Tube: S1:8
Weight (g): 1
Volume (mL): 1
Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|

Sample Name: ICSAB 4461464

Date: 11/2/2017 11:09:01 PM Rack:Tube: S1:7

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.2700 | ppm | 0.0006 | 0.21 | 9084.0000 | 0.2700 (ppm) | Y 371.029 |
| Al (396.152 nm) | 577.8000 o | ppm | 0.3340 | 0.06 | 12920000.0000 | 577.8000 o (ppm) | Y 371.029 |
| As (188.980 nm) | 0.4885 | ppm | 0.0059 | 1.22 | 410.7000 | 0.4885 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.4969 | ppm | 0.0023 | 0.47 | 4980.0000 | 0.4969 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.4526 | ppm | 0.0032 | 0.71 | 33340.0000 | 0.4526 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.5088 | ppm | 0.0000 | 0.00 | 95500.0000 | 0.5088 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 600.9000 o | ppm | 9.9850 | 1.66 | 2140000.0000 | 600.9000 o (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.4442 | ppm | 0.0007 | 0.16 | 11160.0000 | 0.4442 (ppm) | Y 371.029 |
| Co (228.615 nm) | 0.4396 | ppm | 0.0007 | 0.15 | 6005.0000 | 0.4396 (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.4718 | ppm | 0.0001 | 0.03 | 2859.0000 | 0.4718 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.5343 | ppm | 0.0032 | 0.61 | 19030.0000 | 0.5343 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 528.0000 | ppm | 7.1250 | 1.35 | 2237000.0000 | 528.0000 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 10.9100 | ppm | 0.1452 | 1.33 | 11670.0000 | 10.9100 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.4839 | ppm | 0.0020 | 0.42 | 32840.0000 | 0.4839 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 549.6000 o | ppm | 3.3130 | 0.60 | 1229000.0000 | 549.6000 o (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.4478 | ppm | 0.0008 | 0.18 | 113200.0000 | 0.4478 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.4842 | ppm | 0.0014 | 0.30 | 2654.0000 | 0.4842 (ppm) | Y 371.029 |
| Na (589.592 nm) | 10.6000 | ppm | 0.1206 | 1.14 | 56450.0000 | 10.6000 (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.4392 | ppm | 0.0028 | 0.64 | 2095.0000 | 0.4392 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.4891 | ppm | 0.0025 | 0.52 | 397.6000 | 0.4891 (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.4451 | ppm | 0.0026 | 0.59 | 811.0000 | 0.4451 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.4929 | ppm | 0.0147 | 2.98 | 576.9000 | 0.4929 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.4515 | ppm | 0.0079 | 1.75 | 284.6000 | 0.4515 (ppm) | Y 371.029 |
| Si (251.611 nm) | 2.5900 | ppm | 0.0042 | 0.16 | 5672.0000 | 2.5900 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.4532 | ppm | 0.0040 | 0.87 | 361.9000 | 0.4532 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.4826 | ppm | 0.0032 | 0.66 | 157100.0000 | 0.4826 (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.5082 | ppm | 0.0004 | 0.08 | 54490.0000 | 0.5082 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.4427 | ppm | 0.0027 | 0.60 | 673.5000 | 0.4427 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.4905 | ppm | 0.0002 | 0.04 | 13440.0000 | 0.4905 (ppm) | Y 371.029 |
| W (207.912 nm) | 0.4700 | ppm | 0.0012 | 0.25 | 957.2000 | 0.4700 (ppm) | Y 371.029 |
| Zn (202.548 nm) | 0.4039 | ppm | 0.0011 | 0.26 | 9746.0000 | 0.4039 (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.4755 | ppm | 0.0007 | 0.15 | 33550.0000 | 0.4755 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 0.9533 | 360200.0000 | 0.0045 | 0.47 |
| Y_R 371.029 | 1.0350 | 55750.0000 | 0.0046 | 0.44 |

Sample Name: RINSE 4461469

Date: 11/2/2017 11:11:05 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0003 | ppm | 0.0000 | 8.65 | 10.9400 | 0.0003 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0907 | ppm | 0.0681 | 75.06 | 846.5000 | 0.0907 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0018 u | ppm | 0.0030 | > 100.00 | 7.8170 | 0.0018 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0016 | ppm | 0.0003 | 21.00 | 15.8400 | 0.0016 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0002 | ppm | 0.0000 | 22.52 | 3.8630 | 0.0002 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0001 | ppm | 0.0001 | > 100.00 | 21.5100 | 0.0001 (ppm) | Y 371.029 |
| Ca (422.673 nm) | 0.0070 | ppm | 0.0027 | 37.90 | 159.2000 | 0.0070 (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0002 | > 100.00 | 0.4487 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0005 | > 100.00 | -14.8200 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 | ppm | 0.0001 | 37.71 | 2.6740 | 0.0002 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0005 | 65.36 | 191.7000 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0431 | ppm | 0.0003 | 0.73 | 186.4000 | 0.0431 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0250 | ppm | 0.0219 | 87.73 | -43.3600 | 0.0250 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0115 | ppm | 0.0023 | 19.77 | 692.4000 | 0.0115 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0842 Z | ppm | 0.0657 | 78.13 | 196.0000 Z | 0.0842 Z (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0002 | ppm | 0.0001 | 47.31 | 93.1400 | 0.0002 (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0023 | ppm | 0.0004 | 15.83 | 17.6800 | 0.0023 (ppm) | Y 371.029 |
| Na (589.592 nm) | 0.0027 u | ppm | 0.0060 | > 100.00 | 1569.0000 | 0.0027 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0002 u | ppm | 0.0008 | > 100.00 | -0.9407 | -0.0002 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0087 | ppm | 0.0066 | 75.60 | -5.8520 | 0.0087 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0007 u | ppm | 0.0009 | > 100.00 | -6.4970 | -0.0007 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0024 | ppm | 0.0014 | 59.71 | -2.2940 | 0.0024 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0002 u | ppm | 0.0009 | > 100.00 | -2.3390 | -0.0002 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0033 | ppm | 0.0007 | 20.96 | 25.4400 | 0.0033 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0022 | ppm | 0.0023 | > 100.00 | -1.6870 | 0.0022 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 61.6600 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0004 | ppm | 0.0000 | 7.70 | -59.0500 | 0.0004 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0029 | ppm | 0.0015 | 51.80 | -1.8060 | 0.0029 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0001 u | ppm | 0.0002 | > 100.00 | 38.4900 | -0.0001 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0038 | ppm | 0.0001 | 2.40 | 0.8311 | 0.0038 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0025 u | ppm | 0.0001 | 2.99 | 24.6900 | -0.0025 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0004 | ppm | 0.0000 | 3.12 | -9.5680 | 0.0004 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0890 | 411500.0000 | 0.0024 | 0.22 |
| Y_R 371.029 | 1.1160 | 60120.0000 | 0.0066 | 0.59 |

Sample Name: RINSE 4461469

Date: 11/2/2017 11:13:09 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0004 | ppm | 0.0001 | 30.71 | 13.5500 | 0.0004 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0194 | ppm | 0.0001 | 0.63 | -750.5000 | 0.0194 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0062 | ppm | 0.0010 | 15.38 | 11.3900 | 0.0062 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0012 | ppm | 0.0003 | 25.06 | 11.3000 | 0.0012 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0000 | 15.01 | -0.6265 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 5.9010 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0056 u | ppm | 0.0020 | 35.48 | 114.5000 | -0.0056 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | -0.0001 u | ppm | 0.0002 | > 100.00 | -6.6580 | -0.0001 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0003 | 76.43 | -15.3100 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 | ppm | 0.0003 | > 100.00 | 2.6330 | 0.0002 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0007 | ppm | 0.0000 | 5.65 | 189.5000 | 0.0007 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0194 | ppm | 0.0029 | 14.82 | 86.3600 | 0.0194 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0321 | ppm | 0.0218 | 67.86 | -35.9400 | 0.0321 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0108 | ppm | 0.0004 | 3.72 | 646.1000 | 0.0108 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0132 | ppm | 0.0012 | 8.91 | 37.3200 | 0.0132 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 71.5200 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0002 u | ppm | 0.0003 | > 100.00 | 6.5640 | 0.0002 u (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0136 u | ppm | 0.0141 | > 100.00 | 1485.0000 | -0.0136 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0001 u | ppm | 0.0009 | > 100.00 | -0.5584 | -0.0001 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0029 u | ppm | 0.0043 | > 100.00 | -11.1300 | 0.0029 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0019 | ppm | 0.0004 | 19.96 | -1.4640 | 0.0019 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0044 | ppm | 0.0053 | > 100.00 | 0.0394 | 0.0044 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0029 | ppm | 0.0008 | 27.00 | 0.3628 | 0.0029 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0051 | ppm | 0.0023 | 45.50 | 28.8800 | 0.0051 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0027 | ppm | 0.0019 | 71.39 | -1.2650 | 0.0027 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0000 | 2.38 | 23.6500 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0000 | 5.79 | -78.2600 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0016 | ppm | 0.0011 | 65.60 | -3.7610 | 0.0016 (ppm) | Y 371.029 |
| V (292.401 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 41.1800 | 0.0000 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0012 | ppm | 0.0004 | 30.18 | -4.5660 | 0.0012 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0024 u | ppm | 0.0000 | 0.27 | 24.9700 | -0.0024 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0001 | 43.39 | -19.7100 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0920 | 412800.0000 | 0.0035 | 0.32 |
| Y_R 371.029 | 1.1200 | 60340.0000 | 0.0031 | 0.28 |

Sample Name: RINSE 4461469

Date: 11/2/2017 11:15:13 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | 2.7140 | 0.0001 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0142 | ppm | 0.0003 | 1.99 | -865.3000 | 0.0142 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0016 | ppm | 0.0020 | > 100.00 | 7.6600 | 0.0016 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0012 | ppm | 0.0006 | 53.06 | 11.3000 | 0.0012 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0000 | 0.31 | -3.9310 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 4.4110 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0093 u | ppm | 0.0043 | 46.55 | 101.2000 | -0.0093 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0002 | ppm | 0.0001 | 83.89 | -0.4361 | 0.0002 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0007 u | ppm | 0.0003 | 43.89 | -20.2200 | -0.0007 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0002 | 37.77 | 3.8800 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0005 | ppm | 0.0000 | 2.42 | 182.7000 | 0.0005 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0133 | ppm | 0.0006 | 4.44 | 60.3600 | 0.0133 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0718 | ppm | 0.0437 | 60.85 | 5.3790 | 0.0718 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0126 | ppm | 0.0007 | 5.92 | 752.0000 | 0.0126 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0101 | ppm | 0.0005 | 4.76 | 30.5400 | 0.0101 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0000 | 7.82 | 69.3800 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0001 | ppm | 0.0001 | 60.16 | 6.1930 | 0.0001 (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0261 u | ppm | 0.0060 | 22.98 | 1421.0000 | -0.0261 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0002 u | ppm | 0.0007 | > 100.00 | -0.8010 | -0.0002 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0072 | ppm | 0.0006 | 8.98 | -7.2270 | 0.0072 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0009 u | ppm | 0.0007 | 78.79 | -6.9080 | -0.0009 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0081 | ppm | 0.0089 | > 100.00 | 4.3890 | 0.0081 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0000 u | ppm | 0.0016 | > 100.00 | -2.1710 | 0.0000 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0051 | ppm | 0.0010 | 19.71 | 28.7700 | 0.0051 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0024 | ppm | 0.0005 | 20.30 | -1.5100 | 0.0024 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 65.3800 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0000 | 30.22 | -84.5000 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0009 u | ppm | 0.0014 | > 100.00 | -4.8650 | 0.0009 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0003 u | ppm | 0.0002 | 58.99 | 32.3800 | -0.0003 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0012 | ppm | 0.0002 | 18.61 | -4.5920 | 0.0012 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0025 u | ppm | 0.0002 | 6.60 | 23.7400 | -0.0025 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 4.46 | -21.3900 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0950 | 413600.0000 | 0.0019 | 0.18 |
| Y_R 371.029 | 1.1200 | 60330.0000 | 0.0122 | 1.08 |

Sample Name: RINSE 4461469

Date: 11/2/2017 11:17:17 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0004 | ppm | 0.0001 | 16.11 | 13.1800 | 0.0004 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0109 | ppm | 0.0014 | 12.89 | -940.6000 | 0.0109 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0014 | ppm | 0.0009 | 69.93 | 7.4440 | 0.0014 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0005 | ppm | 0.0001 | 16.69 | 3.8310 | 0.0005 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0001 | 53.23 | -2.6400 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 98.49 | 1.8620 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0086 u | ppm | 0.0077 | 88.97 | 103.6000 | -0.0086 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 54.85 | -1.5820 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0005 u | ppm | 0.0002 | 48.72 | -17.5000 | -0.0005 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0001 u | ppm | 0.0005 | > 100.00 | 1.9260 | 0.0001 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0008 | ppm | 0.0002 | 23.63 | 191.2000 | 0.0008 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0039 | ppm | 0.0014 | 35.09 | 20.7000 | 0.0039 (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.0062 u | ppm | 0.0275 | > 100.00 | -75.8400 | -0.0062 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0095 | ppm | 0.0004 | 3.96 | 574.5000 | 0.0095 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0059 | ppm | 0.0029 | 49.36 | 21.0000 | 0.0059 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 69.3900 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0001 u | ppm | 0.0003 | > 100.00 | 6.1060 | 0.0001 u (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0224 u | ppm | 0.0079 | 35.35 | 1440.0000 | -0.0224 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0002 u | ppm | 0.0005 | > 100.00 | -0.6413 | -0.0002 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0042 u | ppm | 0.0113 | > 100.00 | -9.9970 | 0.0042 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0004 u | ppm | 0.0008 | > 100.00 | -5.8920 | -0.0004 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0052 | ppm | 0.0022 | 43.41 | 0.9765 | 0.0052 (ppm) | Y 371.029 |
| Se (196.026 nm) | -0.0005 u | ppm | 0.0015 | > 100.00 | -2.6440 | -0.0005 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0049 | ppm | 0.0009 | 17.96 | 28.4700 | 0.0049 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0039 | ppm | 0.0001 | 3.12 | -0.3122 | 0.0039 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 57.3800 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0000 | 5.48 | -86.9400 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0023 | ppm | 0.0005 | 20.80 | -2.6580 | 0.0023 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0002 u | ppm | 0.0002 | 76.15 | 35.9300 | -0.0002 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0016 | ppm | 0.0010 | 61.04 | -3.6480 | 0.0016 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0025 u | ppm | 0.0001 | 2.03 | 23.2700 | -0.0025 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 20.95 | -28.6300 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.1070 | 418200.0000 | 0.0002 | 0.02 |
| Y_R 371.029 | 1.1410 | 61440.0000 | 0.0060 | 0.52 |

Sample Name: RINSE 4461469

Date: 11/2/2017 11:19:22 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | 4.4980 | 0.0001 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0090 | ppm | 0.0000 | 0.53 | -984.2000 | 0.0090 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0028 | ppm | 0.0006 | 21.19 | 8.6120 | 0.0028 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0009 | ppm | 0.0000 | 0.28 | 7.8820 | 0.0009 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0000 | 35.32 | -0.5909 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | 78.33 | 4.3770 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0115 u | ppm | 0.0014 | 12.45 | 93.5500 | -0.0115 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 | ppm | 0.0000 | 96.80 | -3.1820 | 0.0000 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0004 u | ppm | 0.0002 | 52.82 | -16.8800 | -0.0004 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0000 | 0.68 | 3.4780 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0009 | ppm | 0.0003 | 30.21 | 194.1000 | 0.0009 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0037 | ppm | 0.0008 | 20.47 | 19.7800 | 0.0037 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0399 u | ppm | 0.0572 | > 100.00 | -27.8600 | 0.0399 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0111 | ppm | 0.0005 | 4.93 | 668.0000 | 0.0111 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0048 | ppm | 0.0023 | 47.82 | 18.6600 | 0.0048 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0000 | 5.24 | 68.5100 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0001 u | ppm | 0.0004 | > 100.00 | 5.3000 | -0.0001 u (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0261 u | ppm | 0.0131 | 50.25 | 1421.0000 | -0.0261 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0003 u | ppm | 0.0000 | 10.13 | -1.3320 | -0.0003 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0092 | ppm | 0.0088 | 94.74 | -5.2810 | 0.0092 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0006 u | ppm | 0.0005 | 72.02 | -6.3330 | -0.0006 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0057 | ppm | 0.0041 | 72.15 | 1.6420 | 0.0057 (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0006 u | ppm | 0.0029 | > 100.00 | -1.7130 | 0.0006 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0033 | ppm | 0.0002 | 6.93 | 25.0400 | 0.0033 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0036 | ppm | 0.0019 | 51.88 | -0.5246 | 0.0036 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0002 | > 100.00 | 60.2200 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0000 | 2.03 | -86.9500 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0019 | ppm | 0.0002 | 10.36 | -3.4050 | 0.0019 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0002 u | ppm | 0.0003 | > 100.00 | 36.6800 | -0.0002 u (ppm) | Y 371.029 |
| W (207.912 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | -7.2470 | -0.0001 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0026 u | ppm | 0.0001 | 2.08 | 21.1500 | -0.0026 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 9.56 | -29.1700 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.1060 | 417900.0000 | 0.0095 | 0.86 |
| Y_R 371.029 | 1.1330 | 61020.0000 | 0.0016 | 0.14 |

Sample Name: RINSE 4461469

Date: 11/2/2017 11:21:26 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0002 | ppm | 0.0001 | 40.50 | 5.0700 | 0.0002 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0096 | ppm | 0.0007 | 7.50 | -969.2000 | 0.0096 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0030 | ppm | 0.0033 | > 100.00 | 8.7530 | 0.0030 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0008 | ppm | 0.0005 | 70.16 | 6.8540 | 0.0008 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0000 | 39.63 | -3.5250 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | 4.14 | 7.2980 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0115 u | ppm | 0.0022 | 18.86 | 93.5600 | -0.0115 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 | ppm | 0.0001 | > 100.00 | -3.1620 | 0.0000 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0004 u | ppm | 0.0004 | 84.91 | -16.7100 | -0.0004 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0004 | ppm | 0.0001 | 36.09 | 3.5410 | 0.0004 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0005 | ppm | 0.0003 | 54.44 | 182.4000 | 0.0005 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0045 | ppm | 0.0016 | 35.88 | 23.2600 | 0.0045 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0066 u | ppm | 0.0694 | > 100.00 | -62.4700 | 0.0066 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0119 | ppm | 0.0010 | 8.72 | 714.3000 | 0.0119 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0057 | ppm | 0.0038 | 66.79 | 20.5700 | 0.0057 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 69.2300 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0010 u | ppm | 0.0005 | 43.44 | 0.1272 | -0.0010 u (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0258 u | ppm | 0.0118 | 45.84 | 1422.0000 | -0.0258 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0001 u | ppm | 0.0004 | > 100.00 | 0.6513 | 0.0001 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0033 u | ppm | 0.0075 | > 100.00 | -10.7300 | 0.0033 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | 0.0010 | ppm | 0.0008 | 84.05 | -3.2180 | 0.0010 (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0031 u | ppm | 0.0052 | > 100.00 | -1.3620 | 0.0031 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0017 | ppm | 0.0009 | 52.00 | -0.6834 | 0.0017 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0035 | ppm | 0.0012 | 35.42 | 25.5000 | 0.0035 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0028 | ppm | 0.0034 | > 100.00 | -1.2360 | 0.0028 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0000 | 47.10 | 50.4400 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0001 | 49.91 | -84.6700 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0002 u | ppm | 0.0017 | > 100.00 | -6.0120 | 0.0002 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0004 u | ppm | 0.0001 | 13.34 | 31.6500 | -0.0004 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0018 | ppm | 0.0000 | 1.75 | -3.2620 | 0.0018 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0025 u | ppm | 0.0001 | 4.06 | 23.9000 | -0.0025 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 23.26 | -30.2100 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.1030 | 417000.0000 | 0.0044 | 0.40 |
| Y_R 371.029 | 1.1260 | 60660.0000 | 0.0089 | 0.79 |

Sample Name: RINSE 4461469

Date: 11/2/2017 11:23:30 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0003 | ppm | 0.0001 | 37.94 | 8.4240 | 0.0003 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0091 | ppm | 0.0004 | 4.68 | -981.0000 | 0.0091 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0031 | ppm | 0.0007 | 23.20 | 8.8550 | 0.0031 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0008 | ppm | 0.0003 | 34.39 | 7.4000 | 0.0008 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0001 | 53.20 | -1.8810 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | > 100.00 | 9.7810 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0150 u | ppm | 0.0084 | 55.99 | 80.8200 | -0.0150 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -3.8970 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0005 u | ppm | 0.0004 | 85.19 | -17.5600 | -0.0005 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0000 u | ppm | 0.0004 | > 100.00 | 1.2050 | 0.0000 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0006 | ppm | 0.0004 | 60.72 | 186.5000 | 0.0006 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0044 | ppm | 0.0002 | 4.85 | 22.4800 | 0.0044 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0719 u | ppm | 0.1192 | > 100.00 | 5.4780 | 0.0719 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0121 | ppm | 0.0007 | 6.12 | 727.8000 | 0.0121 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0064 | ppm | 0.0014 | 21.50 | 22.1500 | 0.0064 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | -0.0001 u | ppm | 0.0000 | 47.20 | 65.1700 | -0.0001 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0009 u | ppm | 0.0007 | 75.20 | 0.8012 | -0.0009 u (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0362 u | ppm | 0.0008 | 2.33 | 1369.0000 | -0.0362 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0002 u | ppm | 0.0007 | > 100.00 | 1.1780 | 0.0002 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0028 | ppm | 0.0006 | 21.92 | -11.2700 | 0.0028 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0006 u | ppm | 0.0009 | > 100.00 | -6.1630 | -0.0006 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0006 u | ppm | 0.0050 | > 100.00 | -5.7230 | -0.0006 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0011 u | ppm | 0.0042 | > 100.00 | -1.2610 | 0.0011 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0033 | ppm | 0.0011 | 33.16 | 25.0200 | 0.0033 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0032 | ppm | 0.0032 | 97.82 | -0.8366 | 0.0032 (ppm) | Y 371.029 |
| Sr (421.552 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 66.8100 | 0.0000 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0000 | 22.72 | -87.0200 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0000 | ppm | 0.0000 | 16.27 | -6.2810 | 0.0000 (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0005 u | ppm | 0.0002 | 31.11 | 27.5200 | -0.0005 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0005 | ppm | 0.0003 | 49.97 | -5.9790 | 0.0005 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0025 u | ppm | 0.0000 | 1.90 | 23.3200 | -0.0025 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0002 | ppm | 0.0000 | 7.61 | -24.0300 | 0.0002 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0980 | 414900.0000 | 0.0028 | 0.26 |
| Y_R 371.029 | 1.1240 | 60540.0000 | 0.0079 | 0.70 |

Sample Name: RINSE 4461469

Date: 11/2/2017 11:25:34 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0003 u | ppm | 0.0006 | > 100.00 | 8.4910 | 0.0003 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0097 | ppm | 0.0000 | 0.35 | -966.3000 | 0.0097 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0011 u | ppm | 0.0029 | > 100.00 | 7.2290 | 0.0011 u (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0004 | ppm | 0.0004 | > 100.00 | 2.3070 | 0.0004 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0001 | 80.86 | 0.6354 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | 79.49 | 8.0380 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0171 u | ppm | 0.0075 | 43.63 | 73.4500 | -0.0171 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | -4.4780 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0007 u | ppm | 0.0008 | > 100.00 | -19.8800 | -0.0007 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0000 u | ppm | 0.0005 | > 100.00 | 1.1830 | 0.0000 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0007 | ppm | 0.0002 | 29.61 | 187.4000 | 0.0007 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0015 | ppm | 0.0008 | 51.47 | 10.2700 | 0.0015 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0476 u | ppm | 0.1173 | > 100.00 | -19.8800 | 0.0476 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0115 | ppm | 0.0005 | 4.35 | 688.7000 | 0.0115 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0038 | ppm | 0.0003 | 7.78 | 16.3300 | 0.0038 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 69.5700 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0000 u | ppm | 0.0013 | > 100.00 | 5.8480 | 0.0000 u (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0306 u | ppm | 0.0161 | 52.64 | 1398.0000 | -0.0306 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0000 u | ppm | 0.0010 | > 100.00 | -0.0172 | 0.0000 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0046 | ppm | 0.0012 | 25.78 | -9.5620 | 0.0046 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0008 u | ppm | 0.0006 | 73.22 | -6.6050 | -0.0008 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0002 u | ppm | 0.0024 | > 100.00 | -4.7970 | 0.0002 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0041 | ppm | 0.0036 | 87.11 | 1.3840 | 0.0041 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0028 | ppm | 0.0000 | 1.12 | 23.9000 | 0.0028 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0037 | ppm | 0.0019 | 50.41 | -0.4871 | 0.0037 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | 35.5100 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0000 | 1.68 | -87.3400 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0007 u | ppm | 0.0017 | > 100.00 | -5.2690 | 0.0007 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0003 u | ppm | 0.0002 | 81.88 | 34.6200 | -0.0003 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0005 u | ppm | 0.0009 | > 100.00 | -6.0990 | 0.0005 u (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0025 u | ppm | 0.0000 | 0.43 | 22.5700 | -0.0025 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 u | ppm | 0.0002 | > 100.00 | -27.7700 | 0.0001 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.1020 | 416600.0000 | 0.0010 | 0.09 |
| Y_R 371.029 | 1.1340 | 61090.0000 | 0.0139 | 1.22 |

Sample Name: RINSE 4461469

Date: 11/2/2017 11:27:39 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0003 u | ppm | 0.0005 | > 100.00 | 8.6120 | 0.0003 u (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0096 | ppm | 0.0008 | 7.99 | -969.9000 | 0.0096 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0014 | ppm | 0.0003 | 21.12 | 7.5040 | 0.0014 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0004 | ppm | 0.0002 | 39.93 | 3.2500 | 0.0004 (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0000 | 40.24 | -4.0150 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 | ppm | 0.0000 | 7.37 | 8.7530 | 0.0000 (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0048 u | ppm | 0.0075 | > 100.00 | 117.3000 | -0.0048 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -3.5040 | 0.0000 u (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0003 u | ppm | 0.0001 | 28.69 | -14.6100 | -0.0003 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0003 | ppm | 0.0001 | 39.13 | 3.1060 | 0.0003 (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0009 | ppm | 0.0001 | 6.71 | 194.9000 | 0.0009 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0029 | ppm | 0.0003 | 11.25 | 16.1400 | 0.0029 (ppm) | Y_R 371.029 |
| K (766.491 nm) | 0.0577 | ppm | 0.0265 | 45.87 | -9.3250 | 0.0577 (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0096 | ppm | 0.0006 | 6.15 | 578.6000 | 0.0096 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0032 | ppm | 0.0021 | 65.62 | 14.9600 | 0.0032 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 73.1400 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | 0.0003 u | ppm | 0.0005 | > 100.00 | 6.9850 | 0.0003 u (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0399 u | ppm | 0.0052 | 13.10 | 1350.0000 | -0.0399 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | -0.0006 u | ppm | 0.0012 | > 100.00 | -2.9420 | -0.0006 u (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0035 | ppm | 0.0036 | > 100.00 | -10.6100 | 0.0035 (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0002 u | ppm | 0.0004 | > 100.00 | -5.4300 | -0.0002 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | -0.0023 u | ppm | 0.0041 | > 100.00 | -7.7090 | -0.0023 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0017 u | ppm | 0.0027 | > 100.00 | -0.7258 | 0.0017 u (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0052 | ppm | 0.0002 | 3.74 | 29.1300 | 0.0052 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0027 | ppm | 0.0012 | 43.89 | -1.2950 | 0.0027 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0002 u | ppm | 0.0000 | 3.34 | 18.7200 | -0.0002 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0001 | ppm | 0.0000 | 37.56 | -89.3600 | 0.0001 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0018 u | ppm | 0.0033 | > 100.00 | -3.5620 | 0.0018 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0004 u | ppm | 0.0000 | 5.14 | 31.6400 | -0.0004 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0007 | ppm | 0.0004 | 58.49 | -5.6020 | 0.0007 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0025 u | ppm | 0.0001 | 3.80 | 23.0500 | -0.0025 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0001 | ppm | 0.0000 | 21.81 | -27.5000 | 0.0001 (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0920 | 412600.0000 | 0.0100 | 0.91 |
| Y_R 371.029 | 1.1150 | 60060.0000 | 0.0114 | 1.02 |

Sample Name: RINSE 4461469

Date: 11/2/2017 11:29:42 PM Rack:Tube: S1:8

Weight (g): 1 Volume (mL): 1 Dilution: 1

Analyte Results

| Label | Solution Concentration | Unit | SD | %RSD | Intensity | Calculated Concentration | Internal Standard |
|---|---|---|---|---|---|---|---|
| Ag (328.068 nm) | 0.0002 | ppm | 0.0001 | 77.85 | 6.2270 | 0.0002 (ppm) | Y 371.029 |
| Al (396.152 nm) | 0.0095 | ppm | 0.0002 | 2.30 | -971.9000 | 0.0095 (ppm) | Y 371.029 |
| As (188.980 nm) | 0.0011 | ppm | 0.0006 | 55.82 | 7.2560 | 0.0011 (ppm) | Y 371.029 |
| B (249.678 nm) | 0.0000 u | ppm | 0.0005 | > 100.00 | -2.2370 | 0.0000 u (ppm) | Y 371.029 |
| Ba (233.527 nm) | 0.0001 | ppm | 0.0000 | 19.38 | -0.0420 | 0.0001 (ppm) | Y_R 371.029 |
| Be (234.861 nm) | 0.0000 u | ppm | 0.0000 | > 100.00 | 5.3900 | 0.0000 u (ppm) | Y 371.029 |
| Ca (422.673 nm) | -0.0110 u | ppm | 0.0010 | 8.65 | 95.1700 | -0.0110 u (ppm) | Y_R 371.029 |
| Cd (214.439 nm) | 0.0001 | ppm | 0.0001 | 74.78 | -1.6610 | 0.0001 (ppm) | Y 371.029 |
| Co (228.615 nm) | -0.0004 u | ppm | 0.0002 | 59.71 | -15.8100 | -0.0004 u (ppm) | Y 371.029 |
| Cr (205.560 nm) | 0.0002 u | ppm | 0.0004 | > 100.00 | 2.5970 | 0.0002 u (ppm) | Y 371.029 |
| Cu (324.754 nm) | 0.0009 | ppm | 0.0000 | 2.08 | 194.6000 | 0.0009 (ppm) | Y 371.029 |
| Fe (238.204 nm) | 0.0056 | ppm | 0.0025 | 44.31 | 27.5600 | 0.0056 (ppm) | Y_R 371.029 |
| K (766.491 nm) | -0.0649 u | ppm | 0.0422 | 64.94 | -137.0000 | -0.0649 u (ppm) | Y_R 371.029 |
| Li (670.783 nm) | 0.0100 | ppm | 0.0008 | 7.84 | 602.1000 | 0.0100 (ppm) | Y_R 371.029 |
| Mg (279.078 nm) | 0.0045 | ppm | 0.0023 | 50.98 | 18.0000 | 0.0045 (ppm) | Y_R 371.029 |
| Mn (259.372 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | 71.1500 | 0.0000 u (ppm) | Y 371.029 |
| Mo (204.598 nm) | -0.0002 u | ppm | 0.0012 | > 100.00 | 4.3990 | -0.0002 u (ppm) | Y 371.029 |
| Na (589.592 nm) | -0.0428 u | ppm | 0.0063 | 14.84 | 1335.0000 | -0.0428 u (ppm) | Y_R 371.029 |
| Ni (231.604 nm) | 0.0003 | ppm | 0.0001 | 48.69 | 1.4040 | 0.0003 (ppm) | Y 371.029 |
| P (213.618 nm) | 0.0026 u | ppm | 0.0063 | > 100.00 | -11.4300 | 0.0026 u (ppm) | Y 371.029 |
| Pb (220.353 nm) | -0.0001 u | ppm | 0.0010 | > 100.00 | -5.3490 | -0.0001 u (ppm) | Y 371.029 |
| Sb (206.834 nm) | 0.0018 u | ppm | 0.0053 | > 100.00 | -2.9020 | 0.0018 u (ppm) | Y 371.029 |
| Se (196.026 nm) | 0.0045 | ppm | 0.0028 | 62.59 | 1.7450 | 0.0045 (ppm) | Y 371.029 |
| Si (251.611 nm) | 0.0055 | ppm | 0.0014 | 25.14 | 29.7100 | 0.0055 (ppm) | Y 371.029 |
| Sn (189.925 nm) | 0.0027 | ppm | 0.0016 | 60.14 | -1.2790 | 0.0027 (ppm) | Y 371.029 |
| Sr (421.552 nm) | -0.0001 u | ppm | 0.0001 | > 100.00 | 50.0600 | -0.0001 u (ppm) | Y_R 371.029 |
| Ti (336.122 nm) | 0.0002 | ppm | 0.0000 | 0.04 | -76.1700 | 0.0002 (ppm) | Y 371.029 |
| Tl (190.794 nm) | 0.0009 u | ppm | 0.0029 | > 100.00 | -4.9600 | 0.0009 u (ppm) | Y 371.029 |
| V (292.401 nm) | -0.0002 u | ppm | 0.0001 | 39.67 | 34.9800 | -0.0002 u (ppm) | Y 371.029 |
| W (207.912 nm) | 0.0009 | ppm | 0.0007 | 75.17 | -5.1660 | 0.0009 (ppm) | Y 371.029 |
| Zn (202.548 nm) | -0.0026 u | ppm | 0.0001 | 2.51 | 21.7900 | -0.0026 u (ppm) | Y 371.029 |
| Zr (343.823 nm) | 0.0000 u | ppm | 0.0001 | > 100.00 | -32.5900 | 0.0000 u (ppm) | Y 371.029 |

Internal Standards Results

| Label | Ratio | Intensity | SD | %RSD |
|---|---|---|---|---|
| Y 371.029 | 1.0950 | 413600.0000 | 0.0032 | 0.29 |
| Y_R 371.029 | 1.1150 | 60090.0000 | 0.0181 | 1.63 |

# GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Irvine Job Number: 440-194764-1

SDG No.:

Project: NERT VER M16

| Client Sample ID | Lab Sample ID |
|---|---|
| VER- 01D-90.0-20171020 | 440-194764-1 |

Comments:

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Irvine Job Number: 440-194764-1

SDG Number:

Matrix: Solid Instrument ID: BAL067

Method: Moisture RL Date: 10/26/2010 18:28

| Analyte | Wavelength/ Mass | RL (%) | |
|---|---|---|---|
| Percent Moisture | | 0.1 | |

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Irvine  Job Number: 440-194764-1

SDG Number:

Matrix: Solid  Instrument ID: BAL067

Method: Moisture  XRL Date: 11/16/2010 10:12

| Analyte | Wavelength/ Mass | XRL (%) | |
|---|---|---|---|
| Percent Moisture | | 0.1 | |

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Instrument ID: BAL067  Analysis Method: Moisture

Start Date: 10/23/2017 13:38  End Date: 10/23/2017 13:38

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Moist | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-A-6 DU | 1 | T | 13:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-A-6 MS | 1 | T | 13:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194754-A-6 MSD | 1 | T | 13:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-194764-1 | 1 | T | 13:38 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:38 | | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-194764-1

SDG No.:

Batch Number: 436935  Batch Start Date: 10/23/17 13:38  Batch Analyst: Le, Ha Thanh T

Batch Method: Moisture  Batch End Date: 10/24/17 14:00

| Lab Sample ID | Client Sample ID | Method Chain | Basis | DishWeight | SampleMassWet | SampleMassDry | AnalysisComment | | |
|---|---|---|---|---|---|---|---|---|---|
| 440-194754-A-6 DU | | Moisture | T | 2.0984 g | 12.2160 g | 11.0833 g | 11.0832 | | |
| 440-194754-A-6 MS | | Moisture | T | 2.0984 g | 12.2160 g | 11.0833 g | 11.0832 | | |
| 440-194754-A-6 MSD | | Moisture | T | 2.0984 g | 12.2160 g | 11.0833 g | 11.0832 | | |
| 440-194764-A-1 | VER-01D-90.0-20171020 | Moisture | T | 2.0234 g | 12.1741 g | 9.5470 g | 9.5471 | | |

| Batch Notes | |
|---|---|
| Balance ID | 67 No Unit |
| Batch Comment | Put samples back in the oven for another 30 min. |
| Date and Time Samples in Desiccator | 10.24.17 @10:05 |
| Date and Time Samples out of Desiccator | 10.24.17 @11:45 |
| Date samples were placed in the oven | 10.23.17 |
| Oven Temp In | 105 Degrees C |
| Time samples were place in the oven | 14:30 |
| Date samples were removed from oven | 10/24/17 |
| Oven Temp Out | 105 Degrees C |
| Time Samples were removed from oven | 10:00 |
| Oven ID | O-02 |
| Thermometer ID | O-007 CF= 1C |
| Uncorrected In Temperature | 104 Celsius |
| Uncorrected Out Temperature | 104 Celsius |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Daily Balance Calibration Logbook

Weight Set ID: **D-6** Weight Set Calib Due: 01.11.2018

| Date | Initials | Balance ID | 0.0020g | 1.000g | 100.0000g | OK? | COMMENTS/ MAINTENANCE |
|---|---|---|---|---|---|---|---|
| 10.06.17 | XL | 65 | 0.0018 | 1.0001 | 100.0012 | ok | |
| 10.06.17 | XL | 67 | 0.0018 | 0.9999 | 100.0008 | ok | |
| 10.07.17 | XL | 65 | 0.0018 | 1.0000 | 100.0013 | ok | |
| 10.07.17 | XL | 67 | 0.0017 | 0.9999 | 100.0007 | ok | |
| 10.09.17 | XL | 65 | 0.0017 | 0.9999 | 100.0013 | ok | |
| 10.09.17 | XL | 67 | 0.0018 | 1.0001 | 100.0009 | ok | |
| 10.10.17 | XL | 65 | 0.0017 | 0.9998 | 100.0012 | ok | |
| 10.10.17 | XL | 67 | 0.0017 | 1.0001 | 100.0008 | ok | |
| 10.11.17 | XL | 65 | 0.0018 | 1.0001 | 100.0013 | ok | |
| 10.11.17 | XL | 67 | 0.0017 | 1.0000 | 100.0004 | ok | |
| 10.12.17 | XL | 65 | 0.0018 | 1.0000 | 100.0012 | ok | |
| 10.12.17 | XL | 67 | 0.0018 | 1.0001 | 100.0004 | ok | |
| 10.13.17 | XL | 65 | 0.0017 | 1.0000 | 100.0013 | ok | |
| 10.13.17 | XL | 67 | 0.0018 | 0.9998 | 100.0002 | ok | |
| 10.14.17 | XL | 65 | 0.0018 | 1.0000 | 100.0011 | ok | |
| 10.14.17 | XL | 67 | 0.0018 | 0.9998 | 100.0003 | ok | |
| 10.16.17 | XL | 65 | 0.0017 | 0.9998 | 100.0009 | ok | |
| 10.16.17 | XL | 67 | 0.0018 | 1.0000 | 100.0002 | ok | |
| 10.17.17 | XL | 65 | 0.0018 | 0.9999 | 100.0011 | ok | |
| 10.17.17 | XL | 67 | 0.0018 | 1.0001 | 100.0004 | ok | |
| 10.18.17 | XL | 67 | 0.0017 | 1.0000 | 100.0003 | ok | |
| 10.18.17 | XL | 65 | 0.0018 | 1.0001 | 100.0013 | ok | |
| 10.19.17 | XL | 65 | 0.0018 | 1.0001 | 100.0011 | ok | |
| 10.19.17 | XL | 67 | 0.0017 | 1.0000 | 100.0004 | ok | |
| 10.20.17 | XL | 65 | 0.0017 | 1.0001 | 100.0009 | ok | |
| 10.20.17 | XL | 67 | 0.0017 | 1.0000 | 100.0002 | ok | |
| 10.23.17 | XL | 65 | 0.0017 | 1.0001 | 100.0009 | ok | |
| 10.23.17 | XL | 67 | 0.0018 | 0.9998 | 100.0004 | ok | |
| 10.24.17 | XL | 65 | 0.0017 | 1.0001 | 100.0009 | ok | |
| 10.24.17 | XL | 67 | 0.0018 | 1.0000 | 100.0004 | ok | |

XL
10.06.17

Reviewed: _____

# Shipping and Receiving Documents

TestAmerica Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

# Chain of Custody Record

TestAmerica

| Client Information | Sampler: Jeff Richeson | Lab PM: Patty Mata | Carrier Tracking No(s): | COC No: |
|---|---|---|---|---|
| Client Contact: Mike Crews | Phone: (805) 660-1774 | E-Mail: patty.mata@testamericainc.com | | Page: 1 of 1 |
| Company: Tetra Tech | | | | Job #: |
| Address: 17885 Von Karman Ave., Suite 500 | Due Date Requested: | | | |
| City: Irvine | TAT Requested (days): | | | |
| State, Zip: CA 92614 | PO #: | | | |
| Phone: (949)-809-5033 | WO #: | | | |
| Email: [redacted] | Project #: [redacted] | | | |
| Project Name: NERT VER Treatability Study | SSOW#: | | | |
| Site: Henderson, NV | | | | |

**Analysis Requested**

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | Hexavalent Chromium | Total Chromium | Perchlorate | Chlorate + Chlorite VOCs | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | N | N | N | N | N | N | | |
| VER-01D-90.0-20171020 | 10/20/17 | 1150 | G | Soil | | | X | X | X | X | 1 | |

440-194764 Chain of Custody

10/21/17 LB

| Possible Hazard Identification | Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) |
|---|---|
| ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological | ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months |
| Deliverable Requested: I, II, III, IV, Other (specify) | Special Instructions/QC Requirements: LEVEL 4 QC REQUIRED |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|---|
| 1 | [signature] | 10/20/17 1400 | Tetra Tech | [signature] | 10-20-17 1400 | TA |
| 2 | [signature] | 10/20/17 1700 | TA | SWA [signature] | 10/20/17 20:15 | TA LB |
| 3 | | | | [signature] | 10/21/17 10:40 | TA |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: Fed: #7462 9258 4232 | Cooler Temperature(s) °C and Other Remarks: | IR-4 IR-5 | 2.6/2.4 | IR84 |
|---|---|---|---|---|---|

LB SOA # 526 0064 AHGO



11/08/2017

# Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 440-194764-1

**Login Number: 194764**
**List Number: 1**
**Creator: Bonta, Lucia F**

**List Source: TestAmerica Irvine**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | N/A | Not Present |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

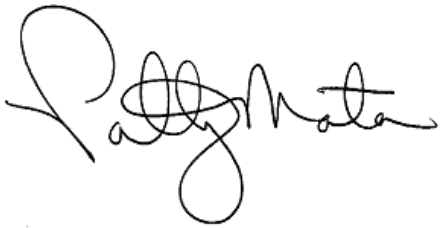
# ANALYTICAL REPORT

Job Number: 440-195909-1

Job Description: NERT VER M16

For:
Tetra Tech, Inc.
17885 Von Karman Ave, Ste 500
Irvine, CA 92614

Attention: Jeff Richeson



Approved for release.
Patty Mata
Senior Project Manager
11/21/2017 11:56 AM

Patty Mata, Senior Project Manager
17461 Derian Ave, Irvine, CA, 92614-5817
patty.mata@testamericainc.com
11/21/2017

# Table of Contents


Cover Title Page . . . . . 1

Data Summaries . . . . . 6

Definitions . . . . . 6

Case Narrative . . . . . 7

Detection Summary . . . . . 8

Client Sample Results . . . . . 9

Default Detection Limits . . . . . 21

Surrogate Summary . . . . . 23

QC Sample Results . . . . . 24

QC Association . . . . . 37

Chronicle . . . . . 40

Certification Summary . . . . . 42

Method Summary . . . . . 43

Sample Summary . . . . . 44

Manual Integration Summary . . . . . 45

Reagent Traceability . . . . . 61

Organic Sample Data . . . . . 89

GC/MS VOA . . . . . 89

Method 8260B Low Level . . . . . 89

Method 8260B Low Level QC Summary . . . . . 90

Method 8260B Low Level Sample Data . . . . . 104

Standards Data . . . . . 122

Method 8260B Low Level ICAL Data . . . . . 122

Method 8260B Low Level CCAL Data . . . . . 138

Raw QC Data . . . . . 144

Method 8260B Low Level Blank Data . . . . . 144

# Table of Contents


Method 8260B Low Level LCS/LCSD Data . . . . . 147

Method 8260B Low Level MS/MSD Data . . . . . 150

Method 8260B Low Level Run Logs . . . . . 156

HPLC/IC . . . . . 158

314.0_LL . . . . . 158

314.0_LL QC Summary . . . . . 159

314.0_LL Sample Data . . . . . 171

Standards Data . . . . . 176

314.0_LL ICAL Data . . . . . 176

314.0_LL CCAL Data . . . . . 179

Raw QC Data . . . . . 191

314.0_LL Blank Data . . . . . 191

314.0_LL LCS/LCSD Data . . . . . 198

314.0_LL MS/MSD Data . . . . . 204

314.0_LL Run Logs . . . . . 208

Method 7199 . . . . . 213

Method 7199 QC Summary . . . . . 214

Method 7199 Sample Data . . . . . 220

Standards Data . . . . . 225

Method 7199 ICAL Data . . . . . 225

Method 7199 CCAL Data . . . . . 228

Raw QC Data . . . . . 236

Method 7199 Blank Data . . . . . 236

Method 7199 LCS/LCSD Data . . . . . 240

Method 7199 MS/MSD Data . . . . . 242

Method 7199 Run Logs . . . . . 244

# Table of Contents


Method 300.1 . . . . . 249

Method 300.1 QC Summary . . . . . 250

Method 300.1 Sample Data . . . . . 268

Standards Data . . . . . 278

Method 300.1 ICAL Data . . . . . 278

Method 300.1 CCAL Data . . . . . 284

Raw QC Data . . . . . 308

Method 300.1 Blank Data . . . . . 308

Method 300.1 LCS/LCSD Data . . . . . 321

Method 300.1 MS/MSD Data . . . . . 327

Method 300.1 Run Logs . . . . . 335

Inorganic Sample Data . . . . . 341

Metals Data . . . . . 341

Met Cover Page . . . . . 342

Met Sample Data . . . . . 343

Met QC Data . . . . . 348

Met ICV/CCV . . . . . 348

Met CRQL . . . . . 350

Met Blanks . . . . . 351

Met ICSA/ICSAB . . . . . 354

Met MS/MSD/PDS . . . . . 356

Met LCS/LCSD . . . . . 359

Met Serial Dilution . . . . . 360

Met MDL . . . . . 361

Met IECF . . . . . 363

Met Linear Ranges . . . . . 367

# Table of Contents

Met Preparation Log . . . . . 368
Met Analysis Run Log . . . . . 369
Met Prep Data . . . . . 370
Shipping and Receiving Documents . . . . . 372
Client Chain of Custody . . . . . 373
Sample Receipt Checklist . . . . . 374

## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| ID | Analyte identified by RT & presence of single mass ion |

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| PQL | Practical Quantitation Limit |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

**Job Narrative**
**440-195909-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 11/7/2017 9:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.8º C and 4.8º C.

**GC/MS VOA**
EPA Method 8260B: Due to relatively low concentration and low compound molecular weight, the tert-Butanol (TBA) results for selected samples were identified by retention time (RT) and the presence of a single mass ion instead of the presence of at least two mass ions. Affected sample results were flagged with "ID" qualifiers.

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**HPLC/IC**
Method(s) 300.1B: The following samples were diluted for the chlorite analyte due to the nature of the sample matrix: VMW-01D-20171107 (440-195909-2), VMW-01D-20171107-FD (440-195909-3), VMW-01I-20171107 (440-195909-4) and VER-01D-20171107 (440-195909-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**Metals**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**VOA Prep**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-195909-1

## Client Sample ID: TRIP BLANK — Lab Sample ID: 440-195909-1

No Detections.

## Client Sample ID: VMW-01D-20171107 — Lab Sample ID: 440-195909-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloroform | 2.1 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Chlorate | 21000 | | 2000 | 1000 | ug/L | 100 | | 300.1B | Total/NA |
| Perchlorate | 7900 | | 500 | 250 | ug/L | 500 | | 314.0 LL | Total/NA |
| Chromium, hexavalent | 21 | | 2.0 | 0.25 | ug/L | 1 | | 7199 | Total/NA |
| Chromium | 0.25 | | 0.0050 | 0.0025 | mg/L | 1 | | 6010B | Total Recoverable |

## Client Sample ID: VMW-01D-20171107-FD — Lab Sample ID: 440-195909-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloroform | 2.2 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Chlorate | 21000 | | 2000 | 1000 | ug/L | 100 | | 300.1B | Total/NA |
| Perchlorate | 7400 | | 500 | 250 | ug/L | 500 | | 314.0 LL | Total/NA |
| Chromium, hexavalent | 21 | | 2.0 | 0.25 | ug/L | 1 | | 7199 | Total/NA |
| Chromium | 0.28 | | 0.0050 | 0.0025 | mg/L | 1 | | 6010B | Total Recoverable |

## Client Sample ID: VMW-01I-20171107 — Lab Sample ID: 440-195909-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | 0.61 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Bromoform | 1.7 | | 1.0 | 0.40 | ug/L | 1 | | 8260B | Total/NA |
| Chloroform | 280 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Dibromochloromethane | 0.31 | J | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| 1,2-Dichlorobenzene | 3.0 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| 1,4-Dichlorobenzene | 0.62 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Trichloroethene | 0.43 | J | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Chlorate | 2000000 | | 400000 | 200000 | ug/L | 20000 | | 300.1B | Total/NA |
| Perchlorate | 1000000 | | 50000 | 25000 | ug/L | 50000 | | 314.0 LL | Total/NA |
| Chromium, hexavalent | 6900 | | 1000 | 130 | ug/L | 500 | | 7199 | Total/NA |
| Chromium | 6.6 | | 0.0050 | 0.0025 | mg/L | 1 | | 6010B | Total Recoverable |

## Client Sample ID: VER-01D-20171107 — Lab Sample ID: 440-195909-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloroform | 29 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Chlorate | 140000 | | 20000 | 10000 | ug/L | 1000 | | 300.1B | Total/NA |
| Perchlorate | 53000 | | 1000 | 500 | ug/L | 1000 | | 314.0 LL | Total/NA |
| Chromium, hexavalent | 40 | | 2.0 | 0.25 | ug/L | 1 | | 7199 | Total/NA |
| Chromium | 0.17 | | 0.0050 | 0.0025 | mg/L | 1 | | 6010B | Total Recoverable |

## Client Sample ID: VER-01D-20171107-EB — Lab Sample ID: 440-195909-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 17 | J | 20 | 10 | ug/L | 1 | | 8260B | Total/NA |
| tert-Butyl alcohol (TBA) | 9.8 | J ID | 10 | 5.0 | ug/L | 1 | | 8260B | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: TRIP BLANK

**Date Collected: 11/07/17 07:00**
**Date Received: 11/07/17 21:30**

## Lab Sample ID: 440-195909-1

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 11/19/17 13:14 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 13:14 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 11/19/17 13:14 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 13:14 | 1 |
| Chloroform | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 11/19/17 13:14 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 13:14 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 13:14 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 11/19/17 13:14 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 11/19/17 13:14 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 11/19/17 13:14 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 11/19/17 13:14 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 13:14 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 13:14 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |

## Client Sample ID: TRIP BLANK

**Lab Sample ID: 440-195909-1**

**Date Collected: 11/07/17 07:00**

**Matrix: Water**

**Date Received: 11/07/17 21:30**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 11/19/17 13:14 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 13:14 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 13:14 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 13:14 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:14 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 11/19/17 13:14 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *102* | | *80 - 120* | | *11/19/17 13:14* | *1* |
| *Dibromofluoromethane (Surr)* | *93* | | *76 - 132* | | *11/19/17 13:14* | *1* |
| *Toluene-d8 (Surr)* | *105* | | *80 - 128* | | *11/19/17 13:14* | *1* |

## Client Sample ID: VMW-01D-20171107

**Lab Sample ID: 440-195909-2**

**Date Collected: 11/07/17 09:35**

**Matrix: Water**

**Date Received: 11/07/17 21:30**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 11/19/17 11:21 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 11:21 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 11/19/17 11:21 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 11:21 | 1 |
| **Chloroform** | **2.1** | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |

## Client Sample ID: VMW-01D-20171107

**Date Collected: 11/07/17 09:35**
**Date Received: 11/07/17 21:30**

## Lab Sample ID: 440-195909-2

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 11/19/17 11:21 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 11:21 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 11:21 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 11/19/17 11:21 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 11/19/17 11:21 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 11/19/17 11:21 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 11/19/17 11:21 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 11:21 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 11:21 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 11/19/17 11:21 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 11:21 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 11:21 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 11:21 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |

## Client Sample ID: VMW-01D-20171107

**Date Collected: 11/07/17 09:35**
**Date Received: 11/07/17 21:30**

## Lab Sample ID: 440-195909-2

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 11:21 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 11/19/17 11:21 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *105* | | *80 - 120* | | *11/19/17 11:21* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *76 - 132* | | *11/19/17 11:21* | *1* |
| *Toluene-d8 (Surr)* | *106* | | *80 - 128* | | *11/19/17 11:21* | *1* |

### Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 2000 | 1000 | ug/L | | | 11/16/17 09:09 | 100 |
| **Chlorate** | **21000** | | 2000 | 1000 | ug/L | | | 11/16/17 09:09 | 100 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *113* | | *90 - 115* | | *11/16/17 09:09* | *100* |
| *Dichloroacetic acid(Surr)* | *113* | | *90 - 115* | | *11/16/17 09:09* | *100* |

### Method: 314.0 LL - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perchlorate** | **7900** | | 500 | 250 | ug/L | | | 11/17/17 12:07 | 500 |

### Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium, hexavalent** | **21** | | 2.0 | 0.25 | ug/L | | | 11/08/17 08:10 | 1 |

### Method: 6010B - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **0.25** | | 0.0050 | 0.0025 | mg/L | | 11/10/17 08:26 | 11/10/17 16:32 | 1 |

## Client Sample ID: VMW-01D-20171107-FD

**Date Collected: 11/07/17 09:35**
**Date Received: 11/07/17 21:30**

## Lab Sample ID: 440-195909-3

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 11/19/17 12:46 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 12:46 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 11/19/17 12:46 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 12:46 | 1 |
| **Chloroform** | **2.2** | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |

## Client Sample ID: VMW-01D-20171107-FD

**Date Collected: 11/07/17 09:35**
**Date Received: 11/07/17 21:30**

## Lab Sample ID: 440-195909-3

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 11/19/17 12:46 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 12:46 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 12:46 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 11/19/17 12:46 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 11/19/17 12:46 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 11/19/17 12:46 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 11/19/17 12:46 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 12:46 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 12:46 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 11/19/17 12:46 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 12:46 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 12:46 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 12:46 | 1 |

## Client Sample ID: VMW-01D-20171107-FD

**Lab Sample ID: 440-195909-3**

**Date Collected: 11/07/17 09:35**

**Matrix: Water**

**Date Received: 11/07/17 21:30**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 12:46 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 11/19/17 12:46 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *104* | | *80 - 120* | | *11/19/17 12:46* | *1* |
| *Dibromofluoromethane (Surr)* | *96* | | *76 - 132* | | *11/19/17 12:46* | *1* |
| *Toluene-d8 (Surr)* | *105* | | *80 - 128* | | *11/19/17 12:46* | *1* |

### Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 2000 | 1000 | ug/L | | | 11/17/17 01:28 | 100 |
| **Chlorate** | **21000** | | 2000 | 1000 | ug/L | | | 11/17/17 01:28 | 100 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *103* | | *90 - 115* | | *11/17/17 01:28* | *100* |
| *Dichloroacetic acid(Surr)* | *103* | | *90 - 115* | | *11/17/17 01:28* | *100* |

### Method: 314.0 LL - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perchlorate** | **7400** | | 500 | 250 | ug/L | | | 11/17/17 12:25 | 500 |

### Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium, hexavalent** | **21** | | 2.0 | 0.25 | ug/L | | | 11/08/17 08:23 | 1 |

### Method: 6010B - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **0.28** | | 0.0050 | 0.0025 | mg/L | | 11/10/17 08:26 | 11/10/17 16:49 | 1 |

## Client Sample ID: VMW-01I-20171107

**Lab Sample ID: 440-195909-4**

**Date Collected: 11/07/17 11:40**

**Matrix: Water**

**Date Received: 11/07/17 21:30**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 11/19/17 13:42 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| **Bromodichloromethane** | **0.61** | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| **Bromoform** | **1.7** | | 1.0 | 0.40 | ug/L | | | 11/19/17 13:42 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 11/19/17 13:42 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 13:42 | 1 |
| **Chloroform** | **280** | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |

## Client Sample ID: VMW-01I-20171107

**Date Collected: 11/07/17 11:40**
**Date Received: 11/07/17 21:30**

## Lab Sample ID: 440-195909-4

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| **Dibromochloromethane** | **0.31** | **J** | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 11/19/17 13:42 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| **1,2-Dichlorobenzene** | **3.0** | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| **1,4-Dichlorobenzene** | **0.62** | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 13:42 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 13:42 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 11/19/17 13:42 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 11/19/17 13:42 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 11/19/17 13:42 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 11/19/17 13:42 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 13:42 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 13:42 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 11/19/17 13:42 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 13:42 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 13:42 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| **Trichloroethene** | **0.43** | **J** | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |

## Client Sample ID: VMW-01I-20171107

**Lab Sample ID: 440-195909-4**

**Date Collected: 11/07/17 11:40**

**Matrix: Water**

**Date Received: 11/07/17 21:30**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 13:42 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 13:42 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 11/19/17 13:42 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *106* | | *80 - 120* | | *11/19/17 13:42* | *1* |
| *Dibromofluoromethane (Surr)* | *103* | | *76 - 132* | | *11/19/17 13:42* | *1* |
| *Toluene-d8 (Surr)* | *104* | | *80 - 128* | | *11/19/17 13:42* | *1* |

### Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 2000 | 1000 | ug/L | | | 11/17/17 02:04 | 100 |
| **Chlorate** | **2000000** | | 400000 | 200000 | ug/L | | | 11/17/17 09:57 | 20000 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *99* | | *90 - 115* | | *11/17/17 09:57* | *20000* |
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* | | *11/17/17 02:04* | *100* |

### Method: 314.0 LL - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perchlorate** | **1000000** | | 50000 | 25000 | ug/L | | | 11/17/17 12:42 | 50000 |

### Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium, hexavalent** | **6900** | | 1000 | 130 | ug/L | | | 11/08/17 08:36 | 500 |

### Method: 6010B - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **6.6** | | 0.0050 | 0.0025 | mg/L | | 11/10/17 08:26 | 11/10/17 16:51 | 1 |

## Client Sample ID: VER-01D-20171107

**Lab Sample ID: 440-195909-5**

**Date Collected: 11/07/17 12:50**

**Matrix: Water**

**Date Received: 11/07/17 21:30**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 11/19/17 14:10 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 14:10 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 11/19/17 14:10 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 14:10 | 1 |
| **Chloroform** | **29** | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |

## Client Sample ID: VER-01D-20171107

**Date Collected: 11/07/17 12:50**
**Date Received: 11/07/17 21:30**

## Lab Sample ID: 440-195909-5

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 11/19/17 14:10 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 14:10 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 14:10 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 11/19/17 14:10 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 11/19/17 14:10 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 11/19/17 14:10 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 11/19/17 14:10 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 14:10 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 14:10 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 11/19/17 14:10 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 14:10 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 14:10 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |

## Client Sample ID: VER-01D-20171107

**Date Collected: 11/07/17 12:50**
**Date Received: 11/07/17 21:30**

## Lab Sample ID: 440-195909-5

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 14:10 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:10 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 11/19/17 14:10 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *99* | | *80 - 120* | | *11/19/17 14:10* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *76 - 132* | | *11/19/17 14:10* | *1* |
| *Toluene-d8 (Surr)* | *103* | | *80 - 128* | | *11/19/17 14:10* | *1* |

### Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 2000 | 1000 | ug/L | | | 11/17/17 02:40 | 100 |
| **Chlorate** | **140000** | | 20000 | 10000 | ug/L | | | 11/17/17 10:34 | 1000 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* | | *11/17/17 10:34* | *1000* |
| *Dichloroacetic acid(Surr)* | *103* | | *90 - 115* | | *11/17/17 02:40* | *100* |

### Method: 314.0 LL - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perchlorate** | **53000** | | 1000 | 500 | ug/L | | | 11/20/17 13:47 | 1000 |

### Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium, hexavalent** | **40** | | 2.0 | 0.25 | ug/L | | | 11/08/17 08:49 | 1 |

### Method: 6010B - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **0.17** | | 0.0050 | 0.0025 | mg/L | | 11/10/17 08:26 | 11/10/17 16:53 | 1 |

## Client Sample ID: VER-01D-20171107-EB

**Date Collected: 11/07/17 13:20**
**Date Received: 11/07/17 21:30**

## Lab Sample ID: 440-195909-6

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Acetone** | **17** | **J** | 20 | 10 | ug/L | | | 11/19/17 14:38 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 14:38 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 11/19/17 14:38 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |

## Client Sample ID: VER-01D-20171107-EB

**Date Collected: 11/07/17 13:20**
**Date Received: 11/07/17 21:30**

## Lab Sample ID: 440-195909-6

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 14:38 | 1 |
| Chloroform | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 11/19/17 14:38 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 14:38 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 14:38 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 11/19/17 14:38 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 11/19/17 14:38 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 11/19/17 14:38 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 11/19/17 14:38 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 14:38 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 14:38 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| **tert-Butyl alcohol (TBA)** | **9.8** | **J ID** | 10 | 5.0 | ug/L | | | 11/19/17 14:38 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 14:38 | 1 |

## Client Sample ID: VER-01D-20171107-EB

**Date Collected: 11/07/17 13:20**
**Date Received: 11/07/17 21:30**

## Lab Sample ID: 440-195909-6

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 14:38 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 14:38 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 14:38 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 11/19/17 14:38 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *103* | | *80 - 120* | | *11/19/17 14:38* | *1* |
| *Dibromofluoromethane (Surr)* | *96* | | *76 - 132* | | *11/19/17 14:38* | *1* |
| *Toluene-d8 (Surr)* | *102* | | *80 - 128* | | *11/19/17 14:38* | *1* |

### Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 20 | 10 | ug/L | | | 11/17/17 03:16 | 1 |
| Chlorate | ND | | 20 | 10 | ug/L | | | 11/17/17 03:16 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* | | *11/17/17 03:16* | *1* |
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* | | *11/17/17 03:16* | *1* |

### Method: 314.0 LL - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 1.0 | 0.50 | ug/L | | | 11/20/17 13:29 | 1 |

### Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 2.0 | 0.25 | ug/L | | | 11/08/17 09:02 | 1 |

### Method: 6010B - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | ND | | 0.0050 | 0.0025 | mg/L | | 11/10/17 08:26 | 11/10/17 16:54 | 1 |

# Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-195909-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,1-Trichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,2,2-Tetrachloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,2-Trichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2,3-Trichlorobenzene | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,3-Trichloropropane | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,4-Trichlorobenzene | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,4-Trimethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dibromo-3-Chloropropane | 1.0 | 0.50 | ug/L | 8260B |
| 1,2-Dibromoethane (EDB) | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichloropropane | 0.50 | 0.25 | ug/L | 8260B |
| 1,3,5-Trimethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,3-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,3-Dichloropropane | 0.50 | 0.25 | ug/L | 8260B |
| 1,4-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 2,2-Dichloropropane | 1.0 | 0.40 | ug/L | 8260B |
| 2-Butanone (MEK) | 5.0 | 2.5 | ug/L | 8260B |
| 2-Chlorotoluene | 0.50 | 0.25 | ug/L | 8260B |
| 2-Hexanone | 5.0 | 2.5 | ug/L | 8260B |
| 4-Chlorotoluene | 0.50 | 0.25 | ug/L | 8260B |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | 2.5 | ug/L | 8260B |
| Acetone | 20 | 10 | ug/L | 8260B |
| Benzene | 0.50 | 0.25 | ug/L | 8260B |
| Bromobenzene | 0.50 | 0.25 | ug/L | 8260B |
| Bromochloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Bromodichloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Bromoform | 1.0 | 0.40 | ug/L | 8260B |
| Bromomethane | 0.50 | 0.25 | ug/L | 8260B |
| Carbon tetrachloride | 0.50 | 0.25 | ug/L | 8260B |
| Chlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| Chloroethane | 1.0 | 0.40 | ug/L | 8260B |
| Chloroform | 0.50 | 0.25 | ug/L | 8260B |
| Chloromethane | 0.50 | 0.25 | ug/L | 8260B |
| cis-1,2-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| cis-1,3-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| Dibromochloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Dibromomethane | 0.50 | 0.25 | ug/L | 8260B |
| Dichlorodifluoromethane | 1.0 | 0.40 | ug/L | 8260B |
| Ethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Ethyl-t-butyl ether (ETBE) | 0.50 | 0.25 | ug/L | 8260B |
| Hexachlorobutadiene | 0.50 | 0.25 | ug/L | 8260B |
| Isopropyl Ether (DIPE) | 0.50 | 0.25 | ug/L | 8260B |
| Isopropylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| m,p-Xylene | 1.0 | 0.50 | ug/L | 8260B |
| Methylene Chloride | 2.0 | 0.88 | ug/L | 8260B |
| Methyl-t-Butyl Ether (MTBE) | 0.50 | 0.25 | ug/L | 8260B |
| Naphthalene | 1.0 | 0.40 | ug/L | 8260B |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| n-Butylbenzene | 1.0 | 0.40 | ug/L | 8260B |
| N-Propylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| o-Xylene | 0.50 | 0.25 | ug/L | 8260B |
| p-Isopropyltoluene | 0.50 | 0.25 | ug/L | 8260B |
| sec-Butylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Styrene | 0.50 | 0.25 | ug/L | 8260B |
| Tert-amyl-methyl ether (TAME) | 0.50 | 0.25 | ug/L | 8260B |
| tert-Butyl alcohol (TBA) | 10 | 5.0 | ug/L | 8260B |
| tert-Butylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Tetrachloroethene | 0.50 | 0.25 | ug/L | 8260B |
| Toluene | 0.50 | 0.25 | ug/L | 8260B |
| trans-1,2-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| trans-1,3-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| Trichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| Trichlorofluoromethane | 0.50 | 0.25 | ug/L | 8260B |
| Vinyl chloride | 0.50 | 0.25 | ug/L | 8260B |
| Xylenes, Total | 1.0 | 0.50 | ug/L | 8260B |

## Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chlorate | 20 | 10 | ug/L | 300.1B |
| Chlorite | 20 | 10 | ug/L | 300.1B |

## Method: 314.0 LL - Perchlorate (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Perchlorate | 1.0 | 0.50 | ug/L | 314.0 LL |

## Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chromium, hexavalent | 2.0 | 0.25 | ug/L | 7199 |

## Method: 6010B - Metals (ICP) - Total Recoverable

### Prep: 3005A

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chromium | 0.0050 | 0.0025 | mg/L | 6010B |

# Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-195909-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Matrix: Water** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | |
|---|---|---|---|---|
| | | BFB | DBFM | TOL |
| Lab Sample ID | Client Sample ID | (80-120) | (76-132) | (80-128) |
| 440-195909-1 | TRIP BLANK | 102 | 93 | 105 |
| 440-195909-2 | VMW-01D-20171107 | 105 | 100 | 106 |
| 440-195909-2 MS | VMW-01D-20171107 | 100 | 102 | 97 |
| 440-195909-2 MSD | VMW-01D-20171107 | 98 | 100 | 94 |
| 440-195909-3 | VMW-01D-20171107-FD | 104 | 96 | 105 |
| 440-195909-4 | VMW-01I-20171107 | 106 | 103 | 104 |
| 440-195909-5 | VER-01D-20171107 | 99 | 100 | 103 |
| 440-195909-6 | VER-01D-20171107-EB | 103 | 96 | 102 |
| LCS 440-442408/4 | Lab Control Sample | 101 | 99 | 102 |
| MB 440-442408/3 | Method Blank | 100 | 98 | 105 |

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

## Method: 300.1B - Disinfection By-Products, (IC)

**Matrix: Water** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | |
|---|---|---|---|
| | | ɔacetic ac | ɔacetic ac |
| Lab Sample ID | Client Sample ID | (90-115) | (90-115) |
| 440-195909-2 | VMW-01D-20171107 | 113 | 113 |
| 440-195909-3 | VMW-01D-20171107-FD | 103 | 103 |
| 440-195909-4 | VMW-01I-20171107 | 100 | 100 |
| 440-195909-4 | VMW-01I-20171107 | 99 | 99 |
| 440-195909-5 | VER-01D-20171107 | 103 | 103 |
| 440-195909-5 | VER-01D-20171107 | 101 | 101 |
| 440-195909-6 | VER-01D-20171107-EB | 100 | 100 |
| 440-196557-A-1 MS | Matrix Spike | 103 | 103 |
| 440-196557-A-1 MSD | Matrix Spike Duplicate | 101 | 101 |
| 440-196557-A-2 MS | Matrix Spike | 104 | 104 |
| 440-196557-A-2 MSD | Matrix Spike Duplicate | 100 | 100 |
| 440-196698-C-1 MS | Matrix Spike | 103 | 103 |
| 440-196698-C-1 MSD | Matrix Spike Duplicate | 104 | 104 |
| LCS 440-441759/4 | Lab Control Sample | 105 | 105 |
| LCS 440-441760/4 | Lab Control Sample | 105 | 105 |
| LCS 440-442031/4 | Lab Control Sample | 103 | 103 |
| MB 440-441759/5 | Method Blank | 105 | 105 |
| MB 440-441760/5 | Method Blank | 105 | 105 |
| MB 440-442031/5 | Method Blank | 102 | 102 |
| MRL 440-441759/3 | Lab Control Sample | 106 | 106 |
| MRL 440-441760/3 | Lab Control Sample | 106 | 106 |
| MRL 440-442031/3 | Lab Control Sample | 107 | 107 |

**Surrogate Legend**

Dichloroacetic acid(Surr) = Dichloroacetic acid(Surr)

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 440-442408/3**
**Matrix: Water**
**Analysis Batch: 442408**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 11/19/17 10:05 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 10:05 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 11/19/17 10:05 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 10:05 | 1 |
| Chloroform | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 11/19/17 10:05 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 10:05 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 10:05 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 11/19/17 10:05 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 11/19/17 10:05 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 11/19/17 10:05 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 11/19/17 10:05 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 10:05 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 10:05 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 440-442408/3**
**Matrix: Water**
**Analysis Batch: 442408**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 11/19/17 10:05 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 10:05 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 10:05 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/19/17 10:05 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 11/19/17 10:05 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 11/19/17 10:05 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *80 - 120* | | *11/19/17 10:05* | *1* |
| *Dibromofluoromethane (Surr)* | *98* | | *76 - 132* | | *11/19/17 10:05* | *1* |
| *Toluene-d8 (Surr)* | *105* | | *80 - 128* | | *11/19/17 10:05* | *1* |

**Lab Sample ID: LCS 440-442408/4**
**Matrix: Water**
**Analysis Batch: 442408**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acetone | 25.0 | 26.1 | | ug/L | | 104 | 10 - 150 |
| Benzene | 25.0 | 25.5 | | ug/L | | 102 | 68 - 130 |
| Bromobenzene | 25.0 | 23.9 | | ug/L | | 96 | 70 - 130 |
| Bromochloromethane | 25.0 | 24.1 | | ug/L | | 96 | 70 - 130 |
| Bromodichloromethane | 25.0 | 26.3 | | ug/L | | 105 | 70 - 132 |
| Bromoform | 25.0 | 25.0 | | ug/L | | 100 | 60 - 148 |
| Bromomethane | 25.0 | 26.6 | | ug/L | | 107 | 64 - 139 |
| 2-Butanone (MEK) | 25.0 | 25.0 | | ug/L | | 100 | 44 - 150 |
| Carbon tetrachloride | 25.0 | 26.8 | | ug/L | | 107 | 60 - 150 |
| Chlorobenzene | 25.0 | 24.9 | | ug/L | | 100 | 70 - 130 |
| Chloroethane | 25.0 | 25.4 | | ug/L | | 102 | 64 - 135 |
| Chloroform | 25.0 | 25.7 | | ug/L | | 103 | 70 - 130 |
| Chloromethane | 25.0 | 24.4 | | ug/L | | 97 | 47 - 140 |
| 2-Chlorotoluene | 25.0 | 25.3 | | ug/L | | 101 | 70 - 130 |
| 4-Chlorotoluene | 25.0 | 25.4 | | ug/L | | 102 | 70 - 130 |
| cis-1,2-Dichloroethene | 25.0 | 25.9 | | ug/L | | 104 | 70 - 133 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 440-442408/4**
**Matrix: Water**
**Analysis Batch: 442408**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| cis-1,3-Dichloropropene | 25.0 | 26.1 | | ug/L | | 105 | 70 - 133 |
| Dibromochloromethane | 25.0 | 26.5 | | ug/L | | 106 | 69 - 145 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 28.5 | | ug/L | | 114 | 52 - 140 |
| 1,2-Dibromoethane (EDB) | 25.0 | 24.3 | | ug/L | | 97 | 70 - 130 |
| Dibromomethane | 25.0 | 25.4 | | ug/L | | 101 | 70 - 130 |
| 1,2-Dichlorobenzene | 25.0 | 24.9 | | ug/L | | 100 | 70 - 130 |
| 1,3-Dichlorobenzene | 25.0 | 24.8 | | ug/L | | 99 | 70 - 130 |
| 1,4-Dichlorobenzene | 25.0 | 25.4 | | ug/L | | 101 | 70 - 130 |
| Dichlorodifluoromethane | 25.0 | 24.3 | | ug/L | | 97 | 29 - 150 |
| 1,1-Dichloroethane | 25.0 | 26.0 | | ug/L | | 104 | 64 - 130 |
| 1,2-Dichloroethane | 25.0 | 25.6 | | ug/L | | 103 | 57 - 138 |
| 1,1-Dichloroethene | 25.0 | 24.2 | | ug/L | | 97 | 70 - 130 |
| 1,2-Dichloropropane | 25.0 | 28.2 | | ug/L | | 113 | 67 - 130 |
| 1,3-Dichloropropane | 25.0 | 25.2 | | ug/L | | 101 | 70 - 130 |
| 2,2-Dichloropropane | 25.0 | 28.1 | | ug/L | | 112 | 68 - 141 |
| 1,1-Dichloropropene | 25.0 | 28.1 | | ug/L | | 112 | 70 - 130 |
| Ethylbenzene | 25.0 | 25.0 | | ug/L | | 100 | 70 - 130 |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 26.4 | | ug/L | | 106 | 60 - 136 |
| Hexachlorobutadiene | 25.0 | 25.6 | | ug/L | | 102 | 10 - 150 |
| 2-Hexanone | 25.0 | 27.9 | | ug/L | | 111 | 10 - 150 |
| Isopropylbenzene | 25.0 | 24.7 | | ug/L | | 99 | 70 - 136 |
| Isopropyl Ether (DIPE) | 25.0 | 26.6 | | ug/L | | 107 | 58 - 139 |
| Methylene Chloride | 25.0 | 24.3 | | ug/L | | 97 | 52 - 130 |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 29.0 | | ug/L | | 116 | 59 - 149 |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 26.2 | | ug/L | | 105 | 63 - 131 |
| m,p-Xylene | 25.0 | 25.4 | | ug/L | | 102 | 70 - 130 |
| Naphthalene | 25.0 | 23.5 | | ug/L | | 94 | 60 - 140 |
| n-Butylbenzene | 25.0 | 25.8 | | ug/L | | 103 | 65 - 150 |
| N-Propylbenzene | 25.0 | 26.0 | | ug/L | | 104 | 67 - 139 |
| o-Xylene | 25.0 | 25.0 | | ug/L | | 100 | 70 - 130 |
| p-Isopropyltoluene | 25.0 | 24.8 | | ug/L | | 99 | 70 - 132 |
| sec-Butylbenzene | 25.0 | 25.0 | | ug/L | | 100 | 70 - 138 |
| Styrene | 25.0 | 24.6 | | ug/L | | 98 | 70 - 134 |
| Tert-amyl-methyl ether (TAME) | 25.0 | 25.5 | | ug/L | | 102 | 57 - 139 |
| tert-Butyl alcohol (TBA) | 250 | 273 | | ug/L | | 109 | 70 - 130 |
| tert-Butylbenzene | 25.0 | 25.4 | | ug/L | | 101 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 25.1 | | ug/L | | 100 | 60 - 141 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 26.7 | | ug/L | | 107 | 63 - 130 |
| Tetrachloroethene | 25.0 | 25.9 | | ug/L | | 104 | 70 - 130 |
| Toluene | 25.0 | 25.1 | | ug/L | | 100 | 70 - 130 |
| trans-1,2-Dichloroethene | 25.0 | 26.7 | | ug/L | | 107 | 70 - 130 |
| trans-1,3-Dichloropropene | 25.0 | 26.3 | | ug/L | | 105 | 70 - 132 |
| 1,2,3-Trichlorobenzene | 25.0 | 23.8 | | ug/L | | 95 | 60 - 140 |
| 1,2,4-Trichlorobenzene | 25.0 | 24.5 | | ug/L | | 98 | 60 - 140 |
| 1,1,1-Trichloroethane | 25.0 | 26.0 | | ug/L | | 104 | 70 - 130 |
| 1,1,2-Trichloroethane | 25.0 | 26.3 | | ug/L | | 105 | 70 - 130 |
| Trichloroethene | 25.0 | 24.5 | | ug/L | | 98 | 70 - 130 |
| Trichlorofluoromethane | 25.0 | 26.4 | | ug/L | | 106 | 60 - 150 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 440-442408/4**
**Matrix: Water**
**Analysis Batch: 442408**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,2,3-Trichloropropane | 25.0 | 26.9 | | ug/L | | 107 | 63 - 130 |
| 1,2,4-Trimethylbenzene | 25.0 | 25.5 | | ug/L | | 102 | 70 - 135 |
| 1,3,5-Trimethylbenzene | 25.0 | 25.6 | | ug/L | | 102 | 70 - 136 |
| Vinyl chloride | 25.0 | 25.1 | | ug/L | | 101 | 59 - 133 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *101* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *99* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *102* | | *80 - 128* |

**Lab Sample ID: 440-195909-2 MS**
**Matrix: Water**
**Analysis Batch: 442408**

**Client Sample ID: VMW-01D-20171107**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 25.0 | 24.0 | | ug/L | | 96 | 10 - 150 |
| Benzene | ND | | 25.0 | 25.2 | | ug/L | | 101 | 66 - 130 |
| Bromobenzene | ND | | 25.0 | 23.9 | | ug/L | | 96 | 70 - 130 |
| Bromochloromethane | ND | | 25.0 | 24.8 | | ug/L | | 99 | 70 - 130 |
| Bromodichloromethane | ND | | 25.0 | 26.5 | | ug/L | | 106 | 70 - 138 |
| Bromoform | ND | | 25.0 | 22.3 | | ug/L | | 89 | 59 - 150 |
| Bromomethane | ND | | 25.0 | 25.6 | | ug/L | | 102 | 62 - 131 |
| 2-Butanone (MEK) | ND | | 25.0 | 25.0 | | ug/L | | 100 | 48 - 140 |
| Carbon tetrachloride | ND | | 25.0 | 26.3 | | ug/L | | 105 | 60 - 150 |
| Chlorobenzene | ND | | 25.0 | 24.0 | | ug/L | | 96 | 70 - 130 |
| Chloroethane | ND | | 25.0 | 26.4 | | ug/L | | 106 | 68 - 130 |
| Chloroform | 2.1 | | 25.0 | 27.8 | | ug/L | | 103 | 70 - 130 |
| Chloromethane | ND | | 25.0 | 23.7 | | ug/L | | 95 | 39 - 144 |
| 2-Chlorotoluene | ND | | 25.0 | 25.1 | | ug/L | | 100 | 70 - 130 |
| 4-Chlorotoluene | ND | | 25.0 | 24.8 | | ug/L | | 99 | 70 - 130 |
| cis-1,2-Dichloroethene | ND | | 25.0 | 25.6 | | ug/L | | 102 | 70 - 130 |
| cis-1,3-Dichloropropene | ND | | 25.0 | 25.3 | | ug/L | | 101 | 70 - 133 |
| Dibromochloromethane | ND | | 25.0 | 24.6 | | ug/L | | 99 | 70 - 148 |
| 1,2-Dibromo-3-Chloropropane | ND | | 25.0 | 27.6 | | ug/L | | 110 | 48 - 140 |
| 1,2-Dibromoethane (EDB) | ND | | 25.0 | 24.1 | | ug/L | | 96 | 70 - 131 |
| Dibromomethane | ND | | 25.0 | 24.5 | | ug/L | | 98 | 70 - 130 |
| 1,2-Dichlorobenzene | ND | | 25.0 | 24.6 | | ug/L | | 98 | 70 - 130 |
| 1,3-Dichlorobenzene | ND | | 25.0 | 24.4 | | ug/L | | 98 | 70 - 130 |
| 1,4-Dichlorobenzene | ND | | 25.0 | 24.0 | | ug/L | | 96 | 70 - 130 |
| Dichlorodifluoromethane | ND | | 25.0 | 22.3 | | ug/L | | 89 | 25 - 142 |
| 1,1-Dichloroethane | ND | | 25.0 | 25.0 | | ug/L | | 100 | 65 - 130 |
| 1,2-Dichloroethane | ND | | 25.0 | 24.9 | | ug/L | | 100 | 56 - 146 |
| 1,1-Dichloroethene | ND | | 25.0 | 22.3 | | ug/L | | 89 | 70 - 130 |
| 1,2-Dichloropropane | ND | | 25.0 | 27.6 | | ug/L | | 110 | 69 - 130 |
| 1,3-Dichloropropane | ND | | 25.0 | 23.7 | | ug/L | | 95 | 70 - 130 |
| 2,2-Dichloropropane | ND | | 25.0 | 28.8 | | ug/L | | 115 | 69 - 138 |
| 1,1-Dichloropropene | ND | | 25.0 | 27.0 | | ug/L | | 108 | 64 - 130 |
| Ethylbenzene | ND | | 25.0 | 24.0 | | ug/L | | 96 | 70 - 130 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-195909-2 MS**
**Matrix: Water**
**Analysis Batch: 442408**

**Client Sample ID: VMW-01D-20171107**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Ethyl-t-butyl ether (ETBE) | ND | | 25.0 | 25.8 | | ug/L | | 103 | 70 - 130 |
| Hexachlorobutadiene | ND | | 25.0 | 25.3 | | ug/L | | 101 | 10 - 150 |
| 2-Hexanone | ND | | 25.0 | 26.4 | | ug/L | | 106 | 10 - 150 |
| Isopropylbenzene | ND | | 25.0 | 23.8 | | ug/L | | 95 | 70 - 132 |
| Isopropyl Ether (DIPE) | ND | | 25.0 | 26.0 | | ug/L | | 104 | 64 - 138 |
| Methylene Chloride | ND | | 25.0 | 22.8 | | ug/L | | 91 | 52 - 130 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 25.0 | 26.8 | | ug/L | | 107 | 52 - 150 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 25.0 | 25.6 | | ug/L | | 102 | 70 - 130 |
| m,p-Xylene | ND | | 25.0 | 23.4 | | ug/L | | 94 | 70 - 133 |
| Naphthalene | ND | | 25.0 | 23.3 | | ug/L | | 93 | 60 - 140 |
| n-Butylbenzene | ND | | 25.0 | 25.4 | | ug/L | | 102 | 61 - 149 |
| N-Propylbenzene | ND | | 25.0 | 25.8 | | ug/L | | 103 | 66 - 135 |
| o-Xylene | ND | | 25.0 | 23.9 | | ug/L | | 96 | 70 - 133 |
| p-Isopropyltoluene | ND | | 25.0 | 24.4 | | ug/L | | 98 | 70 - 130 |
| sec-Butylbenzene | ND | | 25.0 | 24.6 | | ug/L | | 98 | 67 - 134 |
| Styrene | ND | | 25.0 | 21.8 | | ug/L | | 87 | 29 - 150 |
| Tert-amyl-methyl ether (TAME) | ND | | 25.0 | 24.2 | | ug/L | | 97 | 68 - 133 |
| tert-Butyl alcohol (TBA) | ND | | 250 | 240 | | ug/L | | 96 | 70 - 130 |
| tert-Butylbenzene | ND | | 25.0 | 24.4 | | ug/L | | 98 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | ND | | 25.0 | 24.4 | | ug/L | | 98 | 60 - 149 |
| 1,1,2,2-Tetrachloroethane | ND | | 25.0 | 26.0 | | ug/L | | 104 | 63 - 130 |
| Tetrachloroethene | ND | | 25.0 | 24.9 | | ug/L | | 100 | 70 - 137 |
| Toluene | ND | | 25.0 | 24.0 | | ug/L | | 96 | 70 - 130 |
| trans-1,2-Dichloroethene | ND | | 25.0 | 25.8 | | ug/L | | 103 | 70 - 130 |
| trans-1,3-Dichloropropene | ND | | 25.0 | 25.1 | | ug/L | | 100 | 70 - 138 |
| 1,2,3-Trichlorobenzene | ND | | 25.0 | 24.3 | | ug/L | | 97 | 60 - 140 |
| 1,2,4-Trichlorobenzene | ND | | 25.0 | 25.5 | | ug/L | | 102 | 60 - 140 |
| 1,1,1-Trichloroethane | ND | | 25.0 | 26.1 | | ug/L | | 104 | 70 - 130 |
| 1,1,2-Trichloroethane | ND | | 25.0 | 24.7 | | ug/L | | 99 | 70 - 130 |
| Trichloroethene | ND | | 25.0 | 24.2 | | ug/L | | 97 | 70 - 130 |
| Trichlorofluoromethane | ND | | 25.0 | 25.3 | | ug/L | | 101 | 60 - 150 |
| 1,2,3-Trichloropropane | ND | | 25.0 | 25.8 | | ug/L | | 103 | 60 - 130 |
| 1,2,4-Trimethylbenzene | ND | | 25.0 | 24.3 | | ug/L | | 97 | 70 - 130 |
| 1,3,5-Trimethylbenzene | ND | | 25.0 | 24.5 | | ug/L | | 98 | 70 - 130 |
| Vinyl chloride | ND | | 25.0 | 25.5 | | ug/L | | 102 | 50 - 137 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *102* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *97* | | *80 - 128* |

**Lab Sample ID: 440-195909-2 MSD**
**Matrix: Water**
**Analysis Batch: 442408**

**Client Sample ID: VMW-01D-20171107**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 25.0 | 25.4 | | ug/L | | 102 | 10 - 150 | 6 | 35 |
| Benzene | ND | | 25.0 | 25.1 | | ug/L | | 101 | 66 - 130 | 0 | 20 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-195909-2 MSD**
**Matrix: Water**
**Analysis Batch: 442408**

**Client Sample ID: VMW-01D-20171107**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromobenzene | ND | | 25.0 | 22.2 | | ug/L | | 89 | 70 - 130 | 8 | 20 |
| Bromochloromethane | ND | | 25.0 | 23.6 | | ug/L | | 94 | 70 - 130 | 5 | 25 |
| Bromodichloromethane | ND | | 25.0 | 25.8 | | ug/L | | 103 | 70 - 138 | 3 | 20 |
| Bromoform | ND | | 25.0 | 22.0 | | ug/L | | 88 | 59 - 150 | 1 | 25 |
| Bromomethane | ND | | 25.0 | 24.0 | | ug/L | | 96 | 62 - 131 | 6 | 25 |
| 2-Butanone (MEK) | ND | | 25.0 | 23.9 | | ug/L | | 95 | 48 - 140 | 5 | 40 |
| Carbon tetrachloride | ND | | 25.0 | 25.5 | | ug/L | | 102 | 60 - 150 | 3 | 25 |
| Chlorobenzene | ND | | 25.0 | 22.7 | | ug/L | | 91 | 70 - 130 | 6 | 20 |
| Chloroethane | ND | | 25.0 | 26.0 | | ug/L | | 104 | 68 - 130 | 2 | 25 |
| Chloroform | 2.1 | | 25.0 | 26.8 | | ug/L | | 99 | 70 - 130 | 4 | 20 |
| Chloromethane | ND | | 25.0 | 22.8 | | ug/L | | 91 | 39 - 144 | 4 | 25 |
| 2-Chlorotoluene | ND | | 25.0 | 21.7 | | ug/L | | 87 | 70 - 130 | 15 | 20 |
| 4-Chlorotoluene | ND | | 25.0 | 22.1 | | ug/L | | 89 | 70 - 130 | 11 | 20 |
| cis-1,2-Dichloroethene | ND | | 25.0 | 24.6 | | ug/L | | 98 | 70 - 130 | 4 | 20 |
| cis-1,3-Dichloropropene | ND | | 25.0 | 24.3 | | ug/L | | 97 | 70 - 133 | 4 | 20 |
| Dibromochloromethane | ND | | 25.0 | 24.1 | | ug/L | | 97 | 70 - 148 | 2 | 25 |
| 1,2-Dibromo-3-Chloropropane | ND | | 25.0 | 23.7 | | ug/L | | 95 | 48 - 140 | 15 | 30 |
| 1,2-Dibromoethane (EDB) | ND | | 25.0 | 22.2 | | ug/L | | 89 | 70 - 131 | 8 | 25 |
| Dibromomethane | ND | | 25.0 | 23.8 | | ug/L | | 95 | 70 - 130 | 3 | 25 |
| 1,2-Dichlorobenzene | ND | | 25.0 | 21.3 | | ug/L | | 85 | 70 - 130 | 15 | 20 |
| 1,3-Dichlorobenzene | ND | | 25.0 | 21.6 | | ug/L | | 87 | 70 - 130 | 12 | 20 |
| 1,4-Dichlorobenzene | ND | | 25.0 | 21.5 | | ug/L | | 86 | 70 - 130 | 11 | 20 |
| Dichlorodifluoromethane | ND | | 25.0 | 21.1 | | ug/L | | 85 | 25 - 142 | 6 | 30 |
| 1,1-Dichloroethane | ND | | 25.0 | 25.3 | | ug/L | | 101 | 65 - 130 | 1 | 20 |
| 1,2-Dichloroethane | ND | | 25.0 | 26.0 | | ug/L | | 104 | 56 - 146 | 4 | 20 |
| 1,1-Dichloroethene | ND | | 25.0 | 22.6 | | ug/L | | 91 | 70 - 130 | 2 | 20 |
| 1,2-Dichloropropane | ND | | 25.0 | 26.9 | | ug/L | | 108 | 69 - 130 | 2 | 20 |
| 1,3-Dichloropropane | ND | | 25.0 | 22.4 | | ug/L | | 90 | 70 - 130 | 5 | 25 |
| 2,2-Dichloropropane | ND | | 25.0 | 26.6 | | ug/L | | 106 | 69 - 138 | 8 | 25 |
| 1,1-Dichloropropene | ND | | 25.0 | 25.6 | | ug/L | | 102 | 64 - 130 | 5 | 20 |
| Ethylbenzene | ND | | 25.0 | 22.1 | | ug/L | | 88 | 70 - 130 | 8 | 20 |
| Ethyl-t-butyl ether (ETBE) | ND | | 25.0 | 26.1 | | ug/L | | 104 | 70 - 130 | 1 | 25 |
| Hexachlorobutadiene | ND | | 25.0 | 21.3 | | ug/L | | 85 | 10 - 150 | 17 | 20 |
| 2-Hexanone | ND | | 25.0 | 24.2 | | ug/L | | 97 | 10 - 150 | 9 | 35 |
| Isopropylbenzene | ND | | 25.0 | 22.2 | | ug/L | | 89 | 70 - 132 | 7 | 20 |
| Isopropyl Ether (DIPE) | ND | | 25.0 | 26.4 | | ug/L | | 105 | 64 - 138 | 1 | 25 |
| Methylene Chloride | ND | | 25.0 | 22.9 | | ug/L | | 91 | 52 - 130 | 0 | 20 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 25.0 | 24.4 | | ug/L | | 98 | 52 - 150 | 9 | 35 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 25.0 | 26.1 | | ug/L | | 104 | 70 - 130 | 2 | 25 |
| m,p-Xylene | ND | | 25.0 | 22.0 | | ug/L | | 88 | 70 - 133 | 6 | 25 |
| Naphthalene | ND | | 25.0 | 20.3 | | ug/L | | 81 | 60 - 140 | 14 | 30 |
| n-Butylbenzene | ND | | 25.0 | 21.8 | | ug/L | | 87 | 61 - 149 | 15 | 20 |
| N-Propylbenzene | ND | | 25.0 | 22.4 | | ug/L | | 90 | 66 - 135 | 14 | 20 |
| o-Xylene | ND | | 25.0 | 22.3 | | ug/L | | 89 | 70 - 133 | 7 | 20 |
| p-Isopropyltoluene | ND | | 25.0 | 21.5 | | ug/L | | 86 | 70 - 130 | 13 | 20 |
| sec-Butylbenzene | ND | | 25.0 | 21.2 | | ug/L | | 85 | 67 - 134 | 15 | 20 |
| Styrene | ND | | 25.0 | 19.8 | | ug/L | | 79 | 29 - 150 | 10 | 35 |
| Tert-amyl-methyl ether (TAME) | ND | | 25.0 | 24.7 | | ug/L | | 99 | 68 - 133 | 2 | 30 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-195909-2 MSD**
**Matrix: Water**
**Analysis Batch: 442408**

**Client Sample ID: VMW-01D-20171107**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| tert-Butyl alcohol (TBA) | ND | | 250 | 221 | | ug/L | | 89 | 70 - 130 | 8 | 25 |
| tert-Butylbenzene | ND | | 25.0 | 21.8 | | ug/L | | 87 | 70 - 130 | 11 | 20 |
| 1,1,1,2-Tetrachloroethane | ND | | 25.0 | 23.3 | | ug/L | | 93 | 60 - 149 | 5 | 20 |
| 1,1,2,2-Tetrachloroethane | ND | | 25.0 | 23.1 | | ug/L | | 92 | 63 - 130 | 12 | 30 |
| Tetrachloroethene | ND | | 25.0 | 23.1 | | ug/L | | 92 | 70 - 137 | 7 | 20 |
| Toluene | ND | | 25.0 | 22.4 | | ug/L | | 90 | 70 - 130 | 7 | 20 |
| trans-1,2-Dichloroethene | ND | | 25.0 | 25.6 | | ug/L | | 103 | 70 - 130 | 1 | 20 |
| trans-1,3-Dichloropropene | ND | | 25.0 | 24.3 | | ug/L | | 97 | 70 - 138 | 3 | 25 |
| 1,2,3-Trichlorobenzene | ND | | 25.0 | 20.7 | | ug/L | | 83 | 60 - 140 | 16 | 20 |
| 1,2,4-Trichlorobenzene | ND | | 25.0 | 21.8 | | ug/L | | 87 | 60 - 140 | 15 | 20 |
| 1,1,1-Trichloroethane | ND | | 25.0 | 25.2 | | ug/L | | 101 | 70 - 130 | 3 | 20 |
| 1,1,2-Trichloroethane | ND | | 25.0 | 24.3 | | ug/L | | 97 | 70 - 130 | 2 | 25 |
| Trichloroethene | ND | | 25.0 | 23.9 | | ug/L | | 96 | 70 - 130 | 1 | 20 |
| Trichlorofluoromethane | ND | | 25.0 | 24.5 | | ug/L | | 98 | 60 - 150 | 3 | 25 |
| 1,2,3-Trichloropropane | ND | | 25.0 | 22.0 | | ug/L | | 88 | 60 - 130 | 16 | 30 |
| 1,2,4-Trimethylbenzene | ND | | 25.0 | 21.4 | | ug/L | | 86 | 70 - 130 | 12 | 25 |
| 1,3,5-Trimethylbenzene | ND | | 25.0 | 21.7 | | ug/L | | 87 | 70 - 130 | 12 | 20 |
| Vinyl chloride | ND | | 25.0 | 23.5 | | ug/L | | 94 | 50 - 137 | 8 | 30 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *98* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *100* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *94* | | *80 - 128* |

## Method: 300.1B - Disinfection By-Products, (IC)

**Lab Sample ID: MB 440-441759/5**
**Matrix: Water**
**Analysis Batch: 441759**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorate | ND | | 20 | 10 | ug/L | | | 11/16/17 08:33 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *105* | | *90 - 115* | | *11/16/17 08:33* | *1* |

**Lab Sample ID: LCS 440-441759/4**
**Matrix: Water**
**Analysis Batch: 441759**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 100 | 101 | | ug/L | | 101 | 75 - 125 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *105* | | *90 - 115* |

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

**Lab Sample ID: MRL 440-441759/3**
**Matrix: Water**
**Analysis Batch: 441759**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 20.0 | 15.6 | J | ug/L | | 78 | 50 - 150 | | |

| *Surrogate* | *MRL %Recovery* | *MRL Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *106* | | *90 - 115* |

**Lab Sample ID: 440-196557-A-2 MS**
**Matrix: Water**
**Analysis Batch: 441759**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 240 | | 200 | 456 | | ug/L | | 105 | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *104* | | *90 - 115* |

**Lab Sample ID: 440-196557-A-2 MSD**
**Matrix: Water**
**Analysis Batch: 441759**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 240 | | 200 | 470 | | ug/L | | 113 | 75 - 125 | 3 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

**Lab Sample ID: MB 440-441760/5**
**Matrix: Water**
**Analysis Batch: 441760**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 20 | 10 | ug/L | | | 11/16/17 08:33 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *105* | | *90 - 115* | | *11/16/17 08:33* | *1* |

**Lab Sample ID: LCS 440-441760/4**
**Matrix: Water**
**Analysis Batch: 441760**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | | 100 | 104 | | ug/L | | 104 | 85 - 115 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *105* | | *90 - 115* |

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

**Lab Sample ID: MRL 440-441760/3**
**Matrix: Water**
**Analysis Batch: 441760**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | | 20.0 | 18.0 | J | ug/L | | 90 | 10 - 200 | | |

| *Surrogate* | *MRL %Recovery* | *MRL Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *106* | | *90 - 115* |

**Lab Sample ID: 440-196557-A-1 MS**
**Matrix: Water**
**Analysis Batch: 441760**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | 190 | | 200 | 403 | | ug/L | | 107 | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *103* | | *90 - 115* |

**Lab Sample ID: 440-196557-A-1 MSD**
**Matrix: Water**
**Analysis Batch: 441760**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | 190 | | 200 | 393 | | ug/L | | 102 | 75 - 125 | 3 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

**Lab Sample ID: 440-196557-A-2 MS**
**Matrix: Water**
**Analysis Batch: 441760**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | 190 | | 200 | 382 | | ug/L | | 96 | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *104* | | *90 - 115* |

**Lab Sample ID: 440-196557-A-2 MSD**
**Matrix: Water**
**Analysis Batch: 441760**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | 190 | | 200 | 386 | | ug/L | | 98 | 75 - 125 | 1 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

### Lab Sample ID: MB 440-442031/5
**Matrix: Water**
**Analysis Batch: 442031**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorate | ND | | 20 | 10 | ug/L | | | 11/17/17 08:45 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *102* | | *90 - 115* | | *11/17/17 08:45* | *1* |

### Lab Sample ID: LCS 440-442031/4
**Matrix: Water**
**Analysis Batch: 442031**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 100 | 100 | | ug/L | | 100 | 75 - 125 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *103* | | *90 - 115* |

### Lab Sample ID: MRL 440-442031/3
**Matrix: Water**
**Analysis Batch: 442031**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 20.0 | 16.9 | J | ug/L | | 85 | 50 - 150 | | |

| *Surrogate* | *MRL %Recovery* | *MRL Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *107* | | *90 - 115* |

### Lab Sample ID: 440-196698-C-1 MS
**Matrix: Water**
**Analysis Batch: 442031**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | ND | | 200 | 214 | | ug/L | | 107 | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *103* | | *90 - 115* |

### Lab Sample ID: 440-196698-C-1 MSD
**Matrix: Water**
**Analysis Batch: 442031**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | ND | | 200 | 225 | | ug/L | | 112 | 75 - 125 | 5 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *104* | | *90 - 115* |

## Method: 314.0 LL - Perchlorate (IC)

**Lab Sample ID: MB 440-442064/5**
**Matrix: Water**
**Analysis Batch: 442064**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 1.0 | 0.50 | ug/L | | | 11/17/17 10:10 | 1 |

**Lab Sample ID: LCS 440-442064/4**
**Matrix: Water**
**Analysis Batch: 442064**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 25.0 | 26.2 | | ug/L | | 105 | 85 - 115 |

**Lab Sample ID: MRL 440-442064/7**
**Matrix: Water**
**Analysis Batch: 442064**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 4.00 | 4.81 | | ug/L | | 120 | 75 - 125 |

**Lab Sample ID: 440-196373-B-1 MS**
**Matrix: Water**
**Analysis Batch: 442064**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 16 | | 25.0 | 40.0 | | ug/L | | 95 | 80 - 120 |

**Lab Sample ID: 440-196373-B-1 MSD**
**Matrix: Water**
**Analysis Batch: 442064**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 16 | | 25.0 | 40.4 | | ug/L | | 97 | 80 - 120 | 1 | 20 |

**Lab Sample ID: MB 440-442474/5**
**Matrix: Water**
**Analysis Batch: 442474**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 1.0 | 0.50 | ug/L | | | 11/20/17 09:35 | 1 |

**Lab Sample ID: LCS 440-442474/4**
**Matrix: Water**
**Analysis Batch: 442474**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 25.0 | 26.3 | | ug/L | | 105 | 85 - 115 |

**Lab Sample ID: MRL 440-442474/7**
**Matrix: Water**
**Analysis Batch: 442474**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 4.00 | 4.77 | | ug/L | | 119 | 75 - 125 |

**Lab Sample ID: 580-72581-E-1 MS**
**Matrix: Water**
**Analysis Batch: 442474**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 150 | | 125 | 288 | | ug/L | | 110 | 80 - 120 | | |

**Lab Sample ID: 580-72581-E-1 MSD**
**Matrix: Water**
**Analysis Batch: 442474**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 150 | | 125 | 289 | | ug/L | | 111 | 80 - 120 | 1 | 20 |

**Lab Sample ID: INF 440-442064/6**
**Matrix: Water**
**Analysis Batch: 442064**

**Client Sample ID: Lab Control Sample**

| Analyte | | | Spike Added | INF Result | INF Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | | | 25.0 | 26.3 | | ug/L | | 105 | 80 - 120 | | |

**Lab Sample ID: INF 440-442474/6**
**Matrix: Water**
**Analysis Batch: 442474**

**Client Sample ID: Lab Control Sample**

| Analyte | | | Spike Added | INF Result | INF Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | | | 25.0 | 27.3 | | ug/L | | 109 | 80 - 120 | | |

## Method: 7199 - Chromium, Hexavalent (IC)

**Lab Sample ID: MB 440-440043/7**
**Matrix: Water**
**Analysis Batch: 440043**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 2.0 | 0.25 | ug/L | | | 11/08/17 07:44 | 1 |

**Lab Sample ID: LCS 440-440043/6**
**Matrix: Water**
**Analysis Batch: 440043**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | | | 50.0 | 50.0 | | ug/L | | 100 | 90 - 110 | | |

**Lab Sample ID: MRL 440-440043/5**
**Matrix: Water**
**Analysis Batch: 440043**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | | | 1.00 | 0.907 | J | ug/L | | 91 | 50 - 150 | | |

## Method: 7199 - Chromium, Hexavalent (IC) (Continued)

**Lab Sample ID: 440-195909-3 MS**
**Matrix: Water**
**Analysis Batch: 440043**

**Client Sample ID: VMW-01D-20171107-FD**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 21 | | 50.0 | 72.0 | | ug/L | | 102 | 85 - 115 |

**Lab Sample ID: 440-195909-3 MSD**
**Matrix: Water**
**Analysis Batch: 440043**

**Client Sample ID: VMW-01D-20171107-FD**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 21 | | 50.0 | 71.7 | | ug/L | | 101 | 85 - 115 | 0 | 20 |

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 440-440602/1-A**
**Matrix: Water**
**Analysis Batch: 440757**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 440602**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | ND | | 0.0050 | 0.0025 | mg/L | | 11/10/17 08:26 | 11/10/17 16:27 | 1 |

**Lab Sample ID: LCS 440-440602/2-A**
**Matrix: Water**
**Analysis Batch: 440757**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 440602**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium | 1.00 | 0.904 | | mg/L | | 90 | 80 - 120 |

**Lab Sample ID: 440-195909-2 MS**
**Matrix: Water**
**Analysis Batch: 440757**

**Client Sample ID: VMW-01D-20171107**
**Prep Type: Total Recoverable**
**Prep Batch: 440602**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 0.25 | | 1.00 | 1.13 | | mg/L | | 88 | 75 - 125 |

**Lab Sample ID: 440-195909-2 MSD**
**Matrix: Water**
**Analysis Batch: 440757**

**Client Sample ID: VMW-01D-20171107**
**Prep Type: Total Recoverable**
**Prep Batch: 440602**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 0.25 | | 1.00 | 1.12 | | mg/L | | 88 | 75 - 125 | 1 | 20 |

## GC/MS VOA

### Analysis Batch: 442408

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-195909-1 | TRIP BLANK | Total/NA | Water | 8260B | |
| 440-195909-2 | VMW-01D-20171107 | Total/NA | Water | 8260B | |
| 440-195909-3 | VMW-01D-20171107-FD | Total/NA | Water | 8260B | |
| 440-195909-4 | VMW-01I-20171107 | Total/NA | Water | 8260B | |
| 440-195909-5 | VER-01D-20171107 | Total/NA | Water | 8260B | |
| 440-195909-6 | VER-01D-20171107-EB | Total/NA | Water | 8260B | |
| MB 440-442408/3 | Method Blank | Total/NA | Water | 8260B | |
| LCS 440-442408/4 | Lab Control Sample | Total/NA | Water | 8260B | |
| 440-195909-2 MS | VMW-01D-20171107 | Total/NA | Water | 8260B | |
| 440-195909-2 MSD | VMW-01D-20171107 | Total/NA | Water | 8260B | |

## HPLC/IC

### Analysis Batch: 440043

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-195909-2 | VMW-01D-20171107 | Total/NA | Water | 7199 | |
| 440-195909-3 | VMW-01D-20171107-FD | Total/NA | Water | 7199 | |
| 440-195909-4 | VMW-01I-20171107 | Total/NA | Water | 7199 | |
| 440-195909-5 | VER-01D-20171107 | Total/NA | Water | 7199 | |
| 440-195909-6 | VER-01D-20171107-EB | Total/NA | Water | 7199 | |
| MB 440-440043/7 | Method Blank | Total/NA | Water | 7199 | |
| LCS 440-440043/6 | Lab Control Sample | Total/NA | Water | 7199 | |
| MRL 440-440043/5 | Lab Control Sample | Total/NA | Water | 7199 | |
| 440-195909-3 MS | VMW-01D-20171107-FD | Total/NA | Water | 7199 | |
| 440-195909-3 MSD | VMW-01D-20171107-FD | Total/NA | Water | 7199 | |

### Analysis Batch: 441759

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-195909-2 | VMW-01D-20171107 | Total/NA | Water | 300.1B | |
| 440-195909-3 | VMW-01D-20171107-FD | Total/NA | Water | 300.1B | |
| 440-195909-6 | VER-01D-20171107-EB | Total/NA | Water | 300.1B | |
| MB 440-441759/5 | Method Blank | Total/NA | Water | 300.1B | |
| LCS 440-441759/4 | Lab Control Sample | Total/NA | Water | 300.1B | |
| MRL 440-441759/3 | Lab Control Sample | Total/NA | Water | 300.1B | |
| 440-196557-A-2 MS | Matrix Spike | Total/NA | Water | 300.1B | |
| 440-196557-A-2 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.1B | |

### Analysis Batch: 441760

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-195909-2 | VMW-01D-20171107 | Total/NA | Water | 300.1B | |
| 440-195909-3 | VMW-01D-20171107-FD | Total/NA | Water | 300.1B | |
| 440-195909-4 | VMW-01I-20171107 | Total/NA | Water | 300.1B | |
| 440-195909-5 | VER-01D-20171107 | Total/NA | Water | 300.1B | |
| 440-195909-6 | VER-01D-20171107-EB | Total/NA | Water | 300.1B | |
| MB 440-441760/5 | Method Blank | Total/NA | Water | 300.1B | |
| LCS 440-441760/4 | Lab Control Sample | Total/NA | Water | 300.1B | |
| MRL 440-441760/3 | Lab Control Sample | Total/NA | Water | 300.1B | |
| 440-196557-A-1 MS | Matrix Spike | Total/NA | Water | 300.1B | |
| 440-196557-A-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.1B | |
| 440-196557-A-2 MS | Matrix Spike | Total/NA | Water | 300.1B | |

## HPLC/IC (Continued)

### Analysis Batch: 441760 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-196557-A-2 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.1B | |

### Analysis Batch: 442031

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-195909-4 | VMW-01I-20171107 | Total/NA | Water | 300.1B | |
| 440-195909-5 | VER-01D-20171107 | Total/NA | Water | 300.1B | |
| MB 440-442031/5 | Method Blank | Total/NA | Water | 300.1B | |
| LCS 440-442031/4 | Lab Control Sample | Total/NA | Water | 300.1B | |
| MRL 440-442031/3 | Lab Control Sample | Total/NA | Water | 300.1B | |
| 440-196698-C-1 MS | Matrix Spike | Total/NA | Water | 300.1B | |
| 440-196698-C-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.1B | |

### Analysis Batch: 442064

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-195909-2 | VMW-01D-20171107 | Total/NA | Water | 314.0 LL | |
| 440-195909-3 | VMW-01D-20171107-FD | Total/NA | Water | 314.0 LL | |
| 440-195909-4 | VMW-01I-20171107 | Total/NA | Water | 314.0 LL | |
| MB 440-442064/5 | Method Blank | Total/NA | Water | 314.0 LL | |
| INF 440-442064/6 | Lab Control Sample | | Water | 314.0 LL | |
| LCS 440-442064/4 | Lab Control Sample | Total/NA | Water | 314.0 LL | |
| MRL 440-442064/7 | Lab Control Sample | Total/NA | Water | 314.0 LL | |
| 440-196373-B-1 MS | Matrix Spike | Total/NA | Water | 314.0 LL | |
| 440-196373-B-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 314.0 LL | |

### Analysis Batch: 442474

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-195909-5 | VER-01D-20171107 | Total/NA | Water | 314.0 LL | |
| 440-195909-6 | VER-01D-20171107-EB | Total/NA | Water | 314.0 LL | |
| MB 440-442474/5 | Method Blank | Total/NA | Water | 314.0 LL | |
| INF 440-442474/6 | Lab Control Sample | | Water | 314.0 LL | |
| LCS 440-442474/4 | Lab Control Sample | Total/NA | Water | 314.0 LL | |
| MRL 440-442474/7 | Lab Control Sample | Total/NA | Water | 314.0 LL | |
| 580-72581-E-1 MS | Matrix Spike | Total/NA | Water | 314.0 LL | |
| 580-72581-E-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 314.0 LL | |

## Metals

### Prep Batch: 440602

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-195909-2 | VMW-01D-20171107 | Total Recoverable | Water | 3005A | |
| 440-195909-3 | VMW-01D-20171107-FD | Total Recoverable | Water | 3005A | |
| 440-195909-4 | VMW-01I-20171107 | Total Recoverable | Water | 3005A | |
| 440-195909-5 | VER-01D-20171107 | Total Recoverable | Water | 3005A | |
| 440-195909-6 | VER-01D-20171107-EB | Total Recoverable | Water | 3005A | |
| MB 440-440602/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 440-440602/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 440-195909-2 MS | VMW-01D-20171107 | Total Recoverable | Water | 3005A | |
| 440-195909-2 MSD | VMW-01D-20171107 | Total Recoverable | Water | 3005A | |

## Metals (Continued)

### Analysis Batch: 440757

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-195909-2 | VMW-01D-20171107 | Total Recoverable | Water | 6010B | 440602 |
| 440-195909-3 | VMW-01D-20171107-FD | Total Recoverable | Water | 6010B | 440602 |
| 440-195909-4 | VMW-01I-20171107 | Total Recoverable | Water | 6010B | 440602 |
| 440-195909-5 | VER-01D-20171107 | Total Recoverable | Water | 6010B | 440602 |
| 440-195909-6 | VER-01D-20171107-EB | Total Recoverable | Water | 6010B | 440602 |
| MB 440-440602/1-A | Method Blank | Total Recoverable | Water | 6010B | 440602 |
| LCS 440-440602/2-A | Lab Control Sample | Total Recoverable | Water | 6010B | 440602 |
| 440-195909-2 MS | VMW-01D-20171107 | Total Recoverable | Water | 6010B | 440602 |
| 440-195909-2 MSD | VMW-01D-20171107 | Total Recoverable | Water | 6010B | 440602 |

## Client Sample ID: TRIP BLANK
**Lab Sample ID: 440-195909-1**
**Date Collected: 11/07/17 07:00**
**Matrix: Water**
**Date Received: 11/07/17 21:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 442408 | 11/19/17 13:14 | TCN | TAL IRV |

## Client Sample ID: VMW-01D-20171107
**Lab Sample ID: 440-195909-2**
**Date Collected: 11/07/17 09:35**
**Matrix: Water**
**Date Received: 11/07/17 21:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 442408 | 11/19/17 11:21 | TCN | TAL IRV |
| Total/NA | Analysis | 300.1B | | 100 | 441759 | 11/16/17 09:09 | YZ | TAL IRV |
| Total/NA | Analysis | 300.1B | | 100 | 441760 | 11/16/17 09:09 | YZ | TAL IRV |
| Total/NA | Analysis | 314.0 LL | | 500 | 442064 | 11/17/17 12:07 | CTH | TAL IRV |
| Total/NA | Analysis | 7199 | | 1 | 440043 | 11/08/17 08:10 | MN | TAL IRV |
| Total Recoverable | Prep | 3005A | | | 440602 | 11/10/17 08:26 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 6010B | | 1 | 440757 | 11/10/17 16:32 | K1E | TAL IRV |

## Client Sample ID: VMW-01D-20171107-FD
**Lab Sample ID: 440-195909-3**
**Date Collected: 11/07/17 09:35**
**Matrix: Water**
**Date Received: 11/07/17 21:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 442408 | 11/19/17 12:46 | TCN | TAL IRV |
| Total/NA | Analysis | 300.1B | | 100 | 441759 | 11/17/17 01:28 | YZ | TAL IRV |
| Total/NA | Analysis | 300.1B | | 100 | 441760 | 11/17/17 01:28 | YZ | TAL IRV |
| Total/NA | Analysis | 314.0 LL | | 500 | 442064 | 11/17/17 12:25 | CTH | TAL IRV |
| Total/NA | Analysis | 7199 | | 1 | 440043 | 11/08/17 08:23 | MN | TAL IRV |
| Total Recoverable | Prep | 3005A | | | 440602 | 11/10/17 08:26 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 6010B | | 1 | 440757 | 11/10/17 16:49 | K1E | TAL IRV |

## Client Sample ID: VMW-01I-20171107
**Lab Sample ID: 440-195909-4**
**Date Collected: 11/07/17 11:40**
**Matrix: Water**
**Date Received: 11/07/17 21:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 442408 | 11/19/17 13:42 | TCN | TAL IRV |
| Total/NA | Analysis | 300.1B | | 100 | 441760 | 11/17/17 02:04 | YZ | TAL IRV |
| Total/NA | Analysis | 300.1B | | 20000 | 442031 | 11/17/17 09:57 | YZ | TAL IRV |
| Total/NA | Analysis | 314.0 LL | | 50000 | 442064 | 11/17/17 12:42 | CTH | TAL IRV |
| Total/NA | Analysis | 7199 | | 500 | 440043 | 11/08/17 08:36 | MN | TAL IRV |
| Total Recoverable | Prep | 3005A | | | 440602 | 11/10/17 08:26 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 6010B | | 1 | 440757 | 11/10/17 16:51 | K1E | TAL IRV |

# Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-195909-1

## Client Sample ID: VER-01D-20171107

**Date Collected: 11/07/17 12:50**
**Date Received: 11/07/17 21:30**

## Lab Sample ID: 440-195909-5

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 442408 | 11/19/17 14:10 | TCN | TAL IRV |
| Total/NA | Analysis | 300.1B | | 100 | 441760 | 11/17/17 02:40 | YZ | TAL IRV |
| Total/NA | Analysis | 300.1B | | 1000 | 442031 | 11/17/17 10:34 | YZ | TAL IRV |
| Total/NA | Analysis | 314.0 LL | | 1000 | 442474 | 11/20/17 13:47 | CTH | TAL IRV |
| Total/NA | Analysis | 7199 | | 1 | 440043 | 11/08/17 08:49 | MN | TAL IRV |
| Total Recoverable | Prep | 3005A | | | 440602 | 11/10/17 08:26 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 6010B | | 1 | 440757 | 11/10/17 16:53 | K1E | TAL IRV |

## Client Sample ID: VER-01D-20171107-EB

**Date Collected: 11/07/17 13:20**
**Date Received: 11/07/17 21:30**

## Lab Sample ID: 440-195909-6

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 442408 | 11/19/17 14:38 | TCN | TAL IRV |
| Total/NA | Analysis | 300.1B | | 1 | 441759 | 11/17/17 03:16 | YZ | TAL IRV |
| Total/NA | Analysis | 300.1B | | 1 | 441760 | 11/17/17 03:16 | YZ | TAL IRV |
| Total/NA | Analysis | 314.0 LL | | 1 | 442474 | 11/20/17 13:29 | CTH | TAL IRV |
| Total/NA | Analysis | 7199 | | 1 | 440043 | 11/08/17 09:02 | MN | TAL IRV |
| Total Recoverable | Prep | 3005A | | | 440602 | 11/10/17 08:26 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 6010B | | 1 | 440757 | 11/10/17 16:54 | K1E | TAL IRV |

**Laboratory References:**

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

# Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-195909-1

## Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|---|---|---|---|---|
| Alaska | State Program | 10 | CA01531 | 06-30-18 |
| Arizona | State Program | 9 | AZ0671 | 10-14-18 |
| California | LA Cty Sanitation Districts | 9 | 10256 | 06-30-18 |
| California | State Program | 9 | CA ELAP 2706 | 06-30-18 |
| Guam | State Program | 9 | Cert. No. 17-003R | 01-23-18 |
| Hawaii | State Program | 9 | N/A | 01-29-18 |
| Kansas | NELAP | 7 | E-10420 | 07-31-18 |
| Nevada | State Program | 9 | CA015312018-1 | 07-31-18 |
| New Mexico | State Program | 6 | N/A | 01-29-18 * |
| Northern Mariana Islands | State Program | 9 | MP0002 | 01-29-17 * |
| Oregon | NELAP | 10 | 4028 | 01-29-18 |
| USDA | Federal | | P330-15-00184 | 07-08-18 |
| Washington | State Program | 10 | C900 | 09-03-18 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Method Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-195909-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL IRV |
| 300.1B | Disinfection By-Products, (IC) | EPA | TAL IRV |
| 314.0 LL | Perchlorate (IC) | EPA | TAL IRV |
| 7199 | Chromium, Hexavalent (IC) | SW846 | TAL IRV |
| 6010B | Metals (ICP) | SW846 | TAL IRV |

**Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

# Sample Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-195909-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 440-195909-1 | TRIP BLANK | Water | 11/07/17 07:00 | 11/07/17 21:30 |
| 440-195909-2 | VMW-01D-20171107 | Water | 11/07/17 09:35 | 11/07/17 21:30 |
| 440-195909-3 | VMW-01D-20171107-FD | Water | 11/07/17 09:35 | 11/07/17 21:30 |
| 440-195909-4 | VMW-01I-20171107 | Water | 11/07/17 11:40 | 11/07/17 21:30 |
| 440-195909-5 | VER-01D-20171107 | Water | 11/07/17 12:50 | 11/07/17 21:30 |
| 440-195909-6 | VER-01D-20171107-EB | Water | 11/07/17 13:20 | 11/07/17 21:30 |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: GCMS31 Analysis Batch Number: 439348

Lab Sample ID: STD05 440-439348/6 IC Client Sample ID:

Date Analyzed: 11/03/17 16:48 Lab File ID: NFK0306.D GC Column: DB-VRX C ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chloroethane | 3.87 | Unspecified | | |
| 2,2-Dichloropropane | 6.80 | Unspecified | | |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 441234

Lab Sample ID: STD1 440-441234/3 IC Client Sample ID:

Date Analyzed: 11/14/17 04:43 Lab File ID: 440-0096201-003.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.38 | Baseline Smoothing | zakhrabovy | 11/14/17 05:53 |

Lab Sample ID: STD2 440-441234/4 IC Client Sample ID:

Date Analyzed: 11/14/17 05:19 Lab File ID: 440-0096201-004.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.26 | Baseline Smoothing | zakhrabovy | 11/14/17 06:08 |

Lab Sample ID: STD3 440-441234/5 IC Client Sample ID:

Date Analyzed: 11/14/17 05:55 Lab File ID: 440-0096201-005.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.48 | Baseline Smoothing | zakhrabovy | 11/14/17 06:36 |

Lab Sample ID: STD4 440-441234/6 IC Client Sample ID:

Date Analyzed: 11/14/17 06:32 Lab File ID: 440-0096201-006.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.23 | Baseline Smoothing | zakhrabovy | 11/14/17 07:14 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 441234

Lab Sample ID: STD5 440-441234/7 IC Client Sample ID:

Date Analyzed: 11/14/17 07:08 Lab File ID: 440-0096201-007.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.23 | Baseline Smoothing | zakhrabovy | 11/14/17 07:47 |

Lab Sample ID: ICV 440-441234/8 Client Sample ID:

Date Analyzed: 11/14/17 08:07 Lab File ID: 440-0096201-008.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.20 | Baseline Smoothing | zakhrabovy | 11/14/17 08:45 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 441235

Lab Sample ID: STD1 440-441235/3 IC Client Sample ID:

Date Analyzed: 11/14/17 04:43 Lab File ID: 440-0096201-003.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.33 | Baseline Smoothing | zakhrabovy | 11/14/17 05:53 |

Lab Sample ID: STD3 440-441235/5 IC Client Sample ID:

Date Analyzed: 11/14/17 05:55 Lab File ID: 440-0096201-005.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.41 | Baseline Smoothing | zakhrabovy | 11/14/17 06:36 |

Lab Sample ID: STD4 440-441235/6 IC Client Sample ID:

Date Analyzed: 11/14/17 06:32 Lab File ID: 440-0096201-006.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.19 | Baseline Smoothing | zakhrabovy | 11/14/17 07:15 |

Lab Sample ID: STD5 440-441235/7 IC Client Sample ID:

Date Analyzed: 11/14/17 07:08 Lab File ID: 440-0096201-007.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.20 | Baseline Smoothing | zakhrabovy | 11/14/17 07:47 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 441235

Lab Sample ID: ICV 440-441235/8 Client Sample ID:

Date Analyzed: 11/14/17 08:07 Lab File ID: 440-0096201-008.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.17 | Baseline Smoothing | zakhrabovy | 11/14/17 08:45 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 441759

Lab Sample ID: CCV 440-441759/1 Client Sample ID:

Date Analyzed: 11/16/17 06:08 Lab File ID: 440-0096332-001.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.42 | Baseline Smoothing | zakhrabovy | 11/16/17 08:02 |

Lab Sample ID: 440-195909-2 Client Sample ID: VMW-01D-20171107

Date Analyzed: 11/16/17 09:09 Lab File ID: 440-0096332-006.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Dichloroacetic acid(Surr) | 13.16 | Baseline Smoothing | zakhrabovy | 11/16/17 09:55 |

Lab Sample ID: CCV 440-441759/13 Client Sample ID:

Date Analyzed: 11/16/17 13:23 Lab File ID: 440-0096332-013.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.41 | Baseline Smoothing | nguyennt | 11/16/17 16:19 |

Lab Sample ID: CCV 440-441759/25 Client Sample ID:

Date Analyzed: 11/16/17 20:38 Lab File ID: 440-0096332-025.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.37 | Baseline Smoothing | nguyennt | 11/16/17 21:16 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 441759

Lab Sample ID: 440-195909-6 Client Sample ID: VER-01D-20171107-EB

Date Analyzed: 11/17/17 03:16 Lab File ID: 440-0096332-036.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Dichloroacetic acid(Surr) | 13.49 | Baseline Smoothing | zakhrabovy | 11/17/17 06:07 |

Lab Sample ID: CCV 440-441759/37 Client Sample ID:

Date Analyzed: 11/17/17 03:53 Lab File ID: 440-0096332-037.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.41 | Baseline Smoothing | zakhrabovy | 11/17/17 06:07 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 441760

Lab Sample ID: CCV 440-441760/1 Client Sample ID:

Date Analyzed: 11/16/17 06:08 Lab File ID: 440-0096332-001.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.36 | Baseline Smoothing | zakhrabovy | 11/16/17 08:02 |

Lab Sample ID: LCS 440-441760/4 Client Sample ID:

Date Analyzed: 11/16/17 07:57 Lab File ID: 440-0096332-004.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.35 | Baseline Smoothing | zakhrabovy | 11/16/17 08:38 |

Lab Sample ID: 440-195909-2 Client Sample ID: VMW-01D-20171107

Date Analyzed: 11/16/17 09:09 Lab File ID: 440-0096332-006.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Dichloroacetic acid(Surr) | 13.16 | Baseline Smoothing | zakhrabovy | 11/16/17 09:55 |

Lab Sample ID: 440-196557-A-1 MS Client Sample ID:

Date Analyzed: 11/16/17 10:58 Lab File ID: 440-0096332-009.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.33 | Baseline Smoothing | zakhrabovy | 11/16/17 11:40 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 441760

Lab Sample ID: CCV 440-441760/13 Client Sample ID:

Date Analyzed: 11/16/17 13:23 Lab File ID: 440-0096332-013.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.37 | Baseline Smoothing | zakhrabovy | 11/17/17 06:02 |

Lab Sample ID: 440-196557-A-2 MS Client Sample ID:

Date Analyzed: 11/16/17 15:48 Lab File ID: 440-0096332-017.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.33 | Baseline Smoothing | zakhrabovy | 11/17/17 06:03 |

Lab Sample ID: 440-196557-A-2 MSD Client Sample ID:

Date Analyzed: 11/16/17 16:24 Lab File ID: 440-0096332-018.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.33 | Baseline Smoothing | zakhrabovy | 11/17/17 06:04 |

Lab Sample ID: CCV 440-441760/25 Client Sample ID:

Date Analyzed: 11/16/17 20:38 Lab File ID: 440-0096332-025.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.34 | Baseline Smoothing | zakhrabovy | 11/17/17 06:05 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 441760

Lab Sample ID: 440-195909-6 Client Sample ID: VER-01D-20171107-EB

Date Analyzed: 11/17/17 03:16 Lab File ID: 440-0096332-036.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Dichloroacetic acid(Surr) | 13.49 | Baseline Smoothing | zakhrabovy | 11/17/17 06:07 |

Lab Sample ID: CCV 440-441760/37 Client Sample ID:

Date Analyzed: 11/17/17 03:53 Lab File ID: 440-0096332-037.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.36 | Baseline Smoothing | zakhrabovy | 11/17/17 06:07 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 442031

Lab Sample ID: CCV 440-442031/1 Client Sample ID:

Date Analyzed: 11/17/17 06:20 Lab File ID: 440-0096396-001.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.42 | Baseline Smoothing | zakhrabovy | 11/17/17 07:31 |

Lab Sample ID: MRL 440-442031/3 Client Sample ID:

Date Analyzed: 11/17/17 07:32 Lab File ID: 440-0096396-003.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorate | 17.17 | Baseline Smoothing | zakhrabovy | 11/17/17 11:32 |

Lab Sample ID: CCV 440-442031/13 Client Sample ID:

Date Analyzed: 11/17/17 13:35 Lab File ID: 440-0096396-013.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.29 | Incomplete Integration | nickloffn | 11/17/17 14:13 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-24 Analysis Batch Number: 438806

Lab Sample ID: STD1 440-438806/2 IC Client Sample ID:

Date Analyzed: 11/01/17 12:16 Lab File ID: 440-0095615-00202ECD_1.d GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.75 | Instrument noise | nguyennt | 11/01/17 17:43 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-24 Analysis Batch Number: 442064

Lab Sample ID: INF 440-442064/6 Client Sample ID:

Date Analyzed: 11/17/17 10:28 Lab File ID: 440-0096417-00606ECD_1.d GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.62 | Incomplete Integration | hoangch | 11/17/17 10:52 |

Lab Sample ID: MRL 440-442064/7 Client Sample ID:

Date Analyzed: 11/17/17 10:46 Lab File ID: 440-0096417-00707ECD_1.d GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.70 | Incomplete Integration | hoangch | 11/17/17 11:09 |

Lab Sample ID: 440-196373-B-1 MS Client Sample ID:

Date Analyzed: 11/17/17 11:28 Lab File ID: 440-0096417-00909ECD_1.d GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.69 | Incomplete Integration | hoangch | 11/17/17 12:21 |

Lab Sample ID: 440-196373-B-1 MSD Client Sample ID:

Date Analyzed: 11/17/17 11:46 Lab File ID: 440-0096417-01010ECD_1.d GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.70 | Incomplete Integration | hoangch | 11/17/17 12:22 |

Lab Sample ID: 440-195909-2 Client Sample ID: VMW-01D-20171107

Date Analyzed: 11/17/17 12:07 Lab File ID: 440-0096417-01111ECD_1.d GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.70 | Incomplete Integration | hoangch | 11/17/17 13:28 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-24 Analysis Batch Number: 442474

Lab Sample ID: INF 440-442474/6 Client Sample ID:

Date Analyzed: 11/20/17 09:53 Lab File ID: 440-0096502-00606ECD_1.d GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.47 | Incomplete Integration | hoangch | 11/20/17 10:29 |

Lab Sample ID: MRL 440-442474/7 Client Sample ID:

Date Analyzed: 11/20/17 10:11 Lab File ID: 440-0096502-00707ECD_1.d GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.56 | Incomplete Integration | hoangch | 11/20/17 10:31 |

Lab Sample ID: 580-72581-E-1 MS Client Sample ID:

Date Analyzed: 11/20/17 10:49 Lab File ID: 440-0096502-00909ECD_1.d GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.55 | Incomplete Integration | hoangch | 11/20/17 11:17 |

Lab Sample ID: CCV 440-442474/14 Client Sample ID:

Date Analyzed: 11/20/17 12:18 Lab File ID: 440-0096502-01414ECD_1.d GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.56 | Incomplete Integration | hoangch | 11/20/17 12:42 |

Lab Sample ID: CCV 440-442474/23 Client Sample ID:

Date Analyzed: 11/20/17 15:27 Lab File ID: 440-0096502-02323ECD_1.d GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.57 | Incomplete Integration | hoangch | 11/20/17 15:54 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-20  Analysis Batch Number: 410549

Lab Sample ID: STD1 440-410549/4 IC  Client Sample ID:

Date Analyzed: 06/07/17 10:00  Lab File ID: Info 2_IRVINSTIC20_Hexava  GC Column: AS7 A  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 7.37 | Incomplete Integration | nickloffn | 06/08/17 10:45 |

Lab Sample ID: STD2 440-410549/5 IC  Client Sample ID:

Date Analyzed: 06/07/17 10:13  Lab File ID: Info 2_IRVINSTIC20_Hexava  GC Column: AS7 A  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 7.37 | Incomplete Integration | nickloffn | 06/08/17 10:45 |

Lab Sample ID: ICV 440-410549/11  Client Sample ID:

Date Analyzed: 06/07/17 11:47  Lab File ID: Info 2_IRVINSTIC20_Hexava  GC Column: AS7 A  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 7.42 | Baseline Smoothing | nikbakhtm | 06/07/17 12:03 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-20 Analysis Batch Number: 440043

Lab Sample ID: MRL 440-440043/5 Client Sample ID:

Date Analyzed: 11/08/17 07:18 Lab File ID: Info 2_IRVINSTIC20_Hexava GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 6.68 | Baseline Smoothing | nikbakhtm | 11/08/17 08:45 |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **ME HCl_00385** | 11/09/18 | Avantor Performance Materials, INc., Lot 0000183197 | | | (Purchased Reagent) | | Stock Chemical | 100 % |
| **ME HNO3_00400** | 10/17/18 | Macron Fine Chemicals, Lot 0000166089 | | | (Purchased Reagent) | | Stock Chemical | 1 % |
| **ME ICP CRI 2x_00376** | 11/11/17 | 11/10/17 | 1%HNO3/0.5%HCl, Lot HNO3 | 50 mL | CRI CHK STD_00027 | 1 mL | Chromium | 0.01 ug/mL |
| .CRI CHK STD_00027 | 08/27/18 | ACCU STANDARD, Lot 217025071 | | | (Purchased Reagent) | | Chromium | 0.5 ug/mL |
| **ME ICP ICV2_01712** | 11/11/17 | 11/10/17 | 1%HNO3/2%HCl, Lot N/A | 50 mL | ME ICP SPKE A_00029 | 0.5 mL | Chromium | 1 mg/L |
| .ME ICP SPKE A_00029 | 03/30/18 | ACCUSTANDARD, Lot 216035030 | | | (Purchased Reagent) | | Chromium | 100 ug/mL |
| **ME ICP IFA_01738** | 11/11/17 | 11/10/17 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Al | 600 mg/L |
| | | | | | | | Ca | 600 mg/L |
| | | | | | | | Fe | 600 mg/L |
| | | | | | | | Mg | 600 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | o2si, Lot 10064997-1 | | | (Purchased Reagent) | | Al | 6000 mg/L |
| | | | | | | | Ca | 6000 mg/L |
| | | | | | | | Fe | 6000 mg/L |
| | | | | | | | Mg | 6000 mg/L |
| **ME ICP IFB_01757** | 11/11/17 | 11/10/17 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Al | 600.5 mg/L |
| | | | | | | | Ca | 602.5 mg/L |
| | | | | | | | Fe | 600.5 mg/L |
| | | | | | | | Mg | 602.5 mg/L |
| | | | | | ME ICP2 ICV1A_00051 | 0.25 mL | Ag | 0.25 mg/L |
| | | | | | | | Al | 600.5 mg/L |
| | | | | | | | As | 0.5 mg/L |
| | | | | | | | Ba | 0.5 mg/L |
| | | | | | | | Be | 0.5 mg/L |
| | | | | | | | Ca | 602.5 mg/L |
| | | | | | | | Cd | 0.5 mg/L |
| | | | | | | | Chromium | 0.5 mg/L |
| | | | | | | | Co | 0.5 mg/L |
| | | | | | | | Cu | 0.5 mg/L |
| | | | | | | | Fe | 600.5 mg/L |
| | | | | | | | K | 10 mg/L |
| | | | | | | | Li | 0.5 mg/L |
| | | | | | | | Mg | 602.5 mg/L |
| | | | | | | | Mn | 0.5 mg/L |
| | | | | | | | Na | 10 mg/L |
| | | | | | | | Ni | 0.5 mg/L |
| | | | | | | | P | 0.5 mg/L |
| | | | | | | | Pb | 0.5 mg/L |
| | | | | | | | Se | 0.5 mg/L |
| | | | | | | | Sr | 0.5 mg/L |
| | | | | | | | Tl | 0.5 mg/L |
| | | | | | | | V | 0.5 mg/L |
| | | | | | | | Zn | 0.5 mg/L |
| | | | | | ME ICP2 ICV1B_00045 | 0.25 mL | Mo | 0.5 mg/L |
| | | | | | | | Sb | 0.5 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Si | 2.5 mg/L |
| | | | | | | | Sn | 0.5 mg/L |
| | | | | | | | Ti | 0.5 mg/L |
| | | | | | | | W | 0.5 mg/L |
| | | | | | | | Zr | 0.5 mg/L |
| | | | | | ME K_00007 | 0.25 mL | K | 10 mg/L |
| | | | | | ME Na_00010 | 0.25 mL | Na | 10 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | o2si, Lot 10064997-1 | | | (Purchased Reagent) | | Al | 6000 mg/L |
| | | | | | | | Ca | 6000 mg/L |
| | | | | | | | Fe | 6000 mg/L |
| | | | | | | | Mg | 6000 mg/L |
| .ME ICP2 ICV1A_00051 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662245 | | | (Purchased Reagent) | | Ag | 50 mg/L |
| | | | | | | | Al | 100 mg/L |
| | | | | | | | As | 100 mg/L |
| | | | | | | | Ba | 100 mg/L |
| | | | | | | | Be | 100 mg/L |
| | | | | | | | Ca | 500 mg/L |
| | | | | | | | Cd | 100 mg/L |
| | | | | | | | Chromium | 100 mg/L |
| | | | | | | | Co | 100 mg/L |
| | | | | | | | Cu | 100 mg/L |
| | | | | | | | Fe | 100 mg/L |
| | | | | | | | K | 1000 mg/L |
| | | | | | | | Li | 100 mg/L |
| | | | | | | | Mg | 500 mg/L |
| | | | | | | | Mn | 100 mg/L |
| | | | | | | | Na | 1000 mg/L |
| | | | | | | | Ni | 100 mg/L |
| | | | | | | | P | 100 mg/L |
| | | | | | | | Pb | 100 mg/L |
| | | | | | | | Se | 100 mg/L |
| | | | | | | | Sr | 100 mg/L |
| | | | | | | | Tl | 100 mg/L |
| | | | | | | | V | 100 mg/L |
| | | | | | | | Zn | 100 mg/L |
| .ME ICP2 ICV1B_00045 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662246 | | | (Purchased Reagent) | | Mo | 100 mg/L |
| | | | | | | | Sb | 100 mg/L |
| | | | | | | | Si | 500 mg/L |
| | | | | | | | Sn | 100 mg/L |
| | | | | | | | Ti | 100 mg/L |
| | | | | | | | W | 100 mg/L |
| | | | | | | | Zr | 100 mg/L |
| .ME K_00007 | 08/17/18 | O2SI, Lot 1103100 | | | (Purchased Reagent) | | K | 1000 mg/L |
| .ME Na_00010 | 08/17/18 | O2SI, Lot 1103103 | | | (Purchased Reagent) | | Na | 1000 mg/L |
| **ME ICP STD3_01739** | 11/11/17 | 11/10/17 | 1%HNO3/2%HCL, Lot 211065110 | 100 mL | ME ICP2 ICV1A_00051 | 1 mL | Chromium | 1 ug/mL |
| .ME ICP2 ICV1A_00051 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662245 | | | (Purchased Reagent) | | Chromium | 100 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Ag | 50 mg/L |
| | | | | | | | Al | 100 mg/L |
| | | | | | | | As | 100 mg/L |
| | | | | | | | B | 100 mg/L |
| | | | | | | | Ba | 100 mg/L |
| | | | | | | | Be | 100 mg/L |
| | | | | | | | Ca | 500 mg/L |
| | | | | | | | Cd | 100 mg/L |
| | | | | | | | Chromium | 100 mg/L |
| | | | | | | | Co | 100 mg/L |
| | | | | | | | Cu | 100 mg/L |
| | | | | | | | Fe | 100 mg/L |
| | | | | | | | K | 1000 mg/L |
| | | | | | | | Li | 100 mg/L |
| | | | | | | | Mg | 500 mg/L |
| | | | | | | | Mn | 100 mg/L |
| | | | | | | | Na | 1000 mg/L |
| | | | | | | | Ni | 100 mg/L |
| | | | | | | | P | 100 mg/L |
| | | | | | | | Pb | 100 mg/L |
| | | | | | | | Se | 100 mg/L |
| | | | | | | | Sr | 100 mg/L |
| | | | | | | | Tl | 100 mg/L |
| | | | | | | | V | 100 mg/L |
| | | | | | | | Zn | 100 mg/L |
| **ME ICP2 ICV1B_00045** | 10/18/18 | | INORGANIC VENTURES, Lot M2-MEB662246 | | (Purchased Reagent) | | Mo | 100 mg/L |
| | | | | | | | Sb | 100 mg/L |
| | | | | | | | Si | 500 mg/L |
| | | | | | | | SiO2 | 1071.15 mg/L |
| | | | | | | | Sn | 100 mg/L |
| | | | | | | | Ti | 100 mg/L |
| | | | | | | | W | 100 mg/L |
| | | | | | | | Zr | 100 mg/L |
| **VMW8260TUNE1_00402** | | | | | | | 1,2-Dichloroethene, Total | |
| | | | | | | | 1,3-Dichloropropene, Total | |
| | | | | | | | Tentatively Identified Compound | |
| | | | | | | | Total Volatile Organic Compounds | |
| | | | | | | | Trihalomethanes, Total | |
| | | | | | | | Xylenes, Total | |
| | | | | | VMA8260BFB1_00039 | 10 uL | BFB | 25 ug/mL |
| .VMA8260BFB1_00039 | 03/02/18 | | Absolute Standards, Lot 112514 | | (Purchased Reagent) | | BFB | 2500 ug/mL |
| **VMW8260TUNE1_00405** | | | | | | | 1,2-Dichloroethene, Total | |
| | | | | | | | 1,3-Dichloropropene, Total | |
| | | | | | | | Tentatively Identified Compound | |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Total Volatile Organic Compounds | |
| | | | | | | | Trihalomethanes, Total | |
| | | | | | | | Xylenes, Total | |
| | | | | | VMA8260BFB1_00039 | 10 uL | BFB | 25 ug/mL |
| .VMA8260BFB1_00039 | 03/02/18 | Absolute Standards, Lot 112514 | | | (Purchased Reagent) | | BFB | 2500 ug/mL |
| **VMWNU8260002_00474** | 11/07/17 | 10/31/17 | Methanol, Lot 4415767 | 1 mL | VMWNU8260200_00168 | 10 uL | 2-Chloroethyl vinyl ether | 2 ug/mL |
| | | | | | | | Bromomethane | 2 ug/mL |
| | | | | | | | Butadiene | 2 ug/mL |
| | | | | | | | Chloroethane | 2 ug/mL |
| | | | | | | | Chloromethane | 2 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2 ug/mL |
| | | | | | | | Vinyl chloride | 2 ug/mL |
| | | | | | | | 2-Butanone (MEK) | 2 ug/mL |
| | | | | | | | 2-Hexanone | 2 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 2 ug/mL |
| | | | | | | | Acetone | 2 ug/mL |
| | | | | | | | 1,1,1,2-Tetrachloroethane | 2 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2 ug/mL |
| | | | | | | | Acrylonitrile | 20 ug/mL |
| | | | | | | | Benzene | 2 ug/mL |
| | | | | | | | Bromobenzene | 2 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Bromochloromethane | 2 ug/mL |
| | | | | | | | Bromodichloromethane | 2 ug/mL |
| | | | | | | | Bromoform | 2 ug/mL |
| | | | | | | | Carbon disulfide | 2 ug/mL |
| | | | | | | | Carbon tetrachloride | 2 ug/mL |
| | | | | | | | Chlorobenzene | 2 ug/mL |
| | | | | | | | Chloroform | 2 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2 ug/mL |
| | | | | | | | Cyclohexane | 2 ug/mL |
| | | | | | | | Dibromochloromethane | 2 ug/mL |
| | | | | | | | Dibromomethane | 2 ug/mL |
| | | | | | | | Ethyl ether | 2 ug/mL |
| | | | | | | | Ethyl methacrylate | 2 ug/mL |
| | | | | | | | Ethylbenzene | 2 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2 ug/mL |
| | | | | | | | Hexane | 2 ug/mL |
| | | | | | | | Iodomethane | 2 ug/mL |
| | | | | | | | Isobutyl alcohol | 50 ug/mL |
| | | | | | | | Isopropylbenzene | 2 ug/mL |
| | | | | | | | m,p-Xylene | 2 ug/mL |
| | | | | | | | Methyl acetate | 10 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2 ug/mL |
| | | | | | | | Methylcyclohexane | 2 ug/mL |
| | | | | | | | Methylene Chloride | 2 ug/mL |
| | | | | | | | n-Butylbenzene | 2 ug/mL |
| | | | | | | | n-Heptane | 2 ug/mL |
| | | | | | | | N-Propylbenzene | 2 ug/mL |
| | | | | | | | Naphthalene | 2 ug/mL |
| | | | | | | | o-Xylene | 2 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2 ug/mL |
| | | | | | | | sec-Butylbenzene | 2 ug/mL |
| | | | | | | | Styrene | 2 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 20 ug/mL |
| | | | | | | | tert-Butylbenzene | 2 ug/mL |
| | | | | | | | Tetrachloroethene | 2 ug/mL |
| | | | | | | | Tetrahydrofuran | 4 ug/mL |
| | | | | | | | Toluene | 2 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2 ug/mL |
| | | | | | | | Trichloroethene | 2 ug/mL |
| | | | | | | | Vinyl acetate | 2 ug/mL |
| | | | | | | | Ethanol | 100 ug/mL |
| | | | | | | | Acetonitrile | 20 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2 ug/mL |
| | | | | | | | Propionitrile | 20 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2 ug/mL |
| | | | | | | | Acrolein | 2 ug/mL |
| .VMWNU8260200_00168 | 11/07/17 | 10/31/17 | Methanol, Lot 4415767 | 1 mL | VMA1582602CV1_00026 | 80 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |
| | | | | | VMA158260GAS1_00195 | 80 uL | Bromomethane | 200 ug/mL |
| | | | | | | | Butadiene | 200 ug/mL |
| | | | | | | | Chloroethane | 200 ug/mL |
| | | | | | | | Chloromethane | 200 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 200 ug/mL |
| | | | | | | | Dichlorofluoromethane | 200 ug/mL |
| | | | | | | | Trichlorofluoromethane | 200 ug/mL |
| | | | | | | | Vinyl chloride | 200 ug/mL |
| | | | | | VMA158260KET1_00040 | 16 uL | 2-Butanone (MEK) | 200 ug/mL |
| | | | | | | | 2-Hexanone | 200 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 200 ug/mL |
| | | | | | | | Acetone | 200 ug/mL |
| | | | | | VMA158260MEG1_00040 | 80 uL | 1,1,1,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 200 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 200 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 200 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 200 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 2-Chlorotoluene | 200 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 200 ug/mL |
| | | | | | | | 4-Chlorotoluene | 200 ug/mL |
| | | | | | | | Acrylonitrile | 2000 ug/mL |
| | | | | | | | Benzene | 200 ug/mL |
| | | | | | | | Bromobenzene | 200 ug/mL |
| | | | | | | | Bromochloromethane | 200 ug/mL |
| | | | | | | | Bromodichloromethane | 200 ug/mL |
| | | | | | | | Bromoform | 200 ug/mL |
| | | | | | | | Carbon disulfide | 200 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Carbon tetrachloride | 200 ug/mL |
| | | | | | | | Chlorobenzene | 200 ug/mL |
| | | | | | | | Chloroform | 200 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | Cyclohexane | 200 ug/mL |
| | | | | | | | Dibromochloromethane | 200 ug/mL |
| | | | | | | | Dibromomethane | 200 ug/mL |
| | | | | | | | Ethyl ether | 200 ug/mL |
| | | | | | | | Ethyl methacrylate | 200 ug/mL |
| | | | | | | | Ethylbenzene | 200 ug/mL |
| | | | | | | | Hexachlorobutadiene | 200 ug/mL |
| | | | | | | | Hexane | 200 ug/mL |
| | | | | | | | Iodomethane | 200 ug/mL |
| | | | | | | | Isobutyl alcohol | 5000 ug/mL |
| | | | | | | | Isopropylbenzene | 200 ug/mL |
| | | | | | | | m,p-Xylene | 200 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 200 ug/mL |
| | | | | | | | Methylcyclohexane | 200 ug/mL |
| | | | | | | | Methylene Chloride | 200 ug/mL |
| | | | | | | | n-Butylbenzene | 200 ug/mL |
| | | | | | | | n-Heptane | 200 ug/mL |
| | | | | | | | N-Propylbenzene | 200 ug/mL |
| | | | | | | | Naphthalene | 200 ug/mL |
| | | | | | | | o-Xylene | 200 ug/mL |
| | | | | | | | p-Isopropyltoluene | 200 ug/mL |
| | | | | | | | sec-Butylbenzene | 200 ug/mL |
| | | | | | | | Styrene | 200 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 2000 ug/mL |
| | | | | | | | tert-Butylbenzene | 200 ug/mL |
| | | | | | | | Tetrachloroethene | 200 ug/mL |
| | | | | | | | Tetrahydrofuran | 400 ug/mL |
| | | | | | | | Toluene | 200 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 200 ug/mL |
| | | | | | | | Trichloroethene | 200 ug/mL |
| | | | | | VMA158260VA1_00043 | 40 uL | Vinyl acetate | 200 ug/mL |
| | | | | | VMA178260ETH1_00006 | 100 uL | Ethanol | 10000 ug/mL |
| | | | | | VMA178260POL1_00006 | 80 uL | Acetonitrile | 2000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 200 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 200 ug/mL |
| | | | | | | | Propionitrile | 2000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 200 ug/mL |
| | | | | | VMANU8260ACR1_00099 | 10 uL | Acrolein | 200 ug/mL |
| ..VMA1582602CV1_00026 | 04/10/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| ..VMA158260GAS1_00195 | 04/30/18 | | Restek, Lot A0124278 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| ..VMA158260KET1_00040 | 04/10/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| ..VMA158260MEG1_00040 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| ..VMA158260VA1_00043 | 11/30/17 | | Restek, Lot A0127538 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| ..VMA178260ETH1_00006 | 04/10/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| ..VMA178260POL1_00006 | 04/10/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| ..VMANU8260ACR1_00099 | 01/17/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260200_00168** | 11/07/17 | 10/31/17 | Methanol, Lot 4415767 | 1 mL | VMA1582602CV1_00026 | 80 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |
| | | | | | VMA158260GAS1_00195 | 80 uL | Bromomethane | 200 ug/mL |
| | | | | | | | Butadiene | 200 ug/mL |
| | | | | | | | Chloroethane | 200 ug/mL |
| | | | | | | | Chloromethane | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Dichlorodifluoromethane | 200 ug/mL |
| | | | | | | | Dichlorofluoromethane | 200 ug/mL |
| | | | | | | | Trichlorofluoromethane | 200 ug/mL |
| | | | | | | | Vinyl chloride | 200 ug/mL |
| | | | | | VMA158260KET1_00040 | 16 uL | 2-Butanone (MEK) | 200 ug/mL |
| | | | | | | | 2-Hexanone | 200 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 200 ug/mL |
| | | | | | | | Acetone | 200 ug/mL |
| | | | | | VMA158260MEG1_00040 | 80 uL | 1,1,1,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 200 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 200 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 200 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 200 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 2-Chlorotoluene | 200 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 200 ug/mL |
| | | | | | | | 4-Chlorotoluene | 200 ug/mL |
| | | | | | | | Acrylonitrile | 2000 ug/mL |
| | | | | | | | Benzene | 200 ug/mL |
| | | | | | | | Bromobenzene | 200 ug/mL |
| | | | | | | | Bromochloromethane | 200 ug/mL |
| | | | | | | | Bromodichloromethane | 200 ug/mL |
| | | | | | | | Bromoform | 200 ug/mL |
| | | | | | | | Carbon disulfide | 200 ug/mL |
| | | | | | | | Carbon tetrachloride | 200 ug/mL |
| | | | | | | | Chlorobenzene | 200 ug/mL |
| | | | | | | | Chloroform | 200 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | Cyclohexane | 200 ug/mL |
| | | | | | | | Dibromochloromethane | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Dibromomethane | 200 ug/mL |
| | | | | | | | Ethyl ether | 200 ug/mL |
| | | | | | | | Ethyl methacrylate | 200 ug/mL |
| | | | | | | | Ethylbenzene | 200 ug/mL |
| | | | | | | | Hexachlorobutadiene | 200 ug/mL |
| | | | | | | | Hexane | 200 ug/mL |
| | | | | | | | Iodomethane | 200 ug/mL |
| | | | | | | | Isobutyl alcohol | 5000 ug/mL |
| | | | | | | | Isopropylbenzene | 200 ug/mL |
| | | | | | | | m,p-Xylene | 200 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 200 ug/mL |
| | | | | | | | Methylcyclohexane | 200 ug/mL |
| | | | | | | | Methylene Chloride | 200 ug/mL |
| | | | | | | | n-Butylbenzene | 200 ug/mL |
| | | | | | | | n-Heptane | 200 ug/mL |
| | | | | | | | N-Propylbenzene | 200 ug/mL |
| | | | | | | | Naphthalene | 200 ug/mL |
| | | | | | | | o-Xylene | 200 ug/mL |
| | | | | | | | p-Isopropyltoluene | 200 ug/mL |
| | | | | | | | sec-Butylbenzene | 200 ug/mL |
| | | | | | | | Styrene | 200 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 2000 ug/mL |
| | | | | | | | tert-Butylbenzene | 200 ug/mL |
| | | | | | | | Tetrachloroethene | 200 ug/mL |
| | | | | | | | Tetrahydrofuran | 400 ug/mL |
| | | | | | | | Toluene | 200 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 200 ug/mL |
| | | | | | | | Trichloroethene | 200 ug/mL |
| | | | | | VMA158260VA1_00043 | 40 uL | Vinyl acetate | 200 ug/mL |
| | | | | | VMA178260ETH1_00006 | 100 uL | Ethanol | 10000 ug/mL |
| | | | | | VMA178260POL1_00006 | 80 uL | Acetonitrile | 2000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 200 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 200 ug/mL |
| | | | | | | | Propionitrile | 2000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 200 ug/mL |
| | | | | | VMANU8260ACR1_00099 | 10 uL | Acrolein | 200 ug/mL |
| .VMA1582602CV1_00026 | 04/10/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| .VMA158260GAS1_00195 | 04/30/18 | | Restek, Lot A0124278 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .VMA158260KET1_00040 | 04/10/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00040 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA158260VA1_00043 | 11/30/17 | | Restek, Lot A0127538 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| .VMA178260ETH1_00006 | 04/10/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| .VMA178260POL1_00006 | 04/10/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| .VMANU8260ACR1_00099 | 01/17/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260CCV1_00825** | 11/07/17 | 10/31/17 | Methanol, Lot 4415767 | 1 mL | VMA1582602CV1_00026 | 20 uL | 2-Chloroethyl vinyl ether | 50 ug/mL |
| | | | | | VMA158260GAS1_00195 | 20 uL | Bromomethane | 50 ug/mL |
| | | | | | | | Butadiene | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 50 ug/mL |
| | | | | | | | Dichlorofluoromethane | 50 ug/mL |
| | | | | | | | Trichlorofluoromethane | 50 ug/mL |
| | | | | | | | Vinyl chloride | 50 ug/mL |
| | | | | | VMA158260KET1_00040 | 4 uL | 2-Butanone (MEK) | 50 ug/mL |
| | | | | | | | 2-Hexanone | 50 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Acetone | 50 ug/mL |
| | | | | | VMA158260MEG1_00040 | 20 uL | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | Acrylonitrile | 500 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromochloromethane | 50 ug/mL |
| | | | | | | | Bromodichloromethane | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon disulfide | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Cyclohexane | 50 ug/mL |
| | | | | | | | Dibromochloromethane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Ethyl ether | 50 ug/mL |
| | | | | | | | Ethyl methacrylate | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Hexane | 50 ug/mL |
| | | | | | | | Iodomethane | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Isobutyl alcohol | 1250 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m,p-Xylene | 50 ug/mL |
| | | | | | | | Methyl acetate | 250 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ug/mL |
| | | | | | | | Methylcyclohexane | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | n-Heptane | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | p-Isopropyltoluene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Tetrahydrofuran | 100 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | VMA158260VA1_00043 | 8 uL | Vinyl acetate | 40 ug/mL |
| | | | | | VMA178260ETH1_00006 | 20 uL | Ethanol | 2000 ug/mL |
| | | | | | VMA178260POL1_00006 | 20 uL | Acetonitrile | 500 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 50 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ug/mL |
| | | | | | | | Propionitrile | 500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ug/mL |
| | | | | | VMANU8260ACR1_00099 | 2.5 uL | Acrolein | 50 ug/mL |
| .VMA1582602CV1_00026 | 04/10/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| .VMA158260GAS1_00195 | 04/30/18 | | Restek, Lot A0124278 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00040 | 04/10/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00040 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA158260VA1_00043 | 11/30/17 | | Restek, Lot A0127538 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| .VMA178260ETH1_00006 | 04/10/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| .VMA178260POL1_00006 | 04/10/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| .VMANU8260ACR1_00099 | 01/17/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260CCV1_00838** | 11/21/17 | 11/14/17 | Methanol, Lot 4415769 | 1 mL | VMA158260GAS1_00198 | 20 uL | Bromomethane | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 50 ug/mL |
| | | | | | | | Trichlorofluoromethane | 50 ug/mL |
| | | | | | | | Vinyl chloride | 50 ug/mL |
| | | | | | VMA158260KET1_00041 | 4 uL | 2-Butanone (MEK) | 50 ug/mL |
| | | | | | | | 2-Hexanone | 50 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ug/mL |
| | | | | | | | Acetone | 50 ug/mL |
| | | | | | VMA158260MEG1_00041 | 20 uL | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromochloromethane | 50 ug/mL |
| | | | | | | | Bromodichloromethane | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Dibromochloromethane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m,p-Xylene | 50 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | p-Isopropyltoluene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | VMA178260POL1_00007 | 20 uL | Ethyl-t-butyl ether (ETBE) | 50 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ug/mL |
| .VMA158260GAS1_00198 | 05/14/18 | | Restek, Lot A0124278 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00041 | 05/07/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00041 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL1_00007 | 05/07/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNU8260IS_00167** | 11/09/17 | 10/09/17 | Methanol, Lot 4303540 | 1 mL | VMANU8260ISD1_00175 | 20 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00193 | 25 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00175 | 04/09/18 | | Restek, Lot A0123516 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00193 | 04/09/18 | | Restek, Lot A0128685 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00129** | 11/19/17 | 10/19/17 | Methanol, Lot 4415760 | 40 mL | VMANU8260ISD1_00180 | 800 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00188 | 1000 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00180 | 04/19/18 | | Restek, Lot A0123516 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00188 | 04/19/18 | | Restek, Lot A0123820 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00129** | 11/19/17 | 10/19/17 | Methanol, Lot 4415760 | 40 mL | VMANU8260SUR2_00033 | 800 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR2_00033 | 03/29/18 | | Restek, Lot A0115812 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNU8260ISS_00130** | 11/30/17 | 10/31/17 | Methanol, Lot 4415760 | 40 mL | VMANU8260ISD1_00181 | 800 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00190 | 1000 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00181 | 04/30/18 | | Restek, Lot A0123516 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00190 | 04/30/18 | | Restek, Lot A0123820 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00130** | 11/30/17 | 10/31/17 | Methanol, Lot 4415760 | 40 mL | VMANU8260SUR2_00033 | 800 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR2_00033 | 03/29/18 | | Restek, Lot A0115812 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNU8260LCS2_00162** | 11/08/17 | 11/01/17 | Methanol, Lot 4415760 | 10 mL | VMA158260GAS2_00211 | 200 uL | Bromomethane | 50 ppm |
| | | | | | | | Chloroethane | 50 ppm |
| | | | | | | | Chloromethane | 50 ppm |
| | | | | | | | Dichlorodifluoromethane | 50 ppm |
| | | | | | | | Trichlorofluoromethane | 50 ppm |
| | | | | | | | Vinyl chloride | 50 ppm |
| | | | | | VMA158260KET2_00039 | 40 uL | 2-Butanone (MEK) | 50 ppm |
| | | | | | | | 2-Hexanone | 50 ppm |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ppm |
| | | | | | | | Acetone | 50 ppm |
| | | | | | VMA158260MEG2_00050 | 200 uL | 1,1,1,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,1-Trichloroethane | 50 ppm |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,2-Trichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethene | 50 ppm |
| | | | | | | | 1,1-Dichloropropene | 50 ppm |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,3-Trichloropropane | 50 ppm |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ppm |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ppm |
| | | | | | | | 1,2-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,2-Dichloroethane | 50 ppm |
| | | | | | | | 1,2-Dichloropropane | 50 ppm |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,3-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,3-Dichloropropane | 50 ppm |
| | | | | | | | 1,4-Dichlorobenzene | 50 ppm |
| | | | | | | | 2,2-Dichloropropane | 50 ppm |
| | | | | | | | 2-Chlorotoluene | 50 ppm |
| | | | | | | | 4-Chlorotoluene | 50 ppm |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Benzene | 50 ppm |
| | | | | | | | Bromobenzene | 50 ppm |
| | | | | | | | Bromochloromethane | 50 ppm |
| | | | | | | | Bromodichloromethane | 50 ppm |
| | | | | | | | Bromoform | 50 ppm |
| | | | | | | | Carbon tetrachloride | 50 ppm |
| | | | | | | | Chlorobenzene | 50 ppm |
| | | | | | | | Chloroform | 50 ppm |
| | | | | | | | cis-1,2-Dichloroethene | 50 ppm |
| | | | | | | | cis-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Dibromochloromethane | 50 ppm |
| | | | | | | | Dibromomethane | 50 ppm |
| | | | | | | | Ethylbenzene | 50 ppm |
| | | | | | | | Hexachlorobutadiene | 50 ppm |
| | | | | | | | Isopropylbenzene | 50 ppm |
| | | | | | | | m,p-Xylene | 50 ppm |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ppm |
| | | | | | | | Methylene Chloride | 50 ppm |
| | | | | | | | n-Butylbenzene | 50 ppm |
| | | | | | | | N-Propylbenzene | 50 ppm |
| | | | | | | | Naphthalene | 50 ppm |
| | | | | | | | o-Xylene | 50 ppm |
| | | | | | | | p-Isopropyltoluene | 50 ppm |
| | | | | | | | sec-Butylbenzene | 50 ppm |
| | | | | | | | Styrene | 50 ppm |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ppm |
| | | | | | | | tert-Butylbenzene | 50 ppm |
| | | | | | | | Tetrachloroethene | 50 ppm |
| | | | | | | | Toluene | 50 ppm |
| | | | | | | | trans-1,2-Dichloroethene | 50 ppm |
| | | | | | | | trans-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Trichloroethene | 50 ppm |
| | | | | | VMA178260POL2_00008 | 200 uL | Ethyl-t-butyl ether (ETBE) | 50 ppm |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ppm |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ppm |
| .VMA158260GAS2_00211 | 05/01/18 | | Restek, Lot A0128832 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET2_00039 | 04/11/18 | | Restek, Lot A0123880 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG2_00050 | 07/31/18 | | Restek, Lot A0120604 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL2_00008 | 04/11/18 | | Restek, Lot A0123771 | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNU8260LCS2_00164** | 11/22/17 | 11/15/17 | Methanol, Lot 4415769 | 10 mL | VMA158260GAS2_00215 | 200 uL | Bromomethane | 50 ppm |
| | | | | | | | Chloroethane | 50 ppm |
| | | | | | | | Chloromethane | 50 ppm |
| | | | | | | | Dichlorodifluoromethane | 50 ppm |
| | | | | | | | Trichlorofluoromethane | 50 ppm |
| | | | | | | | Vinyl chloride | 50 ppm |
| | | | | | VMA158260KET2_00040 | 40 uL | 2-Butanone (MEK) | 50 ppm |
| | | | | | | | 2-Hexanone | 50 ppm |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ppm |
| | | | | | | | Acetone | 50 ppm |
| | | | | | VMA158260MEG2_00051 | 200 uL | 1,1,1,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,1-Trichloroethane | 50 ppm |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,2-Trichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethene | 50 ppm |
| | | | | | | | 1,1-Dichloropropene | 50 ppm |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,3-Trichloropropane | 50 ppm |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ppm |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ppm |
| | | | | | | | 1,2-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,2-Dichloroethane | 50 ppm |
| | | | | | | | 1,2-Dichloropropane | 50 ppm |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,3-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,3-Dichloropropane | 50 ppm |
| | | | | | | | 1,4-Dichlorobenzene | 50 ppm |
| | | | | | | | 2,2-Dichloropropane | 50 ppm |
| | | | | | | | 2-Chlorotoluene | 50 ppm |
| | | | | | | | 4-Chlorotoluene | 50 ppm |
| | | | | | | | Benzene | 50 ppm |
| | | | | | | | Bromobenzene | 50 ppm |
| | | | | | | | Bromochloromethane | 50 ppm |
| | | | | | | | Bromodichloromethane | 50 ppm |
| | | | | | | | Bromoform | 50 ppm |
| | | | | | | | Carbon tetrachloride | 50 ppm |
| | | | | | | | Chlorobenzene | 50 ppm |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Chloroform | 50 ppm |
| | | | | | | | cis-1,2-Dichloroethene | 50 ppm |
| | | | | | | | cis-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Dibromochloromethane | 50 ppm |
| | | | | | | | Dibromomethane | 50 ppm |
| | | | | | | | Ethylbenzene | 50 ppm |
| | | | | | | | Hexachlorobutadiene | 50 ppm |
| | | | | | | | Isopropylbenzene | 50 ppm |
| | | | | | | | m,p-Xylene | 50 ppm |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ppm |
| | | | | | | | Methylene Chloride | 50 ppm |
| | | | | | | | n-Butylbenzene | 50 ppm |
| | | | | | | | N-Propylbenzene | 50 ppm |
| | | | | | | | Naphthalene | 50 ppm |
| | | | | | | | o-Xylene | 50 ppm |
| | | | | | | | p-Isopropyltoluene | 50 ppm |
| | | | | | | | sec-Butylbenzene | 50 ppm |
| | | | | | | | Styrene | 50 ppm |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ppm |
| | | | | | | | tert-Butylbenzene | 50 ppm |
| | | | | | | | Tetrachloroethene | 50 ppm |
| | | | | | | | Toluene | 50 ppm |
| | | | | | | | trans-1,2-Dichloroethene | 50 ppm |
| | | | | | | | trans-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Trichloroethene | 50 ppm |
| | | | | | VMA178260POL2_00009 | 200 uL | Ethyl-t-butyl ether (ETBE) | 50 ppm |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ppm |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ppm |
| .VMA158260GAS2_00215 | 05/15/18 | | Restek, Lot A0128832 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET2_00040 | 05/08/18 | | Restek, Lot A0123880 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG2_00051 | 05/08/18 | | Restek, Lot A0120604 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL2_00009 | 05/08/18 | | Restek, Lot A0123771 | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **VMWNUSURR200_00164** | 11/30/17 | 10/31/17 | Methanol, Lot 4415767 | 1 mL | VMANU8260SUR1_00063 | 80 uL | 1,2-Dichloroethane-d4 (Surr) | 200 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 200 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 200 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 200 ug/mL |
| .VMANU8260SUR1_00063 | 04/30/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNUSURR50_00164** | 11/30/17 | 10/31/17 | Methanol, Lot 4415767 | 1 mL | VMANU8260SUR1_00063 | 20 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR1_00063 | 04/30/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **WC3001ICV_00035** | 12/31/17 | 11/14/17 | Di Water, Lot 20171114 | 100 mL | WC2CHLORATE_00004 | 0.4 mL | Chlorate | 4.004 mg/L |
| | | | | | WC2CHLORITE_00018 | 0.4 mL | Chlorite | 4 mg/L |
| .WC2CHLORATE_00004 | 11/30/20 | | Ultra Scientific, Lot CP-5286 | | (Purchased Reagent) | | Chlorate | 1001 mg/L |
| .WC2CHLORITE_00018 | 12/31/17 | | Ultra Scientific, Lot CR-2105 | | (Purchased Reagent) | | Chlorite | 1000 mg/L |
| **WC3001LCS_00057** | 12/08/17 | 11/14/17 | Di Water, Lot 20171114 | 100 mL | WC1BROMATE_00008 | 0.1 mL | Bromate | 1 mg/L |
| | | | | | WC1CHLORATE_00009 | 0.4 mL | Chlorate | 4 mg/L |
| | | | | | WC1CHLORITE_00007 | 0.4 mL | Chlorite | 4 mg/L |
| | | | | | wcbromide_00013 | 0.1 mL | Bromide | 10 mg/L |
| .WC1BROMATE_00008 | 01/01/19 | | O2Si, Lot 131599-4 | | (Purchased Reagent) | | Bromate | 1000 mg/L |
| .WC1CHLORATE_00009 | 01/01/19 | | O2Si, Lot 142627-2 | | (Purchased Reagent) | | Chlorate | 1000 mg/L |
| .WC1CHLORITE_00007 | 01/01/19 | | O2Si, Lot 119590-5 | | (Purchased Reagent) | | Chlorite | 1000 mg/L |
| .wcbromide_00013 | 12/08/17 | | high purity, Lot 1615819 | | (Purchased Reagent) | | Bromide | 10000 ug/mL |
| **WC314.INF_00268** | 11/18/17 | 11/17/17 | DI water, Lot 20171117 | 50 mL | WCCLO41st-10_00011 | 0.125 mL | Perchlorate | 25 ppb |
| .WCCLO41st-10_00011 | 12/10/17 | 09/10/17 | Di Water, Lot 09/10/17 | 100 mg/L | WCCLO4-1st_00002 | 1 mg/L | Perchlorate | 10 mg/L |
| ..WCCLO4-1st_00002 | 01/30/18 | | SPEX CERTIPREP, Lot 3-149CLO4-2Y | | (Purchased Reagent) | | Perchlorate | 1000 mg/L |
| **WC314.INF_00270** | 11/21/17 | 11/20/17 | DI water, Lot 20171120 | 50 mL | WCCLO41st-10_00011 | 0.125 mL | Perchlorate | 25 ppb |
| .WCCLO41st-10_00011 | 12/10/17 | 09/10/17 | Di Water, Lot 09/10/17 | 100 mg/L | WCCLO4-1st_00002 | 1 mg/L | Perchlorate | 10 mg/L |
| ..WCCLO4-1st_00002 | 01/30/18 | | SPEX CERTIPREP, Lot 3-149CLO4-2Y | | (Purchased Reagent) | | Perchlorate | 1000 mg/L |
| **WCCLO41st-10_00011** | 12/10/17 | 09/10/17 | Di Water, Lot 09/10/17 | 100 mg/L | WCCLO4-1st_00002 | 1 mg/L | Perchlorate | 10 mg/L |
| .WCCLO4-1st_00002 | 01/30/18 | | SPEX CERTIPREP, Lot 3-149CLO4-2Y | | (Purchased Reagent) | | Perchlorate | 1000 mg/L |
| **WCCLO4ICV10_00028** | 12/10/17 | 09/10/17 | Di Water, Lot 09/10/2017 | 100 mL | WCCLO4ICV_00015 | 1 mL | Perchlorate | 10.0002 mg/L |
| .WCCLO4ICV_00015 | 12/10/17 | 09/10/17 | Di Water, Lot 09/10/2017 | 250 mL | WCCLO4ICVSOLI_00002 | 0.3078 g | Perchlorate | 1000.02 mg/L |
| ..WCCLO4ICVSOLI_00002 | 06/01/22 | | SPECTRUM, Lot 2FH0070 | | (Purchased Reagent) | | Perchlorate | 0.81223 g/g |
| **WCCR6ICV5PPM_00048** | 07/07/17 | 06/07/17 | Di Water, Lot 20170607 | 50 mL | WCCR6ICV_00020 | 5 mL | Chromium, hexavalent | 4.99849 mg/L |
| .WCCR6ICV_00020 | 09/23/17 | 03/23/17 | Di Water, Lot 20170323 | 1000 mL | WCK2CR2O7_00003 | 0.1414 g | Chromium, hexavalent | 49.9849 mg/L |
| ..WCK2CR2O7_00003 | 03/22/22 | | FISHER, Lot 166724 | | (Purchased Reagent) | | Chromium, hexavalent | 0.3535 g/g |
| **WCCR6LCS5PPM_00094** | 07/05/17 | 06/05/17 | Di Water, Lot 20170605 | 50 mL | WCCR6LCS50PPM_00037 | 5 mL | Chromium, hexavalent | 5 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .WCCR6LCS50PPM_00037 | 12/03/17 | 06/05/17 | Di Water, Lot 20170605 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| ..WCCr6 K2Cr2O4_00009 | 04/30/19 | ERA, Lot 040416 | | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCCR6LCS5PPM_00099** | 11/23/17 | 10/23/17 | Di Water, Lot 20171023 | 50 mL | WCCR6LCS50PPM_00037 | 5 mL | Chromium, hexavalent | 5 mg/L |
| .WCCR6LCS50PPM_00037 | 12/03/17 | 06/05/17 | Di Water, Lot 20170605 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| ..WCCr6 K2Cr2O4_00009 | 04/30/19 | ERA, Lot 040416 | | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCDCA_00054** | 02/14/18 | 11/14/17 | Di Water, Lot 20171114 | 100 mL | WCKDCA_00003 | 0.065 g | Dichloroacetic acid(Surr) | 496.855 mg/L |
| .WCKDCA_00003 | 02/28/20 | Aldrich, Lot MKBR8264V | | | (Purchased Reagent) | | Dichloroacetic acid(Surr) | 0.764393 g/g |

# Method 8260B Low Level

## Volatile Organic Compounds (GC/MS) by Method 8260B Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-VRX C ID: 0.25(mm)

| Client Sample ID | Lab Sample ID | DBFM # | TOL # | BFB # |
|---|---|---|---|---|
| TRIP BLANK | 440-195909-1 | 93 | 105 | 102 |
| VMW-01D-20171107 | 440-195909-2 | 100 | 106 | 105 |
| VMW-01D-20171107-FD | 440-195909-3 | 96 | 105 | 104 |
| VMW-01I-20171107 | 440-195909-4 | 103 | 104 | 106 |
| VER-01D-20171107 | 440-195909-5 | 100 | 103 | 99 |
| VER-01D-20171107-EB | 440-195909-6 | 96 | 102 | 103 |
| | MB 440-442408/3 | 98 | 105 | 100 |
| | LCS 440-442408/4 | 99 | 102 | 101 |
| VMW-01D-20171107 MS | 440-195909-2 MS | 102 | 97 | 100 |
| VMW-01D-20171107 MSD | 440-195909-2 MSD | 100 | 94 | 98 |

| | QC LIMITS |
|---|---|
| DBFM = Dibromofluoromethane (Surr) | 76-132 |
| TOL = Toluene-d8 (Surr) | 80-128 |
| BFB = 4-Bromofluorobenzene (Surr) | 80-120 |

# Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: NFK19004.D

Lab ID: LCS 440-442408/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Acetone | 25.0 | 26.1 | 104 | 10-150 | |
| Benzene | 25.0 | 25.5 | 102 | 68-130 | |
| Bromobenzene | 25.0 | 23.9 | 96 | 70-130 | |
| Bromochloromethane | 25.0 | 24.1 | 96 | 70-130 | |
| Bromodichloromethane | 25.0 | 26.3 | 105 | 70-132 | |
| Bromoform | 25.0 | 25.0 | 100 | 60-148 | |
| Bromomethane | 25.0 | 26.6 | 107 | 64-139 | |
| 2-Butanone (MEK) | 25.0 | 25.0 | 100 | 44-150 | |
| Carbon tetrachloride | 25.0 | 26.8 | 107 | 60-150 | |
| Chlorobenzene | 25.0 | 24.9 | 100 | 70-130 | |
| Chloroethane | 25.0 | 25.4 | 102 | 64-135 | |
| Chloroform | 25.0 | 25.7 | 103 | 70-130 | |
| Chloromethane | 25.0 | 24.4 | 97 | 47-140 | |
| 2-Chlorotoluene | 25.0 | 25.3 | 101 | 70-130 | |
| 4-Chlorotoluene | 25.0 | 25.4 | 102 | 70-130 | |
| cis-1,2-Dichloroethene | 25.0 | 25.9 | 104 | 70-133 | |
| cis-1,3-Dichloropropene | 25.0 | 26.1 | 105 | 70-133 | |
| Dibromochloromethane | 25.0 | 26.5 | 106 | 69-145 | |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 28.5 | 114 | 52-140 | |
| 1,2-Dibromoethane (EDB) | 25.0 | 24.3 | 97 | 70-130 | |
| Dibromomethane | 25.0 | 25.4 | 101 | 70-130 | |
| 1,2-Dichlorobenzene | 25.0 | 24.9 | 100 | 70-130 | |
| 1,3-Dichlorobenzene | 25.0 | 24.8 | 99 | 70-130 | |
| 1,4-Dichlorobenzene | 25.0 | 25.4 | 101 | 70-130 | |
| Dichlorodifluoromethane | 25.0 | 24.3 | 97 | 29-150 | |
| 1,1-Dichloroethane | 25.0 | 26.0 | 104 | 64-130 | |
| 1,2-Dichloroethane | 25.0 | 25.6 | 103 | 57-138 | |
| 1,1-Dichloroethene | 25.0 | 24.2 | 97 | 70-130 | |
| 1,2-Dichloropropane | 25.0 | 28.2 | 113 | 67-130 | |
| 1,3-Dichloropropane | 25.0 | 25.2 | 101 | 70-130 | |
| 2,2-Dichloropropane | 25.0 | 28.1 | 112 | 68-141 | |
| 1,1-Dichloropropene | 25.0 | 28.1 | 112 | 70-130 | |
| Ethylbenzene | 25.0 | 25.0 | 100 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 26.4 | 106 | 60-136 | |
| Hexachlorobutadiene | 25.0 | 25.6 | 102 | 10-150 | |
| 2-Hexanone | 25.0 | 27.9 | 111 | 10-150 | |
| Isopropylbenzene | 25.0 | 24.7 | 99 | 70-136 | |
| Isopropyl Ether (DIPE) | 25.0 | 26.6 | 107 | 58-139 | |
| Methylene Chloride | 25.0 | 24.3 | 97 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 29.0 | 116 | 59-149 | |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 26.2 | 105 | 63-131 | |
| m,p-Xylene | 25.0 | 25.4 | 102 | 70-130 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: NFK19004.D

Lab ID: LCS 440-442408/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Naphthalene | 25.0 | 23.5 | 94 | 60-140 | |
| n-Butylbenzene | 25.0 | 25.8 | 103 | 65-150 | |
| N-Propylbenzene | 25.0 | 26.0 | 104 | 67-139 | |
| o-Xylene | 25.0 | 25.0 | 100 | 70-130 | |
| p-Isopropyltoluene | 25.0 | 24.8 | 99 | 70-132 | |
| sec-Butylbenzene | 25.0 | 25.0 | 100 | 70-138 | |
| Styrene | 25.0 | 24.6 | 98 | 70-134 | |
| Tert-amyl-methyl ether (TAME) | 25.0 | 25.5 | 102 | 57-139 | |
| tert-Butyl alcohol (TBA) | 250 | 273 | 109 | 70-130 | |
| tert-Butylbenzene | 25.0 | 25.4 | 101 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 25.0 | 25.1 | 100 | 60-141 | |
| 1,1,2,2-Tetrachloroethane | 25.0 | 26.7 | 107 | 63-130 | |
| Tetrachloroethene | 25.0 | 25.9 | 104 | 70-130 | |
| Toluene | 25.0 | 25.1 | 100 | 70-130 | |
| trans-1,2-Dichloroethene | 25.0 | 26.7 | 107 | 70-130 | |
| trans-1,3-Dichloropropene | 25.0 | 26.3 | 105 | 70-132 | |
| 1,2,3-Trichlorobenzene | 25.0 | 23.8 | 95 | 60-140 | |
| 1,2,4-Trichlorobenzene | 25.0 | 24.5 | 98 | 60-140 | |
| 1,1,1-Trichloroethane | 25.0 | 26.0 | 104 | 70-130 | |
| 1,1,2-Trichloroethane | 25.0 | 26.3 | 105 | 70-130 | |
| Trichloroethene | 25.0 | 24.5 | 98 | 70-130 | |
| Trichlorofluoromethane | 25.0 | 26.4 | 106 | 60-150 | |
| 1,2,3-Trichloropropane | 25.0 | 26.9 | 107 | 63-130 | |
| 1,2,4-Trimethylbenzene | 25.0 | 25.5 | 102 | 70-135 | |
| 1,3,5-Trimethylbenzene | 25.0 | 25.6 | 102 | 70-136 | |
| Vinyl chloride | 25.0 | 25.1 | 101 | 59-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: NFK19006.D

Lab ID: 440-195909-2 MS Client ID: VMW-01D-20171107 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Acetone | 25.0 | ND | 24.0 | 96 | 10-150 | |
| Benzene | 25.0 | ND | 25.2 | 101 | 66-130 | |
| Bromobenzene | 25.0 | ND | 23.9 | 96 | 70-130 | |
| Bromochloromethane | 25.0 | ND | 24.8 | 99 | 70-130 | |
| Bromodichloromethane | 25.0 | ND | 26.5 | 106 | 70-138 | |
| Bromoform | 25.0 | ND | 22.3 | 89 | 59-150 | |
| Bromomethane | 25.0 | ND | 25.6 | 102 | 62-131 | |
| 2-Butanone (MEK) | 25.0 | ND | 25.0 | 100 | 48-140 | |
| Carbon tetrachloride | 25.0 | ND | 26.3 | 105 | 60-150 | |
| Chlorobenzene | 25.0 | ND | 24.0 | 96 | 70-130 | |
| Chloroethane | 25.0 | ND | 26.4 | 106 | 68-130 | |
| Chloroform | 25.0 | 2.1 | 27.8 | 103 | 70-130 | |
| Chloromethane | 25.0 | ND | 23.7 | 95 | 39-144 | |
| 2-Chlorotoluene | 25.0 | ND | 25.1 | 100 | 70-130 | |
| 4-Chlorotoluene | 25.0 | ND | 24.8 | 99 | 70-130 | |
| cis-1,2-Dichloroethene | 25.0 | ND | 25.6 | 102 | 70-130 | |
| cis-1,3-Dichloropropene | 25.0 | ND | 25.3 | 101 | 70-133 | |
| Dibromochloromethane | 25.0 | ND | 24.6 | 99 | 70-148 | |
| 1,2-Dibromo-3-Chloropropane | 25.0 | ND | 27.6 | 110 | 48-140 | |
| 1,2-Dibromoethane (EDB) | 25.0 | ND | 24.1 | 96 | 70-131 | |
| Dibromomethane | 25.0 | ND | 24.5 | 98 | 70-130 | |
| 1,2-Dichlorobenzene | 25.0 | ND | 24.6 | 98 | 70-130 | |
| 1,3-Dichlorobenzene | 25.0 | ND | 24.4 | 98 | 70-130 | |
| 1,4-Dichlorobenzene | 25.0 | ND | 24.0 | 96 | 70-130 | |
| Dichlorodifluoromethane | 25.0 | ND | 22.3 | 89 | 25-142 | |
| 1,1-Dichloroethane | 25.0 | ND | 25.0 | 100 | 65-130 | |
| 1,2-Dichloroethane | 25.0 | ND | 24.9 | 100 | 56-146 | |
| 1,1-Dichloroethene | 25.0 | ND | 22.3 | 89 | 70-130 | |
| 1,2-Dichloropropane | 25.0 | ND | 27.6 | 110 | 69-130 | |
| 1,3-Dichloropropane | 25.0 | ND | 23.7 | 95 | 70-130 | |
| 2,2-Dichloropropane | 25.0 | ND | 28.8 | 115 | 69-138 | |
| 1,1-Dichloropropene | 25.0 | ND | 27.0 | 108 | 64-130 | |
| Ethylbenzene | 25.0 | ND | 24.0 | 96 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 25.0 | ND | 25.8 | 103 | 70-130 | |
| Hexachlorobutadiene | 25.0 | ND | 25.3 | 101 | 10-150 | |
| 2-Hexanone | 25.0 | ND | 26.4 | 106 | 10-150 | |
| Isopropylbenzene | 25.0 | ND | 23.8 | 95 | 70-132 | |
| Isopropyl Ether (DIPE) | 25.0 | ND | 26.0 | 104 | 64-138 | |
| Methylene Chloride | 25.0 | ND | 22.8 | 91 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | ND | 26.8 | 107 | 52-150 | |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | ND | 25.6 | 102 | 70-130 | |
| m,p-Xylene | 25.0 | ND | 23.4 | 94 | 70-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: NFK19006.D

Lab ID: 440-195909-2 MS Client ID: VMW-01D-20171107 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Naphthalene | 25.0 | ND | 23.3 | 93 | 60-140 | |
| n-Butylbenzene | 25.0 | ND | 25.4 | 102 | 61-149 | |
| N-Propylbenzene | 25.0 | ND | 25.8 | 103 | 66-135 | |
| o-Xylene | 25.0 | ND | 23.9 | 96 | 70-133 | |
| p-Isopropyltoluene | 25.0 | ND | 24.4 | 98 | 70-130 | |
| sec-Butylbenzene | 25.0 | ND | 24.6 | 98 | 67-134 | |
| Styrene | 25.0 | ND | 21.8 | 87 | 29-150 | |
| Tert-amyl-methyl ether (TAME) | 25.0 | ND | 24.2 | 97 | 68-133 | |
| tert-Butyl alcohol (TBA) | 250 | ND | 240 | 96 | 70-130 | |
| tert-Butylbenzene | 25.0 | ND | 24.4 | 98 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 25.0 | ND | 24.4 | 98 | 60-149 | |
| 1,1,2,2-Tetrachloroethane | 25.0 | ND | 26.0 | 104 | 63-130 | |
| Tetrachloroethene | 25.0 | ND | 24.9 | 100 | 70-137 | |
| Toluene | 25.0 | ND | 24.0 | 96 | 70-130 | |
| trans-1,2-Dichloroethene | 25.0 | ND | 25.8 | 103 | 70-130 | |
| trans-1,3-Dichloropropene | 25.0 | ND | 25.1 | 100 | 70-138 | |
| 1,2,3-Trichlorobenzene | 25.0 | ND | 24.3 | 97 | 60-140 | |
| 1,2,4-Trichlorobenzene | 25.0 | ND | 25.5 | 102 | 60-140 | |
| 1,1,1-Trichloroethane | 25.0 | ND | 26.1 | 104 | 70-130 | |
| 1,1,2-Trichloroethane | 25.0 | ND | 24.7 | 99 | 70-130 | |
| Trichloroethene | 25.0 | ND | 24.2 | 97 | 70-130 | |
| Trichlorofluoromethane | 25.0 | ND | 25.3 | 101 | 60-150 | |
| 1,2,3-Trichloropropane | 25.0 | ND | 25.8 | 103 | 60-130 | |
| 1,2,4-Trimethylbenzene | 25.0 | ND | 24.3 | 97 | 70-130 | |
| 1,3,5-Trimethylbenzene | 25.0 | ND | 24.5 | 98 | 70-130 | |
| Vinyl chloride | 25.0 | ND | 25.5 | 102 | 50-137 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: NFK19007.D

Lab ID: 440-195909-2 MSD Client ID: VMW-01D-20171107 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Acetone | 25.0 | 25.4 | 102 | 6 | 35 | 10-150 | |
| Benzene | 25.0 | 25.1 | 101 | 0 | 20 | 66-130 | |
| Bromobenzene | 25.0 | 22.2 | 89 | 8 | 20 | 70-130 | |
| Bromochloromethane | 25.0 | 23.6 | 94 | 5 | 25 | 70-130 | |
| Bromodichloromethane | 25.0 | 25.8 | 103 | 3 | 20 | 70-138 | |
| Bromoform | 25.0 | 22.0 | 88 | 1 | 25 | 59-150 | |
| Bromomethane | 25.0 | 24.0 | 96 | 6 | 25 | 62-131 | |
| 2-Butanone (MEK) | 25.0 | 23.9 | 95 | 5 | 40 | 48-140 | |
| Carbon tetrachloride | 25.0 | 25.5 | 102 | 3 | 25 | 60-150 | |
| Chlorobenzene | 25.0 | 22.7 | 91 | 6 | 20 | 70-130 | |
| Chloroethane | 25.0 | 26.0 | 104 | 2 | 25 | 68-130 | |
| Chloroform | 25.0 | 26.8 | 99 | 4 | 20 | 70-130 | |
| Chloromethane | 25.0 | 22.8 | 91 | 4 | 25 | 39-144 | |
| 2-Chlorotoluene | 25.0 | 21.7 | 87 | 15 | 20 | 70-130 | |
| 4-Chlorotoluene | 25.0 | 22.1 | 89 | 11 | 20 | 70-130 | |
| cis-1,2-Dichloroethene | 25.0 | 24.6 | 98 | 4 | 20 | 70-130 | |
| cis-1,3-Dichloropropene | 25.0 | 24.3 | 97 | 4 | 20 | 70-133 | |
| Dibromochloromethane | 25.0 | 24.1 | 97 | 2 | 25 | 70-148 | |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 23.7 | 95 | 15 | 30 | 48-140 | |
| 1,2-Dibromoethane (EDB) | 25.0 | 22.2 | 89 | 8 | 25 | 70-131 | |
| Dibromomethane | 25.0 | 23.8 | 95 | 3 | 25 | 70-130 | |
| 1,2-Dichlorobenzene | 25.0 | 21.3 | 85 | 15 | 20 | 70-130 | |
| 1,3-Dichlorobenzene | 25.0 | 21.6 | 87 | 12 | 20 | 70-130 | |
| 1,4-Dichlorobenzene | 25.0 | 21.5 | 86 | 11 | 20 | 70-130 | |
| Dichlorodifluoromethane | 25.0 | 21.1 | 85 | 6 | 30 | 25-142 | |
| 1,1-Dichloroethane | 25.0 | 25.3 | 101 | 1 | 20 | 65-130 | |
| 1,2-Dichloroethane | 25.0 | 26.0 | 104 | 4 | 20 | 56-146 | |
| 1,1-Dichloroethene | 25.0 | 22.6 | 91 | 2 | 20 | 70-130 | |
| 1,2-Dichloropropane | 25.0 | 26.9 | 108 | 2 | 20 | 69-130 | |
| 1,3-Dichloropropane | 25.0 | 22.4 | 90 | 5 | 25 | 70-130 | |
| 2,2-Dichloropropane | 25.0 | 26.6 | 106 | 8 | 25 | 69-138 | |
| 1,1-Dichloropropene | 25.0 | 25.6 | 102 | 5 | 20 | 64-130 | |
| Ethylbenzene | 25.0 | 22.1 | 88 | 8 | 20 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 26.1 | 104 | 1 | 25 | 70-130 | |
| Hexachlorobutadiene | 25.0 | 21.3 | 85 | 17 | 20 | 10-150 | |
| 2-Hexanone | 25.0 | 24.2 | 97 | 9 | 35 | 10-150 | |
| Isopropylbenzene | 25.0 | 22.2 | 89 | 7 | 20 | 70-132 | |
| Isopropyl Ether (DIPE) | 25.0 | 26.4 | 105 | 1 | 25 | 64-138 | |
| Methylene Chloride | 25.0 | 22.9 | 91 | 0 | 20 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 24.4 | 98 | 9 | 35 | 52-150 | |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 26.1 | 104 | 2 | 25 | 70-130 | |
| m,p-Xylene | 25.0 | 22.0 | 88 | 6 | 25 | 70-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: NFK19007.D

Lab ID: 440-195909-2 MSD Client ID: VMW-01D-20171107 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Naphthalene | 25.0 | 20.3 | 81 | 14 | 30 | 60-140 | |
| n-Butylbenzene | 25.0 | 21.8 | 87 | 15 | 20 | 61-149 | |
| N-Propylbenzene | 25.0 | 22.4 | 90 | 14 | 20 | 66-135 | |
| o-Xylene | 25.0 | 22.3 | 89 | 7 | 20 | 70-133 | |
| p-Isopropyltoluene | 25.0 | 21.5 | 86 | 13 | 20 | 70-130 | |
| sec-Butylbenzene | 25.0 | 21.2 | 85 | 15 | 20 | 67-134 | |
| Styrene | 25.0 | 19.8 | 79 | 10 | 35 | 29-150 | |
| Tert-amyl-methyl ether (TAME) | 25.0 | 24.7 | 99 | 2 | 30 | 68-133 | |
| tert-Butyl alcohol (TBA) | 250 | 221 | 89 | 8 | 25 | 70-130 | |
| tert-Butylbenzene | 25.0 | 21.8 | 87 | 11 | 20 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 25.0 | 23.3 | 93 | 5 | 20 | 60-149 | |
| 1,1,2,2-Tetrachloroethane | 25.0 | 23.1 | 92 | 12 | 30 | 63-130 | |
| Tetrachloroethene | 25.0 | 23.1 | 92 | 7 | 20 | 70-137 | |
| Toluene | 25.0 | 22.4 | 90 | 7 | 20 | 70-130 | |
| trans-1,2-Dichloroethene | 25.0 | 25.6 | 103 | 1 | 20 | 70-130 | |
| trans-1,3-Dichloropropene | 25.0 | 24.3 | 97 | 3 | 25 | 70-138 | |
| 1,2,3-Trichlorobenzene | 25.0 | 20.7 | 83 | 16 | 20 | 60-140 | |
| 1,2,4-Trichlorobenzene | 25.0 | 21.8 | 87 | 15 | 20 | 60-140 | |
| 1,1,1-Trichloroethane | 25.0 | 25.2 | 101 | 3 | 20 | 70-130 | |
| 1,1,2-Trichloroethane | 25.0 | 24.3 | 97 | 2 | 25 | 70-130 | |
| Trichloroethene | 25.0 | 23.9 | 96 | 1 | 20 | 70-130 | |
| Trichlorofluoromethane | 25.0 | 24.5 | 98 | 3 | 25 | 60-150 | |
| 1,2,3-Trichloropropane | 25.0 | 22.0 | 88 | 16 | 30 | 60-130 | |
| 1,2,4-Trimethylbenzene | 25.0 | 21.4 | 86 | 12 | 25 | 70-130 | |
| 1,3,5-Trimethylbenzene | 25.0 | 21.7 | 87 | 12 | 20 | 70-130 | |
| Vinyl chloride | 25.0 | 23.5 | 94 | 8 | 30 | 50-137 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Lab File ID: NFK19003.D  Lab Sample ID: MB 440-442408/3

Matrix: Water  Heated Purge:(Y/N) Y

Instrument ID: GCMS31  Date Analyzed: 11/19/2017 10:05

GC Column: DB-VRX C  ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 440-442408/4 | NFK19004.D | 11/19/2017 10:33 |
| VMW-01D-20171107 | 440-195909-2 | NFK19005.D | 11/19/2017 11:21 |
| VMW-01D-20171107 MS | 440-195909-2 MS | NFK19006.D | 11/19/2017 11:49 |
| VMW-01D-20171107 MSD | 440-195909-2 MSD | NFK19007.D | 11/19/2017 12:18 |
| VMW-01D-20171107-FD | 440-195909-3 | NFK19008.D | 11/19/2017 12:46 |
| TRIP BLANK | 440-195909-1 | NFK19009.D | 11/19/2017 13:14 |
| VMW-01I-20171107 | 440-195909-4 | NFK19010.D | 11/19/2017 13:42 |
| VER-01D-20171107 | 440-195909-5 | NFK19011.D | 11/19/2017 14:10 |
| VER-01D-20171107-EB | 440-195909-6 | NFK19012.D | 11/19/2017 14:38 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab File ID: NFK0301.D BFB Injection Date: 11/03/2017

Instrument ID: GCMS31 BFB Injection Time: 14:24

Analysis Batch No.: 439348

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 19.0 | |
| 75 | 30.0 - 60.0 % of mass 95 | 50.9 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 6.8 | |
| 173 | Less than 2.0 % of mass 174 | 0.0 | (0.0) 1 |
| 174 | 50.0 - 120.00 % of mass 95 | 90.2 | |
| 175 | 5.0 - 9.0 % of mass 174 | 6.9 | (7.6) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 85.9 | (95.3) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 6.2 | (7.2) 2 |

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | STD02 440-439348/4 | NFK0304.D | 11/03/2017 | 15:52 |
| | STD04 440-439348/5 | NFK0305.D | 11/03/2017 | 16:20 |
| | STD05 440-439348/6 | NFK0306.D | 11/03/2017 | 16:48 |
| | STD1 440-439348/7 | NFK0307.D | 11/03/2017 | 17:16 |
| | STD2 440-439348/8 | NFK0308.D | 11/03/2017 | 17:44 |
| | STD5 440-439348/9 | NFK0309.D | 11/03/2017 | 18:12 |
| | STD10 440-439348/10 | NFK0310.D | 11/03/2017 | 18:40 |
| | ICIS 440-439348/11 | NFK0311.D | 11/03/2017 | 19:08 |
| | STD50 440-439348/12 | NFK0312.D | 11/03/2017 | 19:36 |
| | STD100 440-439348/13 | NFK0313.D | 11/03/2017 | 20:05 |
| | STD200 440-439348/14 | NFK0314.D | 11/03/2017 | 20:33 |
| | STD300 440-439348/15 | NFK0315.D | 11/03/2017 | 21:01 |
| | ICV 440-439348/18 | NFK0318.D | 11/03/2017 | 22:25 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab File ID: NFK19001.D BFB Injection Date: 11/19/2017

Instrument ID: GCMS31 BFB Injection Time: 09:02

Analysis Batch No.: 442408

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 21.3 | |
| 75 | 30.0 - 60.0 % of mass 95 | 53.2 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 7.1 | |
| 173 | Less than 2.0 % of mass 174 | 0.0 | (0.0) 1 |
| 174 | 50.0 - 120.00 % of mass 95 | 94.8 | |
| 175 | 5.0 - 9.0 % of mass 174 | 7.1 | (7.4) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 90.8 | (95.8) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 5.7 | (6.3) 2 |

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | CCVIS 440-442408/2 | NFK19002.D | 11/19/2017 | 09:37 |
| | MB 440-442408/3 | NFK19003.D | 11/19/2017 | 10:05 |
| | LCS 440-442408/4 | NFK19004.D | 11/19/2017 | 10:33 |
| VMW-01D-20171107 | 440-195909-2 | NFK19005.D | 11/19/2017 | 11:21 |
| VMW-01D-20171107 MS | 440-195909-2 MS | NFK19006.D | 11/19/2017 | 11:49 |
| VMW-01D-20171107 MSD | 440-195909-2 MSD | NFK19007.D | 11/19/2017 | 12:18 |
| VMW-01D-20171107-FD | 440-195909-3 | NFK19008.D | 11/19/2017 | 12:46 |
| TRIP BLANK | 440-195909-1 | NFK19009.D | 11/19/2017 | 13:14 |
| VMW-01I-20171107 | 440-195909-4 | NFK19010.D | 11/19/2017 | 13:42 |
| VER-01D-20171107 | 440-195909-5 | NFK19011.D | 11/19/2017 | 14:10 |
| VER-01D-20171107-EB | 440-195909-6 | NFK19012.D | 11/19/2017 | 14:38 |

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Sample No.: ICIS 440-439348/11  Date Analyzed: 11/03/2017 19:08

Instrument ID: GCMS31  GC Column: DB-VRX C  ID: 0.25(mm)

Lab File ID (Standard): NFK0311.D  Heated Purge: (Y/N) Y

Calibration ID: 17891

| | | TBAd9 | | FB | | CBNZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 203009 | 4.99 | 628160 | 7.87 | 555422 | 10.62 |
| UPPER LIMIT | | 406018 | 5.29 | 1256320 | 8.17 | 1110844 | 10.92 |
| LOWER LIMIT | | 101505 | 4.69 | 314080 | 7.57 | 277711 | 10.32 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 440-439348/18 | | 187660 | 4.99 | 605609 | 7.87 | 534302 | 10.62 |
| CCVIS 440-442408/2 | | 186502 | 4.98 | 504975 | 7.87 | 438357 | 10.62 |

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Sample No.: ICIS 440-439348/11 Date Analyzed: 11/03/2017 19:08

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm)

Lab File ID (Standard): NFK0311.D Heated Purge: (Y/N) Y

Calibration ID: 17891

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 292028 | 13.07 | | | | |
| UPPER LIMIT | | 584056 | 13.37 | | | | |
| LOWER LIMIT | | 146014 | 12.77 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 440-439348/18 | | 278906 | 13.07 | | | | |
| CCVIS 440-442408/2 | | 236557 | 13.07 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Sample No.: CCVIS 440-442408/2 Date Analyzed: 11/19/2017 09:37

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm)

Lab File ID (Standard): NFK19002.D Heated Purge: (Y/N) Y

Calibration ID: 17891

| | | TBAd9 | | FB | | CBNZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 186502 | 4.98 | 504975 | 7.87 | 438357 | 10.62 |
| UPPER LIMIT | | 373004 | 5.28 | 1009950 | 8.17 | 876714 | 10.92 |
| LOWER LIMIT | | 93251 | 4.68 | 252488 | 7.57 | 219179 | 10.32 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 440-442408/3 | | 163766 | 4.99 | 485552 | 7.87 | 404871 | 10.62 |
| LCS 440-442408/4 | | 157593 | 4.99 | 490332 | 7.87 | 418258 | 10.62 |
| 440-195909-2 | VMW-01D-20171107 | 130235 | 4.98 | 493357 | 7.87 | 416343 | 10.62 |
| 440-195909-2 MS | VMW-01D-20171107 MS | 156464 | 4.99 | 465433 | 7.87 | 409837 | 10.62 |
| 440-195909-2 MSD | VMW-01D-20171107 MSD | 182889 | 4.99 | 497631 | 7.87 | 462699 | 10.62 |
| 440-195909-3 | VMW-01D-20171107-FD | 143827 | 4.99 | 501667 | 7.87 | 412464 | 10.62 |
| 440-195909-1 | TRIP BLANK | 160009 | 4.99 | 464895 | 7.87 | 377990 | 10.62 |
| 440-195909-4 | VMW-01I-20171107 | 175696 | 4.99 | 455134 | 7.87 | 368929 | 10.62 |
| 440-195909-5 | VER-01D-20171107 | 157886 | 4.99 | 450383 | 7.87 | 375033 | 10.62 |
| 440-195909-6 | VER-01D-20171107-EB | 129764 | 4.99 | 474774 | 7.87 | 393035 | 10.62 |

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Sample No.: CCVIS 440-442408/2 Date Analyzed: 11/19/2017 09:37

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm)

Lab File ID (Standard): NFK19002.D Heated Purge: (Y/N) Y

Calibration ID: 17891

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 236557 | 13.07 | | | | |
| UPPER LIMIT | | 473114 | 13.37 | | | | |
| LOWER LIMIT | | 118279 | 12.77 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 440-442408/3 | | 219977 | 13.07 | | | | |
| LCS 440-442408/4 | | 223268 | 13.07 | | | | |
| 440-195909-2 | VMW-01D-20171107 | 222334 | 13.07 | | | | |
| 440-195909-2 MS | VMW-01D-20171107 MS | 213410 | 13.07 | | | | |
| 440-195909-2 MSD | VMW-01D-20171107 MSD | 260270 | 13.07 | | | | |
| 440-195909-3 | VMW-01D-20171107-FD | 219232 | 13.07 | | | | |
| 440-195909-1 | TRIP BLANK | 201107 | 13.07 | | | | |
| 440-195909-4 | VMW-01I-20171107 | 196973 | 13.07 | | | | |
| 440-195909-5 | VER-01D-20171107 | 201348 | 13.07 | | | | |
| 440-195909-6 | VER-01D-20171107-EB | 206360 | 13.07 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: TRIP BLANK | Lab Sample ID: 440-195909-1

Matrix: Water | Lab File ID: NFK19009.D

Analysis Method: 8260B | Date Collected: 11/07/2017 07:00

Sample wt/vol: 10(mL) | Date Analyzed: 11/19/2017 13:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442408 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | ND | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: TRIP BLANK | Lab Sample ID: 440-195909-1

Matrix: Water | Lab File ID: NFK19009.D

Analysis Method: 8260B | Date Collected: 11/07/2017 07:00

Sample wt/vol: 10(mL) | Date Analyzed: 11/19/2017 13:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442408 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Client Sample ID: TRIP BLANK Lab Sample ID: 440-195909-1

Matrix: Water Lab File ID: NFK19009.D

Analysis Method: 8260B Date Collected: 11/07/2017 07:00

Sample wt/vol: 10(mL) Date Analyzed: 11/19/2017 13:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 442408 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 102 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 93 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 105 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01D-20171107 | Lab Sample ID: 440-195909-2

Matrix: Water | Lab File ID: NFK19005.D

Analysis Method: 8260B | Date Collected: 11/07/2017 09:35

Sample wt/vol: 10(mL) | Date Analyzed: 11/19/2017 11:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442408 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 2.1 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01D-20171107 | Lab Sample ID: 440-195909-2

Matrix: Water | Lab File ID: NFK19005.D

Analysis Method: 8260B | Date Collected: 11/07/2017 09:35

Sample wt/vol: 10(mL) | Date Analyzed: 11/19/2017 11:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442408 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01D-20171107 Lab Sample ID: 440-195909-2

Matrix: Water Lab File ID: NFK19005.D

Analysis Method: 8260B Date Collected: 11/07/2017 09:35

Sample wt/vol: 10(mL) Date Analyzed: 11/19/2017 11:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 442408 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 105 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 106 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01D-20171107-FD | Lab Sample ID: 440-195909-3

Matrix: Water | Lab File ID: NFK19008.D

Analysis Method: 8260B | Date Collected: 11/07/2017 09:35

Sample wt/vol: 10(mL) | Date Analyzed: 11/19/2017 12:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442408 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 2.2 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01D-20171107-FD | Lab Sample ID: 440-195909-3

Matrix: Water | Lab File ID: NFK19008.D

Analysis Method: 8260B | Date Collected: 11/07/2017 09:35

Sample wt/vol: 10(mL) | Date Analyzed: 11/19/2017 12:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442408 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01D-20171107-FD Lab Sample ID: 440-195909-3

Matrix: Water Lab File ID: NFK19008.D

Analysis Method: 8260B Date Collected: 11/07/2017 09:35

Sample wt/vol: 10(mL) Date Analyzed: 11/19/2017 12:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 442408 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 104 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 96 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 105 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01I-20171107 | Lab Sample ID: 440-195909-4

Matrix: Water | Lab File ID: NFK19010.D

Analysis Method: 8260B | Date Collected: 11/07/2017 11:40

Sample wt/vol: 10(mL) | Date Analyzed: 11/19/2017 13:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442408 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 0.61 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 1.7 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 280 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 0.31 | J | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 3.0 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 0.62 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01I-20171107 | Lab Sample ID: 440-195909-4

Matrix: Water | Lab File ID: NFK19010.D

Analysis Method: 8260B | Date Collected: 11/07/2017 11:40

Sample wt/vol: 10(mL) | Date Analyzed: 11/19/2017 13:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442408 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 0.43 | J | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01I-20171107 Lab Sample ID: 440-195909-4

Matrix: Water Lab File ID: NFK19010.D

Analysis Method: 8260B Date Collected: 11/07/2017 11:40

Sample wt/vol: 10(mL) Date Analyzed: 11/19/2017 13:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 442408 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 106 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 103 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 104 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VER-01D-20171107 | Lab Sample ID: 440-195909-5

Matrix: Water | Lab File ID: NFK19011.D

Analysis Method: 8260B | Date Collected: 11/07/2017 12:50

Sample wt/vol: 10(mL) | Date Analyzed: 11/19/2017 14:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442408 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 29 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VER-01D-20171107 | Lab Sample ID: 440-195909-5

Matrix: Water | Lab File ID: NFK19011.D

Analysis Method: 8260B | Date Collected: 11/07/2017 12:50

Sample wt/vol: 10(mL) | Date Analyzed: 11/19/2017 14:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442408 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Client Sample ID: VER-01D-20171107 Lab Sample ID: 440-195909-5

Matrix: Water Lab File ID: NFK19011.D

Analysis Method: 8260B Date Collected: 11/07/2017 12:50

Sample wt/vol: 10(mL) Date Analyzed: 11/19/2017 14:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 442408 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 99 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 103 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VER-01D-20171107-EB | Lab Sample ID: 440-195909-6

Matrix: Water | Lab File ID: NFK19012.D

Analysis Method: 8260B | Date Collected: 11/07/2017 13:20

Sample wt/vol: 10(mL) | Date Analyzed: 11/19/2017 14:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442408 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 17 | J | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | ND | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VER-01D-20171107-EB | Lab Sample ID: 440-195909-6

Matrix: Water | Lab File ID: NFK19012.D

Analysis Method: 8260B | Date Collected: 11/07/2017 13:20

Sample wt/vol: 10(mL) | Date Analyzed: 11/19/2017 14:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442408 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 9.8 | J ID | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Client Sample ID: VER-01D-20171107-EB Lab Sample ID: 440-195909-6

Matrix: Water Lab File ID: NFK19012.D

Analysis Method: 8260B Date Collected: 11/07/2017 13:20

Sample wt/vol: 10(mL) Date Analyzed: 11/19/2017 14:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 442408 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 103 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 96 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 102 | | 80-128 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD02 440-439348/4 | NFK0304.D |
| Level 2 | STD04 440-439348/5 | NFK0305.D |
| Level 3 | STD05 440-439348/6 | NFK0306.D |
| Level 4 | STD1 440-439348/7 | NFK0307.D |
| Level 5 | STD2 440-439348/8 | NFK0308.D |
| Level 6 | STD5 440-439348/9 | NFK0309.D |
| Level 7 | STD10 440-439348/10 | NFK0310.D |
| Level 8 | ICIS 440-439348/11 | NFK0311.D |
| Level 9 | STD50 440-439348/12 | NFK0312.D |
| Level 10 | STD100 440-439348/13 | NFK0313.D |
| Level 11 | STD200 440-439348/14 | NFK0314.D |
| Level 12 | STD300 440-439348/15 | NFK0315.D |

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 LVL 11 | LVL 2 LVL 7 LVL 12 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dichlorodifluoromethane | +++++ 0.4099 0.3501 | +++++ 0.3979 0.3301 | 0.3351 0.3898 | 0.3589 0.3407 | 0.3666 0.3504 | Ave | | 0.3629 | | | | 7.6 | | 15.0 | | | |
| Chloromethane | +++++ 0.2925 0.2941 | +++++ 0.3042 0.2778 | 0.3738 0.3049 | 0.3090 0.2853 | 0.3094 0.2905 | Ave | | 0.3042 | | | 0.1000 | 8.8 | | 15.0 | | | |
| Vinyl chloride | +++++ 0.2810 0.2777 | +++++ 0.2908 0.2578 | 0.2452 0.2715 | 0.2958 0.2731 | 0.2989 0.2813 | Ave | | 0.2773 | | | | 6.0 | | 30.0 | | | |
| 1,3-Butadiene | +++++ 0.2354 0.2424 | +++++ 0.2594 0.2285 | +++++ 0.2277 | 0.2675 0.2356 | 0.2555 0.2423 | Ave | | 0.2438 | | | | 5.8 | | 15.0 | | | |
| Bromomethane | +++++ 0.1987 0.2261 | +++++ 0.2180 0.2125 | 0.2020 0.2239 | 0.2085 0.2102 | 0.2212 0.2264 | Ave | | 0.2148 | | | | 4.6 | | 15.0 | | | |
| Chloroethane | +++++ 0.1607 0.1691 | +++++ 0.1751 0.1573 | 0.2036 0.1730 | 0.1388 0.1634 | 0.1823 0.1715 | Ave | | 0.1695 | | | | 10.0 | | 15.0 | | | |
| Ethanol | +++++ 0.1045 0.1128 | +++++ 0.1139 0.1165 | +++++ 0.1161 | +++++ 0.1156 | 0.1303 0.1221 | Ave | | 0.1165 | | | | 6.4 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dichlorofluoromethane | +++++<br>0.4613<br>0.4908 | +++++<br>0.5195<br>0.4595 | 0.4458<br>0.4966 | 0.4833<br>0.4855 | 0.4797<br>0.4985 | Ave | | 0.4821 | | | | 4.5 | | 15.0 | | | |
| Acrolein | +++++<br>0.0179<br>0.0251 | +++++<br>0.0206<br>0.0261 | +++++<br>0.0239 | +++++<br>0.0238 | +++++<br>0.0271 | Ave | | 0.0235 | | | | 13.8 | | 15.0 | | | |
| Acetonitrile | +++++<br>0.0287<br>0.0274 | +++++<br>0.0309<br>0.0256 | +++++<br>0.0311 | +++++<br>0.0247 | 0.0344<br>0.0283 | Ave | | 0.0289 | | | | 11.0 | | 15.0 | | | |
| Trichlorofluoromethane | +++++<br>0.5539<br>0.5708 | +++++<br>0.5897<br>0.5334 | 0.5314<br>0.5798 | 0.5937<br>0.5542 | 0.6115<br>0.5803 | Ave | | 0.5699 | | | | 4.6 | | 15.0 | | | |
| Acetone | +++++<br>+++++<br>0.0698 | +++++<br>0.0502<br>0.0687 | +++++<br>0.0508 | +++++<br>0.0562 | +++++<br>0.0669 | Lin2 | -0.199 | 0.0663 | | | | | | | 0.9900 | | 0.9900 |
| Diethyl ether | +++++<br>0.1688<br>0.1776 | +++++<br>0.1794<br>0.1682 | +++++<br>0.1783 | 0.1498<br>0.1794 | 0.1649<br>0.1856 | Ave | | 0.1724 | | | | 6.3 | | 15.0 | | | |
| 1,1-Dichloroethene | +++++<br>0.2424<br>0.2381 | +++++<br>0.2624<br>0.2274 | 0.2668<br>0.2392 | 0.2619<br>0.2384 | 0.2330<br>0.2498 | Ave | | 0.2459 | | | | 5.5 | | 30.0 | | | |
| tert-Butyl alcohol (TBA) | +++++<br>1.0629<br>1.0772 | +++++<br>1.2034<br>1.0821 | +++++<br>1.1894 | 1.1776<br>1.1193 | 1.1815<br>1.1663 | Ave | | 1.1400 | | | | 4.8 | | 15.0 | | | |
| Iodomethane | +++++<br>0.5463<br>0.5339 | +++++<br>0.5350<br>0.5033 | +++++<br>0.5352 | 0.5595<br>0.5115 | 0.5217<br>0.5333 | Ave | | 0.5311 | | | | 3.2 | | 15.0 | | | |
| Acrylonitrile | +++++<br>0.0698<br>0.0703 | 0.0525<br>0.0806<br>0.0646 | 0.0532<br>0.0746 | 0.0657<br>0.0666 | 0.0820<br>0.0743 | Ave | | 0.0686 | | | | 14.0 | | 15.0 | | | |
| Methylene Chloride | +++++<br>0.3029<br>0.2599 | +++++<br>0.2643<br>0.2421 | 0.6055<br>0.2579 | 0.4828<br>0.2493 | 0.3703<br>0.2460 | Lin2 | 0.1878 | 0.2553 | | | | | | | 0.9930 | | 0.9900 |
| Methyl acetate | +++++<br>0.1487<br>0.1544 | +++++<br>0.1679<br>0.1423 | +++++<br>0.1674 | +++++<br>0.1451 | 0.1533<br>0.1627 | Ave | | 0.1552 | | | | 6.4 | | 15.0 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | +++++<br>0.3026<br>0.3197 | +++++<br>0.3270<br>0.3003 | 0.3236<br>0.3200 | 0.3595<br>0.3154 | 0.3072<br>0.3333 | Ave | | 0.3208 | | | | 5.4 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Allyl chloride | +++++<br>0.4048<br>0.4015 | +++++<br>0.4463<br>0.3764 | +++++<br>0.4416 | 0.5208<br>0.4231 | 0.4774<br>0.4285 | Ave | | 0.4356 | | | | 9.9 | | 15.0 | | | |
| Carbon disulfide | +++++<br>0.8099<br>0.8114 | +++++<br>0.8504<br>0.7581 | 0.8885<br>0.8461 | 0.8723<br>0.8155 | 0.8516<br>0.8514 | Ave | | 0.8355 | | | | 4.5 | | 15.0 | | | |
| trans-1,2-Dichloroethene | +++++<br>0.2374<br>0.2571 | 0.2548<br>0.2507<br>0.2420 | 0.2241<br>0.2739 | 0.2751<br>0.2567 | 0.2401<br>0.2641 | Ave | | 0.2524 | | | | 6.2 | | 15.0 | | | |
| Methyl-t-Butyl Ether (MTBE) | +++++<br>0.6608<br>0.6898 | +++++<br>0.7086<br>0.6441 | 0.6675<br>0.7249 | 0.6519<br>0.6349 | 0.6912<br>0.6809 | Ave | | 0.6755 | | | | 4.3 | | 15.0 | | | |
| 1,1-Dichloroethane | +++++<br>0.4459<br>0.4383 | +++++<br>0.4595<br>0.4121 | 0.4107<br>0.4587 | 0.4870<br>0.4419 | 0.4788<br>0.4595 | Ave | | 0.4492 | | | 0.1000 | 5.6 | | 15.0 | | | |
| Propionitrile | +++++<br>0.0253<br>0.0303 | +++++<br>0.0326<br>0.0282 | +++++<br>0.0314 | +++++<br>0.0267 | 0.0231<br>0.0307 | Ave | | 0.0285 | | | | 11.5 | | 15.0 | | | |
| Vinyl acetate | +++++<br>0.3108<br>0.4359 | +++++<br>0.3557<br>0.4102 | +++++<br>0.3747 | +++++<br>0.3952 | 0.2517<br>0.4430 | Lin2 | -0.353 | 0.4146 | | | | | | | 0.9970 | | 0.9900 |
| Hexane | +++++<br>0.4250<br>0.3812 | +++++<br>0.3997<br>+++++ | +++++<br>0.4025 | 0.5045<br>0.3805 | 0.4630<br>0.4021 | Ave | | 0.4198 | | | | 10.3 | | 15.0 | | | |
| 2-Butanone (MEK) | +++++<br>0.0054<br>0.0282 | +++++<br>0.0197<br>0.0281 | +++++<br>0.0206 | +++++<br>0.0227 | +++++<br>0.0269 | Lin2 | -0.106 | 0.0274 | | | | | | | 0.9920 | | 0.9900 |
| Isopropyl Ether (DIPE) | +++++<br>0.8014<br>0.7767 | +++++<br>0.8406<br>0.7130 | 0.7594<br>0.8644 | 0.7942<br>0.7819 | 0.7966<br>0.8002 | Ave | | 0.7928 | | | | 5.2 | | 15.0 | | | |
| cis-1,2-Dichloroethene | +++++<br>0.2963<br>0.2795 | 0.2131<br>0.2699<br>0.2683 | 0.3122<br>0.2903 | 0.2250<br>0.2714 | 0.3262<br>0.2852 | Ave | | 0.2761 | | | | 12.1 | | 15.0 | | | |
| Bromochloromethane | +++++<br>0.1271<br>0.1486 | +++++<br>0.1425<br>0.1427 | 0.1451<br>0.1452 | 0.1663<br>0.1388 | 0.1352<br>0.1490 | Ave | | 0.1441 | | | | 7.1 | | 15.0 | | | |
| Chloroform | +++++<br>0.4619<br>0.4812 | +++++<br>0.4855<br>0.4555 | 0.4472<br>0.4949 | 0.4851<br>0.4764 | 0.4689<br>0.4898 | Ave | | 0.4746 | | | | 3.3 | | 30.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Ethyl-t-butyl ether (ETBE) | +++++<br>0.7669<br>0.7609 | +++++<br>0.8391<br>0.6946 | 0.7372<br>0.8391 | 0.8392<br>0.7737 | 0.7886<br>0.7983 | Ave | | 0.7838 | | | | 6.1 | | 15.0 | | | |
| 2,2-Dichloropropane | +++++<br>0.3465<br>0.3137 | +++++<br>0.3752<br>+++++ | 0.3688<br>0.3522 | 0.4217<br>0.3408 | 0.3536<br>0.3393 | Ave | | 0.3569 | | | | 8.4 | | 15.0 | | | |
| Isobutyl alcohol | +++++<br>0.5183<br>0.5246 | +++++<br>0.6014<br>0.5265 | 0.5265<br>0.5746 | 0.4804<br>0.5829 | 0.5419<br>0.5705 | Ave | | 0.5448 | | | | 6.7 | | 15.0 | | | |
| Tetrahydrofuran | +++++<br>0.0740<br>0.0727 | +++++<br>0.0776<br>0.0700 | +++++<br>0.0754 | 0.0741<br>0.0623 | 0.0815<br>0.0736 | Ave | | 0.0735 | | | | 7.2 | | 15.0 | | | |
| 1,2-Dichloroethane | +++++<br>0.3620<br>0.3694 | 0.2941<br>0.3722<br>0.3443 | 0.3486<br>0.3810 | 0.4084<br>0.3481 | 0.3464<br>0.3734 | Ave | | 0.3589 | | | | 8.0 | | 15.0 | | | |
| 1,1,1-Trichloroethane | +++++<br>0.4383<br>0.4842 | +++++<br>0.4832<br>0.4578 | 0.5128<br>0.4815 | 0.4484<br>0.4631 | 0.4966<br>0.4962 | Ave | | 0.4762 | | | | 5.0 | | 15.0 | | | |
| 1,1-Dichloropropene | +++++<br>0.3405<br>0.3508 | +++++<br>0.3705<br>0.3279 | 0.3137<br>0.3632 | 0.3510<br>0.3541 | 0.3965<br>0.3688 | Ave | | 0.3537 | | | | 6.6 | | 15.0 | | | |
| Cyclohexane | +++++<br>0.4612<br>0.4409 | +++++<br>0.4773<br>0.4078 | +++++<br>0.4624 | 0.5423<br>0.4457 | 0.5131<br>0.4636 | Ave | | 0.4683 | | | | 8.5 | | 15.0 | | | |
| Carbon tetrachloride | +++++<br>0.4297<br>0.4846 | +++++<br>0.4646<br>0.4529 | 0.4079<br>0.4661 | 0.4959<br>0.4568 | 0.4336<br>0.4924 | Ave | | 0.4585 | | | | 6.2 | | 15.0 | | | |
| Benzene | +++++<br>0.9381<br>0.9153 | +++++<br>1.0061<br>0.8404 | 1.0437<br>0.9733 | 1.0084<br>0.9426 | 1.0476<br>0.9752 | Ave | | 0.9691 | | | | 6.5 | | 15.0 | | | |
| Tert-amyl-methyl ether (TAME) | +++++<br>0.7065<br>0.7215 | +++++<br>0.8021<br>0.6662 | 0.7239<br>0.7717 | 0.7203<br>0.6872 | 0.6992<br>0.7269 | Ave | | 0.7225 | | | | 5.5 | | 15.0 | | | |
| n-Heptane | +++++<br>0.4266<br>0.4088 | +++++<br>0.4631<br>0.3694 | +++++<br>0.4480 | 0.4916<br>0.4321 | 0.4685<br>0.4450 | Ave | | 0.4392 | | | | 8.2 | | 15.0 | | | |
| Dibromomethane | +++++<br>0.1764<br>0.1732 | +++++<br>0.1788<br>0.1658 | 0.1564<br>0.1828 | 0.1947<br>0.1642 | 0.1793<br>0.1736 | Ave | | 0.1745 | | | | 6.1 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| 1,2-Dichloropropane | +++++<br>0.2238<br>0.2349 | +++++<br>0.2372<br>0.2236 | 0.1948<br>0.2469 | 0.2139<br>0.2303 | 0.2035<br>0.2462 | Ave | | 0.2255 | | | | 7.7 | | 30.0 | | | |
| Trichloroethene | +++++<br>0.2935<br>0.3101 | +++++<br>0.3140<br>0.2920 | 0.2998<br>0.3186 | 0.3446<br>0.3002 | 0.3091<br>0.3172 | Ave | | 0.3099 | | | | 5.0 | | 15.0 | | | |
| Bromodichloromethane | +++++<br>0.3334<br>0.3771 | +++++<br>0.3539<br>0.3576 | 0.3084<br>0.3701 | 0.3411<br>0.3536 | 0.3628<br>0.3829 | Ave | | 0.3541 | | | | 6.2 | | 15.0 | | | |
| 2-Chloroethyl vinyl ether | +++++<br>0.1785<br>0.1595 | +++++<br>0.2023<br>0.1438 | +++++<br>0.1764 | +++++<br>0.1588 | 0.1712<br>0.1722 | Ave | | 0.1703 | | | | 10.1 | | 15.0 | | | |
| Methylcyclohexane | +++++<br>0.4418<br>0.4548 | +++++<br>0.4761<br>0.4249 | +++++<br>0.4585 | 0.5050<br>0.4461 | 0.4609<br>0.4704 | Ave | | 0.4598 | | | | 5.0 | | 15.0 | | | |
| cis-1,3-Dichloropropene | +++++<br>0.4189<br>0.4290 | +++++<br>0.5051<br>0.3750 | 0.5070<br>0.4689 | 0.4763<br>0.4366 | 0.4848<br>0.4719 | Ave | | 0.4574 | | | | 9.1 | | 15.0 | | | |
| 4-Methyl-2-pentanone (MIBK) | +++++<br>0.2326<br>0.2687 | +++++<br>0.2829<br>0.2385 | +++++<br>0.2590 | +++++<br>0.2465 | 0.2971<br>0.2876 | Ave | | 0.2641 | | | | 9.0 | | 15.0 | | | |
| trans-1,3-Dichloropropene | +++++<br>0.4007<br>0.4039 | +++++<br>0.4489<br>0.3510 | 0.4197<br>0.4354 | 0.4269<br>0.4086 | 0.4120<br>0.4319 | Ave | | 0.4139 | | | | 6.5 | | 15.0 | | | |
| 1,1,2-Trichloroethane | +++++<br>0.1950<br>0.1866 | +++++<br>0.2135<br>0.1686 | 0.2547<br>0.2103 | 0.2081<br>0.1808 | 0.2231<br>0.1999 | Ave | | 0.2041 | | | | 11.9 | | 15.0 | | | |
| Toluene | +++++<br>1.2598<br>1.0782 | +++++<br>1.3732<br>+++++ | 1.4174<br>1.2635 | 1.3950<br>1.1891 | 1.2915<br>1.2319 | Ave | | 1.2777 | | | | 8.4 | | 30.0 | | | |
| 1,3-Dichloropropane | +++++<br>0.3867<br>0.3619 | +++++<br>0.4436<br>+++++ | 0.5106<br>0.4109 | 0.4211<br>0.3719 | 0.4273<br>0.4034 | Ave | | 0.4153 | | | | 10.7 | | 15.0 | | | |
| Ethyl methacrylate | +++++<br>0.3183<br>0.3078 | +++++<br>0.3567<br>0.2721 | +++++<br>0.3475 | +++++<br>0.3090 | 0.3136<br>0.3379 | Ave | | 0.3204 | | | | 8.4 | | 15.0 | | | |
| 2-Hexanone | +++++<br>0.1813<br>0.2002 | +++++<br>0.2144<br>0.1788 | +++++<br>0.1888 | +++++<br>0.1837 | 0.1925<br>0.2072 | Ave | | 0.1934 | | | | 6.6 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dibromochloromethane | +++++<br>0.2947<br>0.3548 | +++++<br>0.3547<br>0.3167 | 0.3289<br>0.3518 | 0.2782<br>0.3256 | 0.2812<br>0.3579 | Ave | | 0.3244 | | | | 9.6 | | 15.0 | | | |
| 1,2-Dibromoethane (EDB) | +++++<br>0.2648<br>0.2699 | +++++<br>0.3017<br>0.2422 | 0.3289<br>0.2935 | 0.2840<br>0.2633 | 0.3056<br>0.2851 | Ave | | 0.2839 | | | | 8.8 | | 15.0 | | | |
| Tetrachloroethene | +++++<br>0.3083<br>0.2852 | +++++<br>0.3379<br>+++++ | 0.3068<br>0.3161 | 0.3154<br>0.2998 | 0.3401<br>0.3194 | Ave | | 0.3143 | | | | 5.5 | | 15.0 | | | |
| 1,1,1,2-Tetrachloroethane | +++++<br>0.3233<br>0.3339 | +++++<br>0.3458<br>0.3035 | 0.3666<br>0.3497 | 0.3820<br>0.3256 | 0.3611<br>0.3570 | Ave | | 0.3449 | | | | 6.8 | | 15.0 | | | |
| Chlorobenzene | +++++<br>0.8551<br>0.7907 | +++++<br>0.9495<br>+++++ | 0.9095<br>0.8782 | 0.9037<br>0.8268 | 0.9672<br>0.8711 | Ave | | 0.8835 | | | 0.3000 | 6.4 | | 15.0 | | | |
| Ethylbenzene | +++++<br>1.4697<br>1.3022 | +++++<br>1.6118<br>+++++ | 1.5778<br>1.4745 | 1.7067<br>1.3831 | 1.5553<br>1.4623 | Ave | | 1.5048 | | | | 8.1 | | 30.0 | | | |
| m,p-Xylene | +++++<br>0.5849<br>0.5594 | +++++<br>0.6481<br>0.4994 | 0.6464<br>0.5825 | 0.6740<br>0.5669 | 0.5973<br>0.6070 | Ave | | 0.5966 | | | | 8.5 | | 15.0 | | | |
| Bromoform | +++++<br>0.1881<br>0.2579 | +++++<br>0.2394<br>0.2442 | 0.1556<br>0.2286 | 0.1950<br>0.2202 | 0.1985<br>0.2596 | Lin2 | -0.043 | 0.2354 | | | 0.1000 | | | | 0.9920 | | 0.9900 |
| Styrene | +++++<br>0.9139<br>0.9065 | +++++<br>1.0177<br>0.7994 | 1.1100<br>0.9754 | 0.9111<br>0.9019 | 0.8620<br>0.9720 | Ave | | 0.9370 | | | | 9.2 | | 15.0 | | | |
| 1,1,2,2-Tetrachloroethane | +++++<br>0.5593<br>0.5541 | +++++<br>0.6138<br>0.5327 | 0.6054<br>0.6225 | 0.6529<br>0.5514 | 0.6623<br>0.5990 | Ave | | 0.5953 | | | 0.3000 | 7.5 | | 15.0 | | | |
| o-Xylene | +++++<br>0.5797<br>0.5412 | 0.5906<br>0.6531<br>+++++ | 0.6814<br>0.5897 | 0.5688<br>0.5435 | 0.5880<br>0.5846 | Ave | | 0.5920 | | | | 7.4 | | 15.0 | | | |
| 1,2,3-Trichloropropane | +++++<br>0.2067<br>0.1803 | +++++<br>0.1946<br>0.1771 | +++++<br>0.1925 | 0.1504<br>0.1705 | 0.1845<br>0.1914 | Ave | | 0.1831 | | | | 8.9 | | 15.0 | | | |
| trans-1,4-Dichloro-2-butene | +++++<br>0.1781<br>0.1845 | +++++<br>0.1965<br>0.1769 | +++++<br>0.2147 | +++++<br>0.1818 | 0.1620<br>0.1957 | Ave | | 0.1863 | | | | 8.5 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Isopropylbenzene | +++++<br>1.5487<br>1.4146 | +++++<br>1.7192<br>+++++ | 1.6779<br>1.5800 | 1.7766<br>1.4779 | 1.6439<br>1.5914 | Ave | | 1.6034 | | | | 7.2 | | 15.0 | | | |
| Bromobenzene | +++++<br>0.8333<br>0.7609 | +++++<br>0.7945<br>0.7451 | 0.8126<br>0.8136 | 0.7583<br>0.7615 | 0.7372<br>0.8001 | Ave | | 0.7817 | | | | 4.2 | | 15.0 | | | |
| N-Propylbenzene | +++++<br>3.2962<br>2.8924 | +++++<br>3.5151<br>+++++ | 3.4257<br>3.3798 | 3.7200<br>3.2439 | 3.5864<br>3.3280 | Ave | | 3.3764 | | | | 7.0 | | 15.0 | | | |
| 2-Chlorotoluene | +++++<br>2.0784<br>1.8383 | +++++<br>2.0712<br>1.6974 | 2.1262<br>2.0457 | 2.3384<br>1.9453 | 2.1863<br>1.9925 | Ave | | 2.0320 | | | | 8.8 | | 15.0 | | | |
| 4-Chlorotoluene | +++++<br>2.0913<br>1.8951 | +++++<br>2.2056<br>1.7552 | 2.5761<br>2.1704 | 2.2068<br>2.0290 | 2.2149<br>2.0626 | Ave | | 2.1207 | | | | 10.3 | | 15.0 | | | |
| 1,3,5-Trimethylbenzene | +++++<br>2.5548<br>2.3389 | +++++<br>2.6156<br>2.1148 | 2.4756<br>2.6007 | 2.9330<br>2.4806 | 2.6887<br>2.5583 | Ave | | 2.5361 | | | | 8.5 | | 15.0 | | | |
| tert-Butylbenzene | +++++<br>2.2423<br>2.1576 | +++++<br>2.4173<br>1.9593 | 2.6444<br>2.3550 | 2.5168<br>2.2904 | 2.4746<br>2.3681 | Ave | | 2.3426 | | | | 8.3 | | 15.0 | | | |
| 1,2,4-Trimethylbenzene | +++++<br>2.5095<br>2.3716 | +++++<br>2.6288<br>2.1203 | 2.7313<br>2.6808 | 2.8831<br>2.5343 | 2.8377<br>2.6189 | Ave | | 2.5916 | | | | 8.7 | | 15.0 | | | |
| sec-Butylbenzene | +++++<br>3.3810<br>2.9909 | +++++<br>3.5555<br>+++++ | 3.8429<br>3.4937 | 3.7691<br>3.3211 | 3.7588<br>3.4201 | Ave | | 3.5037 | | | | 7.6 | | 15.0 | | | |
| 1,3-Dichlorobenzene | +++++<br>1.6163<br>1.5237 | +++++<br>1.5751<br>1.4314 | 1.6890<br>1.5988 | 1.6930<br>1.5281 | 1.5430<br>1.5827 | Ave | | 1.5781 | | | | 5.0 | | 15.0 | | | |
| 1,4-Dichlorobenzene | +++++<br>1.6229<br>1.4951 | +++++<br>1.6541<br>1.4143 | 1.5074<br>1.6174 | 1.8219<br>1.5407 | 1.6686<br>1.6018 | Ave | | 1.5944 | | | | 7.1 | | 15.0 | | | |
| p-Isopropyltoluene | +++++<br>2.9281<br>2.6895 | +++++<br>3.0622<br>+++++ | 3.0022<br>3.0421 | 3.1743<br>2.9197 | 3.1883<br>3.0157 | Ave | | 3.0024 | | | | 5.0 | | 15.0 | | | |
| 1,2-Dichlorobenzene | +++++<br>1.4847<br>1.4481 | +++++<br>1.4807<br>1.3484 | 1.5030<br>1.5362 | 1.6841<br>1.4386 | 1.4840<br>1.5166 | Ave | | 1.4924 | | | | 5.7 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| n-Butylbenzene | +++++<br>2.6642<br>2.3167 | +++++<br>2.7307<br>+++++ | 2.9546<br>2.6688 | 2.8865<br>2.5606 | 2.9661<br>2.5987 | Ave | | 2.7052 | | | | 7.7 | | 15.0 | | | |
| 1,2-Dibromo-3-Chloropropane | +++++<br>0.1652<br>0.1573 | +++++<br>0.1439<br>0.1498 | +++++<br>0.1493 | 0.1128<br>0.1443 | 0.1360<br>0.1594 | Ave | | 0.1464 | | | | 10.6 | | 15.0 | | | |
| 1,2,4-Trichlorobenzene | +++++<br>1.2398<br>1.1425 | +++++<br>1.2653<br>1.0326 | 1.2901<br>1.2853 | 1.3473<br>1.2210 | 1.3252<br>1.2230 | Ave | | 1.2372 | | | | 7.5 | | 15.0 | | | |
| Naphthalene | +++++<br>2.7992<br>2.5063 | +++++<br>2.9460<br>+++++ | 3.2634<br>2.9288 | 2.8318<br>2.6228 | 2.9462<br>2.7998 | Ave | | 2.8494 | | | | 7.6 | | 15.0 | | | |
| Hexachlorobutadiene | +++++<br>0.7157<br>0.7143 | +++++<br>0.7629<br>0.6173 | 0.8741<br>0.7300 | 0.7480<br>0.7441 | 0.7339<br>0.7819 | Ave | | 0.7422 | | | | 8.6 | | 15.0 | | | |
| 1,2,3-Trichlorobenzene | +++++<br>1.1179<br>1.0727 | +++++<br>1.2155<br>+++++ | 1.3754<br>1.2270 | 1.3673<br>1.1285 | 1.3159<br>1.1792 | Ave | | 1.2222 | | | | 9.0 | | 15.0 | | | |
| Dibromofluoromethane (Surr) | 0.3035 | 0.2856 | 0.2881 | 0.2741 | 0.3030 | Ave | | 0.2909 | | | | 4.3 | | 15.0 | | | |
| 1,2-Dichloroethane-d4 (Surr) | 0.3300 | 0.3313 | 0.3406 | 0.2988 | 0.3302 | Ave | | 0.3262 | | | | 4.9 | | 15.0 | | | |
| Toluene-d8 (Surr) | 1.1129 | 1.1978 | 1.0919 | 1.0171 | 1.1024 | Ave | | 1.1044 | | | | 5.8 | | 15.0 | | | |
| 4-Bromofluorobenzene (Surr) | 0.9018 | 0.8661 | 0.8856 | 0.8207 | 0.8733 | Ave | | 0.8695 | | | | 3.5 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD02 440-439348/4 | NFK0304.D |
| Level 2 | STD04 440-439348/5 | NFK0305.D |
| Level 3 | STD05 440-439348/6 | NFK0306.D |
| Level 4 | STD1 440-439348/7 | NFK0307.D |
| Level 5 | STD2 440-439348/8 | NFK0308.D |
| Level 6 | STD5 440-439348/9 | NFK0309.D |
| Level 7 | STD10 440-439348/10 | NFK0310.D |
| Level 8 | ICIS 440-439348/11 | NFK0311.D |
| Level 9 | STD50 440-439348/12 | NFK0312.D |
| Level 10 | STD100 440-439348/13 | NFK0313.D |
| Level 11 | STD200 440-439348/14 | NFK0314.D |
| Level 12 | STD300 440-439348/15 | NFK0315.D |

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Dichlorodifluoromethane | FB | Ave | +++++<br>51688<br>1717735 | +++++<br>98390<br>2550328 | 4338<br>244879 | 8626<br>432222 | 17327<br>834231 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloromethane | FB | Ave | +++++<br>36886<br>1443270 | +++++<br>75228<br>2146167 | 4840<br>191527 | 7427<br>362007 | 14621<br>691780 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Vinyl chloride | FB | Ave | +++++<br>35436<br>1362760 | +++++<br>71902<br>1992044 | 3175<br>170568 | 7111<br>346511 | 14127<br>669717 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Butadiene | FB | Ave | +++++<br>29688<br>1189605 | +++++<br>64139<br>1765129 | +++++<br>143056 | 6429<br>298886 | 12077<br>576917 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromomethane | FB | Ave | +++++<br>25059<br>1109520 | +++++<br>53899<br>1641930 | 2615<br>140671 | 5012<br>266638 | 10454<br>538995 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloroethane | FB | Ave | +++++<br>20269<br>829971 | +++++<br>43308<br>1215276 | 2636<br>108692 | 3336<br>207264 | 8614<br>408440 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethanol | TBAd 9 | Ave | +++++<br>16670<br>888342 | +++++<br>35073<br>1356887 | +++++<br>94285 | +++++<br>197100 | 10438<br>436950 | +++++<br>200<br>10000 | +++++<br>400<br>15000 | +++++<br>1000 | +++++<br>2500 | 100<br>5000 |
| Dichlorofluoromethane | FB | Ave | +++++<br>58174<br>2408312 | +++++<br>128449<br>3550080 | 5772<br>311975 | 11616<br>616003 | 22671<br>1187020 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Acrolein | FB | Ave | +++++<br>2255<br>123250 | +++++<br>5091<br>201746 | +++++<br>15010 | +++++<br>30211 | +++++<br>64584 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Acetonitrile | FB | Ave | +++++<br>36231<br>1342347 | +++++<br>76294<br>1976775 | +++++<br>195277 | +++++<br>312946 | 16247<br>673154 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | +++++<br>500 | 20.0<br>1000 |
| Trichlorofluoromethane | FB | Ave | +++++<br>69852<br>2800615 | +++++<br>145815<br>4121436 | 6880<br>364200 | 14271<br>703118 | 28900<br>1381579 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Acetone | FB | Lin2 | +++++<br>+++++<br>342441 | +++++<br>12405<br>531101 | +++++<br>31927 | +++++<br>71270 | +++++<br>159305 | +++++<br>+++++<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Diethyl ether | FB | Ave | +++++<br>21288<br>871651 | +++++<br>44368<br>1299902 | +++++<br>111981 | 3601<br>227561 | 7791<br>441819 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloroethene | FB | Ave | +++++<br>30576<br>1168080 | +++++<br>64880<br>1756555 | 3454<br>150286 | 6296<br>302488 | 11013<br>594751 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| tert-Butyl alcohol (TBA) | TBAd9 | Ave | +++++<br>42373<br>1696141 | +++++<br>92677<br>2519934 | +++++<br>241454 | 8446<br>381579 | 18928<br>834976 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Iodomethane | FB | Ave | +++++<br>68893<br>2619751 | +++++<br>132292<br>3888804 | +++++<br>336171 | 13448<br>649028 | 24657<br>1269814 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Acrylonitrile | FB | Ave | +++++<br>88024<br>3446972 | 5283<br>199239<br>4987409 | 6894<br>468700 | 15798<br>844437 | 38757<br>1769649 | +++++<br>50.0<br>2000 | 4.00<br>100<br>3000 | 5.00<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Methylene Chloride | FB | Lin2 | +++++<br>38205<br>1275211 | +++++<br>65361<br>1870110 | 7839<br>162000 | 11605<br>316253 | 17502<br>585650 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methyl acetate | FB | Ave | +++++<br>93737<br>3787208 | +++++<br>207622<br>5497943 | +++++<br>525710 | +++++<br>920439 | 36233<br>1937486 | +++++<br>25.0<br>1000 | +++++<br>50.0<br>1500 | +++++<br>125 | +++++<br>250 | 10.0<br>500 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | FB | Ave | +++++<br>38157<br>1568909 | +++++<br>80844<br>2319764 | 4189<br>200999 | 8640<br>400183 | 14518<br>793605 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Allyl chloride | FB | Ave | +++++<br>51049<br>1970254 | +++++<br>110353<br>2908136 | +++++<br>277417 | 12518<br>536791 | 22561<br>1020243 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Carbon disulfide | FB | Ave | +++++<br>102139<br>3981317 | +++++<br>210269<br>5856895 | 11503<br>531480 | 20966<br>1034621 | 40248<br>2027197 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| trans-1,2-Dichloroethene | FB | Ave | +++++<br>29942<br>1261526 | 2563<br>61990<br>1869807 | 2901<br>172044 | 6613<br>325697 | 11349<br>628721 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methyl-t-Butyl Ether (MTBE) | FB | Ave | +++++<br>83335<br>3384612 | +++++<br>175214<br>4976705 | 8642<br>455353 | 15670<br>805576 | 32666<br>1621301 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloroethane | FB | Ave | +++++<br>56236<br>2150837 | +++++<br>113614<br>3184185 | 5317<br>288107 | 11706<br>560656 | 22628<br>1094031 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Propionitrile | FB | Ave | +++++<br>31940<br>1485412 | +++++<br>80728<br>2180054 | +++++<br>196986 | +++++<br>339130 | 10920<br>731571 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | +++++<br>500 | 20.0<br>1000 |
| Vinyl acetate | FB | Lin2 | +++++<br>31360<br>2138833 | +++++<br>70352<br>3169091 | +++++<br>188278 | +++++<br>501477 | 11894<br>1054886 | +++++<br>4.00<br>200 | +++++<br>8.00<br>300 | +++++<br>20.0 | +++++<br>50.0 | 2.00<br>100 |
| Hexane | FB | Ave | +++++<br>53602<br>1870628 | +++++<br>98839<br>+++++ | +++++<br>252851 | 12127<br>482726 | 21881<br>957467 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Butanone (MEK) | FB | Lin2 | +++++<br>682<br>138174 | +++++<br>4882<br>217416 | +++++<br>12934 | +++++<br>28777 | +++++<br>64060 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Isopropyl Ether (DIPE) | FB | Ave | +++++<br>101063<br>3811106 | +++++<br>207845<br>5509042 | 9832<br>542966 | 19090<br>992045 | 37649<br>1905263 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| cis-1,2-Dichloroethene | FB | Ave | +++++<br>37366<br>1371246 | 2144<br>66724<br>2072552 | 4042<br>182367 | 5407<br>344384 | 15415<br>679082 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromochloromethane | FB | Ave | +++++<br>16025<br>729179 | +++++<br>35227<br>1102455 | 1878<br>91223 | 3998<br>176080 | 6391<br>354875 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloroform | FB | Ave | +++++<br>58252<br>2361065 | +++++<br>120042<br>3519105 | 5790<br>310877 | 11660<br>604482 | 22162<br>1166289 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethyl-t-butyl ether (ETBE) | FB | Ave | +++++<br>96716<br>3733722 | +++++<br>207477<br>5366523 | 9544<br>527067 | 20171<br>981680 | 37270<br>1900765 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 2,2-Dichloropropane | FB | Ave | +++++<br>43693<br>1539468 | +++++<br>92764<br>+++++ | 4775<br>221211 | 10135<br>432456 | 16710<br>807883 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Isobutyl alcohol | TBAd 9 | Ave | +++++<br>51661<br>2065162 | +++++<br>115800<br>3065063 | 5853<br>291613 | 8614<br>496809 | 21703<br>1021038 | +++++<br>125<br>5000 | +++++<br>250<br>7500 | 12.5<br>625 | 25.0<br>1250 | 50.0<br>2500 |
| Tetrahydrofuran | FB | Ave | +++++<br>18674<br>713896 | +++++<br>38351<br>1081505 | +++++<br>94749 | 3563<br>158035 | 7704<br>350408 | +++++<br>10.0<br>400 | +++++<br>20.0<br>600 | +++++<br>50.0 | 2.00<br>100 | 4.00<br>200 |
| 1,2-Dichloroethane | FB | Ave | +++++<br>45654<br>1812746 | 2958<br>92037<br>2659978 | 4513<br>239316 | 9817<br>441683 | 16372<br>889015 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,1-Trichloroethane | FB | Ave | +++++<br>55278<br>2376004 | +++++<br>119486<br>3536613 | 6639<br>302431 | 10778<br>587611 | 23468<br>1181521 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloropropene | FB | Ave | +++++<br>42944<br>1721351 | +++++<br>91610<br>2533352 | 4061<br>228146 | 8437<br>449250 | 18740<br>878028 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Cyclohexane | FB | Ave | +++++<br>58170<br>2163263 | +++++<br>118023<br>3150728 | +++++<br>290489 | 13035<br>565471 | 24251<br>1103727 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Carbon tetrachloride | FB | Ave | +++++<br>54194<br>2377785 | +++++<br>114886<br>3499474 | 5281<br>292792 | 11919<br>579510 | 20493<br>1172358 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Benzene | FB | Ave | +++++<br>118302<br>4491230 | +++++<br>248768<br>6493311 | 13512<br>611407 | 24237<br>1196000 | 49509<br>2321944 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Tert-amyl-methyl ether (TAME) | FB | Ave | +++++<br>89096<br>3540420 | +++++<br>198327<br>5147058 | 9372<br>484730 | 17312<br>871936 | 33043<br>1730719 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Heptane | FB | Ave | +++++<br>53800<br>2005961 | +++++<br>114499<br>2854050 | +++++<br>281408 | 11815<br>548192 | 22139<br>1059416 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Dibromomethane | FB | Ave | +++++<br>22241<br>849979 | +++++<br>44217<br>1281175 | 2025<br>114804 | 4680<br>208287 | 8472<br>413408 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2-Dichloropropane | FB | Ave | +++++<br>28223<br>1152491 | +++++<br>58661<br>1727812 | 2522<br>155119 | 5142<br>292154 | 9617<br>586280 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Trichloroethene | FB | Ave | +++++<br>37016<br>1521501 | +++++<br>77632<br>2255749 | 3881<br>200153 | 8283<br>380940 | 14607<br>755346 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromodichloromethane | FB | Ave | +++++<br>42049<br>1850542 | +++++<br>87517<br>2763112 | 3993<br>232488 | 8198<br>448606 | 17148<br>911660 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Chloroethyl vinyl ether | CBNZ d5 | Ave | +++++<br>19353<br>771204 | +++++<br>40690<br>1179277 | +++++<br>97981 | +++++<br>183009 | 6820<br>369576 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Methylcyclohexane | FB | Ave | +++++<br>55717<br>2231374 | +++++<br>117715<br>3282984 | +++++<br>288023 | 12138<br>566059 | 21783<br>1119978 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| cis-1,3-Dichloropropene | CBNZ d5 | Ave | +++++<br>45408<br>2073929 | +++++<br>101600<br>3075975 | 5389<br>260453 | 9452<br>503217 | 19314<br>1012710 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 4-Methyl-2-pentanone (MIBK) | CBNZ d5 | Ave | +++++<br>25214<br>1299144 | +++++<br>56904<br>1956506 | +++++<br>143829 | +++++<br>284183 | 11834<br>617092 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| trans-1,3-Dichloropropene | CBNZ d5 | Ave | +++++<br>43431<br>1952678 | +++++<br>90296<br>2878638 | 4461<br>241846 | 8471<br>470958 | 16412<br>926840 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2-Trichloroethane | CBNZ d5 | Ave | +++++<br>21131<br>902061 | +++++<br>42947<br>1382618 | 2708<br>116784 | 4129<br>208424 | 8889<br>428950 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Toluene | CBNZ d5 | Ave | +++++<br>136551<br>5212498 | +++++<br>276221<br>+++++ | 15067<br>701778 | 27683<br>1370673 | 51448<br>2643569 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Dichloropropane | CBNZ d5 | Ave | +++++<br>41916<br>1749608 | +++++<br>89229<br>+++++ | 5428<br>228233 | 8356<br>428716 | 17021<br>865729 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethyl methacrylate | CBNZ d5 | Ave | +++++<br>34504<br>1488282 | +++++<br>71744<br>2231875 | +++++<br>193027 | +++++<br>356213 | 12491<br>725243 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| 2-Hexanone | CBNZ d5 | Ave | +++++<br>19654<br>967779 | +++++<br>43132<br>1466362 | +++++<br>104863 | +++++<br>211780 | 7668<br>444756 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Dibromochloromethane | CBNZ d5 | Ave | +++++<br>31941<br>1715527 | +++++<br>71342<br>2597399 | 3496<br>195405 | 5521<br>375249 | 11203<br>768072 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 1,2-Dibromoethane (EDB) | CBNZ d5 | Ave | +++++<br>28702<br>1305007 | +++++<br>60694<br>1986824 | 3496<br>163010 | 5635<br>303510 | 12174<br>611917 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Tetrachloroethene | CBNZ d5 | Ave | +++++<br>33418<br>1378842 | +++++<br>67971<br>+++++ | 3261<br>175584 | 6259<br>345560 | 13547<br>685492 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,1,2-Tetrachloroethane | CBNZ d5 | Ave | +++++<br>35044<br>1614086 | +++++<br>69547<br>2489521 | 3897<br>194243 | 7581<br>375322 | 14387<br>766044 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chlorobenzene | CBNZ d5 | Ave | +++++<br>92682<br>3822585 | +++++<br>190998<br>+++++ | 9668<br>487752 | 17933<br>953043 | 38530<br>1869405 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethylbenzene | CBNZ d5 | Ave | +++++<br>159305<br>6295798 | +++++<br>324208<br>+++++ | 16772<br>818965 | 33869<br>1594233 | 61958<br>3138180 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| m,p-Xylene | CBNZ d5 | Ave | +++++<br>63393<br>2704539 | +++++<br>130368<br>4096454 | 6871<br>323533 | 13375<br>653441 | 23793<br>1302700 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromoform | CBNZ d5 | Lin2 | +++++<br>20385<br>1246692 | +++++<br>48157<br>2003179 | 1654<br>126986 | 3869<br>253867 | 7909<br>557189 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Styrene | CBNZ d5 | Ave | +++++<br>99060<br>4382732 | +++++<br>204702<br>6556899 | 11800<br>541734 | 18081<br>1039564 | 34341<br>2085852 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2,2-Tetrachloroethane | DCBd 4 | Ave | +++++<br>31682<br>1474046 | +++++<br>69848<br>2245559 | 3535<br>181793 | 7028<br>332119 | 14176<br>705746 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| o-Xylene | CBNZ d5 | Ave | +++++<br>62833<br>2616542 | 4974<br>131371<br>+++++ | 7243<br>327517 | 11287<br>626424 | 23426<br>1254582 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,3-Trichloropropane | DCBd 4 | Ave | +++++<br>11708<br>479507 | +++++<br>22141<br>746421 | +++++<br>56218 | 1619<br>102713 | 3948<br>225467 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| trans-1,4-Dichloro-2-butene | DCBd 4 | Ave | +++++<br>10089<br>490896 | +++++<br>22360<br>745559 | +++++<br>62702 | +++++<br>109497 | 3468<br>230611 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Isopropylbenzene | CBNZ d5 | Ave | +++++<br>167865<br>6839241 | +++++<br>345811<br>+++++ | 17836<br>877570 | 35256<br>1703537 | 65489<br>3415072 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Bromobenzene | DCBd 4 | Ave | +++++<br>47207<br>2024208 | +++++<br>90410<br>3141135 | 4745<br>237602 | 8163<br>458627 | 15778<br>942659 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| N-Propylbenzene | DCBd 4 | Ave | +++++<br>186724<br>7694232 | +++++<br>399982<br>+++++ | 20003<br>986992 | 40044<br>1953781 | 76762<br>3921120 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Chlorotoluene | DCBd 4 | Ave | +++++<br>117734<br>4890107 | +++++<br>235684<br>7155731 | 12415<br>597408 | 25172<br>1171636 | 46796<br>2347661 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 4-Chlorotoluene | DCBd 4 | Ave | +++++<br>118465<br>5041151 | +++++<br>250974<br>7399365 | 15042<br>633828 | 23755<br>1222036 | 47407<br>2430225 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3,5-Trimethylbenzene | DCBd 4 | Ave | +++++<br>144722<br>6221771 | +++++<br>297628<br>8915429 | 14455<br>759478 | 31573<br>1494055 | 57548<br>3014259 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| tert-Butylbenzene | DCBd 4 | Ave | +++++<br>127021<br>5739413 | +++++<br>275059<br>8259741 | 15441<br>687732 | 27092<br>1379505 | 52966<br>2790224 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,4-Trimethylbenzene | DCBd 4 | Ave | +++++<br>142156<br>6308780 | +++++<br>299133<br>8938760 | 15948<br>782883 | 31036<br>1526402 | 60738<br>3085716 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| sec-Butylbenzene | DCBd 4 | Ave | +++++<br>191527<br>7956304 | +++++<br>404580<br>+++++ | 22439<br>1020263 | 40573<br>2000238 | 80454<br>4029653 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Dichlorobenzene | DCBd 4 | Ave | +++++<br>91558<br>4053347 | +++++<br>179231<br>6034608 | 9862<br>466895 | 18224<br>920376 | 33027<br>1864769 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,4-Dichlorobenzene | DCBd 4 | Ave | +++++<br>91932<br>3977156 | +++++<br>188224<br>5962420 | 8802<br>472319 | 19612<br>927932 | 35715<br>1887261 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| p-Isopropyltoluene | DCBd 4 | Ave | +++++<br>165868<br>7154377 | +++++<br>348452<br>+++++ | 17530<br>888375 | 34170<br>1758486 | 68242<br>3553226 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2-Dichlorobenzene | DCBd 4 | Ave | +++++<br>84103<br>3852174 | +++++<br>168490<br>5684378 | 8776<br>448628 | 18129<br>866459 | 31764<br>1786956 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Butylbenzene | DCBd 4 | Ave | +++++<br>150919<br>6162647 | +++++<br>310730<br>+++++ | 17252<br>779373 | 31072<br>1542201 | 63487<br>3061858 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 1,2-Dibromo-3-Chloropropane | DCBd 4 | Ave | +++++<br>9360<br>418480 | +++++<br>16379<br>631709 | +++++<br>43588 | 1214<br>86890 | 2910<br>187857 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,4-Trichlorobenzene | DCBd 4 | Ave | +++++<br>70234<br>3039317 | +++++<br>143980<br>4353356 | 7533<br>375336 | 14503<br>735388 | 28365<br>1441011 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Naphthalene | DCBd 4 | Ave | +++++<br>158570<br>6667235 | +++++<br>335230<br>+++++ | 19055<br>855292 | 30483<br>1579700 | 63061<br>3298825 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Hexachlorobutadiene | DCBd 4 | Ave | +++++<br>40543<br>1900008 | +++++<br>86814<br>2602216 | 5104<br>213193 | 8052<br>448190 | 15709<br>921307 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,3-Trichlorobenzene | DCBd 4 | Ave | +++++<br>63325<br>2853559 | +++++<br>138310<br>+++++ | 8031<br>358316 | 14719<br>679670 | 28166<br>1389318 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Dibromofluoromethane (Surr) | FB | Ave | 38275 | 70617 | 180990 | 347717 | 721498 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| 1,2-Dichloroethane-d4 (Surr) | FB | Ave | 41619 | 81917 | 213979 | 379160 | 786240 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| Toluene-d8 (Surr) | CBNZ d5 | Ave | 120632 | 240924 | 606438 | 1172336 | 2365805 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| 4-Bromofluorobenzene (Surr) | DCBd 4 | Ave | 51083 | 98551 | 258623 | 494296 | 1028911 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |

Curve Type Legend:

| |
|---|
| Ave = Average ISTD |
| Lin2 = Linear 1/conc^2 ISTD |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: ICV 440-439348/18 Calibration Date: 11/03/2017 22:25

Instrument ID: GCMS31 Calib Start Date: 11/03/2017 15:52

GC Column: DB-VRX C ID: 0.25(mm) Calib End Date: 11/03/2017 21:01

Lab File ID: NFK0318.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.3629 | 0.3635 | | 25.0 | 25.0 | 0.2 | 40.0 |
| Chloromethane | Ave | 0.3042 | 0.3025 | 0.1000 | 24.9 | 25.0 | -0.6 | 40.0 |
| Vinyl chloride | Ave | 0.2773 | 0.2852 | | 25.7 | 25.0 | 2.9 | 30.0 |
| 1,3-Butadiene | Ave | 0.2438 | 0.2372 | | 24.3 | 25.0 | -2.7 | 30.0 |
| Bromomethane | Ave | 0.2148 | 0.2218 | | 25.8 | 25.0 | 3.3 | 30.0 |
| Chloroethane | Ave | 0.1695 | 0.1734 | | 25.6 | 25.0 | 2.3 | 30.0 |
| Ethanol | Ave | 0.1165 | 0.1101 | | 945 | 1000 | -5.5 | 40.0 |
| Dichlorofluoromethane | Ave | 0.4821 | 0.5228 | | 27.1 | 25.0 | 8.4 | 40.0 |
| Acrolein | Ave | 0.0235 | 0.0247 | | 26.3 | 25.0 | 5.3 | 40.0 |
| Acetonitrile | Ave | 0.0289 | 0.0275 | | 238 | 250 | -4.6 | 40.0 |
| Trichlorofluoromethane | Ave | 0.5699 | 0.5582 | | 24.5 | 25.0 | -2.0 | 40.0 |
| Acetone | Lin2 | | 0.0596 | | 25.4 | 25.0 | 1.8 | 40.0 |
| Diethyl ether | Ave | 0.1724 | 0.1798 | | 26.1 | 25.0 | 4.2 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.2459 | 0.2248 | | 22.9 | 25.0 | -8.6 | 30.0 |
| Iodomethane | Ave | 0.5311 | 0.5033 | | 23.7 | 25.0 | -5.2 | 40.0 |
| tert-Butyl alcohol (TBA) | Ave | 1.140 | 1.161 | | 255 | 250 | 1.8 | 30.0 |
| Acrylonitrile | Ave | 0.0686 | 0.0722 | | 263 | 250 | 5.3 | 40.0 |
| Methylene Chloride | Lin2 | | 0.2490 | | 23.6 | 25.0 | -5.4 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.3208 | 0.2989 | | 23.3 | 25.0 | -6.8 | 40.0 |
| Allyl chloride | Ave | 0.4356 | 0.4179 | | 24.0 | 25.0 | -4.1 | 40.0 |
| Carbon disulfide | Ave | 0.8355 | 0.7690 | | 23.0 | 25.0 | -8.0 | 40.0 |
| trans-1,2-Dichloroethene | Ave | 0.2524 | 0.2428 | | 24.1 | 25.0 | -3.8 | 30.0 |
| Methyl-t-Butyl Ether (MTBE) | Ave | 0.6755 | 0.6924 | | 25.6 | 25.0 | 2.5 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.4492 | 0.4501 | 0.1000 | 25.0 | 25.0 | 0.2 | 30.0 |
| Propionitrile | Ave | 0.0285 | 0.0303 | | 266 | 250 | 6.2 | 40.0 |
| Vinyl acetate | Lin2 | | 0.4745 | | 29.5 | 25.0 | 17.8 | 40.0 |
| Hexane | Ave | 0.4198 | 0.3741 | | 22.3 | 25.0 | -10.9 | 40.0 |
| 2-Butanone (MEK) | Lin2 | | 0.0232 | | 25.1 | 25.0 | 0.2 | 40.0 |
| Isopropyl Ether (DIPE) | Ave | 0.7928 | 0.8174 | | 25.8 | 25.0 | 3.1 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.2761 | 0.2768 | | 25.1 | 25.0 | 0.2 | 30.0 |
| Bromochloromethane | Ave | 0.1441 | 0.1419 | | 24.6 | 25.0 | -1.5 | 30.0 |
| Chloroform | Ave | 0.4746 | 0.4774 | | 25.1 | 25.0 | 0.6 | 30.0 |
| Ethyl-t-butyl ether (ETBE) | Ave | 0.7838 | 0.8124 | | 25.9 | 25.0 | 3.6 | 30.0 |
| 2,2-Dichloropropane | Ave | 0.3569 | 0.3165 | | 22.2 | 25.0 | -11.3 | 30.0 |
| Isobutyl alcohol | Ave | 0.5448 | 0.5660 | | 649 | 625 | 3.9 | 40.0 |
| Tetrahydrofuran | Ave | 0.0735 | 0.0698 | | 47.5 | 50.0 | -5.1 | 40.0 |
| 1,2-Dichloroethane | Ave | 0.3589 | 0.3576 | | 24.9 | 25.0 | -0.4 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.4762 | 0.4590 | | 24.1 | 25.0 | -3.6 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.3537 | 0.3530 | | 25.0 | 25.0 | -0.2 | 30.0 |
| Cyclohexane | Ave | 0.4683 | 0.4426 | | 23.6 | 25.0 | -5.5 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: ICV 440-439348/18 Calibration Date: 11/03/2017 22:25

Instrument ID: GCMS31 Calib Start Date: 11/03/2017 15:52

GC Column: DB-VRX C ID: 0.25(mm) Calib End Date: 11/03/2017 21:01

Lab File ID: NFK0318.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Carbon tetrachloride | Ave | 0.4585 | 0.4474 | | 24.4 | 25.0 | -2.4 | 40.0 |
| Benzene | Ave | 0.9691 | 0.9513 | | 24.5 | 25.0 | -1.8 | 30.0 |
| Tert-amyl-methyl ether (TAME) | Ave | 0.7225 | 0.7467 | | 25.8 | 25.0 | 3.3 | 30.0 |
| n-Heptane | Ave | 0.4392 | 0.4131 | | 23.5 | 25.0 | -5.9 | 30.0 |
| Dibromomethane | Ave | 0.1745 | 0.1684 | | 24.1 | 25.0 | -3.5 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.2255 | 0.2394 | | 26.5 | 25.0 | 6.1 | 30.0 |
| Trichloroethene | Ave | 0.3099 | 0.3092 | | 24.9 | 25.0 | -0.2 | 30.0 |
| Bromodichloromethane | Ave | 0.3541 | 0.3478 | | 24.6 | 25.0 | -1.8 | 30.0 |
| 2-Chloroethyl vinyl ether | Ave | 0.1703 | 0.1623 | | 23.8 | 25.0 | -4.7 | 40.0 |
| cis-1,3-Dichloropropene | Ave | 0.4574 | 0.4562 | | 24.9 | 25.0 | -0.3 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.2641 | 0.2929 | | 27.7 | 25.0 | 10.9 | 40.0 |
| trans-1,3-Dichloropropene | Ave | 0.4139 | 0.4131 | | 25.0 | 25.0 | -0.2 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.2041 | 0.2047 | | 25.1 | 25.0 | 0.3 | 30.0 |
| Toluene | Ave | 1.278 | 1.227 | | 24.0 | 25.0 | -4.0 | 30.0 |
| 1,3-Dichloropropane | Ave | 0.4153 | 0.3939 | | 23.7 | 25.0 | -5.2 | 30.0 |
| Ethyl methacrylate | Ave | 0.3204 | 0.3351 | | 26.1 | 25.0 | 4.6 | 40.0 |
| 2-Hexanone | Ave | 0.1934 | 0.2009 | | 26.0 | 25.0 | 3.9 | 40.0 |
| Dibromochloromethane | Ave | 0.3244 | 0.3451 | | 26.6 | 25.0 | 6.4 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2839 | 0.2805 | | 24.7 | 25.0 | -1.2 | 30.0 |
| Tetrachloroethene | Ave | 0.3143 | 0.2911 | | 23.2 | 25.0 | -7.4 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.3449 | 0.3407 | | 24.7 | 25.0 | -1.2 | 40.0 |
| Chlorobenzene | Ave | 0.8835 | 0.8475 | 0.3000 | 24.0 | 25.0 | -4.1 | 30.0 |
| Ethylbenzene | Ave | 1.505 | 1.394 | | 23.2 | 25.0 | -7.3 | 30.0 |
| m,p-Xylene | Ave | 0.5966 | 0.5629 | | 23.6 | 25.0 | -5.7 | 30.0 |
| Bromoform | Lin2 | | 0.2328 | 0.1000 | 24.9 | 25.0 | -0.4 | 40.0 |
| Styrene | Ave | 0.9370 | 0.9264 | | 24.7 | 25.0 | -1.1 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5953 | 0.6100 | 0.3000 | 25.6 | 25.0 | 2.5 | 30.0 |
| o-Xylene | Ave | 0.5920 | 0.5518 | | 23.3 | 25.0 | -6.8 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.1831 | 0.1804 | | 24.6 | 25.0 | -1.5 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.1863 | 0.1922 | | 25.8 | 25.0 | 3.2 | 40.0 |
| Isopropylbenzene | Ave | 1.603 | 1.482 | | 23.1 | 25.0 | -7.6 | 30.0 |
| Bromobenzene | Ave | 0.7817 | 0.7975 | | 25.5 | 25.0 | 2.0 | 30.0 |
| N-Propylbenzene | Ave | 3.376 | 3.257 | | 24.1 | 25.0 | -3.5 | 30.0 |
| 2-Chlorotoluene | Ave | 2.032 | 1.967 | | 24.2 | 25.0 | -3.2 | 30.0 |
| 4-Chlorotoluene | Ave | 2.121 | 2.058 | | 24.3 | 25.0 | -3.0 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.536 | 2.514 | | 24.8 | 25.0 | -0.9 | 30.0 |
| tert-Butylbenzene | Ave | 2.343 | 2.281 | | 24.3 | 25.0 | -2.6 | 30.0 |
| 1,2,4-Trimethylbenzene | Ave | 2.592 | 2.537 | | 24.5 | 25.0 | -2.1 | 30.0 |
| sec-Butylbenzene | Ave | 3.504 | 3.310 | | 23.6 | 25.0 | -5.5 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.578 | 1.513 | | 24.0 | 25.0 | -4.1 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Lab Sample ID: ICV 440-439348/18  Calibration Date: 11/03/2017 22:25

Instrument ID: GCMS31  Calib Start Date: 11/03/2017 15:52

GC Column: DB-VRX C  ID: 0.25(mm)  Calib End Date: 11/03/2017 21:01

Lab File ID: NFK0318.D  Conc. Units: ug/L  Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | Ave | 1.594 | 1.566 | | 24.5 | 25.0 | -1.8 | 30.0 |
| p-Isopropyltoluene | Ave | 3.002 | 2.863 | | 23.8 | 25.0 | -4.6 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.492 | 1.485 | | 24.9 | 25.0 | -0.5 | 30.0 |
| n-Butylbenzene | Ave | 2.705 | 2.487 | | 23.0 | 25.0 | -8.1 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Ave | 0.1464 | 0.1560 | | 26.6 | 25.0 | 6.5 | 40.0 |
| 1,2,4-Trichlorobenzene | Ave | 1.237 | 1.202 | | 24.3 | 25.0 | -2.8 | 40.0 |
| Naphthalene | Ave | 2.849 | 2.787 | | 24.5 | 25.0 | -2.2 | 40.0 |
| Hexachlorobutadiene | Ave | 0.7422 | 0.7386 | | 24.9 | 25.0 | -0.5 | 40.0 |
| 1,2,3-Trichlorobenzene | Ave | 1.222 | 1.201 | | 24.6 | 25.0 | -1.7 | 40.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2909 | 0.2827 | | 24.3 | 25.0 | -2.8 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.3262 | 0.3136 | | 24.0 | 25.0 | -3.9 | |
| Toluene-d8 (Surr) | Ave | 1.104 | 1.076 | | 24.4 | 25.0 | -2.6 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.8695 | 0.8936 | | 25.7 | 25.0 | 2.8 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCVIS 440-442408/2 Calibration Date: 11/19/2017 09:37

Instrument ID: GCMS31 Calib Start Date: 11/03/2017 15:52

GC Column: DB-VRX C ID: 0.25(mm) Calib End Date: 11/03/2017 21:01

Lab File ID: NFK19002.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.3629 | 0.3811 | | 26.3 | 25.0 | 5.0 | 40.0 |
| Chloromethane | Ave | 0.3042 | 0.3124 | 0.1000 | 25.7 | 25.0 | 2.7 | 40.0 |
| Vinyl chloride | Ave | 0.2773 | 0.3034 | | 27.3 | 25.0 | 9.4 | 20.0 |
| 1,3-Butadiene | Ave | 0.2438 | 0.2529 | | 25.9 | 25.0 | 3.7 | 30.0 |
| Bromomethane | Ave | 0.2148 | 0.2314 | | 26.9 | 25.0 | 7.7 | 30.0 |
| Chloroethane | Ave | 0.1695 | 0.1884 | | 27.8 | 25.0 | 11.2 | 30.0 |
| Ethanol | Ave | 0.1165 | 0.1089 | | 935 | 1000 | -6.5 | 40.0 |
| Dichlorofluoromethane | Ave | 0.4821 | 0.5447 | | 28.2 | 25.0 | 13.0 | 40.0 |
| Acetonitrile | Ave | 0.0289 | 0.0324 | | 281 | 250 | 12.4 | 40.0 |
| Acrolein | Ave | 0.0235 | 0.0274 | | 29.1 | 25.0 | 16.5 | 40.0 |
| Trichlorofluoromethane | Ave | 0.5699 | 0.6266 | | 27.5 | 25.0 | 10.0 | 40.0 |
| Acetone | Lin2 | | 0.0639 | | 27.1 | 25.0 | 8.3 | 40.0 |
| Diethyl ether | Ave | 0.1724 | 0.1867 | | 27.1 | 25.0 | 8.3 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.2459 | 0.2474 | | 25.1 | 25.0 | 0.6 | 20.0 |
| tert-Butyl alcohol (TBA) | Ave | 1.140 | 1.204 | | 264 | 250 | 5.6 | 30.0 |
| Iodomethane | Ave | 0.5311 | 0.5201 | | 24.5 | 25.0 | -2.1 | 40.0 |
| Acrylonitrile | Ave | 0.0686 | 0.0844 | | 308 | 250 | 23.1 | 40.0 |
| Methylene Chloride | Lin2 | | 0.2433 | | 23.1 | 25.0 | -7.6 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.3208 | 0.3354 | | 26.1 | 25.0 | 4.5 | 40.0 |
| Allyl chloride | Ave | 0.4356 | 0.4551 | | 26.1 | 25.0 | 4.5 | 40.0 |
| Carbon disulfide | Ave | 0.8355 | 0.8404 | | 25.1 | 25.0 | 0.6 | 40.0 |
| trans-1,2-Dichloroethene | Ave | 0.2524 | 0.2593 | | 25.7 | 25.0 | 2.7 | 30.0 |
| Methyl-t-Butyl Ether (MTBE) | Ave | 0.6755 | 0.7355 | | 27.2 | 25.0 | 8.9 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.4492 | 0.4689 | 0.1000 | 26.1 | 25.0 | 4.4 | 30.0 |
| Propionitrile | Ave | 0.0285 | 0.0352 | | 308 | 250 | 23.1 | 40.0 |
| Vinyl acetate | Lin2 | | 0.5002 | | 25.0 | 20.0 | 24.9 | 40.0 |
| Hexane | Ave | 0.4198 | 0.4209 | | 25.1 | 25.0 | 0.3 | 40.0 |
| 2-Butanone (MEK) | Lin2 | | 0.0268 | | 28.3 | 25.0 | 13.3 | 40.0 |
| Isopropyl Ether (DIPE) | Ave | 0.7928 | 0.8452 | | 26.6 | 25.0 | 6.6 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.2761 | 0.2697 | | 24.4 | 25.0 | -2.3 | 30.0 |
| Bromochloromethane | Ave | 0.1441 | 0.1410 | | 24.5 | 25.0 | -2.1 | 30.0 |
| Chloroform | Ave | 0.4746 | 0.5022 | | 26.5 | 25.0 | 5.8 | 20.0 |
| Ethyl-t-butyl ether (ETBE) | Ave | 0.7838 | 0.8723 | | 27.8 | 25.0 | 11.3 | 30.0 |
| 2,2-Dichloropropane | Ave | 0.3569 | 0.4105 | | 28.8 | 25.0 | 15.0 | 30.0 |
| Isobutyl alcohol | Ave | 0.5448 | 0.5602 | | 643 | 625 | 2.8 | 40.0 |
| Tetrahydrofuran | Ave | 0.0735 | 0.0821 | | 55.9 | 50.0 | 11.8 | 40.0 |
| 1,2-Dichloroethane | Ave | 0.3589 | 0.3969 | | 27.6 | 25.0 | 10.6 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.4762 | 0.5093 | | 26.7 | 25.0 | 7.0 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.3537 | 0.3812 | | 26.9 | 25.0 | 7.8 | 30.0 |
| Cyclohexane | Ave | 0.4683 | 0.4957 | | 26.5 | 25.0 | 5.9 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCVIS 440-442408/2 Calibration Date: 11/19/2017 09:37

Instrument ID: GCMS31 Calib Start Date: 11/03/2017 15:52

GC Column: DB-VRX C ID: 0.25(mm) Calib End Date: 11/03/2017 21:01

Lab File ID: NFK19002.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Carbon tetrachloride | Ave | 0.4585 | 0.4951 | | 27.0 | 25.0 | 8.0 | 40.0 |
| Benzene | Ave | 0.9691 | 0.996 | | 25.7 | 25.0 | 2.7 | 30.0 |
| Tert-amyl-methyl ether (TAME) | Ave | 0.7225 | 0.7645 | | 26.5 | 25.0 | 5.8 | 30.0 |
| n-Heptane | Ave | 0.4392 | 0.4681 | | 26.6 | 25.0 | 6.6 | 30.0 |
| Dibromomethane | Ave | 0.1745 | 0.1795 | | 25.7 | 25.0 | 2.8 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.2255 | 0.2509 | | 27.8 | 25.0 | 11.2 | 20.0 |
| Trichloroethene | Ave | 0.3099 | 0.3020 | | 24.4 | 25.0 | -2.6 | 30.0 |
| Bromodichloromethane | Ave | 0.3541 | 0.3761 | | 26.6 | 25.0 | 6.2 | 30.0 |
| 2-Chloroethyl vinyl ether | Ave | 0.1703 | 0.1662 | | 24.4 | 25.0 | -2.4 | 40.0 |
| cis-1,3-Dichloropropene | Ave | 0.4574 | 0.4850 | | 26.5 | 25.0 | 6.0 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.2641 | 0.3005 | | 28.4 | 25.0 | 13.8 | 40.0 |
| trans-1,3-Dichloropropene | Ave | 0.4139 | 0.4619 | | 27.9 | 25.0 | 11.6 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.2041 | 0.2178 | | 26.7 | 25.0 | 6.7 | 30.0 |
| Toluene | Ave | 1.278 | 1.296 | | 25.4 | 25.0 | 1.5 | 20.0 |
| 1,3-Dichloropropane | Ave | 0.4153 | 0.4168 | | 25.1 | 25.0 | 0.4 | 30.0 |
| Ethyl methacrylate | Ave | 0.3204 | 0.3343 | | 26.1 | 25.0 | 4.4 | 40.0 |
| 2-Hexanone | Ave | 0.1934 | 0.2260 | | 29.2 | 25.0 | 16.9 | 40.0 |
| Dibromochloromethane | Ave | 0.3244 | 0.3572 | | 27.5 | 25.0 | 10.1 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2839 | 0.2869 | | 25.3 | 25.0 | 1.0 | 30.0 |
| Tetrachloroethene | Ave | 0.3143 | 0.3228 | | 25.7 | 25.0 | 2.7 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.3449 | 0.3472 | | 25.2 | 25.0 | 0.7 | 40.0 |
| Chlorobenzene | Ave | 0.8835 | 0.8858 | 0.3000 | 25.1 | 25.0 | 0.3 | 30.0 |
| Ethylbenzene | Ave | 1.505 | 1.508 | | 25.1 | 25.0 | 0.2 | 20.0 |
| m,p-Xylene | Ave | 0.5966 | 0.5856 | | 24.5 | 25.0 | -1.8 | 30.0 |
| Bromoform | Lin2 | | 0.2406 | 0.1000 | 25.7 | 25.0 | 2.9 | 40.0 |
| Styrene | Ave | 0.9370 | 0.9338 | | 24.9 | 25.0 | -0.3 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5953 | 0.6550 | 0.3000 | 27.5 | 25.0 | 10.0 | 30.0 |
| o-Xylene | Ave | 0.5920 | 0.5881 | | 24.8 | 25.0 | -0.7 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.1831 | 0.1916 | | 26.2 | 25.0 | 4.6 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.1863 | 0.2165 | | 29.1 | 25.0 | 16.2 | 40.0 |
| Isopropylbenzene | Ave | 1.603 | 1.591 | | 24.8 | 25.0 | -0.8 | 30.0 |
| Bromobenzene | Ave | 0.7817 | 0.7667 | | 24.5 | 25.0 | -1.9 | 30.0 |
| N-Propylbenzene | Ave | 3.376 | 3.469 | | 25.7 | 25.0 | 2.7 | 30.0 |
| 2-Chlorotoluene | Ave | 2.032 | 2.067 | | 25.4 | 25.0 | 1.7 | 30.0 |
| 4-Chlorotoluene | Ave | 2.121 | 2.128 | | 25.1 | 25.0 | 0.3 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.536 | 2.529 | | 24.9 | 25.0 | -0.3 | 30.0 |
| tert-Butylbenzene | Ave | 2.343 | 2.284 | | 24.4 | 25.0 | -2.5 | 30.0 |
| 1,2,4-Trimethylbenzene | Ave | 2.592 | 2.624 | | 25.3 | 25.0 | 1.2 | 30.0 |
| sec-Butylbenzene | Ave | 3.504 | 3.460 | | 24.7 | 25.0 | -1.3 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.578 | 1.562 | | 24.7 | 25.0 | -1.0 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCVIS 440-442408/2  Calibration Date: 11/19/2017 09:37

Instrument ID: GCMS31  Calib Start Date: 11/03/2017 15:52

GC Column: DB-VRX C  ID: 0.25(mm)  Calib End Date: 11/03/2017 21:01

Lab File ID: NFK19002.D  Conc. Units: ug/L  Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | Ave | 1.594 | 1.610 | | 25.2 | 25.0 | 1.0 | 30.0 |
| p-Isopropyltoluene | Ave | 3.002 | 3.013 | | 25.1 | 25.0 | 0.4 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.492 | 1.475 | | 24.7 | 25.0 | -1.2 | 30.0 |
| n-Butylbenzene | Ave | 2.705 | 2.741 | | 25.3 | 25.0 | 1.3 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Ave | 0.1464 | 0.1643 | | 28.0 | 25.0 | 12.2 | 40.0 |
| 1,2,4-Trichlorobenzene | Ave | 1.237 | 1.245 | | 25.2 | 25.0 | 0.6 | 40.0 |
| Naphthalene | Ave | 2.849 | 2.762 | | 24.2 | 25.0 | -3.1 | 40.0 |
| Hexachlorobutadiene | Ave | 0.7422 | 0.7570 | | 25.5 | 25.0 | 2.0 | 40.0 |
| 1,2,3-Trichlorobenzene | Ave | 1.222 | 1.135 | | 23.2 | 25.0 | -7.1 | 40.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2909 | 0.2839 | | 24.4 | 25.0 | -2.4 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.3262 | 0.3297 | | 25.3 | 25.0 | 1.1 | |
| Toluene-d8 (Surr) | Ave | 1.104 | 1.124 | | 25.5 | 25.0 | 1.8 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.8695 | 0.8886 | | 25.6 | 25.0 | 2.2 | 20.0 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-442408/3

Matrix: Water | Lab File ID: NFK19003.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 11/19/2017 10:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442408 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | ND | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-442408/3

Matrix: Water | Lab File ID: NFK19003.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 11/19/2017 10:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442408 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 440-442408/3

Matrix: Water  Lab File ID: NFK19003.D

Analysis Method: 8260B  Date Collected:

Sample wt/vol: 10(mL)  Date Analyzed: 11/19/2017 10:05

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX C  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 442408  Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 100 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 98 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 105 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-442408/4

Matrix: Water | Lab File ID: NFK19004.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 11/19/2017 10:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442408 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 26.1 | | 20 | 10 |
| 71-43-2 | Benzene | 25.5 | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | 23.9 | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | 24.1 | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 26.3 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 25.0 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | 26.6 | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | 25.0 | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 26.8 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | 24.9 | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | 25.4 | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 25.7 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | 24.4 | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | 25.3 | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | 25.4 | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | 25.9 | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | 26.1 | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 26.5 | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 28.5 | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 24.3 | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | 25.4 | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 24.9 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 24.8 | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 25.4 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | 24.3 | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | 26.0 | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | 25.6 | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | 24.2 | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | 28.2 | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | 25.2 | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | 28.1 | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | 28.1 | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | 25.0 | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 26.4 | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | 25.6 | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | 27.9 | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-442408/4

Matrix: Water | Lab File ID: NFK19004.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 11/19/2017 10:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442408 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 24.7 | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | 26.6 | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 24.3 | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 29.0 | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 26.2 | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | 25.4 | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | 23.5 | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | 25.8 | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | 26.0 | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | 25.0 | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | 24.8 | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | 25.0 | | 0.50 | 0.25 |
| 100-42-5 | Styrene | 24.6 | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 25.5 | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 273 | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | 25.4 | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 25.1 | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 26.7 | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 25.9 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | 25.1 | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | 26.7 | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | 26.3 | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 23.8 | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 24.5 | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | 26.0 | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | 26.3 | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 24.5 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | 26.4 | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | 26.9 | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 25.5 | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25.6 | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | 25.1 | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | 50.4 | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 440-442408/4

Matrix: Water Lab File ID: NFK19004.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 10(mL) Date Analyzed: 11/19/2017 10:33

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 442408 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 101 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 99 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 102 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01D-20171107 MS | Lab Sample ID: 440-195909-2 MS

Matrix: Water | Lab File ID: NFK19006.D

Analysis Method: 8260B | Date Collected: 11/07/2017 09:35

Sample wt/vol: 10(mL) | Date Analyzed: 11/19/2017 11:49

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442408 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 24.0 | | 20 | 10 |
| 71-43-2 | Benzene | 25.2 | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | 23.9 | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | 24.8 | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 26.5 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 22.3 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | 25.6 | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | 25.0 | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 26.3 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | 24.0 | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | 26.4 | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 27.8 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | 23.7 | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | 25.1 | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | 24.8 | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | 25.6 | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25.3 | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 24.6 | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 27.6 | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 24.1 | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | 24.5 | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 24.6 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 24.4 | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 24.0 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | 22.3 | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | 25.0 | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | 24.9 | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | 22.3 | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | 27.6 | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | 23.7 | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | 28.8 | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | 27.0 | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | 24.0 | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 25.8 | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | 25.3 | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | 26.4 | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01D-20171107 MS | Lab Sample ID: 440-195909-2 MS

Matrix: Water | Lab File ID: NFK19006.D

Analysis Method: 8260B | Date Collected: 11/07/2017 09:35

Sample wt/vol: 10(mL) | Date Analyzed: 11/19/2017 11:49

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442408 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 23.8 | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | 26.0 | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 22.8 | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 26.8 | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 25.6 | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | 23.4 | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | 23.3 | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | 25.4 | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | 25.8 | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | 23.9 | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | 24.4 | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | 24.6 | | 0.50 | 0.25 |
| 100-42-5 | Styrene | 21.8 | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 24.2 | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 240 | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | 24.4 | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 24.4 | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 26.0 | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 24.9 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | 24.0 | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | 25.8 | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | 25.1 | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 24.3 | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 25.5 | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | 26.1 | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | 24.7 | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 24.2 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | 25.3 | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | 25.8 | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 24.3 | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 24.5 | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | 25.5 | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | 47.3 | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01D-20171107 MS Lab Sample ID: 440-195909-2 MS

Matrix: Water Lab File ID: NFK19006.D

Analysis Method: 8260B Date Collected: 11/07/2017 09:35

Sample wt/vol: 10(mL) Date Analyzed: 11/19/2017 11:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 442408 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 100 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 102 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 97 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01D-20171107 MSD | Lab Sample ID: 440-195909-2 MSD

Matrix: Water | Lab File ID: NFK19007.D

Analysis Method: 8260B | Date Collected: 11/07/2017 09:35

Sample wt/vol: 10(mL) | Date Analyzed: 11/19/2017 12:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442408 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 25.4 | | 20 | 10 |
| 71-43-2 | Benzene | 25.1 | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | 22.2 | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | 23.6 | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 25.8 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 22.0 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | 24.0 | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | 23.9 | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 25.5 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | 22.7 | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | 26.0 | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 26.8 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | 22.8 | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | 21.7 | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | 22.1 | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | 24.6 | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | 24.3 | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 24.1 | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 23.7 | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 22.2 | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | 23.8 | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 21.3 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 21.6 | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 21.5 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | 21.1 | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | 25.3 | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | 26.0 | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | 22.6 | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | 26.9 | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | 22.4 | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | 26.6 | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | 25.6 | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | 22.1 | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 26.1 | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | 21.3 | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | 24.2 | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01D-20171107 MSD | Lab Sample ID: 440-195909-2 MSD

Matrix: Water | Lab File ID: NFK19007.D

Analysis Method: 8260B | Date Collected: 11/07/2017 09:35

Sample wt/vol: 10(mL) | Date Analyzed: 11/19/2017 12:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442408 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 22.2 | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | 26.4 | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 22.9 | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 24.4 | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 26.1 | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | 22.0 | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | 20.3 | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | 21.8 | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | 22.4 | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | 22.3 | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | 21.5 | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | 21.2 | | 0.50 | 0.25 |
| 100-42-5 | Styrene | 19.8 | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 24.7 | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 221 | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | 21.8 | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 23.3 | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 23.1 | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 23.1 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | 22.4 | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | 25.6 | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | 24.3 | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 20.7 | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 21.8 | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | 25.2 | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | 24.3 | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 23.9 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | 24.5 | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | 22.0 | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 21.4 | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 21.7 | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | 23.5 | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | 44.3 | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01D-20171107 MSD Lab Sample ID: 440-195909-2 MSD

Matrix: Water Lab File ID: NFK19007.D

Analysis Method: 8260B Date Collected: 11/07/2017 09:35

Sample wt/vol: 10(mL) Date Analyzed: 11/19/2017 12:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 442408 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 98 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 94 | | 80-128 |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: GCMS31 Start Date: 11/03/2017 14:24

Analysis Batch Number: 439348 End Date: 11/03/2017 22:25

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-439348/1 | | 11/03/2017 14:24 | 1 | NFK0301.D | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/03/2017 14:56 | 1 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/03/2017 15:24 | 1 | | DB-VRX C 0.25(mm) |
| STD02 440-439348/4 IC | | 11/03/2017 15:52 | 1 | NFK0304.D | DB-VRX C 0.25(mm) |
| STD04 440-439348/5 IC | | 11/03/2017 16:20 | 1 | NFK0305.D | DB-VRX C 0.25(mm) |
| STD05 440-439348/6 IC | | 11/03/2017 16:48 | 1 | NFK0306.D | DB-VRX C 0.25(mm) |
| STD1 440-439348/7 IC | | 11/03/2017 17:16 | 1 | NFK0307.D | DB-VRX C 0.25(mm) |
| STD2 440-439348/8 IC | | 11/03/2017 17:44 | 1 | NFK0308.D | DB-VRX C 0.25(mm) |
| STD5 440-439348/9 IC | | 11/03/2017 18:12 | 1 | NFK0309.D | DB-VRX C 0.25(mm) |
| STD10 440-439348/10 IC | | 11/03/2017 18:40 | 1 | NFK0310.D | DB-VRX C 0.25(mm) |
| ICIS 440-439348/11 | | 11/03/2017 19:08 | 1 | NFK0311.D | DB-VRX C 0.25(mm) |
| STD50 440-439348/12 IC | | 11/03/2017 19:36 | 1 | NFK0312.D | DB-VRX C 0.25(mm) |
| STD100 440-439348/13 IC | | 11/03/2017 20:05 | 1 | NFK0313.D | DB-VRX C 0.25(mm) |
| STD200 440-439348/14 IC | | 11/03/2017 20:33 | 1 | NFK0314.D | DB-VRX C 0.25(mm) |
| STD300 440-439348/15 IC | | 11/03/2017 21:01 | 1 | NFK0315.D | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/03/2017 21:29 | 1 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/03/2017 21:57 | 1 | | DB-VRX C 0.25(mm) |
| ICV 440-439348/18 | | 11/03/2017 22:25 | 1 | NFK0318.D | DB-VRX C 0.25(mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: GCMS31 Start Date: 11/19/2017 09:02

Analysis Batch Number: 442408 End Date: 11/19/2017 20:17

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-442408/1 | | 11/19/2017 09:02 | 1 | NFK19001.D | DB-VRX C 0.25(mm) |
| CCVIS 440-442408/2 | | 11/19/2017 09:37 | 1 | NFK19002.D | DB-VRX C 0.25(mm) |
| MB 440-442408/3 | | 11/19/2017 10:05 | 1 | NFK19003.D | DB-VRX C 0.25(mm) |
| LCS 440-442408/4 | | 11/19/2017 10:33 | 1 | NFK19004.D | DB-VRX C 0.25(mm) |
| 440-195909-2 | | 11/19/2017 11:21 | 1 | NFK19005.D | DB-VRX C 0.25(mm) |
| 440-195909-2 MS | | 11/19/2017 11:49 | 1 | NFK19006.D | DB-VRX C 0.25(mm) |
| 440-195909-2 MSD | | 11/19/2017 12:18 | 1 | NFK19007.D | DB-VRX C 0.25(mm) |
| 440-195909-3 | | 11/19/2017 12:46 | 1 | NFK19008.D | DB-VRX C 0.25(mm) |
| 440-195909-1 | | 11/19/2017 13:14 | 1 | NFK19009.D | DB-VRX C 0.25(mm) |
| 440-195909-4 | | 11/19/2017 13:42 | 1 | NFK19010.D | DB-VRX C 0.25(mm) |
| 440-195909-5 | | 11/19/2017 14:10 | 1 | NFK19011.D | DB-VRX C 0.25(mm) |
| 440-195909-6 | | 11/19/2017 14:38 | 1 | NFK19012.D | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/19/2017 15:06 | 20 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/19/2017 15:35 | 100 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/19/2017 16:03 | 100 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/19/2017 16:31 | 1 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/19/2017 16:59 | 1 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/19/2017 17:27 | 1 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/19/2017 17:55 | 4 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/19/2017 18:24 | 20 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/19/2017 18:52 | 50 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/19/2017 19:20 | 100 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/19/2017 19:49 | 1 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/19/2017 20:17 | 5 | | DB-VRX C 0.25(mm) |

# 314.0_LL

## Perchlorate (IC)

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096417-00404ECD_1.d

Lab ID: LCS 440-442064/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 25.0 | 26.2 | 105 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096502-00404ECD_1.d

Lab ID: LCS 440-442474/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 25.0 | 26.3 | 105 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096417-00707ECD_1.d

Lab ID: MRL 440-442064/7 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 4.00 | 4.81 | 120 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096502-00707ECD_1.d

Lab ID: MRL 440-442474/7 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 4.00 | 4.77 | 119 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096417-00909ECD_1.d

Lab ID: 440-196373-B-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Perchlorate | 25.0 | 16 | 40.0 | 95 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096502-00909ECD_1.d

Lab ID: 580-72581-E-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Perchlorate | 125 | 150 | 288 | 110 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096417-01010ECD_1.d

Lab ID: 440-196373-B-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Perchlorate | 25.0 | 40.4 | 97 | 1 | 20 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096502-01010ECD_1.d

Lab ID: 580-72581-E-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Perchlorate | 125 | 289 | 111 | 1 | 20 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096417-00606ECD_1.d

Lab ID: INF 440-442064/6 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | INF CONCENTRATION (ug/L) | INF % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 25.0 | 26.3 | 105 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096502-00606ECD_1.d

Lab ID: INF 440-442474/6 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | INF CONCENTRATION (ug/L) | INF % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 25.0 | 27.3 | 109 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab File ID: 440-0096417-00505ECD_1.d Lab Sample ID: MB 440-442064/5

Matrix: Water Date Extracted:

Instrument ID: IC-24 Date Analyzed: 11/17/2017 10:10

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-442064/3 | 440-0096417-00303ECD_1.d | 11/17/2017 09:35 |
| | LCS 440-442064/4 | 440-0096417-00404ECD_1.d | 11/17/2017 09:53 |
| | 440-196373-B-1 MS | 440-0096417-00909ECD_1.d | 11/17/2017 11:28 |
| | 440-196373-B-1 MSD | 440-0096417-01010ECD_1.d | 11/17/2017 11:46 |
| VMW-01D-20171107 | 440-195909-2 | 440-0096417-01111ECD_1.d | 11/17/2017 12:07 |
| VMW-01D-20171107-FD | 440-195909-3 | 440-0096417-01212ECD_1.d | 11/17/2017 12:25 |
| VMW-01I-20171107 | 440-195909-4 | 440-0096417-01313ECD_1.d | 11/17/2017 12:42 |
| | CCB 440-442064/15 | 440-0096417-01515ECD_1.d | 11/17/2017 13:18 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab File ID: 440-0096502-00505ECD_1.d Lab Sample ID: MB 440-442474/5

Matrix: Water Date Extracted:

Instrument ID: IC-24 Date Analyzed: 11/20/2017 09:35

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-442474/3 | 440-0096502-00303ECD_1.d | 11/20/2017 08:59 |
| | LCS 440-442474/4 | 440-0096502-00404ECD_1.d | 11/20/2017 09:17 |
| | 580-72581-E-1 MS | 440-0096502-00909ECD_1.d | 11/20/2017 10:49 |
| | 580-72581-E-1 MSD | 440-0096502-01010ECD_1.d | 11/20/2017 11:07 |
| | CCB 440-442474/15 | 440-0096502-01515ECD_1.d | 11/20/2017 12:36 |
| VER-01D-20171107-EB | 440-195909-6 | 440-0096502-01818ECD_1.d | 11/20/2017 13:29 |
| VER-01D-20171107 | 440-195909-5 | 440-0096502-01919ECD_1.d | 11/20/2017 13:47 |
| | CCB 440-442474/24 | 440-0096502-02424ECD_1.d | 11/20/2017 15:45 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01D-20171107 | Lab Sample ID: 440-195909-2

Matrix: Water | Lab File ID: 440-0096417-01111ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 11/07/2017 09:35

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/17/2017 12:07

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442064 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 7900 | | 500 | 250 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01D-20171107-FD | Lab Sample ID: 440-195909-3

Matrix: Water | Lab File ID: 440-0096417-01212ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 11/07/2017 09:35

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/17/2017 12:25

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442064 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 7400 | | 500 | 250 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01I-20171107 | Lab Sample ID: 440-195909-4

Matrix: Water | Lab File ID: 440-0096417-01313ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 11/07/2017 11:40

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/17/2017 12:42

Con. Extract Vol.: | Dilution Factor: 50000

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442064 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1000000 | | 50000 | 25000 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VER-01D-20171107 | Lab Sample ID: 440-195909-5

Matrix: Water | Lab File ID: 440-0096502-01919ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 11/07/2017 12:50

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/20/2017 13:47

Con. Extract Vol.: | Dilution Factor: 1000

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442474 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 53000 | | 1000 | 500 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VER-01D-20171107-EB | Lab Sample ID: 440-195909-6

Matrix: Water | Lab File ID: 440-0096502-01818ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 11/07/2017 13:20

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/20/2017 13:29

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442474 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 438806

SDG No.:

Instrument ID: IC-24 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/01/2017 11:58 Calibration End Date: 11/01/2017 14:03 Calibration ID: 17854

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-438806/1 | 440-0095615-00101ECD_1.d |
| Level 2 | STD1 440-438806/2 | 440-0095615-00202ECD_1.d |
| Level 3 | STD2 440-438806/3 | 440-0095615-00303ECD_1.d |
| Level 4 | STD3 440-438806/4 | 440-0095615-00404ECD_1.d |
| Level 5 | STD4 440-438806/5 | 440-0095615-00505ECD_1.d |
| Level 6 | STD5 440-438806/6 | 440-0095615-00606ECD_1.d |
| Level 7 | STD6 440-438806/7 | 440-0095615-00707ECD_1.d |
| Level 8 | STD7 440-438806/8 | 440-0095615-00808ECD_1.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | LVL 8 | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | | 11.747 | 11.761 | 11.764 | 11.757 | 11.754 | 11.747 | 11.734 | | | 0.000 - 0.000 | 11.752 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 438806

SDG No.:

Instrument ID: IC-24 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/01/2017 11:58 Calibration End Date: 11/01/2017 14:03 Calibration ID: 17854

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-438806/1 | 440-0095615-00101ECD_1.d |
| Level 2 | STD1 440-438806/2 | 440-0095615-00202ECD_1.d |
| Level 3 | STD2 440-438806/3 | 440-0095615-00303ECD_1.d |
| Level 4 | STD3 440-438806/4 | 440-0095615-00404ECD_1.d |
| Level 5 | STD4 440-438806/5 | 440-0095615-00505ECD_1.d |
| Level 6 | STD5 440-438806/6 | 440-0095615-00606ECD_1.d |
| Level 7 | STD6 440-438806/7 | 440-0095615-00707ECD_1.d |
| Level 8 | STD7 440-438806/8 | 440-0095615-00808ECD_1.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4<br>LVL 8 | | B | M1 | M2 | | | | | | | | |
| Perchlorate | 114617 | 92604<br>120893 | 111120<br>120691 | 114179<br>124725 | Lin | -57668.730 | 124523.405 | | | | | | | 1.0000 | | 0.9950 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 438806

SDG No.:

Instrument ID: IC-24 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/01/2017 11:58 Calibration End Date: 11/01/2017 14:03 Calibration ID: 17854

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-438806/1 | 440-0095615-00101ECD_1.d |
| Level 2 | STD1 440-438806/2 | 440-0095615-00202ECD_1.d |
| Level 3 | STD2 440-438806/3 | 440-0095615-00303ECD_1.d |
| Level 4 | STD3 440-438806/4 | 440-0095615-00404ECD_1.d |
| Level 5 | STD4 440-438806/5 | 440-0095615-00505ECD_1.d |
| Level 6 | STD5 440-438806/6 | 440-0095615-00606ECD_1.d |
| Level 7 | STD6 440-438806/7 | 440-0095615-00707ECD_1.d |
| Level 8 | STD7 440-438806/8 | 440-0095615-00808ECD_1.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 |
| Perchlorate | Lin | 3022336 | 92604<br>6034537 | 222240<br>12472537 | 456717 | 1146173 | 0.000000<br>25.0 | 1.00<br>50.0 | 2.00<br>100 | 4.00 | 10.0 |

Curve Type Legend:
Lin = Linear

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: ICV 440-438806/9 Calibration Date: 11/01/2017 14:21

Instrument ID: IC-24 Calib Start Date: 11/01/2017 11:58

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:03

Lab File ID: 440-0095615-00909ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 48.5 | 50.0 | 97 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: ICV 440-438806/9 Calibration Date: 11/01/2017 14:21

Instrument ID: IC-24 Calib Start Date: 11/01/2017 11:58

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:03

Lab File ID: 440-0095615-00909ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.74 | 11.18 | 12.36 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-442064/2 Calibration Date: 11/17/2017 09:12

Instrument ID: IC-24 Calib Start Date: 11/01/2017 11:58

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:03

Lab File ID: 440-0096417-00202ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 26.2 | 25.0 | 105 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-442064/2 Calibration Date: 11/17/2017 09:12

Instrument ID: IC-24 Calib Start Date: 11/01/2017 11:58

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:03

Lab File ID: 440-0096417-00202ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.70 | 11.11 | 12.28 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-442064/14 Calibration Date: 11/17/2017 13:00

Instrument ID: IC-24 Calib Start Date: 11/01/2017 11:58

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:03

Lab File ID: 440-0096417-01414ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 25.7 | 25.0 | 103 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-442064/14 Calibration Date: 11/17/2017 13:00

Instrument ID: IC-24 Calib Start Date: 11/01/2017 11:58

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:03

Lab File ID: 440-0096417-01414ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.69 | 11.11 | 12.28 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-442474/2 Calibration Date: 11/20/2017 08:30

Instrument ID: IC-24 Calib Start Date: 11/01/2017 11:58

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:03

Lab File ID: 440-0096502-00202ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 26.7 | 25.0 | 107 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-442474/2 Calibration Date: 11/20/2017 08:30

Instrument ID: IC-24 Calib Start Date: 11/01/2017 11:58

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:03

Lab File ID: 440-0096502-00202ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.55 | 10.97 | 12.13 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-442474/14 Calibration Date: 11/20/2017 12:18

Instrument ID: IC-24 Calib Start Date: 11/01/2017 11:58

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:03

Lab File ID: 440-0096502-01414ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 27.7 | 25.0 | 111 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-442474/14 Calibration Date: 11/20/2017 12:18

Instrument ID: IC-24 Calib Start Date: 11/01/2017 11:58

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:03

Lab File ID: 440-0096502-01414ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.56 | 10.98 | 12.14 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-442474/23 Calibration Date: 11/20/2017 15:27

Instrument ID: IC-24 Calib Start Date: 11/01/2017 11:58

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:03

Lab File ID: 440-0096502-02323ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 84.5 | 75.0 | 113 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-442474/23 Calibration Date: 11/20/2017 15:27

Instrument ID: IC-24 Calib Start Date: 11/01/2017 11:58

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:03

Lab File ID: 440-0096502-02323ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.57 | 10.99 | 12.15 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-442064/5

Matrix: Water | Lab File ID: 440-0096417-00505ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/17/2017 10:10

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442064 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-442474/5

Matrix: Water | Lab File ID: 440-0096502-00505ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/20/2017 09:35

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442474 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-442064/3

Matrix: Water | Lab File ID: 440-0096417-00303ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/17/2017 09:35

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442064 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-442064/15

Matrix: Water | Lab File ID: 440-0096417-01515ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/17/2017 13:18

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442064 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-442474/3

Matrix: Water | Lab File ID: 440-0096502-00303ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/20/2017 08:59

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442474 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-442474/15

Matrix: Water | Lab File ID: 440-0096502-01515ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/20/2017 12:36

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442474 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-442474/24

Matrix: Water | Lab File ID: 440-0096502-02424ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/20/2017 15:45

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442474 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-442064/4

Matrix: Water | Lab File ID: 440-0096417-00404ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/17/2017 09:53

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442064 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 26.2 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-442474/4

Matrix: Water | Lab File ID: 440-0096502-00404ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/20/2017 09:17

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442474 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 26.3 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-442064/7

Matrix: Water | Lab File ID: 440-0096417-00707ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/17/2017 10:46

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442064 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 4.81 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-442474/7

Matrix: Water | Lab File ID: 440-0096502-00707ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/20/2017 10:11

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442474 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 4.77 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: INF 440-442064/6

Matrix: Water | Lab File ID: 440-0096417-00606ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/17/2017 10:28

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442064 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 26.3 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: INF 440-442474/6

Matrix: Water | Lab File ID: 440-0096502-00606ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/20/2017 09:53

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442474 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 27.3 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-196373-B-1 MS

Matrix: Water | Lab File ID: 440-0096417-00909ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 11/13/2017 15:15

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/17/2017 11:28

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442064 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 40.0 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: 580-72581-E-1 MS

Matrix: Water | Lab File ID: 440-0096502-00909ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 11/02/2017 10:00

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/20/2017 10:49

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442474 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 288 | | 5.0 | 2.5 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-196373-B-1 MSD

Matrix: Water | Lab File ID: 440-0096417-01010ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 11/13/2017 15:15

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/17/2017 11:46

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442064 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 40.4 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: 580-72581-E-1 MSD

Matrix: Water | Lab File ID: 440-0096502-01010ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 11/02/2017 10:00

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/20/2017 11:07

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442474 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 289 | | 5.0 | 2.5 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-24 Start Date: 11/01/2017 11:58

Analysis Batch Number: 438806 End Date: 11/02/2017 13:24

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| STD0 440-438806/1 IC | | 11/01/2017 11:58 | 1 | 440-0095615-001 01ECD 1.d | AS7 A 4(mm) |
| STD1 440-438806/2 IC | | 11/01/2017 12:16 | 1 | 440-0095615-002 02ECD 1.d | AS7 A 4(mm) |
| STD2 440-438806/3 IC | | 11/01/2017 12:33 | 1 | 440-0095615-003 03ECD 1.d | AS7 A 4(mm) |
| STD3 440-438806/4 IC | | 11/01/2017 12:51 | 1 | 440-0095615-004 04ECD 1.d | AS7 A 4(mm) |
| STD4 440-438806/5 IC | | 11/01/2017 13:09 | 1 | 440-0095615-005 05ECD 1.d | AS7 A 4(mm) |
| STD5 440-438806/6 IC | | 11/01/2017 13:27 | 1 | 440-0095615-006 06ECD 1.d | AS7 A 4(mm) |
| STD6 440-438806/7 IC | | 11/01/2017 13:45 | 1 | 440-0095615-007 07ECD 1.d | AS7 A 4(mm) |
| STD7 440-438806/8 IC | | 11/01/2017 14:03 | 1 | 440-0095615-008 08ECD 1.d | AS7 A 4(mm) |
| ICV 440-438806/9 | | 11/01/2017 14:21 | 1 | 440-0095615-009 09ECD 1.d | AS7 A 4(mm) |
| ICB 440-438806/10 | | 11/01/2017 14:39 | 1 | | AS7 A 4(mm) |
| CCV 440-438806/11 | | 11/01/2017 18:48 | 1 | | AS7 A 4(mm) |
| CCB 440-438806/12 | | 11/01/2017 19:06 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/01/2017 19:46 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/01/2017 20:04 | 1 | | AS7 A 4(mm) |
| INF 440-438806/15 | | 11/01/2017 20:24 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/01/2017 20:42 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/01/2017 21:35 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/01/2017 21:53 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/01/2017 22:10 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/01/2017 22:28 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/01/2017 22:46 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/01/2017 23:04 | 1 | | AS7 A 4(mm) |
| CCV 440-438806/23 | | 11/01/2017 23:22 | 1 | | AS7 A 4(mm) |
| CCB 440-438806/24 | | 11/01/2017 23:40 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/01/2017 23:58 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 00:16 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 00:33 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 00:51 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 01:09 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 01:27 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 01:45 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 02:03 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 02:21 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 02:38 | 100 | | AS7 A 4(mm) |
| CCV 440-438806/35 | | 11/02/2017 02:56 | 1 | | AS7 A 4(mm) |
| CCB 440-438806/36 | | 11/02/2017 03:14 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 03:32 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 03:50 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 04:08 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 04:26 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 04:44 | 100 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-24 Start Date: 11/01/2017 11:58

Analysis Batch Number: 438806 End Date: 11/02/2017 13:24

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 11/02/2017 05:01 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 05:19 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 05:37 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 05:55 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 06:13 | 100 | | AS7 A 4(mm) |
| CCV 440-438806/47 | | 11/02/2017 06:31 | 1 | | AS7 A 4(mm) |
| CCB 440-438806/48 | | 11/02/2017 06:49 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 07:07 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 07:24 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 07:42 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 07:59 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 08:17 | 100 | | AS7 A 4(mm) |
| CCV 440-438806/54 | | 11/02/2017 08:35 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 08:53 | 1 | | AS7 A 4(mm) |
| CCB 440-438806/56 | | 11/02/2017 09:55 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 10:21 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 10:38 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 11:02 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 11:19 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 11:37 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 11:55 | 200 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 12:12 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 12:30 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 12:48 | 10 | | AS7 A 4(mm) |
| CCV 440-438806/66 | | 11/02/2017 13:06 | 1 | | AS7 A 4(mm) |
| CCB 440-438806/67 | | 11/02/2017 13:24 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-24 Start Date: 11/17/2017 08:55

Analysis Batch Number: 442064 End Date: 11/17/2017 20:21

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 11/17/2017 08:55 | 1 | | AS7 A 4(mm) |
| CCV 440-442064/2 | | 11/17/2017 09:12 | 1 | 440-0096417-002 02ECD 1.d | AS7 A 4(mm) |
| CCB 440-442064/3 | | 11/17/2017 09:35 | 1 | 440-0096417-003 03ECD 1.d | AS7 A 4(mm) |
| LCS 440-442064/4 | | 11/17/2017 09:53 | 1 | 440-0096417-004 04ECD 1.d | AS7 A 4(mm) |
| MB 440-442064/5 | | 11/17/2017 10:10 | 1 | 440-0096417-005 05ECD 1.d | AS7 A 4(mm) |
| INF 440-442064/6 | | 11/17/2017 10:28 | 1 | 440-0096417-006 06ECD 1.d | AS7 A 4(mm) |
| MRL 440-442064/7 | | 11/17/2017 10:46 | 1 | 440-0096417-007 07ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 11/17/2017 11:11 | 1 | | AS7 A 4(mm) |
| 440-196373-B-1 MS | | 11/17/2017 11:28 | 1 | 440-0096417-009 09ECD 1.d | AS7 A 4(mm) |
| 440-196373-B-1 MSD | | 11/17/2017 11:46 | 1 | 440-0096417-010 10ECD 1.d | AS7 A 4(mm) |
| 440-195909-2 | | 11/17/2017 12:07 | 500 | 440-0096417-011 11ECD 1.d | AS7 A 4(mm) |
| 440-195909-3 | | 11/17/2017 12:25 | 500 | 440-0096417-012 12ECD 1.d | AS7 A 4(mm) |
| 440-195909-4 | | 11/17/2017 12:42 | 50000 | 440-0096417-013 13ECD 1.d | AS7 A 4(mm) |
| CCV 440-442064/14 | | 11/17/2017 13:00 | 1 | 440-0096417-014 14ECD 1.d | AS7 A 4(mm) |
| CCB 440-442064/15 | | 11/17/2017 13:18 | 1 | 440-0096417-015 15ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 11/17/2017 14:05 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/17/2017 14:23 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/17/2017 14:41 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/17/2017 14:59 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/17/2017 15:16 | 50000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/17/2017 15:34 | 50000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/17/2017 15:52 | 50000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/17/2017 16:10 | 50000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/17/2017 16:28 | 50000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/17/2017 16:46 | 50000 | | AS7 A 4(mm) |
| CCV 440-442064/26 | | 11/17/2017 17:04 | 1 | | AS7 A 4(mm) |
| CCB 440-442064/27 | | 11/17/2017 17:22 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/17/2017 17:58 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/17/2017 18:16 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/17/2017 18:33 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/17/2017 18:51 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/17/2017 19:09 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/17/2017 19:27 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/17/2017 19:45 | 10000 | | AS7 A 4(mm) |
| CCV 440-442064/35 | | 11/17/2017 20:03 | 1 | | AS7 A 4(mm) |
| CCB 440-442064/36 | | 11/17/2017 20:21 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-24 Start Date: 11/20/2017 08:12

Analysis Batch Number: 442474 End Date: 11/21/2017 02:13

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 11/20/2017 08:12 | 1 | | AS7 A 4(mm) |
| CCV 440-442474/2 | | 11/20/2017 08:30 | 1 | 440-0096502-002 02ECD 1.d | AS7 A 4(mm) |
| CCB 440-442474/3 | | 11/20/2017 08:59 | 1 | 440-0096502-003 03ECD 1.d | AS7 A 4(mm) |
| LCS 440-442474/4 | | 11/20/2017 09:17 | 1 | 440-0096502-004 04ECD 1.d | AS7 A 4(mm) |
| MB 440-442474/5 | | 11/20/2017 09:35 | 1 | 440-0096502-005 05ECD 1.d | AS7 A 4(mm) |
| INF 440-442474/6 | | 11/20/2017 09:53 | 1 | 440-0096502-006 06ECD 1.d | AS7 A 4(mm) |
| MRL 440-442474/7 | | 11/20/2017 10:11 | 1 | 440-0096502-007 07ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 10:31 | 5 | | AS7 A 4(mm) |
| 580-72581-E-1 MS | | 11/20/2017 10:49 | 5 | 440-0096502-009 09ECD 1.d | AS7 A 4(mm) |
| 580-72581-E-1 MSD | | 11/20/2017 11:07 | 5 | 440-0096502-010 10ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 11:24 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 11:42 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 12:00 | 50 | | AS7 A 4(mm) |
| CCV 440-442474/14 | | 11/20/2017 12:18 | 1 | 440-0096502-014 14ECD 1.d | AS7 A 4(mm) |
| CCB 440-442474/15 | | 11/20/2017 12:36 | 1 | 440-0096502-015 15ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 12:54 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 13:12 | 1 | | AS7 A 4(mm) |
| 440-195909-6 | | 11/20/2017 13:29 | 1 | 440-0096502-018 18ECD 1.d | AS7 A 4(mm) |
| 440-195909-5 | | 11/20/2017 13:47 | 1000 | 440-0096502-019 19ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 14:05 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 14:23 | 50000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 14:59 | 5000 | | AS7 A 4(mm) |
| CCV 440-442474/23 | | 11/20/2017 15:27 | 1 | 440-0096502-023 23ECD 1.d | AS7 A 4(mm) |
| CCB 440-442474/24 | | 11/20/2017 15:45 | 1 | 440-0096502-024 24ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 16:05 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 16:23 | 500 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 16:41 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 16:59 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 17:17 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 17:34 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 17:52 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 18:10 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 18:28 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 18:46 | 5 | | AS7 A 4(mm) |
| CCV 440-442474/35 | | 11/20/2017 19:04 | 1 | | AS7 A 4(mm) |
| CCB 440-442474/36 | | 11/20/2017 19:22 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 19:40 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 19:57 | 5000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 20:15 | 10000 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-24 Start Date: 11/20/2017 08:12

Analysis Batch Number: 442474 End Date: 11/21/2017 02:13

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 11/20/2017 20:33 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 20:51 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 21:09 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 21:27 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 21:45 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 22:02 | 50 | | AS7 A 4(mm) |
| CCV 440-442474/46 | | 11/20/2017 22:20 | 1 | | AS7 A 4(mm) |
| CCB 440-442474/47 | | 11/20/2017 22:38 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 22:56 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 23:14 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 23:32 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 11/20/2017 23:50 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 11/21/2017 00:08 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 11/21/2017 00:25 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 11/21/2017 00:43 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 11/21/2017 01:01 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 11/21/2017 01:19 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 11/21/2017 01:37 | 50 | | AS7 A 4(mm) |
| CCV 440-442474/58 | | 11/21/2017 01:55 | 1 | | AS7 A 4(mm) |
| CCB 440-442474/59 | | 11/21/2017 02:13 | 1 | | AS7 A 4(mm) |

# Method 7199

## Chromium, Hexavalent (IC) by Method 7199

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Lab ID: LCS 440-440043/6 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 50.0 | 100 | 90-110 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Lab ID: MRL 440-440043/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 1.00 | 0.907 J | 91 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Lab ID: 440-195909-3 MS Client ID: VMW-01D-20171107-FD MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 21 | 72.0 | 102 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Lab ID: 440-195909-3 MSD Client ID: VMW-01D-20171107-FD MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 71.7 | 101 | 0 | 20 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Lab Sample ID: MB 440-440043/7

Matrix: Water Date Extracted:

Instrument ID: IC-20 Date Analyzed: 11/08/2017 07:44

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-440043/4 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 171108-0718 42.d | 11/08/2017 07:05 |
| | LCS 440-440043/6 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 171108-0744 41.d | 11/08/2017 07:31 |
| VMW-01D-20171107 | 440-195909-2 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 171108-0823 39.d | 11/08/2017 08:10 |
| VMW-01D-20171107-FD | 440-195909-3 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 171108-0836 40.d | 11/08/2017 08:23 |
| VMW-01I-20171107 | 440-195909-4 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 171108-0849 42.d | 11/08/2017 08:36 |
| VER-01D-20171107 | 440-195909-5 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 171108-0902 43.d | 11/08/2017 08:49 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Lab Sample ID: MB 440-440043/7

Matrix: Water Date Extracted:

Instrument ID: IC-20 Date Analyzed: 11/08/2017 07:44

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| VER-01D-20171107-EB | 440-195909-6 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 171108-0915 46.d | 11/08/2017 09:02 |
| VMW-01D-20171107-FD MS | 440-195909-3 MS | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 171108-0929 10.d | 11/08/2017 09:16 |
| VMW-01D-20171107-FD MSD | 440-195909-3 MSD | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 171108-0942 13.d | 11/08/2017 09:29 |
| | CCB 440-440043/20 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 171108-1047 29.d | 11/08/2017 10:34 |
| | CCB 440-440043/27 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 171108-1225 41.d | 11/08/2017 12:12 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01D-20171107 | Lab Sample ID: 440-195909-2

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected: 11/07/2017 09:35

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/08/2017 08:10

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440043 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 21 | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01D-20171107-FD | Lab Sample ID: 440-195909-3

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected: 11/07/2017 09:35

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/08/2017 08:23

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440043 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 21 | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01I-20171107 | Lab Sample ID: 440-195909-4

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected: 11/07/2017 11:40

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/08/2017 08:36

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440043 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 6900 | | 1000 | 130 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VER-01D-20171107 | Lab Sample ID: 440-195909-5

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected: 11/07/2017 12:50

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/08/2017 08:49

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440043 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 40 | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VER-01D-20171107-EB | Lab Sample ID: 440-195909-6

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected: 11/07/2017 13:20

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/08/2017 09:02

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440043 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 410549

SDG No.:

Instrument ID: IC-20 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/07/2017 09:47 Calibration End Date: 06/07/2017 11:17 Calibration ID: 16876

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-410549/4 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-101305.d |
| Level 2 | STD2 440-410549/5 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-102559.d |
| Level 3 | STD3 440-410549/6 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-103854.d |
| Level 4 | STD4 440-410549/7 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-105148.d |
| Level 5 | STD5 440-410549/8 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-110442.d |
| Level 6 | STD6 440-410549/9 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-111737.d |
| Level 7 | STD7 440-410549/10 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-113032.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 7.371 | 7.371 | 7.371 | 7.371 | 7.371 | 7.358 | 7.371 | | | | 7.002 - 7.740 | 7.369 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 410549

SDG No.:

Instrument ID: IC-20 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/07/2017 09:47 Calibration End Date: 06/07/2017 11:17 Calibration ID: 16876

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-410549/4 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-101305.d |
| Level 2 | STD2 440-410549/5 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-102559.d |
| Level 3 | STD3 440-410549/6 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-103854.d |
| Level 4 | STD4 440-410549/7 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-105148.d |
| Level 5 | STD5 440-410549/8 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-110442.d |
| Level 6 | STD6 440-410549/9 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-111737.d |
| Level 7 | STD7 440-410549/10 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-113032.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Chromium, hexavalent | 39603<br>30033 | 33986<br>30081 | 32664<br>29991 | 30361 | Lin1 | 3556.70380 | 30093.5173 | | | | | | | 1.0000 | | 0.9990 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 410549

SDG No.:

Instrument ID: IC-20 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/07/2017 09:47 Calibration End Date: 06/07/2017 11:17 Calibration ID: 16876

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-410549/4 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-101305.d |
| Level 2 | STD2 440-410549/5 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-102559.d |
| Level 3 | STD3 440-410549/6 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-103854.d |
| Level 4 | STD4 440-410549/7 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-105148.d |
| Level 5 | STD5 440-410549/8 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-110442.d |
| Level 6 | STD6 440-410549/9 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-111737.d |
| Level 7 | STD7 440-410549/10 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-113032.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| Chromium, hexavalent | Lin1 | 11881<br>2256046 | 33986<br>2999122 | 326644 | 759021 | 1501633 | 0.300<br>75.0 | 1.00<br>100 | 10.0 | 25.0 | 50.0 |

Curve Type Legend:
Lin1 = Linear 1/conc

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: ICV 440-410549/11 Calibration Date: 06/07/2017 11:47

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 48.3 | 50.0 | 97 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: ICV 440-410549/11 Calibration Date: 06/07/2017 11:47

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.42 | 7.00 | 7.74 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-440043/3 Calibration Date: 11/08/2017 06:50

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 50.1 | 50.0 | 100 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-440043/3 Calibration Date: 11/08/2017 06:50

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 6.65 | 6.31 | 6.97 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-440043/19 Calibration Date: 11/08/2017 10:21

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 49.7 | 50.0 | 99 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-440043/19 Calibration Date: 11/08/2017 10:21

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 6.67 | 6.31 | 6.97 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-440043/26 Calibration Date: 11/08/2017 11:59

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 49.2 | 50.0 | 98 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-440043/26 Calibration Date: 11/08/2017 11:59

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 6.64 | 6.31 | 6.97 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-440043/7

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/08/2017 07:44

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440043 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 440-440043/4

Matrix: Water Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 10(mL) Date Analyzed: 11/08/2017 07:05

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1000(uL) GC Column: AS7 A ID: 4(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 440043 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-440043/20

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/08/2017 10:34

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440043 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-440043/27

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/08/2017 12:12

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440043 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-440043/6

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/08/2017 07:31

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440043 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 50.0 | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-440043/5

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/08/2017 07:18

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440043 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 0.907 | J | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01D-20171107-FD MS | Lab Sample ID: 440-195909-3 MS

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected: 11/07/2017 09:35

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/08/2017 09:16

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440043 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 72.0 | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01D-20171107-FD MSD | Lab Sample ID: 440-195909-3 MSD

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected: 11/07/2017 09:35

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/08/2017 09:29

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440043 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 71.7 | | 2.0 | 0.25 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-20 Start Date: 06/07/2017 09:21

Analysis Batch Number: 410549 End Date: 06/08/2017 03:31

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 06/07/2017 09:21 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 09:34 | 1 | | AS7 A 4(mm) |
| STD0 440-410549/3 IC | | 06/07/2017 09:47 | 1 | | AS7 A 4(mm) |
| STD1 440-410549/4 IC | | 06/07/2017 10:00 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-101305.d | AS7 A 4(mm) |
| STD2 440-410549/5 IC | | 06/07/2017 10:13 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-102559.d | AS7 A 4(mm) |
| STD3 440-410549/6 IC | | 06/07/2017 10:26 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-103854.d | AS7 A 4(mm) |
| STD4 440-410549/7 IC | | 06/07/2017 10:38 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-105148.d | AS7 A 4(mm) |
| STD5 440-410549/8 IC | | 06/07/2017 10:51 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-110442.d | AS7 A 4(mm) |
| STD6 440-410549/9 IC | | 06/07/2017 11:04 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-111737.d | AS7 A 4(mm) |
| STD7 440-410549/10 IC | | 06/07/2017 11:17 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-113032.d | AS7 A 4(mm) |
| ICV 440-410549/11 | | 06/07/2017 11:47 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-120018.d | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 12:06 | 1 | | AS7 A 4(mm) |
| CCV 440-410549/1012 | | 06/07/2017 12:06 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 12:19 | 1 | | AS7 A 4(mm) |
| CCB 440-410549/1013 | | 06/07/2017 12:19 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 12:32 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 12:45 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 21:46 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 22:38 | 1 | | AS7 A 4(mm) |
| CCV 440-410549/26 | | 06/07/2017 22:51 | 1 | | AS7 A 4(mm) |
| CCB 440-410549/27 | | 06/07/2017 23:04 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 23:25 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 23:38 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 23:51 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-20 Start Date: 06/07/2017 09:21

Analysis Batch Number: 410549 End Date: 06/08/2017 03:31

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 06/08/2017 00:04 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 00:17 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 00:30 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 00:43 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 00:56 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 01:09 | 1 | | AS7 A 4(mm) |
| CCV 440-410549/38 | | 06/08/2017 01:35 | 1 | | AS7 A 4(mm) |
| CCB 440-410549/39 | | 06/08/2017 01:48 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 02:01 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 02:14 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 02:27 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 02:40 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 02:53 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 03:06 | 1 | | AS7 A 4(mm) |
| CCV 440-410549/46 | | 06/08/2017 03:18 | 1 | | AS7 A 4(mm) |
| CCB 440-410549/47 | | 06/08/2017 03:31 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-20 Start Date: 11/08/2017 06:03

Analysis Batch Number: 440043 End Date: 11/09/2017 01:57

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 11/08/2017 06:03 | 1 | | AS7 A 4(mm) |
| CCV 440-440043/3 | | 11/08/2017 06:50 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171108-070301.d | AS7 A 4(mm) |
| CCB 440-440043/4 | | 11/08/2017 07:05 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171108-071842.d | AS7 A 4(mm) |
| MRL 440-440043/5 | | 11/08/2017 07:18 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171108-073142.d | AS7 A 4(mm) |
| LCS 440-440043/6 | | 11/08/2017 07:31 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171108-074441.d | AS7 A 4(mm) |
| MB 440-440043/7 | | 11/08/2017 07:44 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171108-075740.d | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 07:57 | 1 | | AS7 A 4(mm) |
| 440-195909-2 | | 11/08/2017 08:10 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171108-082339.d | AS7 A 4(mm) |
| 440-195909-3 | | 11/08/2017 08:23 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171108-083640.d | AS7 A 4(mm) |
| 440-195909-4 | | 11/08/2017 08:36 | 500 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171108-084942.d | AS7 A 4(mm) |
| 440-195909-5 | | 11/08/2017 08:49 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171108-090243.d | AS7 A 4(mm) |
| 440-195909-6 | | 11/08/2017 09:02 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171108-091546.d | AS7 A 4(mm) |
| 440-195909-3 MS | | 11/08/2017 09:16 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171108-092910.d | AS7 A 4(mm) |
| 440-195909-3 MSD | | 11/08/2017 09:29 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171108-094213.d | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-20 Start Date: 11/08/2017 06:03

Analysis Batch Number: 440043 End Date: 11/09/2017 01:57

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 11/08/2017 09:42 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 09:55 | 1 | | AS7 A 4(mm) |
| 440-195909-4 | | 11/08/2017 10:08 | 200 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171108-102121.d | AS7 A 4(mm) |
| CCV 440-440043/19 | | 11/08/2017 10:21 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171108-103425.d | AS7 A 4(mm) |
| CCB 440-440043/20 | | 11/08/2017 10:34 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171108-104729.d | AS7 A 4(mm) |
| 440-195909-5 | | 11/08/2017 10:54 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171108-110710.d | AS7 A 4(mm) |
| 440-195909-6 | | 11/08/2017 11:07 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171108-112014.d | AS7 A 4(mm) |
| 440-195909-2 | | 11/08/2017 11:20 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171108-113319.d | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 11:33 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 11:46 | 1 | | AS7 A 4(mm) |
| CCV 440-440043/26 | | 11/08/2017 11:59 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171108-121235.d | AS7 A 4(mm) |
| CCB 440-440043/27 | | 11/08/2017 12:12 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171108-122541.d | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 13:04 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 13:17 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 13:30 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 13:43 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 13:56 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 14:09 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 14:22 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 14:35 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 14:48 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 15:01 | 3 | | AS7 A 4(mm) |
| CCV 440-440043/38 | | 11/08/2017 15:14 | 1 | | AS7 A 4(mm) |
| CCB 440-440043/39 | | 11/08/2017 15:27 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-20 Start Date: 11/08/2017 06:03

Analysis Batch Number: 440043 End Date: 11/09/2017 01:57

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 11/08/2017 18:50 | 3 | | AS7 A 4(mm) |
| CCV 440-440043/41 | | 11/08/2017 19:03 | 1 | | AS7 A 4(mm) |
| CCB 440-440043/42 | | 11/08/2017 19:17 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 19:39 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 21:49 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 22:02 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 22:15 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 22:28 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 22:41 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 22:54 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 23:07 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 23:22 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 23:35 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/08/2017 23:48 | 1 | | AS7 A 4(mm) |
| CCV 440-440043/54 | | 11/09/2017 00:01 | 1 | | AS7 A 4(mm) |
| CCB 440-440043/55 | | 11/09/2017 00:14 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/09/2017 00:26 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 11/09/2017 00:39 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/09/2017 00:52 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/09/2017 01:05 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/09/2017 01:18 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 11/09/2017 01:31 | 2 | | AS7 A 4(mm) |
| CCV 440-440043/62 | | 11/09/2017 01:44 | 1 | | AS7 A 4(mm) |
| CCB 440-440043/63 | | 11/09/2017 01:57 | 1 | | AS7 A 4(mm) |

# Method 300.1

## Disinfection By-Products (IC) by Method 300.1

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): AS14 ID: 4 (mm)

| Client Sample ID | Lab Sample ID | DCAA # |
|---|---|---|
| VMW-01D-20171107 | 440-195909-2 | 113 |
| VMW-01D-20171107 | 440-195909-2 | 113 |
| VMW-01D-20171107-FD | 440-195909-3 | 103 |
| VMW-01D-20171107-FD | 440-195909-3 | 103 |
| VMW-01I-20171107 | 440-195909-4 | 100 |
| VMW-01I-20171107 | 440-195909-4 | 99 |
| VER-01D-20171107 | 440-195909-5 | 103 |
| VER-01D-20171107 | 440-195909-5 | 101 |
| VER-01D-20171107-EB | 440-195909-6 | 100 |
| VER-01D-20171107-EB | 440-195909-6 | 100 |
| | MB 440-441759/5 | 105 |
| | MB 440-441760/5 | 105 |
| | MB 440-442031/5 | 102 |
| | LCS 440-441759/4 | 105 |
| | LCS 440-441760/4 | 105 |
| | LCS 440-442031/4 | 103 |
| | MRL 440-441759/3 | 106 |
| | MRL 440-441760/3 | 106 |
| | MRL 440-442031/3 | 107 |
| | 440-196557-A-2 MS | 104 |
| | 440-196557-A-1 MS | 103 |
| | 440-196557-A-2 MS | 104 |
| | 440-196698-C-1 MS | 103 |
| | 440-196557-A-2 MSD | 100 |
| | 440-196557-A-1 MSD | 101 |
| | 440-196557-A-2 MSD | 100 |
| | 440-196698-C-1 MSD | 104 |

| | QC LIMITS |
|---|---|
| DCAA = Dichloroacetic acid(Surr) | 90-115 |

# Column to be used to flag recovery values

FORM II 300.1B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096332-004.d

Lab ID: LCS 440-441759/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 100 | 101 | 101 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096332-004.d

Lab ID: LCS 440-441760/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorite | 100 | 104 | 104 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096396-004.d

Lab ID: LCS 440-442031/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 100 | 100 | 100 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096332-003.d

Lab ID: MRL 440-441759/3 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 20.0 | 15.6 J | 78 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096332-003.d

Lab ID: MRL 440-441760/3 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorite | 20.0 | 18.0 J | 90 | 10-200 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096396-003.d

Lab ID: MRL 440-442031/3 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 20.0 | 16.9 J | 85 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096332-017.d

Lab ID: 440-196557-A-2 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorate | 200 | 240 | 456 | 105 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096332-009.d

Lab ID: 440-196557-A-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorite | 200 | 190 | 403 | 107 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096332-017.d

Lab ID: 440-196557-A-2 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorite | 200 | 190 | 382 | 96 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096396-011.d

Lab ID: 440-196698-C-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorate | 200 | ND | 214 | 107 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096332-018.d

Lab ID: 440-196557-A-2 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chlorate | 200 | 470 | 113 | 3 | 25 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096332-010.d

Lab ID: 440-196557-A-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS | | # |
|---|---|---|---|---|---|---|---|
| | | | | | RPD | REC | |
| Chlorite | 200 | 393 | 102 | 3 | 25 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096332-018.d

Lab ID: 440-196557-A-2 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chlorite | 200 | 386 | 98 | 1 | 25 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096396-012.d

Lab ID: 440-196698-C-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chlorate | 200 | 225 | 112 | 5 | 25 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab File ID: 440-0096332-005.d Lab Sample ID: MB 440-441759/5

Matrix: Water Date Extracted:

Instrument ID: IC-8 Date Analyzed: 11/16/2017 08:33

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-441759/2 | 440-0096332-002.d | 11/16/2017 06:44 |
| | LCS 440-441759/4 | 440-0096332-004.d | 11/16/2017 07:57 |
| VMW-01D-20171107 | 440-195909-2 | 440-0096332-006.d | 11/16/2017 09:09 |
| | CCB 440-441759/14 | 440-0096332-014.d | 11/16/2017 13:59 |
| | 440-196557-A-2 MS | 440-0096332-017.d | 11/16/2017 15:48 |
| | 440-196557-A-2 MSD | 440-0096332-018.d | 11/16/2017 16:24 |
| | CCB 440-441759/26 | 440-0096332-026.d | 11/16/2017 21:14 |
| VMW-01D-20171107-FD | 440-195909-3 | 440-0096332-033.d | 11/17/2017 01:28 |
| VER-01D-20171107-EB | 440-195909-6 | 440-0096332-036.d | 11/17/2017 03:16 |
| | CCB 440-441759/38 | 440-0096332-038.d | 11/17/2017 04:29 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab File ID: 440-0096332-005.d Lab Sample ID: MB 440-441760/5

Matrix: Water Date Extracted:

Instrument ID: IC-8 Date Analyzed: 11/16/2017 08:33

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-441760/2 | 440-0096332-002.d | 11/16/2017 06:44 |
| | LCS 440-441760/4 | 440-0096332-004.d | 11/16/2017 07:57 |
| VMW-01D-20171107 | 440-195909-2 | 440-0096332-006.d | 11/16/2017 09:09 |
| | 440-196557-A-1 MS | 440-0096332-009.d | 11/16/2017 10:58 |
| | 440-196557-A-1 MSD | 440-0096332-010.d | 11/16/2017 11:34 |
| | CCB 440-441760/14 | 440-0096332-014.d | 11/16/2017 13:59 |
| | 440-196557-A-2 MS | 440-0096332-017.d | 11/16/2017 15:48 |
| | 440-196557-A-2 MSD | 440-0096332-018.d | 11/16/2017 16:24 |
| | CCB 440-441760/26 | 440-0096332-026.d | 11/16/2017 21:14 |
| VMW-01D-20171107-FD | 440-195909-3 | 440-0096332-033.d | 11/17/2017 01:28 |
| VMW-01I-20171107 | 440-195909-4 | 440-0096332-034.d | 11/17/2017 02:04 |
| VER-01D-20171107 | 440-195909-5 | 440-0096332-035.d | 11/17/2017 02:40 |
| VER-01D-20171107-EB | 440-195909-6 | 440-0096332-036.d | 11/17/2017 03:16 |
| | CCB 440-441760/38 | 440-0096332-038.d | 11/17/2017 04:29 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab File ID: 440-0096396-005.d Lab Sample ID: MB 440-442031/5

Matrix: Water Date Extracted:

Instrument ID: IC-8 Date Analyzed: 11/17/2017 08:45

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-442031/2 | 440-0096396-002.d | 11/17/2017 06:56 |
| | LCS 440-442031/4 | 440-0096396-004.d | 11/17/2017 08:09 |
| VMW-01I-20171107 | 440-195909-4 | 440-0096396-007.d | 11/17/2017 09:57 |
| VER-01D-20171107 | 440-195909-5 | 440-0096396-008.d | 11/17/2017 10:34 |
| | 440-196698-C-1 MS | 440-0096396-011.d | 11/17/2017 12:22 |
| | 440-196698-C-1 MSD | 440-0096396-012.d | 11/17/2017 12:59 |
| | CCB 440-442031/14 | 440-0096396-014.d | 11/17/2017 14:11 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01D-20171107 | Lab Sample ID: 440-195909-2

Matrix: Water | Lab File ID: 440-0096332-006.d

Analysis Method: 300.1B | Date Collected: 11/07/2017 09:35

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/16/2017 09:09

Con. Extract Vol.: | Dilution Factor: 100

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441759 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 21000 | | 2000 | 1000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 113 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01D-20171107 | Lab Sample ID: 440-195909-2

Matrix: Water | Lab File ID: 440-0096332-006.d

Analysis Method: 300.1B | Date Collected: 11/07/2017 09:35

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/16/2017 09:09

Con. Extract Vol.: | Dilution Factor: 100

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441760 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 2000 | 1000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 113 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01D-20171107-FD | Lab Sample ID: 440-195909-3

Matrix: Water | Lab File ID: 440-0096332-033.d

Analysis Method: 300.1B | Date Collected: 11/07/2017 09:35

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/17/2017 01:28

Con. Extract Vol.: | Dilution Factor: 100

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441759 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 21000 | | 2000 | 1000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01D-20171107-FD | Lab Sample ID: 440-195909-3

Matrix: Water | Lab File ID: 440-0096332-033.d

Analysis Method: 300.1B | Date Collected: 11/07/2017 09:35

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/17/2017 01:28

Con. Extract Vol.: | Dilution Factor: 100

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441760 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 2000 | 1000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01I-20171107 | Lab Sample ID: 440-195909-4

Matrix: Water | Lab File ID: 440-0096332-034.d

Analysis Method: 300.1B | Date Collected: 11/07/2017 11:40

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/17/2017 02:04

Con. Extract Vol.: | Dilution Factor: 100

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441760 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 2000 | 1000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VMW-01I-20171107 | Lab Sample ID: 440-195909-4

Matrix: Water | Lab File ID: 440-0096396-007.d

Analysis Method: 300.1B | Date Collected: 11/07/2017 11:40

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/17/2017 09:57

Con. Extract Vol.: | Dilution Factor: 20000

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442031 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 2000000 | | 400000 | 200000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 99 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VER-01D-20171107 | Lab Sample ID: 440-195909-5

Matrix: Water | Lab File ID: 440-0096332-035.d

Analysis Method: 300.1B | Date Collected: 11/07/2017 12:50

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/17/2017 02:40

Con. Extract Vol.: | Dilution Factor: 100

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441760 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 2000 | 1000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Client Sample ID: VER-01D-20171107  Lab Sample ID: 440-195909-5

Matrix: Water  Lab File ID: 440-0096396-008.d

Analysis Method: 300.1B  Date Collected: 11/07/2017 12:50

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 11/17/2017 10:34

Con. Extract Vol.:  Dilution Factor: 1000

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 442031  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 140000 | | 20000 | 10000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VER-01D-20171107-EB | Lab Sample ID: 440-195909-6

Matrix: Water | Lab File ID: 440-0096332-036.d

Analysis Method: 300.1B | Date Collected: 11/07/2017 13:20

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/17/2017 03:16

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441759 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: VER-01D-20171107-EB | Lab Sample ID: 440-195909-6

Matrix: Water | Lab File ID: 440-0096332-036.d

Analysis Method: 300.1B | Date Collected: 11/07/2017 13:20

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/17/2017 03:16

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441760 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 441234

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/14/2017 04:07 Calibration End Date: 11/14/2017 07:08 Calibration ID: 17947

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-441234/2 | 440-0096201-002.d |
| Level 2 | STD1 440-441234/3 | 440-0096201-003.d |
| Level 3 | STD2 440-441234/4 | 440-0096201-004.d |
| Level 4 | STD3 440-441234/5 | 440-0096201-005.d |
| Level 5 | STD4 440-441234/6 | 440-0096201-006.d |
| Level 6 | STD5 440-441234/7 | 440-0096201-007.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromate | | 8.383 | 8.259 | 8.475 | 8.225 | 8.234 | | | | | 0.000 - 0.000 | 8.315 |
| Bromide | | 16.117 | 15.825 | 16.300 | 15.792 | 15.825 | | | | | 0.000 - 0.000 | 15.972 |
| Chlorate | | 17.308 | 17.000 | 17.492 | 16.975 | 17.000 | | | | | 0.000 - 0.000 | 17.155 |
| Dichloroacetic acid(Surr) | 13.509 | 13.442 | 13.225 | 13.584 | 13.184 | 13.209 | | | | | 12.501 - 14.383 | 13.359 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 441234

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/14/2017 04:07 Calibration End Date: 11/14/2017 07:08 Calibration ID: 17947

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-441234/2 | 440-0096201-002.d |
| Level 2 | STD1 440-441234/3 | 440-0096201-003.d |
| Level 3 | STD2 440-441234/4 | 440-0096201-004.d |
| Level 4 | STD3 440-441234/5 | 440-0096201-005.d |
| Level 5 | STD4 440-441234/6 | 440-0096201-006.d |
| Level 6 | STD5 440-441234/7 | 440-0096201-007.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Bromate | 72922 | 64907<br>71889 | 63551 | 73443 | Lin | -24464.832 | 72398.8259 | | | | | | | 1.0000 | | 0.9950 |
| Bromide | 132149 | 129173<br>133216 | 133462 | 134853 | Lin | -15178.220 | 133109.827 | | | | | | | 1.0000 | | 0.9950 |
| Chlorate | 119346 | 139027<br>118579 | 140094 | 124278 | Lin | 518413.215 | 117407.265 | | | | | | | 1.0000 | | 0.9950 |
| Dichloroacetic acid(Surr) | 70686<br>71179 | 69933<br>71325 | 69587 | 72993 | Ave | | 70950.6652 | | | | 1.7 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 441234

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/14/2017 04:07 Calibration End Date: 11/14/2017 07:08 Calibration ID: 17947

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-441234/2 | 440-0096201-002.d |
| Level 2 | STD1 440-441234/3 | 440-0096201-003.d |
| Level 3 | STD2 440-441234/4 | 440-0096201-004.d |
| Level 4 | STD3 440-441234/5 | 440-0096201-005.d |
| Level 5 | STD4 440-441234/6 | 440-0096201-006.d |
| Level 6 | STD5 440-441234/7 | 440-0096201-007.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Bromate | Lin | 7188870 | 324537 | 794387 | 1836067 | 3646124 | 0.000000<br>100 | 5.00 | 12.5 | 25.0 | 50.0 |
| Bromide | Lin | 133216191 | 6458653 | 16682697 | 33713275 | 66074531 | 0.000000<br>1000 | 50.0 | 125 | 250 | 500 |
| Chlorate | Lin | 47431773 | 2780545 | 7004686 | 12427834 | 23869235 | 0.000000<br>400 | 20.0 | 50.0 | 100 | 200 |
| Dichloroacetic acid(Surr) | Ave | 70241930<br>70876720 | 69492803 | 69149565 | 72534200 | 70731478 | 994<br>994 | 994 | 994 | 994 | 994 |

Curve Type Legend:

Ave = Average
Lin = Linear

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 441235

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/14/2017 04:07 Calibration End Date: 11/14/2017 07:08 Calibration ID: 17948

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-441235/2 | 440-0096201-002.d |
| Level 2 | STD1 440-441235/3 | 440-0096201-003.d |
| Level 3 | STD2 440-441235/4 | 440-0096201-004.d |
| Level 4 | STD3 440-441235/5 | 440-0096201-005.d |
| Level 5 | STD4 440-441235/6 | 440-0096201-006.d |
| Level 6 | STD5 440-441235/7 | 440-0096201-007.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | 7.325 | 7.217 | 7.409 | 7.192 | 7.200 | | | | | 0.000 - 0.000 | 7.269 |
| Dichloroacetic acid(Surr) | 13.509 | 13.442 | 13.225 | 13.584 | 13.184 | 13.209 | | | | | 12.501 - 14.383 | 13.359 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 441235

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/14/2017 04:07 Calibration End Date: 11/14/2017 07:08 Calibration ID: 17948

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-441235/2 | 440-0096201-002.d |
| Level 2 | STD1 440-441235/3 | 440-0096201-003.d |
| Level 3 | STD2 440-441235/4 | 440-0096201-004.d |
| Level 4 | STD3 440-441235/5 | 440-0096201-005.d |
| Level 5 | STD4 440-441235/6 | 440-0096201-006.d |
| Level 6 | STD5 440-441235/7 | 440-0096201-007.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Chlorite | 136658 | 134974<br>138585 | 138767 | 141301 | Lin | 2260.89087 | 138337.503 | | | | | | | 1.0000 | | 0.9950 |
| Dichloroacetic acid(Surr) | 70686<br>71179 | 69933<br>71325 | 69587 | 72993 | Ave | | 70950.6652 | | | | 1.7 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-195909-1 Analy Batch No.: 441235

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/14/2017 04:07 Calibration End Date: 11/14/2017 07:08 Calibration ID: 17948

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-441235/2 | 440-0096201-002.d |
| Level 2 | STD1 440-441235/3 | 440-0096201-003.d |
| Level 3 | STD2 440-441235/4 | 440-0096201-004.d |
| Level 4 | STD3 440-441235/5 | 440-0096201-005.d |
| Level 5 | STD4 440-441235/6 | 440-0096201-006.d |
| Level 6 | STD5 440-441235/7 | 440-0096201-007.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Chlorite | Lin | 55433876 | 2699481 | 6938373 | 14130059 | 27331654 | 0.000000<br>400 | 20.0 | 50.0 | 100 | 200 |
| Dichloroacetic acid(Surr) | Ave | 70241930<br>70876720 | 69492803 | 69149565 | 72534200 | 70731478 | 994<br>994 | 994 | 994 | 994 | 994 |

Curve Type Legend:

Ave = Average
Lin = Linear

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Lab Sample ID: ICV 440-441234/8  Calibration Date: 11/14/2017 08:07

Instrument ID: IC-8  Calib Start Date: 11/14/2017 04:07

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096201-008.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 71574 | | 30.1 | 30.1 | -0.0 | 15.0 |
| Bromide | Lin | | 129520 | | 292 | 300 | -2.7 | 15.0 |
| Chlorate | Lin | | 118550 | | 117 | 120 | -2.7 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 70951 | 69209 | | 969 | 994 | -2.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: ICV 440-441234/8 Calibration Date: 11/14/2017 08:07

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096201-008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.20 | 7.80 | 8.97 |
| Bromide | 15.78 | 14.99 | 17.25 |
| Chlorate | 16.93 | 16.44 | 18.17 |
| Dichloroacetic acid(Surr) | 13.11 | 12.50 | 14.38 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Lab Sample ID: ICV 440-441235/8  Calibration Date: 11/14/2017 08:07

Instrument ID: IC-8  Calib Start Date: 11/14/2017 04:07

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096201-008.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 132845 | | 115 | 120 | -4.0 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 70951 | 69209 | | 969 | 994 | -2.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: ICV 440-441235/8 Calibration Date: 11/14/2017 08:07

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096201-008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.17 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 13.11 | 12.50 | 14.38 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-441759/1  Calibration Date: 11/16/2017 06:08

Instrument ID: IC-8  Calib Start Date: 11/14/2017 04:07

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096332-001.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 75604 | | 26.4 | 25.0 | 5.8 | 15.0 |
| Bromide | Lin | | 131667 | | 247 | 250 | -1.0 | 15.0 |
| Chlorate | Lin | | 118011 | | 96.1 | 100 | -3.9 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 70951 | 73545 | | 1030 | 994 | 3.7 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-441759/1 Calibration Date: 11/16/2017 06:08

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096332-001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.42 | 7.80 | 8.97 |
| Bromide | 16.19 | 14.99 | 17.25 |
| Chlorate | 17.38 | 16.44 | 18.17 |
| Dichloroacetic acid(Surr) | 13.49 | 12.50 | 14.38 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-441760/1  Calibration Date: 11/16/2017 06:08

Instrument ID: IC-8  Calib Start Date: 11/14/2017 04:07

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096332-001.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 139495 | | 101 | 100 | 0.8 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 70951 | 73545 | | 1030 | 994 | 3.7 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-441760/1 Calibration Date: 11/16/2017 06:08

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096332-001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.36 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 13.49 | 12.50 | 14.38 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-441759/13  Calibration Date: 11/16/2017 13:23

Instrument ID: IC-8  Calib Start Date: 11/14/2017 04:07

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096332-013.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 72270 | | 50.2 | 50.0 | 0.5 | 15.0 |
| Bromide | Lin | | 135723 | | 510 | 500 | 2.0 | 15.0 |
| Chlorate | Lin | | 119023 | | 198 | 200 | -0.8 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 70951 | 73011 | | 1020 | 994 | 2.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-441759/13 Calibration Date: 11/16/2017 13:23

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096332-013.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.41 | 7.80 | 8.97 |
| Bromide | 16.05 | 14.99 | 17.25 |
| Chlorate | 17.28 | 16.44 | 18.17 |
| Dichloroacetic acid(Surr) | 13.54 | 12.50 | 14.38 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-441760/13 Calibration Date: 11/16/2017 13:23

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096332-013.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 141364 | | 204 | 200 | 2.2 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 70951 | 73011 | | 1020 | 994 | 2.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-441760/13 Calibration Date: 11/16/2017 13:23

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096332-013.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.37 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 13.54 | 12.50 | 14.38 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-441759/25  Calibration Date: 11/16/2017 20:38

Instrument ID: IC-8  Calib Start Date: 11/14/2017 04:07

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096332-025.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 73832 | | 25.8 | 25.0 | 3.3 | 15.0 |
| Bromide | Lin | | 134288 | | 252 | 250 | 0.9 | 15.0 |
| Chlorate | Lin | | 117729 | | 95.9 | 100 | -4.1 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 70951 | 72952 | | 1020 | 994 | 2.8 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-441759/25 Calibration Date: 11/16/2017 20:38

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096332-025.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.37 | 7.80 | 8.97 |
| Bromide | 15.85 | 14.99 | 17.25 |
| Chlorate | 17.11 | 16.44 | 18.17 |
| Dichloroacetic acid(Surr) | 13.54 | 12.50 | 14.38 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-441760/25 Calibration Date: 11/16/2017 20:38

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096332-025.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 139734 | | 101 | 100 | 1.0 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 70951 | 72952 | | 1020 | 994 | 2.8 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-441760/25 Calibration Date: 11/16/2017 20:38

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096332-025.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.34 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 13.54 | 12.50 | 14.38 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-441759/37  Calibration Date: 11/17/2017 03:53

Instrument ID: IC-8  Calib Start Date: 11/14/2017 04:07

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096332-037.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 73135 | | 50.8 | 50.0 | 1.7 | 15.0 |
| Bromide | Lin | | 132468 | | 498 | 500 | -0.5 | 15.0 |
| Chlorate | Lin | | 117600 | | 196 | 200 | -2.0 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 70951 | 72066 | | 1010 | 994 | 1.6 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-441759/37 Calibration Date: 11/17/2017 03:53

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096332-037.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.41 | 7.80 | 8.97 |
| Bromide | 16.08 | 14.99 | 17.25 |
| Chlorate | 17.31 | 16.44 | 18.17 |
| Dichloroacetic acid(Surr) | 13.53 | 12.50 | 14.38 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-441760/37  Calibration Date: 11/17/2017 03:53

Instrument ID: IC-8  Calib Start Date: 11/14/2017 04:07

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096332-037.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 137062 | | 198 | 200 | -0.9 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 70951 | 72066 | | 1010 | 994 | 1.6 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-441760/37 Calibration Date: 11/17/2017 03:53

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096332-037.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.36 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 13.53 | 12.50 | 14.38 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-442031/1 Calibration Date: 11/17/2017 06:20

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096396-001.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 74904 | | 26.2 | 25.0 | 4.8 | 15.0 |
| Bromide | Lin | | 135519 | | 255 | 250 | 1.9 | 15.0 |
| Chlorate | Lin | | 122797 | | 100 | 100 | 0.2 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 70951 | 72156 | | 1010 | 994 | 1.7 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-442031/1 Calibration Date: 11/17/2017 06:20

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096396-001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.42 | 7.80 | 8.97 |
| Bromide | 16.12 | 14.99 | 17.25 |
| Chlorate | 17.34 | 16.44 | 18.17 |
| Dichloroacetic acid(Surr) | 13.53 | 12.50 | 14.38 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-442031/13 Calibration Date: 11/17/2017 13:35

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096396-013.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 74215 | | 51.6 | 50.0 | 3.2 | 15.0 |
| Bromide | Lin | | 130721 | | 491 | 500 | -1.8 | 15.0 |
| Chlorate | Lin | | 117498 | | 196 | 200 | -2.1 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 70951 | 72514 | | 1020 | 994 | 2.2 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: CCV 440-442031/13 Calibration Date: 11/17/2017 13:35

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096396-013.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.29 | 7.80 | 8.97 |
| Bromide | 15.77 | 14.99 | 17.25 |
| Chlorate | 16.97 | 16.44 | 18.17 |
| Dichloroacetic acid(Surr) | 13.33 | 12.50 | 14.38 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 440-441759/5

Matrix: Water  Lab File ID: 440-0096332-005.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 11/16/2017 08:33

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 441759  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 105 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-441760/5

Matrix: Water | Lab File ID: 440-0096332-005.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/16/2017 08:33

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441760 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 105 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-442031/5

Matrix: Water | Lab File ID: 440-0096396-005.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/17/2017 08:45

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442031 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-441759/2

Matrix: Water  Lab File ID: 440-0096332-002.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 11/16/2017 06:44

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 441759  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 111 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-441759/14

Matrix: Water | Lab File ID: 440-0096332-014.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/16/2017 13:59

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441759 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 108 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-441759/26

Matrix: Water  Lab File ID: 440-0096332-026.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 11/16/2017 21:14

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 441759  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-441759/38

Matrix: Water  Lab File ID: 440-0096332-038.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 11/17/2017 04:29

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 441759  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 109 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-441760/2

Matrix: Water  Lab File ID: 440-0096332-002.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 11/16/2017 06:44

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 441760  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 111 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-441760/14

Matrix: Water | Lab File ID: 440-0096332-014.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/16/2017 13:59

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441760 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 108 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-441760/26

Matrix: Water  Lab File ID: 440-0096332-026.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 11/16/2017 21:14

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 441760  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-441760/38

Matrix: Water | Lab File ID: 440-0096332-038.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/17/2017 04:29

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441760 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 109 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-442031/2

Matrix: Water  Lab File ID: 440-0096396-002.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 11/17/2017 06:56

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 442031  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-442031/14

Matrix: Water | Lab File ID: 440-0096396-014.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/17/2017 14:11

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442031 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-441759/4

Matrix: Water | Lab File ID: 440-0096332-004.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/16/2017 07:57

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441759 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 101 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 105 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-441760/4

Matrix: Water | Lab File ID: 440-0096332-004.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/16/2017 07:57

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441760 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 104 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 105 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 440-442031/4

Matrix: Water  Lab File ID: 440-0096396-004.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 11/17/2017 08:09

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 442031  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 100 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-441759/3

Matrix: Water | Lab File ID: 440-0096332-003.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/16/2017 07:20

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441759 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 15.6 | J | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 106 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-441760/3

Matrix: Water | Lab File ID: 440-0096332-003.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/16/2017 07:20

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441760 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 18.0 | J | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 106 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-442031/3

Matrix: Water | Lab File ID: 440-0096396-003.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/17/2017 07:32

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442031 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 16.9 | J | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 107 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-196557-A-2 MS

Matrix: Water | Lab File ID: 440-0096332-017.d

Analysis Method: 300.1B | Date Collected: 11/14/2017 08:58

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/16/2017 15:48

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441759 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 456 | | 100 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 104 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-196557-A-1 MS

Matrix: Water | Lab File ID: 440-0096332-009.d

Analysis Method: 300.1B | Date Collected: 11/13/2017 13:40

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/16/2017 10:58

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441760 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 403 | | 100 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-196557-A-2 MS

Matrix: Water | Lab File ID: 440-0096332-017.d

Analysis Method: 300.1B | Date Collected: 11/14/2017 08:58

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/16/2017 15:48

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441760 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 382 | | 100 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 104 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-196698-C-1 MS

Matrix: Water | Lab File ID: 440-0096396-011.d

Analysis Method: 300.1B | Date Collected: 11/16/2017 13:40

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/17/2017 12:22

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442031 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 214 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-196557-A-2 MSD

Matrix: Water | Lab File ID: 440-0096332-018.d

Analysis Method: 300.1B | Date Collected: 11/14/2017 08:58

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/16/2017 16:24

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441759 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 470 | | 100 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-196557-A-1 MSD

Matrix: Water | Lab File ID: 440-0096332-010.d

Analysis Method: 300.1B | Date Collected: 11/13/2017 13:40

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/16/2017 11:34

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441760 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 393 | | 100 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-196557-A-2 MSD

Matrix: Water | Lab File ID: 440-0096332-018.d

Analysis Method: 300.1B | Date Collected: 11/14/2017 08:58

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/16/2017 16:24

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441760 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 386 | | 100 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-196698-C-1 MSD

Matrix: Water | Lab File ID: 440-0096396-012.d

Analysis Method: 300.1B | Date Collected: 11/16/2017 13:40

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/17/2017 12:59

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 442031 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 225 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 104 | | 90-115 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-8 Start Date: 11/14/2017 03:31

Analysis Batch Number: 441234 End Date: 11/15/2017 06:28

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 11/14/2017 03:31 | 1 | | AS14 4(mm) |
| STD0 440-441234/2 IC | | 11/14/2017 04:07 | 1 | 440-0096201-002.d | AS14 4(mm) |
| STD1 440-441234/3 IC | | 11/14/2017 04:43 | 1 | 440-0096201-003.d | AS14 4(mm) |
| STD2 440-441234/4 IC | | 11/14/2017 05:19 | 1 | 440-0096201-004.d | AS14 4(mm) |
| STD3 440-441234/5 IC | | 11/14/2017 05:55 | 1 | 440-0096201-005.d | AS14 4(mm) |
| STD4 440-441234/6 IC | | 11/14/2017 06:32 | 1 | 440-0096201-006.d | AS14 4(mm) |
| STD5 440-441234/7 IC | | 11/14/2017 07:08 | 1 | 440-0096201-007.d | AS14 4(mm) |
| ICV 440-441234/8 | | 11/14/2017 08:07 | 1 | 440-0096201-008.d | AS14 4(mm) |
| ICB 440-441234/9 | | 11/14/2017 08:43 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 09:19 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 09:56 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 10:32 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 11:44 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 12:21 | 200 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 12:57 | 100 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 13:33 | 100 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 14:09 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 14:46 | 5 | | AS14 4(mm) |
| CCV 440-441234/20 | | 11/14/2017 15:22 | 1 | | AS14 4(mm) |
| CCB 440-441234/21 | | 11/14/2017 15:58 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 17:11 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 17:47 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 18:23 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 18:59 | 200 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 19:36 | 10 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 20:12 | 20 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 20:48 | 2000 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 21:24 | 2000 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 22:01 | 100 | | AS14 4(mm) |
| CCV 440-441234/32 | | 11/14/2017 22:37 | 1 | | AS14 4(mm) |
| CCB 440-441234/33 | | 11/14/2017 23:13 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 23:49 | 200 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 00:26 | 20 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 01:02 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 01:38 | 50 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 02:14 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 02:51 | 2 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 03:27 | 50 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 04:03 | 10 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 04:39 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 05:16 | 1000 | | AS14 4(mm) |
| CCV 440-441234/44 | | 11/15/2017 05:52 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-8 Start Date: 11/14/2017 03:31

Analysis Batch Number: 441234 End Date: 11/15/2017 06:28

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCB 440-441234/45 | | 11/15/2017 06:28 | 1 | | AS14 4(mm) |

300.1B

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-8 Start Date: 11/14/2017 03:31

Analysis Batch Number: 441235 End Date: 11/15/2017 06:28

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 11/14/2017 03:31 | 1 | | AS14 4(mm) |
| STD0 440-441235/2 IC | | 11/14/2017 04:07 | 1 | 440-0096201-002.d | AS14 4(mm) |
| STD1 440-441235/3 IC | | 11/14/2017 04:43 | 1 | 440-0096201-003.d | AS14 4(mm) |
| STD2 440-441235/4 IC | | 11/14/2017 05:19 | 1 | 440-0096201-004.d | AS14 4(mm) |
| STD3 440-441235/5 IC | | 11/14/2017 05:55 | 1 | 440-0096201-005.d | AS14 4(mm) |
| STD4 440-441235/6 IC | | 11/14/2017 06:32 | 1 | 440-0096201-006.d | AS14 4(mm) |
| STD5 440-441235/7 IC | | 11/14/2017 07:08 | 1 | 440-0096201-007.d | AS14 4(mm) |
| ICV 440-441235/8 | | 11/14/2017 08:07 | 1 | | AS14 4(mm) |
| ICB 440-441235/9 | | 11/14/2017 08:43 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 09:19 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 09:56 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 10:32 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 11:08 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 14:09 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 14:46 | 5 | | AS14 4(mm) |
| CCV 440-441235/20 | | 11/14/2017 15:22 | 1 | | AS14 4(mm) |
| CCB 440-441235/21 | | 11/14/2017 15:58 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 16:34 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 17:47 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 18:23 | 5 | | AS14 4(mm) |
| CCV 440-441235/32 | | 11/14/2017 22:37 | 1 | | AS14 4(mm) |
| CCB 440-441235/33 | | 11/14/2017 23:13 | 1 | | AS14 4(mm) |
| CCV 440-441235/44 | | 11/15/2017 05:52 | 1 | | AS14 4(mm) |
| CCB 440-441235/45 | | 11/15/2017 06:28 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-8 Start Date: 11/16/2017 06:08

Analysis Batch Number: 441759 End Date: 11/17/2017 04:29

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-441759/1 | | 11/16/2017 06:08 | 1 | 440-0096332-001.d | AS14 4(mm) |
| CCB 440-441759/2 | | 11/16/2017 06:44 | 1 | 440-0096332-002.d | AS14 4(mm) |
| MRL 440-441759/3 | | 11/16/2017 07:20 | 1 | 440-0096332-003.d | AS14 4(mm) |
| LCS 440-441759/4 | | 11/16/2017 07:57 | 1 | 440-0096332-004.d | AS14 4(mm) |
| MB 440-441759/5 | | 11/16/2017 08:33 | 1 | 440-0096332-005.d | AS14 4(mm) |
| 440-195909-2 | | 11/16/2017 09:09 | 100 | 440-0096332-006.d | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 09:45 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 10:21 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 10:58 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 11:34 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 12:10 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 12:46 | 500 | | AS14 4(mm) |
| CCV 440-441759/13 | | 11/16/2017 13:23 | 1 | 440-0096332-013.d | AS14 4(mm) |
| CCB 440-441759/14 | | 11/16/2017 13:59 | 1 | 440-0096332-014.d | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 15:11 | 5 | | AS14 4(mm) |
| 440-196557-A-2 MS | | 11/16/2017 15:48 | 5 | 440-0096332-017.d | AS14 4(mm) |
| 440-196557-A-2 MSD | | 11/16/2017 16:24 | 5 | 440-0096332-018.d | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 18:49 | 10000 | | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 19:25 | 10000 | | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 20:01 | 10000 | | AS14 4(mm) |
| CCV 440-441759/25 | | 11/16/2017 20:38 | 1 | 440-0096332-025.d | AS14 4(mm) |
| CCB 440-441759/26 | | 11/16/2017 21:14 | 1 | 440-0096332-026.d | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 23:39 | 20000 | | AS14 4(mm) |
| ZZZZZ | | 11/17/2017 00:15 | 20000 | | AS14 4(mm) |
| ZZZZZ | | 11/17/2017 00:51 | 20000 | | AS14 4(mm) |
| 440-195909-3 | | 11/17/2017 01:28 | 100 | 440-0096332-033.d | AS14 4(mm) |
| ZZZZZ | | 11/17/2017 02:04 | 100 | | AS14 4(mm) |
| ZZZZZ | | 11/17/2017 02:40 | 100 | | AS14 4(mm) |
| 440-195909-6 | | 11/17/2017 03:16 | 1 | 440-0096332-036.d | AS14 4(mm) |
| CCV 440-441759/37 | | 11/17/2017 03:53 | 1 | 440-0096332-037.d | AS14 4(mm) |
| CCB 440-441759/38 | | 11/17/2017 04:29 | 1 | 440-0096332-038.d | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-8 Start Date: 11/16/2017 06:08

Analysis Batch Number: 441760 End Date: 11/17/2017 04:29

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-441760/1 | | 11/16/2017 06:08 | 1 | 440-0096332-001.d | AS14 4(mm) |
| CCB 440-441760/2 | | 11/16/2017 06:44 | 1 | 440-0096332-002.d | AS14 4(mm) |
| MRL 440-441760/3 | | 11/16/2017 07:20 | 1 | 440-0096332-003.d | AS14 4(mm) |
| LCS 440-441760/4 | | 11/16/2017 07:57 | 1 | 440-0096332-004.d | AS14 4(mm) |
| MB 440-441760/5 | | 11/16/2017 08:33 | 1 | 440-0096332-005.d | AS14 4(mm) |
| 440-195909-2 | | 11/16/2017 09:09 | 100 | 440-0096332-006.d | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 09:45 | 1 | | AS14 4(mm) |
| 440-196557-A-1 MS | | 11/16/2017 10:58 | 5 | 440-0096332-009.d | AS14 4(mm) |
| 440-196557-A-1 MSD | | 11/16/2017 11:34 | 5 | 440-0096332-010.d | AS14 4(mm) |
| CCV 440-441760/13 | | 11/16/2017 13:23 | 1 | 440-0096332-013.d | AS14 4(mm) |
| CCB 440-441760/14 | | 11/16/2017 13:59 | 1 | 440-0096332-014.d | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 14:35 | 1 | | AS14 4(mm) |
| 440-196557-A-2 MS | | 11/16/2017 15:48 | 5 | 440-0096332-017.d | AS14 4(mm) |
| 440-196557-A-2 MSD | | 11/16/2017 16:24 | 5 | 440-0096332-018.d | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 17:00 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 17:36 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 18:13 | 1 | | AS14 4(mm) |
| CCV 440-441760/25 | | 11/16/2017 20:38 | 1 | 440-0096332-025.d | AS14 4(mm) |
| CCB 440-441760/26 | | 11/16/2017 21:14 | 1 | 440-0096332-026.d | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 21:50 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 22:26 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 23:03 | 1000 | | AS14 4(mm) |
| 440-195909-3 | | 11/17/2017 01:28 | 100 | 440-0096332-033.d | AS14 4(mm) |
| 440-195909-4 | | 11/17/2017 02:04 | 100 | 440-0096332-034.d | AS14 4(mm) |
| 440-195909-5 | | 11/17/2017 02:40 | 100 | 440-0096332-035.d | AS14 4(mm) |
| 440-195909-6 | | 11/17/2017 03:16 | 1 | 440-0096332-036.d | AS14 4(mm) |
| CCV 440-441760/37 | | 11/17/2017 03:53 | 1 | 440-0096332-037.d | AS14 4(mm) |
| CCB 440-441760/38 | | 11/17/2017 04:29 | 1 | 440-0096332-038.d | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Instrument ID: IC-8 Start Date: 11/17/2017 06:20

Analysis Batch Number: 442031 End Date: 11/18/2017 03:28

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-442031/1 | | 11/17/2017 06:20 | 1 | 440-0096396-001.d | AS14 4(mm) |
| CCB 440-442031/2 | | 11/17/2017 06:56 | 1 | 440-0096396-002.d | AS14 4(mm) |
| MRL 440-442031/3 | | 11/17/2017 07:32 | 1 | 440-0096396-003.d | AS14 4(mm) |
| LCS 440-442031/4 | | 11/17/2017 08:09 | 1 | 440-0096396-004.d | AS14 4(mm) |
| MB 440-442031/5 | | 11/17/2017 08:45 | 1 | 440-0096396-005.d | AS14 4(mm) |
| ZZZZZ | | 11/17/2017 09:21 | 1 | | AS14 4(mm) |
| 440-195909-4 | | 11/17/2017 09:57 | 20000 | 440-0096396-007.d | AS14 4(mm) |
| 440-195909-5 | | 11/17/2017 10:34 | 1000 | 440-0096396-008.d | AS14 4(mm) |
| ZZZZZ | | 11/17/2017 11:10 | 100 | | AS14 4(mm) |
| ZZZZZ | | 11/17/2017 11:46 | 100 | | AS14 4(mm) |
| 440-196698-C-1 MS | | 11/17/2017 12:22 | 1 | 440-0096396-011.d | AS14 4(mm) |
| 440-196698-C-1 MSD | | 11/17/2017 12:59 | 1 | 440-0096396-012.d | AS14 4(mm) |
| CCV 440-442031/13 | | 11/17/2017 13:35 | 1 | 440-0096396-013.d | AS14 4(mm) |
| CCB 440-442031/14 | | 11/17/2017 14:11 | 1 | 440-0096396-014.d | AS14 4(mm) |
| ZZZZZ | | 11/17/2017 14:47 | 10000 | | AS14 4(mm) |
| ZZZZZ | | 11/17/2017 15:24 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/17/2017 16:00 | 100 | | AS14 4(mm) |
| ZZZZZ | | 11/17/2017 16:36 | 100 | | AS14 4(mm) |
| ZZZZZ | | 11/17/2017 17:12 | 50000 | | AS14 4(mm) |
| ZZZZZ | | 11/17/2017 17:49 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/17/2017 18:25 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/17/2017 19:01 | 10000 | | AS14 4(mm) |
| ZZZZZ | | 11/17/2017 19:37 | 10000 | | AS14 4(mm) |
| ZZZZZ | | 11/17/2017 20:14 | 1 | | AS14 4(mm) |
| CCV 440-442031/25 | | 11/17/2017 20:50 | 1 | | AS14 4(mm) |
| CCB 440-442031/26 | | 11/17/2017 21:26 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/17/2017 22:02 | 20000 | | AS14 4(mm) |
| ZZZZZ | | 11/17/2017 22:39 | 20000 | | AS14 4(mm) |
| ZZZZZ | | 11/17/2017 23:15 | 10000 | | AS14 4(mm) |
| ZZZZZ | | 11/17/2017 23:51 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/18/2017 00:27 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/18/2017 01:03 | 10 | | AS14 4(mm) |
| ZZZZZ | | 11/18/2017 01:40 | 2000 | | AS14 4(mm) |
| ZZZZZ | | 11/18/2017 02:16 | 1000 | | AS14 4(mm) |
| CCV 440-442031/35 | | 11/18/2017 02:52 | 1 | | AS14 4(mm) |
| CCB 440-442031/36 | | 11/18/2017 03:28 | 1 | | AS14 4(mm) |

# METALS

COVER PAGE
METALS

Lab Name: TestAmerica Irvine Job Number: 440-195909-1

SDG No.:

Project: NERT VER M16

| Client Sample ID | Lab Sample ID |
|---|---|
| VMW-01D-20171107 | 440-195909-2 |
| VMW-01D-20171107-FD | 440-195909-3 |
| VMW-01I-20171107 | 440-195909-4 |
| VER-01D-20171107 | 440-195909-5 |
| VER-01D-20171107-EB | 440-195909-6 |

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: VMW-01D-20171107 Lab Sample ID: 440-195909-2

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG ID.:

Matrix: Water Date Sampled: 11/07/2017 09:35

Reporting Basis: WET Date Received: 11/07/2017 21:30

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 0.25 | 0.0050 | 0.0025 | mg/L | | | 1 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: VMW-01D-20171107-FD
Lab Sample ID: 440-195909-3
Lab Name: TestAmerica Irvine
Job No.: 440-195909-1
SDG ID.:
Matrix: Water
Date Sampled: 11/07/2017 09:35
Reporting Basis: WET
Date Received: 11/07/2017 21:30

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 0.28 | 0.0050 | 0.0025 | mg/L | | | 1 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: VMW-01I-20171107 Lab Sample ID: 440-195909-4

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG ID.:

Matrix: Water Date Sampled: 11/07/2017 11:40

Reporting Basis: WET Date Received: 11/07/2017 21:30

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 6.6 | 0.0050 | 0.0025 | mg/L | | | 1 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: VER-01D-20171107 Lab Sample ID: 440-195909-5

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG ID.:

Matrix: Water Date Sampled: 11/07/2017 12:50

Reporting Basis: WET Date Received: 11/07/2017 21:30

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 0.17 | 0.0050 | 0.0025 | mg/L | | | 1 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: VER-01D-20171107-EB
Lab Sample ID: 440-195909-6
Lab Name: TestAmerica Irvine
Job No.: 440-195909-1
SDG ID.:
Matrix: Water
Date Sampled: 11/07/2017 13:20
Reporting Basis: WET
Date Received: 11/07/2017 21:30

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | ND | 0.0050 | 0.0025 | mg/L | | | 1 | 6010B |

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

ICV Source: ME ICP ICV2_01712  Concentration Units: mg/L

CCV Source: ME ICP STD3_01739

| Analyte | ICV 440-440757/5 11/10/2017 09:09 | | | | CCV 440-440757/16 11/10/2017 16:13 | | | | CCV 440-440757/25 11/10/2017 16:42 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Found | C | True | %R | Found | C | True | %R | Found | C | True | %R |
| **Chromium** | 1.03 | | 1.00 | 103 | 0.962 | | 1.00 | 96 | 0.932 | | 1.00 | 93 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

ICV Source: ME ICP ICV2_01712  Concentration Units: mg/L

CCV Source: ME ICP STD3_01739

| Analyte | CCV 440-440757/31 11/10/2017 16:58 | | | | CCV 440-440757/33 11/10/2017 18:49 | | | | CCV 440-440757/36 11/10/2017 19:17 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Found | C | True | %R | Found | C | True | %R | Found | C | True | %R |
| **Chromium** | 0.937 | | 1.00 | 94 | 0.937 | | 1.00 | 94 | 0.931 | | 1.00 | 93 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Method: 6010B Instrument ID: ICP7

Lab Sample ID: CRI 440-440757/15 Concentration Units: mg/L

CRQL Check Standard Source: ME ICP CRI 2x_00376

| Analyte | CRQL Check Standard | | | | |
|---|---|---|---|---|---|
| | True | Found | Qualifiers | %R(1) | Limits |
| Chromium | 0.0100 | 0.0109 | | 109 | 50-150 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Concentration Units: mg/L

| Analyte | RL | ICB 440-440757/7 11/10/2017 09:16 | | CCB 440-440757/17 11/10/2017 16:15 | | CCB 440-440757/26 11/10/2017 16:44 | | CCB 440-440757/32 11/10/2017 17:00 | |
|---|---|---|---|---|---|---|---|---|---|
| | | Found | C | Found | C | Found | C | Found | C |
| **Chromium** | 0.0050 | ND | | ND | | ND | | ND | |

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Concentration Units: mg/L

| Analyte | RL | CCB 440-440757/34 11/10/2017 18:51 | | CCB 440-440757/37 11/10/2017 19:19 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Found | C | Found | C | Found | C | Found | C |
| **Chromium** | 0.0050 | ND | | ND | | | | | |

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 440-440602/1-A

Instrument Code: ICP7 Batch No.: 440757

| CAS No. | Analyte | Concentration | C | Q | Method |
|---|---|---|---|---|---|
| 7440-47-3 | Chromium | ND | | | 6010B |

FORM III-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Lab Sample ID: ICSA 440-440757/10  Instrument ID: ICP7

Lab File ID: 171110-1F.prn  ICS Source: ME ICP IFA_01738

Concentration Units: mg/L

| Analyte | True Solution A | Found Solution A | Percent Recovery |
|---|---|---|---|
| **Chromium** | | **0.0008** | |
| *Aluminum* | *600* | *695* | *116* |
| *Antimony* | | *-0.0047* | |
| *Arsenic* | | *0.0058* | |
| *Barium* | | *0.0049* | |
| *Beryllium* | | *-0.0007* | |
| *Boron* | | *-0.0924* | |
| *Cadmium* | | *0.0002* | |
| *Calcium* | *600* | *608* | *101* |
| *Cobalt* | | *-0.0003* | |
| *Copper* | | *0.0026* | |
| *Iron* | *600* | *604* | *101* |
| *Lead* | | *-0.0088* | |
| *Lithium* | | *-0.0684* | |
| *Magnesium* | *600* | *619* | *103* |
| *Manganese* | | *-0.0178* | |
| *Molybdenum* | | *0.0022* | |
| *Nickel* | | *0.0015* | |
| *Phosphorus* | | *0.0206* | |
| *Potassium* | | *-0.0989* | |
| *Selenium* | | *0.0003* | |
| *Silicon* | | *0.0025* | |
| *Silver* | | *0.0041* | |
| *Sodium* | | *0.332* | |
| *Strontium* | | *-0.0143* | |
| *Thallium* | | *0.0017* | |
| *Tin* | | *0.0435* | |
| *Titanium* | | *0.0030* | |
| *Tungsten* | | *0.0007* | |
| *Vanadium* | | *-0.0030* | |
| *Zinc* | | *0.0042* | |
| *Zirconium* | | *0.0078* | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Lab Sample ID: ICSAB 440-440757/11 Instrument ID: ICP7

Lab File ID: 171110-1F.prn ICS Source: ME ICP IFB_01757

Concentration Units: mg/L

| Analyte | True Solution AB | Found Solution AB | Percent Recovery |
|---|---|---|---|
| **Chromium** | **0.500** | **0.483** | **97** |
| *Aluminum* | *601* | *680* | *113* |
| *Antimony* | *0.500* | *0.482* | *96* |
| *Arsenic* | *0.500* | *0.473* | *95* |
| *Barium* | *0.500* | *0.458* | *92* |
| *Beryllium* | *0.500* | *0.457* | *91* |
| *Cadmium* | *0.500* | *0.427* | *85* |
| *Calcium* | *603* | *593* | *98* |
| *Cobalt* | *0.500* | *0.453* | *91* |
| *Copper* | *0.500* | *0.551* | *110* |
| *Iron* | *601* | *592* | *99* |
| *Lead* | *0.500* | *0.436* | *87* |
| *Lithium* | *0.500* | *0.568* | *114* |
| *Magnesium* | *603* | *607* | *101* |
| *Manganese* | *0.500* | *0.443* | *89* |
| *Molybdenum* | *0.500* | *0.475* | *95* |
| *Nickel* | *0.500* | *0.446* | *89* |
| *Phosphorus* | *0.500* | *0.471* | *94* |
| *Potassium* | *10.0* | *10.4* | *104* |
| *Selenium* | *0.500* | *0.435* | *87* |
| *Silicon* | *2.50* | *2.42* | *97* |
| *Silver* | *0.250* | *0.262* | *105* |
| *Sodium* | *10.0* | *11.3* | *113* |
| *Strontium* | *0.500* | *0.506* | *101* |
| *Thallium* | *0.500* | *0.421* | *84* |
| *Tin* | *0.500* | *0.478* | *96* |
| *Titanium* | *0.500* | *0.500* | *100* |
| *Tungsten* | *0.500* | *0.444* | *89* |
| *Vanadium* | *0.500* | *0.469* | *94* |
| *Zinc* | *0.500* | *0.462* | *92* |
| *Zirconium* | *0.500* | *0.481* | *96* |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: VMW-01D-20171107 MS | Lab ID: 440-195909-2 MS

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Matrix: Water | Concentration Units: mg/L

% Solids:

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 1.13 | | 0.25 | | 1.00 | 88 | 75-125 | | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: VMW-01D-20171107 MSD
Lab ID: 440-195909-2 MSD
Lab Name: TestAmerica Irvine
Job No.: 440-195909-1
SDG No.:
Matrix: Water
Concentration Units: mg/L
% Solids:

| Analyte | (SDR) C | | Spike Added (SA) | %R | Control Limit %R | RPD | RPD Limit | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 1.12 | | 1.00 | 88 | 75-125 | 1 | 20 | | 6010B |

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: VMW-01D-20171107 PDS | Lab ID: 440-195909-2 PDS

Lab Name: TestAmerica Irvine | Job No.: 440-195909-1

SDG No.:

Matrix: Water | Concentration Units: mg/L

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 1.15 | | 0.25 | | 1.00 | 91 | 75-125 | | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 440-440602/2-A

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

Sample Matrix: Water  LCS Source: ME ICP2 ICV1A_00051

| Analyte | Water(mg/L) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | True | Found | C | %R | Limits | | Q | Method |
| Chromium | 1.00 | 0.904 | | 90 | 80 | 120 | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 440-195909-2

SDG No:

Lab Name: TestAmerica Irvine Job No: 440-195909-1

Matrix: Water Concentration Units: mg/L

| Analyte | Initial Sample Result (I) | C | Serial Dilution Result (S) | C | % Difference | Q | Method |
|---|---|---|---|---|---|---|---|
| Chromium | 0.25 | | 0.248 | | 0.84 | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine Job Number: 440-195909-1

SDG Number:

Matrix: Water Instrument ID: ICP7

Method: 6010B MDL Date: 06/15/2017 17:45

Prep Method: 3005A

| Analyte | Wavelength/ Mass | RL (mg/L) | MDL (mg/L) |
|---|---|---|---|
| Chromium | 205.552 | 0.005 | 0.0025 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine Job Number: 440-195909-1

SDG Number:

Matrix: Water Instrument ID: ICP7

Method: 6010B XMDL Date: 06/15/2017 17:46

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Chromium | 205.552 | 0.005 | 0.0025 |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-195909-1

SDG No.:

ICP-AES Instrument ID: ICP7 Date: 11/07/2017

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 308.215 | | 0.121218 | 0.904092 | 1.309536 | 1.231562 | 0.070641 | 0.141926 | 2.043019 | 7.138100 | 0 | 0 | 1.124366 | 18.655017 | 1.886556 |
| Antimony | 206.836 | -0.036572 | 0 | -0.217916 | 5.017255 | 0 | -0.018557 | 0 | 0 | -14.877122 | 0 | 0 | 0 | 0 | -0.448124 |
| Arsenic | 188.979 | 0 | 0 | -0.177319 | -2.759249 | 0 | -0.080640 | 0 | 0 | 0.705341 | 0 | 0 | 0.253569 | 0.647893 | -0.615382 |
| Barium | 233.527 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -0.759622 | 0 |
| Beryllium | 313.107 | 0 | 0 | 0 | -0.037214 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Boron | 249.677 | 0 | 0 | 0 | 0 | 0 | 2.373 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4.273924 |
| Cadmium | 214.440 | 0.009153 | 0 | 0 | 0 | 0 | 0.013508 | -0.004053 | 0 | 0 | 0 | 0 | 0 | 0 | -0.335090 |
| Calcium | 315.887 | 0 | | 2.191186 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Chromium | 205.560 | 0 | 0 | 0 | | 0 | -0.005034 | 0 | 0 | 0 | -0.201642 | 0 | 0 | 0 | 0.532973 |
| Cobalt | 228.616 | 0 | 0 | | 0 | 0 | 0.009900 | 0 | 0 | -0.345123 | 0 | 0 | 1.977366 | 0 | 0 |
| Copper | 324.752 | 0 | 0 | -0.324165 | 0 | | -0.076584 | 0 | 0 | 0.436967 | 0 | 0 | 0 | 0 | 0 |
| Iron | 238.204 | 0 | 0 | -1.521218 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lead | 220.353 | 0.089172 | -0.016027 | -0.389896 | 0 | 0.382068 | 0.023107 | 0.011978 | 0.193667 | -2.116906 | -0.11997 | 0 | 0 | 0 | 0.408021 |
| Lithium | 610.362 | 0 | -0.755000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Magnesium | 279.077 | 0 | 0 | 0 | 4.160564 | 0 | -0.092899 | | -0.492871 | -3.158892 | 0 | 0 | -0.974535 | 0 | -1.125708 |
| Manganese | 257.610 | 0 | 0 | 0 | 0 | 0 | 0 | 0.034711 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Molybdenum | 202.031 | 0 | 0 | 0 | 0 | 0 | -0.025350 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 |
| Nickel | 231.604 | 0 | 0 | -1.052819 | 0 | 0 | 0.017001 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 |
| Phosphorus | 214.914 | -0.283100 | 0 | 0 | 0 | 3.415541 | 0.830000 | 0 | 0 | 10.391510 | 0 | 0 | 0 | 0 | 48.903239 |
| Potassium | 766.490 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Selenium | 196.026 | 0 | 0 | -1.192499 | 0 | 0 | -0.423214 | 0 | 0.773986 | 0.374381 | 0 | 0 | 0 | 0 | 9.410769 |
| Silicon | 251.611 | 0 | 0 | 0 | 0 | 0 | -0.070159 | 0.067928 | 0 | 11.880984 | 0 | 0 | 2.977863 | 0 | 54.053182 |
| Silver | 328.068 | 0 | 0 | 0 | 0 | 0 | -0.021077 | 0 | 0 | 0 | 0 | 0 | 0 | -0.198952 | 0 |
| Sodium | 589.592 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Strontium | 421.552 | 0 | 0.029088 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Thallium | 190.801 | -0.015531 | -0.007968 | 4.263215 | 0.195469 | 0 | 0 | 0 | 0.444478 | 0.686592 | 0 | 0 | -8.776847 | 0.640330 | 0 |
| Tin | 189.927 | 0 | 0.056650 | 0 | 0 | 0 | -0.155543 | 0 | 0 | 0 | 0 | | -4.968367 | 0 | 0 |
| Titanium | 334.903 | 0 | -0.014784 | 0 | 0.177608 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 1.05226 |
| Tungsten | 207.912 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Vanadium | 292.402 | 0 | 0 | 0 | -3.287051 | 0 | -0.107300 | 0 | 0 | -0.321667 | 0 | 0 | 0.494855 | | 0 |

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-195909-1

SDG No.:

ICP-AES Instrument ID: ICP7 Date: 11/07/2017

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | | | 3235.791083 | 3187.292323 | 3312.777451 | 174.565362 | 138.698901 | 3210.703894 | 3637.125785 | 3243.298416 | 3320.209526 | 3499.941391 | 3372.699868 | 3554.777578 |
| Zinc | 213.857 | 0 | 0 | 0.475211 | 0 | 1.515383 | 1.02200 | 0.042783 | 0 | 0 | 4.948432 | 0 | 0 | 0 | 0.798690 |
| Zirconium | 343.823 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-195909-1

SDG No.:

ICP-AES Instrument ID: ICP7 Date: 11/07/2017

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 308.215 | 0 | 1.578167 | | | | | | | | | | | | |
| Antimony | 206.836 | 0.183083 | -0.651390 | | | | | | | | | | | | |
| Arsenic | 188.979 | 0 | 0 | | | | | | | | | | | | |
| Barium | 233.527 | 0 | 0 | | | | | | | | | | | | |
| Beryllium | 313.107 | 0 | 0.113659 | | | | | | | | | | | | |
| Boron | 249.677 | 0 | 0 | | | | | | | | | | | | |
| Cadmium | 214.440 | 0 | 0 | | | | | | | | | | | | |
| Calcium | 315.887 | 0 | -5.344820 | | | | | | | | | | | | |
| Chromium | 205.560 | 0 | 0 | | | | | | | | | | | | |
| Cobalt | 228.616 | 0 | 0 | | | | | | | | | | | | |
| Copper | 324.752 | 0 | 0 | | | | | | | | | | | | |
| Iron | 238.204 | 0 | 0 | | | | | | | | | | | | |
| Lead | 220.353 | 0 | 0 | | | | | | | | | | | | |
| Lithium | 610.362 | 0 | 0 | | | | | | | | | | | | |
| Magnesium | 279.077 | 0 | 0 | | | | | | | | | | | | |
| Manganese | 257.610 | 0 | 0 | | | | | | | | | | | | |
| Molybdenum | 202.031 | 0 | 0 | | | | | | | | | | | | |
| Nickel | 231.604 | 0 | 0 | | | | | | | | | | | | |
| Phosphorus | 214.914 | 1.000072 | 1.944433 | | | | | | | | | | | | |
| Potassium | 766.490 | 0 | 0 | | | | | | | | | | | | |
| Selenium | 196.026 | 0 | 0 | | | | | | | | | | | | |
| Silicon | 251.611 | 0 | 7.091490 | | | | | | | | | | | | |
| Silver | 328.068 | 0 | 6.522561 | | | | | | | | | | | | |
| Sodium | 589.592 | 0 | 0 | | | | | | | | | | | | |
| Strontium | 421.552 | 0 | 0 | | | | | | | | | | | | |
| Thallium | 190.801 | 0 | 0 | | | | | | | | | | | | |
| Tin | 189.927 | 0 | 0 | | | | | | | | | | | | |
| Titanium | 334.903 | 0 | 0 | | | | | | | | | | | | |
| Tungsten | 207.912 | 6.571938 | 0 | | | | | | | | | | | | |
| Vanadium | 292.402 | 0 | 0 | | | | | | | | | | | | |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-195909-1

SDG No.:

ICP-AES Instrument ID: ICP7 Date: 11/07/2017

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | 3492.885456 | 3364.294178 | | | | | | | | | | | | |
| Zinc | 213.857 | | 0 | | | | | | | | | | | | |
| Zirconium | 343.823 | 0 | | | | | | | | | | | | | |

X-IN

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Irvine Job No: 440-195909-1

SDG No.:

Instrument ID: ICP7 Date: 02/27/2017 17:57

| Analyte | Integ. Time (Sec.) | Concentration (mg/L) | Method |
|---|---|---|---|
| Chromium | | 30 | 6010B |

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Irvine Job No.: 440-195909-1

SDG No.:

Prep Method: 3005A

| Lab Sample ID | Preparation Date | Prep Batch | Initial Weight | Initial Volume (mL) | Final Volume (mL) |
|---|---|---|---|---|---|
| MB 440-440602/1-A | 11/10/2017 08:26 | 440602 | | 25 | 25 |
| LCS 440-440602/2-A | 11/10/2017 08:26 | 440602 | | 25 | 25 |
| 440-195909-2 | 11/10/2017 08:26 | 440602 | | 25 | 25 |
| 440-195909-2 MS | 11/10/2017 08:26 | 440602 | | 25 | 25 |
| 440-195909-2 MSD | 11/10/2017 08:26 | 440602 | | 25 | 25 |
| 440-195909-3 | 11/10/2017 08:26 | 440602 | | 25 | 25 |
| 440-195909-4 | 11/10/2017 08:26 | 440602 | | 25 | 25 |
| 440-195909-5 | 11/10/2017 08:26 | 440602 | | 25 | 25 |
| 440-195909-6 | 11/10/2017 08:26 | 440602 | | 25 | 25 |

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Instrument ID: ICP7  Analysis Method: 6010B

Start Date: 11/10/2017 08:59  End Date: 11/10/2017 19:19

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Cr | | | | | | | | | | | | | | | | | | | | | | | | |
| STD0 440-440757/1 IC | | | 08:59 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| STD1 440-440757/2 IC | | | 09:02 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| STD2 440-440757/3 IC | | | 09:05 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| STD3 440-440757/4 IC | | | 09:07 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ICV 440-440757/5 | 1 | | 09:09 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 09:14 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ICB 440-440757/7 | 1 | | 09:16 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 09:19 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 09:21 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ICSA 440-440757/10 | 1 | | 09:39 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ICSAB 440-440757/11 | 1 | | 09:41 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ICIS 440-440757/12 | 1 | | 09:43 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 440-440757/13 | | | 09:47 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 09:51 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CRI 440-440757/15 | 1 | | 09:54 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 440-440757/16 | 1 | | 16:13 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 440-440757/17 | 1 | | 16:15 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| MB 440-440602/1-A | 1 | R | 16:27 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 440-440602/2-A | 1 | R | 16:31 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-195909-2 | 1 | R | 16:32 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-195909-2 MS | 1 | R | 16:34 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-195909-2 MSD | 1 | R | 16:36 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-195909-2 SD | 5 | R | 16:40 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 440-440757/25 | 1 | | 16:42 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 440-440757/26 | 1 | | 16:44 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-195909-3 | 1 | R | 16:49 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-195909-4 | 1 | R | 16:51 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-195909-5 | 1 | R | 16:53 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-195909-6 | 1 | R | 16:54 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 440-440757/31 | 1 | | 16:58 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 440-440757/32 | 1 | | 17:00 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 440-440757/33 | 1 | | 18:49 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 440-440757/34 | 1 | | 18:51 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| 440-195909-2 PDS | 1 | R | 18:58 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 440-440757/36 | 1 | | 19:17 | X | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 440-440757/37 | 1 | | 19:19 | X | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
R = Total Recoverable

FORM XIII-IN

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Batch Number: 440602  Batch Start Date: 11/10/17 08:26  Batch Analyst: Nguyen, Quynh 1

Batch Method: 3005A  Batch End Date: 11/10/17 14:45

| Lab Sample ID | Client Sample ID | Method Chain | Basis | Initial pH | InitialAmount | FinalAmount | ME HCl 00385 | ME HNO3 00400 | ME ICP2 ICV1A 00051 |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-440602/1 | | 3005A, 6010B | | | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| LCS 440-440602/2 | | 3005A, 6010B | | | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-195909-G-2 | VMW-01D-20171107 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| 440-195909-G-2 MS | VMW-01D-20171107 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-195909-G-2 MSD | VMW-01D-20171107 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-195909-G-2 PDS | VMW-01D-20171107 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-195909-G-3 | VMW-01D-20171107 -FD | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| 440-195909-G-4 | VMW-01I-20171107 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| 440-195909-G-5 | VER-01D-20171107 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| 440-195909-G-6 | VER-01D-20171107 -EB | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | ME ICP2 ICV1B 00045 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-440602/1 | | 3005A, 6010B | | | | | | | |
| LCS 440-440602/2 | | 3005A, 6010B | | 250 uL | | | | | |
| 440-195909-G-2 | VMW-01D-20171107 | 3005A, 6010B | R | | | | | | |
| 440-195909-G-2 MS | VMW-01D-20171107 | 3005A, 6010B | R | 250 uL | | | | | |
| 440-195909-G-2 MSD | VMW-01D-20171107 | 3005A, 6010B | R | 250 uL | | | | | |
| 440-195909-G-2 PDS | VMW-01D-20171107 | 3005A, 6010B | R | 250 uL | | | | | |
| 440-195909-G-3 | VMW-01D-20171107 -FD | 3005A, 6010B | R | | | | | | |
| 440-195909-G-4 | VMW-01I-20171107 | 3005A, 6010B | R | | | | | | |
| 440-195909-G-5 | VER-01D-20171107 | 3005A, 6010B | R | | | | | | |
| 440-195909-G-6 | VER-01D-20171107 -EB | 3005A, 6010B | R | | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-195909-1

SDG No.:

Batch Number: 440602  Batch Start Date: 11/10/17 08:26  Batch Analyst: Nguyen, Quynh 1

Batch Method: 3005A  Batch End Date: 11/10/17 14:45

| Batch Notes | |
|---|---|
| Temperature - Corrected - End | 95 Deg. C |
| Temperature - Corrected - Start | 94 Deg. C |
| Digestion End Time | 11/10/2017 14:45 |
| Digestion Start Time | 11/10/2017 10:45 |
| Digestion Unit ID | 10 |
| Hydrochloric Acid ID | 0000183179 |
| Nitric Acid ID | 0000166089 |
| Pipette/Syringe/Dispenser ID | 201 |
| Thermometer ID | P67 CF -1.0 LOC B2 |
| Digestion Tube/Cup ID | 1707186 |
| Temperature - Uncorrected - End | 96 Deg. C |
| Temperature - Uncorrected - Start | 95 Deg. C |

| Basis | Basis Description |
|---|---|
| R | Total Recoverable |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Shipping and Receiving Documents

**TestAmerica Irvine**
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

# Chain of Custody Record

TestAmerica

| Client Information | Sampler: Jeff Richeson | Lab PM: Mata, Patty | Carrier Tracking No(s): | COC No: |
|---|---|---|---|---|
| Client Contact: Mike Crews | Phone: (805) 660-1774 | E-Mail: patty.mata@testamericainc.com | | Page: 1 of 1 |
| Company: Tetra Tech, Inc. | | | | Job #: |
| Address: 17885 Von Karman Ave, Ste 500 | Due Date Requested: | | | |
| City: Irvine | TAT Requested (days): | | | |
| State, Zip: CA, 92614 | | | | |
| Phone: 949-809-5041(Tel) | PO #: | | | |
| Email: mike.crews@tetratech.com | WO #: | | | |
| Project Name: NERT VER Treatability Study | Project #: M16 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

| | |
|---|---|
| A - HCL | M - Hexane |
| B - NaOH | N - None |
| C - Zn Acetate | O - AsNaO2 |
| D - Nitric Acid | P - Na2O4S |
| E - NaHSO4 | Q - Na2SO3 |
| F - MeOH | R - Na2S2O3 |
| G - Amchlor | S - H2SO4 |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice | U - Acetone |
| J - DI Water | V - MCAA |
| K - EDTA | W - pH 4-5 |
| L - EDA | Z - other (specify) |

Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 7199_ORGFM - Chromium, hexavalent | 314.0_LL - Perchlorate | E300.1 Chlorate and Chlorite | SW846 5035A VOCs | 200.7 Total Chromium | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | X | X | N | N | L | A | D | X | |
| Trip Blank | 11/7/17 | 0700 | G | W | | | | | | X | | 3 | |
| VMW-01D-20171107 | | 0935 | | | X | | X | X | X | X | X | 7 | |
| VMW-01D-20171107-FD | | 0935 | | | X | | X | X | X | X | X | 7 | |
| VMW-01I-20171107 | | 1140 | | | X | | X | X | X | X | X | 7 | |
| VER-01D-20171107 | | 1250 | | | X | | X | X | X | X | X | 7 | |
| VER-01D-20171107-EB | | 1320 | | | X | | X | X | X | X | X | 7 | |

440-195909 Chain of Custody

Page 373 of 374

11/8/17

**Possible Hazard Identification**
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|---|
| 1 | | 11/7/17 1415 | Tetra Tech | | 11-7-17 1510 | TA |
| 2 | | 11-7-17 1700 | TA | | | |
| 3 | SWA 0639666 | | | | 11/7/17 2130 | TA-7 |

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: Rec by FedEx 1/8

Cooler Temperature(s) °C and Other Remarks: 1 10:20 TAL ✓ 18.3 5.0/4.8 IR#1

TH: 11/7/17 2130 SWA

IR-55

# Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 440-195909-1

**Login Number: 195909**
**List Number: 1**
**Creator: Escalante, Maria I**

**List Source: TestAmerica Irvine**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | N/A | Not Present |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

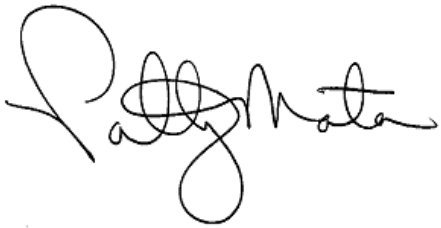
# ANALYTICAL REPORT

Job Number: 440-196039-1

Job Description: NERT VER M16

For:
Tetra Tech, Inc.
17885 Von Karman Ave, Ste 500
Irvine, CA 92614

Attention: Jeff Richeson



Approved for release.
Patty Mata
Senior Project Manager
11/29/2017 11:52 AM

Patty Mata, Senior Project Manager
17461 Derian Ave, Irvine, CA, 92614-5817
patty.mata@testamericainc.com
11/29/2017

# Table of Contents


Cover Title Page . . . . . 1

Data Summaries . . . . . 6

Definitions . . . . . 6

Case Narrative . . . . . 7

Detection Summary . . . . . 8

Client Sample Results . . . . . 9

Default Detection Limits . . . . . 19

Surrogate Summary . . . . . 21

QC Sample Results . . . . . 23

QC Association . . . . . 38

Chronicle . . . . . 41

Certification Summary . . . . . 43

Method Summary . . . . . 44

Sample Summary . . . . . 45

Manual Integration Summary . . . . . 46

Reagent Traceability . . . . . 67

Organic Sample Data . . . . . 95

GC/MS VOA . . . . . 95

Method 8260B Low Level . . . . . 95

Method 8260B Low Level QC Summary . . . . . 96

Method 8260B Low Level Sample Data . . . . . 110

Standards Data . . . . . 125

Method 8260B Low Level ICAL Data . . . . . 125

Method 8260B Low Level CCAL Data . . . . . 141

Raw QC Data . . . . . 147

Method 8260B Low Level Blank Data . . . . . 147

# Table of Contents


Method 8260B Low Level LCS/LCSD Data . . . . . 150

Method 8260B Low Level MS/MSD Data . . . . . 153

Method 8260B Low Level Run Logs . . . . . 159

HPLC/IC . . . . . 161

314.0_LL . . . . . 161

314.0_LL QC Summary . . . . . 162

314.0_LL Sample Data . . . . . 174

Standards Data . . . . . 178

314.0_LL ICAL Data . . . . . 178

314.0_LL CCAL Data . . . . . 184

Raw QC Data . . . . . 202

314.0_LL Blank Data . . . . . 202

314.0_LL LCS/LCSD Data . . . . . 211

314.0_LL MS/MSD Data . . . . . 217

314.0_LL Run Logs . . . . . 221

Method 7199 . . . . . 227

Method 7199 QC Summary . . . . . 228

Method 7199 Sample Data . . . . . 234

Standards Data . . . . . 238

Method 7199 ICAL Data . . . . . 238

Method 7199 CCAL Data . . . . . 241

Raw QC Data . . . . . 249

Method 7199 Blank Data . . . . . 249

Method 7199 LCS/LCSD Data . . . . . 253

Method 7199 MS/MSD Data . . . . . 255

Method 7199 Run Logs . . . . . 257

# Table of Contents


Method 300.1 . . . . . 261

Method 300.1 QC Summary . . . . . 262

Method 300.1 Sample Data . . . . . 289

Standards Data . . . . . 297

Method 300.1 ICAL Data . . . . . 297

Method 300.1 CCAL Data . . . . . 309

Raw QC Data . . . . . 347

Method 300.1 Blank Data . . . . . 347

Method 300.1 LCS/LCSD Data . . . . . 366

Method 300.1 MS/MSD Data . . . . . 376

Method 300.1 Run Logs . . . . . 386

Inorganic Sample Data . . . . . 397

Metals Data . . . . . 397

Met Cover Page . . . . . 398

Met Sample Data . . . . . 399

Met QC Data . . . . . 403

Met ICV/CCV . . . . . 403

Met CRQL . . . . . 405

Met Blanks . . . . . 406

Met ICSA/ICSAB . . . . . 408

Met MS/MSD/PDS . . . . . 410

Met LCS/LCSD . . . . . 413

Met Serial Dilution . . . . . 414

Met MDL . . . . . 415

Met IECF . . . . . 417

Met Linear Ranges . . . . . 421

# Table of Contents

Met Preparation Log . . . . . 422
Met Analysis Run Log . . . . . 423
Met Prep Data . . . . . 426
Shipping and Receiving Documents . . . . . 428
Client Chain of Custody . . . . . 429
Sample Receipt Checklist . . . . . 430

## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| ^ | ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| PQL | Practical Quantitation Limit |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

**Job Narrative**
**440-196039-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 11/9/2017 6:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.0º C and 5.2º C.

**GC/MS VOA**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**HPLC/IC**
Method(s) 300.1B: The following samples were diluted for the chlorite analyte due to the nature of the sample matrix: VER-01I-20171108 (440-196039-2), VMW-02D-20171108 (440-196039-3) and VMW-02I-20171108 (440-196039-4). Elevated reporting limits (RLs) are provided.

Method(s) 314.0 LL: The continuing calibration verification (CCV) associated with batch 440-443545 recovered above the upper control limit for Perchlorate. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following sample was impacted: VMW-02I-20171108-EB (440-196039-5).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**Metals**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**VOA Prep**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-196039-1

## Client Sample ID: Trip Blank — Lab Sample ID: 440-196039-1

No Detections.

## Client Sample ID: VER-01I-20171108 — Lab Sample ID: 440-196039-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloroform | 110 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Chlorate | 680000 | | 100000 | 50000 | ug/L | 5000 | | 300.1B | Total/NA |
| Perchlorate | 300000 | | 10000 | 5000 | ug/L | 10000 | | 314.0 LL | Total/NA |
| Chromium, hexavalent | 2200 | | 400 | 50 | ug/L | 200 | | 7199 | Total/NA |
| Chromium | 2.5 | | 0.0050 | 0.0025 | mg/L | 1 | | 6010B | Total Recoverable |

## Client Sample ID: VMW-02D-20171108 — Lab Sample ID: 440-196039-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloroform | 0.45 | J | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Chlorate | 500 | | 200 | 100 | ug/L | 10 | | 300.1B | Total/NA |
| Perchlorate | 280 | | 10 | 5.0 | ug/L | 10 | | 314.0 LL | Total/NA |
| Chromium, hexavalent | 22 | | 2.0 | 0.25 | ug/L | 1 | | 7199 | Total/NA |
| Chromium | 0.028 | | 0.0050 | 0.0025 | mg/L | 1 | | 6010B | Total Recoverable |

## Client Sample ID: VMW-02I-20171108 — Lab Sample ID: 440-196039-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Carbon tetrachloride | 0.31 | J | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Chloroform | 69 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Chlorate | 470000 | | 40000 | 20000 | ug/L | 2000 | | 300.1B | Total/NA |
| Perchlorate | 320000 | | 10000 | 5000 | ug/L | 10000 | | 314.0 LL | Total/NA |
| Chromium, hexavalent | 1000 | | 200 | 25 | ug/L | 100 | | 7199 | Total/NA |
| Chromium | 1.2 | | 0.0050 | 0.0025 | mg/L | 1 | | 6010B | Total Recoverable |

## Client Sample ID: VMW-02I-20171108-EB — Lab Sample ID: 440-196039-5

No Detections.

This Detection Summary does not include radiochemical test results.

## Client Sample ID: Trip Blank

**Date Collected: 11/08/17 07:00**
**Date Received: 11/09/17 06:40**

## Lab Sample ID: 440-196039-1

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 11/20/17 15:04 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 15:04 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 11/20/17 15:04 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 15:04 | 1 |
| Chloroform | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 11/20/17 15:04 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 15:04 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 15:04 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 11/20/17 15:04 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 11/20/17 15:04 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 11/20/17 15:04 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 11/20/17 15:04 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 15:04 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 15:04 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |

## Client Sample ID: Trip Blank

**Date Collected: 11/08/17 07:00**
**Date Received: 11/09/17 06:40**

**Lab Sample ID: 440-196039-1**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 11/20/17 15:04 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 15:04 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 15:04 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 15:04 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 15:04 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 11/20/17 15:04 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *101* | | *80 - 120* | | *11/20/17 15:04* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *76 - 132* | | *11/20/17 15:04* | *1* |
| *Toluene-d8 (Surr)* | *101* | | *80 - 128* | | *11/20/17 15:04* | *1* |

## Client Sample ID: VER-01I-20171108

**Date Collected: 11/08/17 08:05**
**Date Received: 11/09/17 06:40**

**Lab Sample ID: 440-196039-2**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 11/20/17 16:57 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 16:57 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 11/20/17 16:57 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 16:57 | 1 |
| **Chloroform** | **110** | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |

## Client Sample ID: VER-01I-20171108

**Date Collected: 11/08/17 08:05**
**Date Received: 11/09/17 06:40**

## Lab Sample ID: 440-196039-2

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 11/20/17 16:57 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 16:57 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 16:57 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 11/20/17 16:57 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 11/20/17 16:57 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 11/20/17 16:57 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 11/20/17 16:57 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 16:57 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 16:57 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 11/20/17 16:57 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 16:57 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 16:57 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 16:57 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |

## Client Sample ID: VER-01I-20171108

**Lab Sample ID: 440-196039-2**

**Date Collected: 11/08/17 08:05**

**Matrix: Water**

**Date Received: 11/09/17 06:40**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 16:57 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 11/20/17 16:57 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *80 - 120* | | *11/20/17 16:57* | *1* |
| *Dibromofluoromethane (Surr)* | *104* | | *76 - 132* | | *11/20/17 16:57* | *1* |
| *Toluene-d8 (Surr)* | *100* | | *80 - 128* | | *11/20/17 16:57* | *1* |

### Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 400 | 200 | ug/L | | | 11/13/17 15:37 | 20 |
| **Chlorate** | **680000** | | 100000 | 50000 | ug/L | | | 11/15/17 18:09 | 5000 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *105* | | *90 - 115* | | *11/15/17 18:09* | *5000* |
| *Dichloroacetic acid(Surr)* | *95* | | *90 - 115* | | *11/13/17 15:37* | *20* |

### Method: 314.0 LL - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perchlorate** | **300000** | | 10000 | 5000 | ug/L | | | 11/28/17 18:12 | 10000 |

### Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium, hexavalent** | **2200** | | 400 | 50 | ug/L | | | 11/09/17 07:26 | 200 |

### Method: 6010B - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **2.5** | | 0.0050 | 0.0025 | mg/L | | 11/13/17 15:46 | 11/14/17 18:37 | 1 |

## Client Sample ID: VMW-02D-20171108

**Lab Sample ID: 440-196039-3**

**Date Collected: 11/08/17 09:55**

**Matrix: Water**

**Date Received: 11/09/17 06:40**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 11/20/17 17:25 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 17:25 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 11/20/17 17:25 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 17:25 | 1 |
| **Chloroform** | **0.45** | **J** | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |

## Client Sample ID: VMW-02D-20171108

**Date Collected: 11/08/17 09:55**
**Date Received: 11/09/17 06:40**

## Lab Sample ID: 440-196039-3

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 11/20/17 17:25 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 17:25 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 17:25 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 11/20/17 17:25 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 11/20/17 17:25 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 11/20/17 17:25 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 11/20/17 17:25 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 17:25 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 17:25 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 11/20/17 17:25 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 17:25 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 17:25 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 17:25 | 1 |

## Client Sample ID: VMW-02D-20171108

**Lab Sample ID: 440-196039-3**

**Date Collected: 11/08/17 09:55**

**Matrix: Water**

**Date Received: 11/09/17 06:40**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:25 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 11/20/17 17:25 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *104* | | *80 - 120* | | *11/20/17 17:25* | *1* |
| *Dibromofluoromethane (Surr)* | *99* | | *76 - 132* | | *11/20/17 17:25* | *1* |
| *Toluene-d8 (Surr)* | *103* | | *80 - 128* | | *11/20/17 17:25* | *1* |

### Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 1000 | 500 | ug/L | | | 11/11/17 06:04 | 50 |
| **Chlorate** | **500** | | 200 | 100 | ug/L | | | 11/24/17 10:24 | 10 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *102* | | *90 - 115* | | *11/24/17 10:24* | *10* |
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* | | *11/11/17 06:04* | *50* |

### Method: 314.0 LL - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perchlorate** | **280** | | 10 | 5.0 | ug/L | | | 11/28/17 18:30 | 10 |

### Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium, hexavalent** | **22** | | 2.0 | 0.25 | ug/L | | | 11/09/17 07:39 | 1 |

### Method: 6010B - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **0.028** | | 0.0050 | 0.0025 | mg/L | | 11/13/17 15:46 | 11/14/17 18:54 | 1 |

## Client Sample ID: VMW-02I-20171108

**Lab Sample ID: 440-196039-4**

**Date Collected: 11/08/17 11:30**

**Matrix: Water**

**Date Received: 11/09/17 06:40**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 11/20/17 17:53 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 17:53 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 11/20/17 17:53 | 1 |
| **Carbon tetrachloride** | **0.31** | **J** | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 17:53 | 1 |
| **Chloroform** | **69** | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |

## Client Sample ID: VMW-02I-20171108

**Date Collected: 11/08/17 11:30**
**Date Received: 11/09/17 06:40**

## Lab Sample ID: 440-196039-4

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 11/20/17 17:53 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 17:53 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 17:53 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 11/20/17 17:53 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 11/20/17 17:53 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 11/20/17 17:53 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 11/20/17 17:53 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 17:53 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 17:53 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 11/20/17 17:53 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 17:53 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 17:53 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |

## Client Sample ID: VMW-02I-20171108

**Date Collected: 11/08/17 11:30**
**Date Received: 11/09/17 06:40**

## Lab Sample ID: 440-196039-4

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 17:53 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 17:53 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 11/20/17 17:53 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *80 - 120* | | *11/20/17 17:53* | *1* |
| *Dibromofluoromethane (Surr)* | *105* | | *76 - 132* | | *11/20/17 17:53* | *1* |
| *Toluene-d8 (Surr)* | *104* | | *80 - 128* | | *11/20/17 17:53* | *1* |

### Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 1000 | 500 | ug/L | | | 11/11/17 06:40 | 50 |
| **Chlorate** | **470000** | | 40000 | 20000 | ug/L | | | 11/24/17 11:00 | 2000 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *105* | | *90 - 115* | | *11/24/17 11:00* | *2000* |
| *Dichloroacetic acid(Surr)* | *98* | | *90 - 115* | | *11/11/17 06:40* | *50* |

### Method: 314.0 LL - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perchlorate** | **320000** | | 10000 | 5000 | ug/L | | | 11/28/17 18:48 | 10000 |

### Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium, hexavalent** | **1000** | | 200 | 25 | ug/L | | | 11/09/17 08:31 | 100 |

### Method: 6010B - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **1.2** | | 0.0050 | 0.0025 | mg/L | | 11/13/17 15:46 | 11/14/17 18:56 | 1 |

## Client Sample ID: VMW-02I-20171108-EB

**Date Collected: 11/08/17 12:40**
**Date Received: 11/09/17 06:40**

## Lab Sample ID: 440-196039-5

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 11/20/17 18:21 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 18:21 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 11/20/17 18:21 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 18:21 | 1 |
| Chloroform | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |

## Client Sample ID: VMW-02I-20171108-EB

**Date Collected: 11/08/17 12:40**
**Date Received: 11/09/17 06:40**

## Lab Sample ID: 440-196039-5

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 11/20/17 18:21 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 18:21 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 18:21 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 11/20/17 18:21 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 11/20/17 18:21 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 11/20/17 18:21 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 11/20/17 18:21 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 18:21 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 18:21 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 11/20/17 18:21 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 18:21 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 18:21 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |

## Client Sample ID: VMW-02I-20171108-EB

**Date Collected: 11/08/17 12:40**
**Date Received: 11/09/17 06:40**

## Lab Sample ID: 440-196039-5

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 18:21 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 18:21 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 11/20/17 18:21 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *102* | | *80 - 120* | | *11/20/17 18:21* | *1* |
| *Dibromofluoromethane (Surr)* | *104* | | *76 - 132* | | *11/20/17 18:21* | *1* |
| *Toluene-d8 (Surr)* | *104* | | *80 - 128* | | *11/20/17 18:21* | *1* |

### Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 20 | 10 | ug/L | | | 11/10/17 17:20 | 1 |
| Chlorate | ND | | 20 | 10 | ug/L | | | 11/10/17 17:20 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *97* | | *90 - 115* | | *11/10/17 17:20* | *1* |
| *Dichloroacetic acid(Surr)* | *97* | | *90 - 115* | | *11/10/17 17:20* | *1* |

### Method: 314.0 LL - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | ^ | 1.0 | 0.50 | ug/L | | | 11/27/17 13:31 | 1 |

### Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 2.0 | 0.25 | ug/L | | | 11/09/17 09:16 | 1 |

### Method: 6010B - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | ND | | 0.0050 | 0.0025 | mg/L | | 11/13/17 15:46 | 11/14/17 18:58 | 1 |

# Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-196039-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,1-Trichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,2,2-Tetrachloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,2-Trichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2,3-Trichlorobenzene | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,3-Trichloropropane | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,4-Trichlorobenzene | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,4-Trimethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dibromo-3-Chloropropane | 1.0 | 0.50 | ug/L | 8260B |
| 1,2-Dibromoethane (EDB) | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichloropropane | 0.50 | 0.25 | ug/L | 8260B |
| 1,3,5-Trimethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,3-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,3-Dichloropropane | 0.50 | 0.25 | ug/L | 8260B |
| 1,4-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 2,2-Dichloropropane | 1.0 | 0.40 | ug/L | 8260B |
| 2-Butanone (MEK) | 5.0 | 2.5 | ug/L | 8260B |
| 2-Chlorotoluene | 0.50 | 0.25 | ug/L | 8260B |
| 2-Hexanone | 5.0 | 2.5 | ug/L | 8260B |
| 4-Chlorotoluene | 0.50 | 0.25 | ug/L | 8260B |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | 2.5 | ug/L | 8260B |
| Acetone | 20 | 10 | ug/L | 8260B |
| Benzene | 0.50 | 0.25 | ug/L | 8260B |
| Bromobenzene | 0.50 | 0.25 | ug/L | 8260B |
| Bromochloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Bromodichloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Bromoform | 1.0 | 0.40 | ug/L | 8260B |
| Bromomethane | 0.50 | 0.25 | ug/L | 8260B |
| Carbon tetrachloride | 0.50 | 0.25 | ug/L | 8260B |
| Chlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| Chloroethane | 1.0 | 0.40 | ug/L | 8260B |
| Chloroform | 0.50 | 0.25 | ug/L | 8260B |
| Chloromethane | 0.50 | 0.25 | ug/L | 8260B |
| cis-1,2-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| cis-1,3-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| Dibromochloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Dibromomethane | 0.50 | 0.25 | ug/L | 8260B |
| Dichlorodifluoromethane | 1.0 | 0.40 | ug/L | 8260B |
| Ethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Ethyl-t-butyl ether (ETBE) | 0.50 | 0.25 | ug/L | 8260B |
| Hexachlorobutadiene | 0.50 | 0.25 | ug/L | 8260B |
| Isopropyl Ether (DIPE) | 0.50 | 0.25 | ug/L | 8260B |
| Isopropylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| m,p-Xylene | 1.0 | 0.50 | ug/L | 8260B |
| Methylene Chloride | 2.0 | 0.88 | ug/L | 8260B |
| Methyl-t-Butyl Ether (MTBE) | 0.50 | 0.25 | ug/L | 8260B |
| Naphthalene | 1.0 | 0.40 | ug/L | 8260B |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| n-Butylbenzene | 1.0 | 0.40 | ug/L | 8260B |
| N-Propylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| o-Xylene | 0.50 | 0.25 | ug/L | 8260B |
| p-Isopropyltoluene | 0.50 | 0.25 | ug/L | 8260B |
| sec-Butylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Styrene | 0.50 | 0.25 | ug/L | 8260B |
| Tert-amyl-methyl ether (TAME) | 0.50 | 0.25 | ug/L | 8260B |
| tert-Butyl alcohol (TBA) | 10 | 5.0 | ug/L | 8260B |
| tert-Butylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Tetrachloroethene | 0.50 | 0.25 | ug/L | 8260B |
| Toluene | 0.50 | 0.25 | ug/L | 8260B |
| trans-1,2-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| trans-1,3-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| Trichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| Trichlorofluoromethane | 0.50 | 0.25 | ug/L | 8260B |
| Vinyl chloride | 0.50 | 0.25 | ug/L | 8260B |
| Xylenes, Total | 1.0 | 0.50 | ug/L | 8260B |

## Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chlorate | 20 | 10 | ug/L | 300.1B |
| Chlorite | 20 | 10 | ug/L | 300.1B |

## Method: 314.0 LL - Perchlorate (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Perchlorate | 1.0 | 0.50 | ug/L | 314.0 LL |

## Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chromium, hexavalent | 2.0 | 0.25 | ug/L | 7199 |

## Method: 6010B - Metals (ICP) - Total Recoverable

### Prep: 3005A

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chromium | 0.0050 | 0.0025 | mg/L | 6010B |

# Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-196039-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Matrix: Water** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | |
|---|---|---|---|---|
| Lab Sample ID | Client Sample ID | BFB (80-120) | DBFM (76-132) | TOL (80-128) |
| 440-196038-A-2 MS | Matrix Spike | 101 | 97 | 97 |
| 440-196038-A-2 MSD | Matrix Spike Duplicate | 97 | 101 | 99 |
| 440-196039-1 | Trip Blank | 101 | 100 | 101 |
| 440-196039-2 | VER-01I-20171108 | 100 | 104 | 100 |
| 440-196039-3 | VMW-02D-20171108 | 104 | 99 | 103 |
| 440-196039-4 | VMW-02I-20171108 | 100 | 105 | 104 |
| 440-196039-5 | VMW-02I-20171108-EB | 102 | 104 | 104 |
| LCS 440-442464/4 | Lab Control Sample | 102 | 102 | 99 |
| MB 440-442464/3 | Method Blank | 102 | 97 | 105 |

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

## Method: 300.1B - Disinfection By-Products, (IC)

**Matrix: Water** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | |
|---|---|---|---|
| Lab Sample ID | Client Sample ID | bacetic ac (90-115) | bacetic ac (90-115) |
| 440-195592-A-1 MS | Matrix Spike | 95 | 95 |
| 440-195592-A-1 MSD | Matrix Spike Duplicate | 96 | 96 |
| 440-195772-B-3 MS | Matrix Spike | 105 | 105 |
| 440-195772-B-3 MSD | Matrix Spike Duplicate | 94 | 94 |
| 440-196039-2 | VER-01I-20171108 | 95 | 95 |
| 440-196039-2 | VER-01I-20171108 | 105 | 105 |
| 440-196039-3 | VMW-02D-20171108 | 101 | 101 |
| 440-196039-3 | VMW-02D-20171108 | 102 | 102 |
| 440-196039-4 | VMW-02I-20171108 | 98 | 98 |
| 440-196039-4 | VMW-02I-20171108 | 105 | 105 |
| 440-196039-5 | VMW-02I-20171108-EB | 97 | 97 |
| 440-196337-A-4 MS | Matrix Spike | 102 | 102 |
| 440-196337-A-4 MSD | Matrix Spike Duplicate | 102 | 102 |
| 440-197050-C-1 MS | Matrix Spike | 102 | 102 |
| 440-197050-C-1 MSD | Matrix Spike Duplicate | 100 | 100 |
| LCS 440-440634/4 | Lab Control Sample | 97 | 97 |
| LCS 440-440635/4 | Lab Control Sample | 97 | 97 |
| LCS 440-440974/4 | Lab Control Sample | 96 | 96 |
| LCS 440-441516/4 | Lab Control Sample | 100 | 100 |
| LCS 440-443190/4 | Lab Control Sample | 103 | 103 |
| MB 440-440634/5 | Method Blank | 96 | 96 |
| MB 440-440635/5 | Method Blank | 96 | 96 |
| MB 440-440974/5 | Method Blank | 95 | 95 |
| MB 440-441516/5 | Method Blank | 101 | 101 |
| MB 440-443190/5 | Method Blank | 103 | 103 |
| MRL 440-440634/3 | Lab Control Sample | 96 | 96 |
| MRL 440-440635/3 | Lab Control Sample | 96 | 96 |
| MRL 440-440974/3 | Lab Control Sample | 99 | 99 |

# Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-196039-1

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

**Matrix: Water** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ɔacetic ac | ɔacetic ac | | | | | | | | |
| **Lab Sample ID** | **Client Sample ID** | **(90-115)** | **(90-115)** | | | | | | | | |
| MRL 440-441516/3 | Lab Control Sample | 100 | 100 | | | | | | | | |
| MRL 440-443190/3 | Lab Control Sample | 102 | 102 | | | | | | | | |

**Surrogate Legend**

Dichloroacetic acid(Surr) = Dichloroacetic acid(Surr)

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 440-442464/3**
**Matrix: Water**
**Analysis Batch: 442464**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 11/20/17 08:39 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 08:39 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 11/20/17 08:39 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 08:39 | 1 |
| Chloroform | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 11/20/17 08:39 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 08:39 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 08:39 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 11/20/17 08:39 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 11/20/17 08:39 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 11/20/17 08:39 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 11/20/17 08:39 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 08:39 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 08:39 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 440-442464/3**
**Matrix: Water**
**Analysis Batch: 442464**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 11/20/17 08:39 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 08:39 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 08:39 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 11/20/17 08:39 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 11/20/17 08:39 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 11/20/17 08:39 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *102* | | *80 - 120* | | *11/20/17 08:39* | *1* |
| *Dibromofluoromethane (Surr)* | *97* | | *76 - 132* | | *11/20/17 08:39* | *1* |
| *Toluene-d8 (Surr)* | *105* | | *80 - 128* | | *11/20/17 08:39* | *1* |

**Lab Sample ID: LCS 440-442464/4**
**Matrix: Water**
**Analysis Batch: 442464**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acetone | 25.0 | 27.3 | | ug/L | | 109 | 10 - 150 |
| Benzene | 25.0 | 25.2 | | ug/L | | 101 | 68 - 130 |
| Bromobenzene | 25.0 | 23.9 | | ug/L | | 95 | 70 - 130 |
| Bromochloromethane | 25.0 | 24.6 | | ug/L | | 99 | 70 - 130 |
| Bromodichloromethane | 25.0 | 26.5 | | ug/L | | 106 | 70 - 132 |
| Bromoform | 25.0 | 23.8 | | ug/L | | 95 | 60 - 148 |
| Bromomethane | 25.0 | 24.5 | | ug/L | | 98 | 64 - 139 |
| 2-Butanone (MEK) | 25.0 | 29.5 | | ug/L | | 118 | 44 - 150 |
| Carbon tetrachloride | 25.0 | 25.3 | | ug/L | | 101 | 60 - 150 |
| Chlorobenzene | 25.0 | 24.4 | | ug/L | | 97 | 70 - 130 |
| Chloroethane | 25.0 | 24.9 | | ug/L | | 100 | 64 - 135 |
| Chloroform | 25.0 | 25.5 | | ug/L | | 102 | 70 - 130 |
| Chloromethane | 25.0 | 23.9 | | ug/L | | 96 | 47 - 140 |
| 2-Chlorotoluene | 25.0 | 25.0 | | ug/L | | 100 | 70 - 130 |
| 4-Chlorotoluene | 25.0 | 25.2 | | ug/L | | 101 | 70 - 130 |
| cis-1,2-Dichloroethene | 25.0 | 25.6 | | ug/L | | 103 | 70 - 133 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 440-442464/4**
**Matrix: Water**
**Analysis Batch: 442464**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| cis-1,3-Dichloropropene | 25.0 | 25.9 | | ug/L | | 104 | 70 - 133 |
| Dibromochloromethane | 25.0 | 26.0 | | ug/L | | 104 | 69 - 145 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 27.0 | | ug/L | | 108 | 52 - 140 |
| 1,2-Dibromoethane (EDB) | 25.0 | 24.2 | | ug/L | | 97 | 70 - 130 |
| Dibromomethane | 25.0 | 24.6 | | ug/L | | 98 | 70 - 130 |
| 1,2-Dichlorobenzene | 25.0 | 24.3 | | ug/L | | 97 | 70 - 130 |
| 1,3-Dichlorobenzene | 25.0 | 23.9 | | ug/L | | 95 | 70 - 130 |
| 1,4-Dichlorobenzene | 25.0 | 25.0 | | ug/L | | 100 | 70 - 130 |
| Dichlorodifluoromethane | 25.0 | 22.8 | | ug/L | | 91 | 29 - 150 |
| 1,1-Dichloroethane | 25.0 | 25.7 | | ug/L | | 103 | 64 - 130 |
| 1,2-Dichloroethane | 25.0 | 25.7 | | ug/L | | 103 | 57 - 138 |
| 1,1-Dichloroethene | 25.0 | 22.7 | | ug/L | | 91 | 70 - 130 |
| 1,2-Dichloropropane | 25.0 | 28.2 | | ug/L | | 113 | 67 - 130 |
| 1,3-Dichloropropane | 25.0 | 24.3 | | ug/L | | 97 | 70 - 130 |
| 2,2-Dichloropropane | 25.0 | 26.7 | | ug/L | | 107 | 68 - 141 |
| 1,1-Dichloropropene | 25.0 | 26.4 | | ug/L | | 106 | 70 - 130 |
| Ethylbenzene | 25.0 | 24.0 | | ug/L | | 96 | 70 - 130 |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 26.8 | | ug/L | | 107 | 60 - 136 |
| Hexachlorobutadiene | 25.0 | 24.3 | | ug/L | | 97 | 10 - 150 |
| 2-Hexanone | 25.0 | 27.8 | | ug/L | | 111 | 10 - 150 |
| Isopropylbenzene | 25.0 | 23.6 | | ug/L | | 95 | 70 - 136 |
| Isopropyl Ether (DIPE) | 25.0 | 26.9 | | ug/L | | 108 | 58 - 139 |
| Methylene Chloride | 25.0 | 23.4 | | ug/L | | 93 | 52 - 130 |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 28.3 | | ug/L | | 113 | 59 - 149 |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 26.4 | | ug/L | | 106 | 63 - 131 |
| m,p-Xylene | 25.0 | 24.4 | | ug/L | | 98 | 70 - 130 |
| Naphthalene | 25.0 | 23.1 | | ug/L | | 92 | 60 - 140 |
| n-Butylbenzene | 25.0 | 24.8 | | ug/L | | 99 | 65 - 150 |
| N-Propylbenzene | 25.0 | 25.1 | | ug/L | | 100 | 67 - 139 |
| o-Xylene | 25.0 | 23.8 | | ug/L | | 95 | 70 - 130 |
| p-Isopropyltoluene | 25.0 | 24.0 | | ug/L | | 96 | 70 - 132 |
| sec-Butylbenzene | 25.0 | 23.7 | | ug/L | | 95 | 70 - 138 |
| Styrene | 25.0 | 24.3 | | ug/L | | 97 | 70 - 134 |
| Tert-amyl-methyl ether (TAME) | 25.0 | 25.9 | | ug/L | | 103 | 57 - 139 |
| tert-Butyl alcohol (TBA) | 250 | 255 | | ug/L | | 102 | 70 - 130 |
| tert-Butylbenzene | 25.0 | 24.6 | | ug/L | | 98 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 25.4 | | ug/L | | 102 | 60 - 141 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 26.2 | | ug/L | | 105 | 63 - 130 |
| Tetrachloroethene | 25.0 | 24.2 | | ug/L | | 97 | 70 - 130 |
| Toluene | 25.0 | 24.4 | | ug/L | | 98 | 70 - 130 |
| trans-1,2-Dichloroethene | 25.0 | 25.9 | | ug/L | | 104 | 70 - 130 |
| trans-1,3-Dichloropropene | 25.0 | 26.2 | | ug/L | | 105 | 70 - 132 |
| 1,2,3-Trichlorobenzene | 25.0 | 23.8 | | ug/L | | 95 | 60 - 140 |
| 1,2,4-Trichlorobenzene | 25.0 | 24.6 | | ug/L | | 99 | 60 - 140 |
| 1,1,1-Trichloroethane | 25.0 | 24.9 | | ug/L | | 100 | 70 - 130 |
| 1,1,2-Trichloroethane | 25.0 | 25.8 | | ug/L | | 103 | 70 - 130 |
| Trichloroethene | 25.0 | 24.9 | | ug/L | | 100 | 70 - 130 |
| Trichlorofluoromethane | 25.0 | 24.9 | | ug/L | | 100 | 60 - 150 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 440-442464/4**
**Matrix: Water**
**Analysis Batch: 442464**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,2,3-Trichloropropane | 25.0 | 25.8 | | ug/L | | 103 | 63 - 130 |
| 1,2,4-Trimethylbenzene | 25.0 | 24.5 | | ug/L | | 98 | 70 - 135 |
| 1,3,5-Trimethylbenzene | 25.0 | 24.7 | | ug/L | | 99 | 70 - 136 |
| Vinyl chloride | 25.0 | 24.4 | | ug/L | | 98 | 59 - 133 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *102* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *102* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *99* | | *80 - 128* |

**Lab Sample ID: 440-196038-A-2 MS**
**Matrix: Water**
**Analysis Batch: 442464**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 25.0 | 25.2 | | ug/L | | 101 | 10 - 150 |
| Benzene | ND | | 25.0 | 27.1 | | ug/L | | 109 | 66 - 130 |
| Bromobenzene | ND | | 25.0 | 25.9 | | ug/L | | 104 | 70 - 130 |
| Bromochloromethane | ND | | 25.0 | 25.8 | | ug/L | | 103 | 70 - 130 |
| Bromodichloromethane | ND | | 25.0 | 26.5 | | ug/L | | 106 | 70 - 138 |
| Bromoform | ND | | 25.0 | 23.9 | | ug/L | | 95 | 59 - 150 |
| Bromomethane | ND | | 25.0 | 28.5 | | ug/L | | 114 | 62 - 131 |
| 2-Butanone (MEK) | ND | | 25.0 | 23.9 | | ug/L | | 96 | 48 - 140 |
| Carbon tetrachloride | ND | | 25.0 | 27.5 | | ug/L | | 110 | 60 - 150 |
| Chlorobenzene | ND | | 25.0 | 26.4 | | ug/L | | 105 | 70 - 130 |
| Chloroethane | ND | | 25.0 | 28.9 | | ug/L | | 115 | 68 - 130 |
| Chloroform | ND | | 25.0 | 27.2 | | ug/L | | 109 | 70 - 130 |
| Chloromethane | ND | | 25.0 | 26.4 | | ug/L | | 106 | 39 - 144 |
| 2-Chlorotoluene | ND | | 25.0 | 27.3 | | ug/L | | 109 | 70 - 130 |
| 4-Chlorotoluene | ND | | 25.0 | 27.1 | | ug/L | | 108 | 70 - 130 |
| cis-1,2-Dichloroethene | ND | | 25.0 | 27.2 | | ug/L | | 109 | 70 - 130 |
| cis-1,3-Dichloropropene | ND | | 25.0 | 27.2 | | ug/L | | 109 | 70 - 133 |
| Dibromochloromethane | ND | | 25.0 | 27.9 | | ug/L | | 112 | 70 - 148 |
| 1,2-Dibromo-3-Chloropropane | ND | | 25.0 | 27.7 | | ug/L | | 111 | 48 - 140 |
| 1,2-Dibromoethane (EDB) | ND | | 25.0 | 25.5 | | ug/L | | 102 | 70 - 131 |
| Dibromomethane | ND | | 25.0 | 25.2 | | ug/L | | 101 | 70 - 130 |
| 1,2-Dichlorobenzene | ND | | 25.0 | 26.3 | | ug/L | | 105 | 70 - 130 |
| 1,3-Dichlorobenzene | ND | | 25.0 | 25.7 | | ug/L | | 103 | 70 - 130 |
| 1,4-Dichlorobenzene | ND | | 25.0 | 27.2 | | ug/L | | 109 | 70 - 130 |
| Dichlorodifluoromethane | ND | | 25.0 | 23.7 | | ug/L | | 95 | 25 - 142 |
| 1,1-Dichloroethane | ND | | 25.0 | 27.5 | | ug/L | | 110 | 65 - 130 |
| 1,2-Dichloroethane | ND | | 25.0 | 27.3 | | ug/L | | 109 | 56 - 146 |
| 1,1-Dichloroethene | ND | | 25.0 | 25.0 | | ug/L | | 100 | 70 - 130 |
| 1,2-Dichloropropane | ND | | 25.0 | 29.1 | | ug/L | | 116 | 69 - 130 |
| 1,3-Dichloropropane | ND | | 25.0 | 24.9 | | ug/L | | 99 | 70 - 130 |
| 2,2-Dichloropropane | ND | | 25.0 | 29.7 | | ug/L | | 119 | 69 - 138 |
| 1,1-Dichloropropene | ND | | 25.0 | 28.9 | | ug/L | | 116 | 64 - 130 |
| Ethylbenzene | ND | | 25.0 | 26.2 | | ug/L | | 105 | 70 - 130 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-196038-A-2 MS**
**Matrix: Water**
**Analysis Batch: 442464**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Ethyl-t-butyl ether (ETBE) | ND | | 25.0 | 26.5 | | ug/L | | 106 | 70 - 130 |
| Hexachlorobutadiene | ND | | 25.0 | 27.5 | | ug/L | | 110 | 10 - 150 |
| 2-Hexanone | ND | | 25.0 | 25.1 | | ug/L | | 101 | 10 - 150 |
| Isopropylbenzene | ND | | 25.0 | 26.1 | | ug/L | | 104 | 70 - 132 |
| Isopropyl Ether (DIPE) | ND | | 25.0 | 28.0 | | ug/L | | 112 | 64 - 138 |
| Methylene Chloride | ND | | 25.0 | 25.9 | | ug/L | | 104 | 52 - 130 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 25.0 | 26.7 | | ug/L | | 107 | 52 - 150 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 25.0 | 27.1 | | ug/L | | 108 | 70 - 130 |
| m,p-Xylene | ND | | 25.0 | 26.6 | | ug/L | | 106 | 70 - 133 |
| Naphthalene | ND | | 25.0 | 24.0 | | ug/L | | 96 | 60 - 140 |
| n-Butylbenzene | ND | | 25.0 | 27.2 | | ug/L | | 109 | 61 - 149 |
| N-Propylbenzene | ND | | 25.0 | 27.6 | | ug/L | | 111 | 66 - 135 |
| o-Xylene | ND | | 25.0 | 26.4 | | ug/L | | 105 | 70 - 133 |
| p-Isopropyltoluene | ND | | 25.0 | 26.6 | | ug/L | | 106 | 70 - 130 |
| sec-Butylbenzene | ND | | 25.0 | 26.4 | | ug/L | | 106 | 67 - 134 |
| Styrene | ND | | 25.0 | 26.1 | | ug/L | | 105 | 29 - 150 |
| Tert-amyl-methyl ether (TAME) | ND | | 25.0 | 25.7 | | ug/L | | 103 | 68 - 133 |
| tert-Butyl alcohol (TBA) | ND | | 250 | 272 | | ug/L | | 109 | 70 - 130 |
| tert-Butylbenzene | ND | | 25.0 | 26.8 | | ug/L | | 107 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | ND | | 25.0 | 25.8 | | ug/L | | 103 | 60 - 149 |
| 1,1,2,2-Tetrachloroethane | ND | | 25.0 | 27.4 | | ug/L | | 109 | 63 - 130 |
| Tetrachloroethene | ND | | 25.0 | 26.4 | | ug/L | | 106 | 70 - 137 |
| Toluene | ND | | 25.0 | 26.3 | | ug/L | | 105 | 70 - 130 |
| trans-1,2-Dichloroethene | ND | | 25.0 | 27.9 | | ug/L | | 112 | 70 - 130 |
| trans-1,3-Dichloropropene | ND | | 25.0 | 27.5 | | ug/L | | 110 | 70 - 138 |
| 1,2,3-Trichlorobenzene | ND | | 25.0 | 25.9 | | ug/L | | 104 | 60 - 140 |
| 1,2,4-Trichlorobenzene | ND | | 25.0 | 25.8 | | ug/L | | 103 | 60 - 140 |
| 1,1,1-Trichloroethane | ND | | 25.0 | 26.9 | | ug/L | | 108 | 70 - 130 |
| 1,1,2-Trichloroethane | ND | | 25.0 | 27.1 | | ug/L | | 108 | 70 - 130 |
| Trichloroethene | ND | | 25.0 | 26.2 | | ug/L | | 105 | 70 - 130 |
| Trichlorofluoromethane | ND | | 25.0 | 27.5 | | ug/L | | 110 | 60 - 150 |
| 1,2,3-Trichloropropane | ND | | 25.0 | 24.3 | | ug/L | | 97 | 60 - 130 |
| 1,2,4-Trimethylbenzene | ND | | 25.0 | 26.5 | | ug/L | | 106 | 70 - 130 |
| 1,3,5-Trimethylbenzene | ND | | 25.0 | 26.3 | | ug/L | | 105 | 70 - 130 |
| Vinyl chloride | ND | | 25.0 | 27.1 | | ug/L | | 108 | 50 - 137 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *101* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *97* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *97* | | *80 - 128* |

**Lab Sample ID: 440-196038-A-2 MSD**
**Matrix: Water**
**Analysis Batch: 442464**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 25.0 | 25.4 | | ug/L | | 102 | 10 - 150 | 1 | 35 |
| Benzene | ND | | 25.0 | 27.1 | | ug/L | | 109 | 66 - 130 | 0 | 20 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-196038-A-2 MSD**
**Matrix: Water**
**Analysis Batch: 442464**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromobenzene | ND | | 25.0 | 25.3 | | ug/L | | 101 | 70 - 130 | 2 | 20 |
| Bromochloromethane | ND | | 25.0 | 24.9 | | ug/L | | 99 | 70 - 130 | 4 | 25 |
| Bromodichloromethane | ND | | 25.0 | 27.1 | | ug/L | | 109 | 70 - 138 | 2 | 20 |
| Bromoform | ND | | 25.0 | 23.3 | | ug/L | | 93 | 59 - 150 | 3 | 25 |
| Bromomethane | ND | | 25.0 | 27.9 | | ug/L | | 112 | 62 - 131 | 2 | 25 |
| 2-Butanone (MEK) | ND | | 25.0 | 25.1 | | ug/L | | 100 | 48 - 140 | 5 | 40 |
| Carbon tetrachloride | ND | | 25.0 | 27.6 | | ug/L | | 110 | 60 - 150 | 0 | 25 |
| Chlorobenzene | ND | | 25.0 | 25.6 | | ug/L | | 102 | 70 - 130 | 3 | 20 |
| Chloroethane | ND | | 25.0 | 28.0 | | ug/L | | 112 | 68 - 130 | 3 | 25 |
| Chloroform | ND | | 25.0 | 27.6 | | ug/L | | 110 | 70 - 130 | 1 | 20 |
| Chloromethane | ND | | 25.0 | 24.9 | | ug/L | | 100 | 39 - 144 | 6 | 25 |
| 2-Chlorotoluene | ND | | 25.0 | 26.5 | | ug/L | | 106 | 70 - 130 | 3 | 20 |
| 4-Chlorotoluene | ND | | 25.0 | 26.7 | | ug/L | | 107 | 70 - 130 | 1 | 20 |
| cis-1,2-Dichloroethene | ND | | 25.0 | 27.8 | | ug/L | | 111 | 70 - 130 | 2 | 20 |
| cis-1,3-Dichloropropene | ND | | 25.0 | 27.5 | | ug/L | | 110 | 70 - 133 | 1 | 20 |
| Dibromochloromethane | ND | | 25.0 | 26.4 | | ug/L | | 106 | 70 - 148 | 6 | 25 |
| 1,2-Dibromo-3-Chloropropane | ND | | 25.0 | 24.8 | | ug/L | | 99 | 48 - 140 | 11 | 30 |
| 1,2-Dibromoethane (EDB) | ND | | 25.0 | 24.8 | | ug/L | | 99 | 70 - 131 | 3 | 25 |
| Dibromomethane | ND | | 25.0 | 25.6 | | ug/L | | 103 | 70 - 130 | 2 | 25 |
| 1,2-Dichlorobenzene | ND | | 25.0 | 26.5 | | ug/L | | 106 | 70 - 130 | 1 | 20 |
| 1,3-Dichlorobenzene | ND | | 25.0 | 25.3 | | ug/L | | 101 | 70 - 130 | 2 | 20 |
| 1,4-Dichlorobenzene | ND | | 25.0 | 26.1 | | ug/L | | 104 | 70 - 130 | 4 | 20 |
| Dichlorodifluoromethane | ND | | 25.0 | 24.0 | | ug/L | | 96 | 25 - 142 | 2 | 30 |
| 1,1-Dichloroethane | ND | | 25.0 | 27.9 | | ug/L | | 112 | 65 - 130 | 2 | 20 |
| 1,2-Dichloroethane | ND | | 25.0 | 26.8 | | ug/L | | 107 | 56 - 146 | 2 | 20 |
| 1,1-Dichloroethene | ND | | 25.0 | 25.5 | | ug/L | | 102 | 70 - 130 | 2 | 20 |
| 1,2-Dichloropropane | ND | | 25.0 | 28.8 | | ug/L | | 115 | 69 - 130 | 1 | 20 |
| 1,3-Dichloropropane | ND | | 25.0 | 24.7 | | ug/L | | 99 | 70 - 130 | 1 | 25 |
| 2,2-Dichloropropane | ND | | 25.0 | 29.1 | | ug/L | | 116 | 69 - 138 | 2 | 25 |
| 1,1-Dichloropropene | ND | | 25.0 | 29.3 | | ug/L | | 117 | 64 - 130 | 1 | 20 |
| Ethylbenzene | ND | | 25.0 | 25.5 | | ug/L | | 102 | 70 - 130 | 3 | 20 |
| Ethyl-t-butyl ether (ETBE) | ND | | 25.0 | 27.3 | | ug/L | | 109 | 70 - 130 | 3 | 25 |
| Hexachlorobutadiene | ND | | 25.0 | 26.3 | | ug/L | | 105 | 10 - 150 | 4 | 20 |
| 2-Hexanone | ND | | 25.0 | 25.2 | | ug/L | | 101 | 10 - 150 | 0 | 35 |
| Isopropylbenzene | ND | | 25.0 | 25.5 | | ug/L | | 102 | 70 - 132 | 2 | 20 |
| Isopropyl Ether (DIPE) | ND | | 25.0 | 28.3 | | ug/L | | 113 | 64 - 138 | 1 | 25 |
| Methylene Chloride | ND | | 25.0 | 24.8 | | ug/L | | 99 | 52 - 130 | 5 | 20 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 25.0 | 25.9 | | ug/L | | 103 | 52 - 150 | 3 | 35 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 25.0 | 27.0 | | ug/L | | 108 | 70 - 130 | 0 | 25 |
| m,p-Xylene | ND | | 25.0 | 26.1 | | ug/L | | 104 | 70 - 133 | 2 | 25 |
| Naphthalene | ND | | 25.0 | 23.5 | | ug/L | | 94 | 60 - 140 | 2 | 30 |
| n-Butylbenzene | ND | | 25.0 | 26.4 | | ug/L | | 105 | 61 - 149 | 3 | 20 |
| N-Propylbenzene | ND | | 25.0 | 26.9 | | ug/L | | 108 | 66 - 135 | 3 | 20 |
| o-Xylene | ND | | 25.0 | 25.7 | | ug/L | | 103 | 70 - 133 | 2 | 20 |
| p-Isopropyltoluene | ND | | 25.0 | 26.2 | | ug/L | | 105 | 70 - 130 | 1 | 20 |
| sec-Butylbenzene | ND | | 25.0 | 25.7 | | ug/L | | 103 | 67 - 134 | 3 | 20 |
| Styrene | ND | | 25.0 | 25.3 | | ug/L | | 101 | 29 - 150 | 3 | 35 |
| Tert-amyl-methyl ether (TAME) | ND | | 25.0 | 26.1 | | ug/L | | 105 | 68 - 133 | 2 | 30 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-196038-A-2 MSD**
**Matrix: Water**
**Analysis Batch: 442464**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| tert-Butyl alcohol (TBA) | ND | | 250 | 284 | | ug/L | | 114 | 70 - 130 | 4 | 25 |
| tert-Butylbenzene | ND | | 25.0 | 25.7 | | ug/L | | 103 | 70 - 130 | 4 | 20 |
| 1,1,1,2-Tetrachloroethane | ND | | 25.0 | 26.0 | | ug/L | | 104 | 60 - 149 | 1 | 20 |
| 1,1,2,2-Tetrachloroethane | ND | | 25.0 | 27.2 | | ug/L | | 109 | 63 - 130 | 0 | 30 |
| Tetrachloroethene | ND | | 25.0 | 26.4 | | ug/L | | 105 | 70 - 137 | 0 | 20 |
| Toluene | ND | | 25.0 | 26.0 | | ug/L | | 104 | 70 - 130 | 1 | 20 |
| trans-1,2-Dichloroethene | ND | | 25.0 | 28.8 | | ug/L | | 115 | 70 - 130 | 3 | 20 |
| trans-1,3-Dichloropropene | ND | | 25.0 | 26.9 | | ug/L | | 108 | 70 - 138 | 2 | 25 |
| 1,2,3-Trichlorobenzene | ND | | 25.0 | 25.3 | | ug/L | | 101 | 60 - 140 | 2 | 20 |
| 1,2,4-Trichlorobenzene | ND | | 25.0 | 25.2 | | ug/L | | 101 | 60 - 140 | 3 | 20 |
| 1,1,1-Trichloroethane | ND | | 25.0 | 26.6 | | ug/L | | 106 | 70 - 130 | 1 | 20 |
| 1,1,2-Trichloroethane | ND | | 25.0 | 26.3 | | ug/L | | 105 | 70 - 130 | 3 | 25 |
| Trichloroethene | ND | | 25.0 | 26.3 | | ug/L | | 105 | 70 - 130 | 0 | 20 |
| Trichlorofluoromethane | ND | | 25.0 | 27.5 | | ug/L | | 110 | 60 - 150 | 0 | 25 |
| 1,2,3-Trichloropropane | ND | | 25.0 | 26.1 | | ug/L | | 105 | 60 - 130 | 7 | 30 |
| 1,2,4-Trimethylbenzene | ND | | 25.0 | 25.9 | | ug/L | | 104 | 70 - 130 | 2 | 25 |
| 1,3,5-Trimethylbenzene | ND | | 25.0 | 25.8 | | ug/L | | 103 | 70 - 130 | 2 | 20 |
| Vinyl chloride | ND | | 25.0 | 27.3 | | ug/L | | 109 | 50 - 137 | 1 | 30 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *97* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *101* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *99* | | *80 - 128* |

## Method: 300.1B - Disinfection By-Products, (IC)

**Lab Sample ID: MB 440-440634/5**
**Matrix: Water**
**Analysis Batch: 440634**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorate | ND | | 20 | 10 | ug/L | | | 11/10/17 13:06 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *96* | | *90 - 115* | | *11/10/17 13:06* | *1* |

**Lab Sample ID: LCS 440-440634/4**
**Matrix: Water**
**Analysis Batch: 440634**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 100 | 102 | | ug/L | | 102 | 75 - 125 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *97* | | *90 - 115* |

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

**Lab Sample ID: MRL 440-440634/3**
**Matrix: Water**
**Analysis Batch: 440634**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 20.0 | 22.3 | | ug/L | | 111 | 50 - 150 | | |

| *Surrogate* | *MRL %Recovery* | *MRL Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *96* | | *90 - 115* |

**Lab Sample ID: 440-195592-A-1 MS**
**Matrix: Water**
**Analysis Batch: 440634**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 960 | | 200 | 1170 | 4 | ug/L | | 107 | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *95* | | *90 - 115* |

**Lab Sample ID: 440-195592-A-1 MSD**
**Matrix: Water**
**Analysis Batch: 440634**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 960 | | 200 | 1140 | 4 | ug/L | | 93 | 75 - 125 | 3 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *96* | | *90 - 115* |

**Lab Sample ID: MB 440-440635/5**
**Matrix: Water**
**Analysis Batch: 440635**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 20 | 10 | ug/L | | | 11/10/17 13:06 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *96* | | *90 - 115* | | *11/10/17 13:06* | *1* |

**Lab Sample ID: LCS 440-440635/4**
**Matrix: Water**
**Analysis Batch: 440635**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | | 100 | 102 | | ug/L | | 102 | 85 - 115 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *97* | | *90 - 115* |

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

**Lab Sample ID: MRL 440-440635/3**
**Matrix: Water**
**Analysis Batch: 440635**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | | 20.0 | 20.0 | | ug/L | | 100 | 10 - 200 | | |

| *Surrogate* | *MRL %Recovery* | *MRL Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *96* | | *90 - 115* |

**Lab Sample ID: 440-195592-A-1 MS**
**Matrix: Water**
**Analysis Batch: 440635**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 200 | 160 | | ug/L | | 80 | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *95* | | *90 - 115* |

**Lab Sample ID: 440-195592-A-1 MSD**
**Matrix: Water**
**Analysis Batch: 440635**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 200 | 164 | | ug/L | | 82 | 75 - 125 | 3 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *96* | | *90 - 115* |

**Lab Sample ID: MB 440-440974/5**
**Matrix: Water**
**Analysis Batch: 440974**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 20 | 10 | ug/L | | | 11/13/17 06:46 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *95* | | *90 - 115* | | *11/13/17 06:46* | *1* |

**Lab Sample ID: LCS 440-440974/4**
**Matrix: Water**
**Analysis Batch: 440974**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | | 100 | 94.8 | | ug/L | | 95 | 85 - 115 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *96* | | *90 - 115* |

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

**Lab Sample ID: MRL 440-440974/3**
**Matrix: Water**
**Analysis Batch: 440974**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | | 20.0 | 18.8 | J | ug/L | | 94 | 10 - 200 | | |

| *Surrogate* | *MRL %Recovery* | *MRL Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *99* | | *90 - 115* |

**Lab Sample ID: 440-195772-B-3 MS**
**Matrix: Water**
**Analysis Batch: 440974**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 200 | 215 | | ug/L | | 107 | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *105* | | *90 - 115* |

**Lab Sample ID: 440-195772-B-3 MSD**
**Matrix: Water**
**Analysis Batch: 440974**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 200 | 192 | | ug/L | | 96 | 75 - 125 | 11 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *94* | | *90 - 115* |

**Lab Sample ID: MB 440-441516/5**
**Matrix: Water**
**Analysis Batch: 441516**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorate | ND | | 20 | 10 | ug/L | | | 11/15/17 09:41 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* | | *11/15/17 09:41* | *1* |

**Lab Sample ID: LCS 440-441516/4**
**Matrix: Water**
**Analysis Batch: 441516**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 100 | 98.1 | | ug/L | | 98 | 75 - 125 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

**Lab Sample ID: MRL 440-441516/3**
**Matrix: Water**
**Analysis Batch: 441516**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 20.0 | 21.2 | | ug/L | | 106 | 50 - 150 | | |

| *Surrogate* | *MRL %Recovery* | *MRL Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

**Lab Sample ID: 440-196337-A-4 MS**
**Matrix: Water**
**Analysis Batch: 441516**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 260 | | 200 | 463 | | ug/L | | 100 | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *102* | | *90 - 115* |

**Lab Sample ID: 440-196337-A-4 MSD**
**Matrix: Water**
**Analysis Batch: 441516**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 260 | | 200 | 455 | | ug/L | | 96 | 75 - 125 | 2 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *102* | | *90 - 115* |

**Lab Sample ID: MB 440-443190/5**
**Matrix: Water**
**Analysis Batch: 443190**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorate | ND | | 20 | 10 | ug/L | | | 11/24/17 07:59 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *103* | | *90 - 115* | | *11/24/17 07:59* | *1* |

**Lab Sample ID: LCS 440-443190/4**
**Matrix: Water**
**Analysis Batch: 443190**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 100 | 98.7 | | ug/L | | 99 | 75 - 125 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *103* | | *90 - 115* |

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

**Lab Sample ID: MRL 440-443190/3**
**Matrix: Water**
**Analysis Batch: 443190**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 20.0 | 16.8 | J | ug/L | | 84 | 50 - 150 | | |

| *Surrogate* | *MRL %Recovery* | *MRL Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *102* | | *90 - 115* |

**Lab Sample ID: 440-197050-C-1 MS**
**Matrix: Water**
**Analysis Batch: 443190**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | ND | | 200 | 217 | | ug/L | | 108 | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *102* | | *90 - 115* |

**Lab Sample ID: 440-197050-C-1 MSD**
**Matrix: Water**
**Analysis Batch: 443190**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | ND | | 200 | 199 | | ug/L | | 99 | 75 - 125 | 9 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

## Method: 314.0 LL - Perchlorate (IC)

**Lab Sample ID: MB 440-443545/5**
**Matrix: Water**
**Analysis Batch: 443545**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 1.0 | 0.50 | ug/L | | | 11/27/17 10:00 | 1 |

**Lab Sample ID: LCS 440-443545/4**
**Matrix: Water**
**Analysis Batch: 443545**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | | | 25.0 | 25.4 | | ug/L | | 102 | 85 - 115 | | |

**Lab Sample ID: MRL 440-443545/7**
**Matrix: Water**
**Analysis Batch: 443545**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | | | 4.00 | 4.29 | | ug/L | | 107 | 75 - 125 | | |

## Method: 314.0 LL - Perchlorate (IC) (Continued)

**Lab Sample ID: 440-196686-H-1 MS**
**Matrix: Water**
**Analysis Batch: 443545**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 1.8 | | 25.0 | 30.7 | | ug/L | | 116 | 80 - 120 |

**Lab Sample ID: 440-196686-H-1 MSD**
**Matrix: Water**
**Analysis Batch: 443545**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 1.8 | | 25.0 | 30.1 | | ug/L | | 113 | 80 - 120 | 2 | 20 |

**Lab Sample ID: MB 440-443796/5**
**Matrix: Water**
**Analysis Batch: 443796**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 1.0 | 0.50 | ug/L | | | 11/28/17 11:12 | 1 |

**Lab Sample ID: LCS 440-443796/4**
**Matrix: Water**
**Analysis Batch: 443796**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 25.0 | 25.2 | | ug/L | | 101 | 85 - 115 |

**Lab Sample ID: MRL 440-443796/7**
**Matrix: Water**
**Analysis Batch: 443796**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 4.00 | 4.83 | | ug/L | | 121 | 75 - 125 |

**Lab Sample ID: 320-33164-D-1 MS**
**Matrix: Water**
**Analysis Batch: 443796**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 6.6 | | 25.0 | 34.9 | | ug/L | | 113 | 80 - 120 |

**Lab Sample ID: 320-33164-D-1 MSD**
**Matrix: Water**
**Analysis Batch: 443796**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 6.6 | | 25.0 | 34.9 | | ug/L | | 113 | 80 - 120 | 0 | 20 |

**Lab Sample ID: INF 440-443545/6**
**Matrix: Water**
**Analysis Batch: 443545**

**Client Sample ID: Lab Control Sample**

| Analyte | Spike Added | INF Result | INF Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 25.0 | 24.5 | | ug/L | | 98 | 80 - 120 |

**Lab Sample ID: INF 440-443796/6**
**Matrix: Water**
**Analysis Batch: 443796**

**Client Sample ID: Lab Control Sample**

| Analyte | Spike Added | INF Result | INF Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 25.0 | 26.4 | | ug/L | | 105 | 80 - 120 |

## Method: 7199 - Chromium, Hexavalent (IC)

**Lab Sample ID: MB 440-440295/6**
**Matrix: Water**
**Analysis Batch: 440295**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 2.0 | 0.25 | ug/L | | | 11/09/17 05:10 | 1 |

**Lab Sample ID: LCS 440-440295/5**
**Matrix: Water**
**Analysis Batch: 440295**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 50.5 | | ug/L | | 101 | 90 - 110 |

**Lab Sample ID: MRL 440-440295/4**
**Matrix: Water**
**Analysis Batch: 440295**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 1.00 | 1.07 | J | ug/L | | 107 | 50 - 150 |

**Lab Sample ID: 440-196039-3 MS**
**Matrix: Water**
**Analysis Batch: 440295**

**Client Sample ID: VMW-02D-20171108**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 22 | | 50.0 | 72.7 | | ug/L | | 102 | 85 - 115 |

**Lab Sample ID: 440-196039-3 MSD**
**Matrix: Water**
**Analysis Batch: 440295**

**Client Sample ID: VMW-02D-20171108**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 22 | | 50.0 | 71.6 | | ug/L | | 99 | 85 - 115 | 1 | 20 |

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 440-441152/1-A**
**Matrix: Water**
**Analysis Batch: 441521**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 441152**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | ND | | 0.0050 | 0.0025 | mg/L | | 11/13/17 15:46 | 11/14/17 18:32 | 1 |

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: LCS 440-441152/2-A**
**Matrix: Water**
**Analysis Batch: 441521**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 441152**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | | | 1.00 | 1.16 | | mg/L | | 116 | 80 - 120 | | |

**Lab Sample ID: 440-196039-2 MS**
**Matrix: Water**
**Analysis Batch: 441521**

**Client Sample ID: VER-01I-20171108**
**Prep Type: Total Recoverable**
**Prep Batch: 441152**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 2.5 | | 1.00 | 3.51 | | mg/L | | 103 | 75 - 125 | | |

**Lab Sample ID: 440-196039-2 MSD**
**Matrix: Water**
**Analysis Batch: 441521**

**Client Sample ID: VER-01I-20171108**
**Prep Type: Total Recoverable**
**Prep Batch: 441152**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 2.5 | | 1.00 | 3.59 | | mg/L | | 111 | 75 - 125 | 2 | 20 |

## GC/MS VOA

### Analysis Batch: 442464

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-196039-1 | Trip Blank | Total/NA | Water | 8260B | |
| 440-196039-2 | VER-01I-20171108 | Total/NA | Water | 8260B | |
| 440-196039-3 | VMW-02D-20171108 | Total/NA | Water | 8260B | |
| 440-196039-4 | VMW-02I-20171108 | Total/NA | Water | 8260B | |
| 440-196039-5 | VMW-02I-20171108-EB | Total/NA | Water | 8260B | |
| MB 440-442464/3 | Method Blank | Total/NA | Water | 8260B | |
| LCS 440-442464/4 | Lab Control Sample | Total/NA | Water | 8260B | |
| 440-196038-A-2 MS | Matrix Spike | Total/NA | Water | 8260B | |
| 440-196038-A-2 MSD | Matrix Spike Duplicate | Total/NA | Water | 8260B | |

## HPLC/IC

### Analysis Batch: 440295

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-196039-2 | VER-01I-20171108 | Total/NA | Water | 7199 | |
| 440-196039-3 | VMW-02D-20171108 | Total/NA | Water | 7199 | |
| 440-196039-4 | VMW-02I-20171108 | Total/NA | Water | 7199 | |
| 440-196039-5 | VMW-02I-20171108-EB | Total/NA | Water | 7199 | |
| MB 440-440295/6 | Method Blank | Total/NA | Water | 7199 | |
| LCS 440-440295/5 | Lab Control Sample | Total/NA | Water | 7199 | |
| MRL 440-440295/4 | Lab Control Sample | Total/NA | Water | 7199 | |
| 440-196039-3 MS | VMW-02D-20171108 | Total/NA | Water | 7199 | |
| 440-196039-3 MSD | VMW-02D-20171108 | Total/NA | Water | 7199 | |

### Analysis Batch: 440634

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-196039-5 | VMW-02I-20171108-EB | Total/NA | Water | 300.1B | |
| MB 440-440634/5 | Method Blank | Total/NA | Water | 300.1B | |
| LCS 440-440634/4 | Lab Control Sample | Total/NA | Water | 300.1B | |
| MRL 440-440634/3 | Lab Control Sample | Total/NA | Water | 300.1B | |
| 440-195592-A-1 MS | Matrix Spike | Total/NA | Water | 300.1B | |
| 440-195592-A-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.1B | |

### Analysis Batch: 440635

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-196039-3 | VMW-02D-20171108 | Total/NA | Water | 300.1B | |
| 440-196039-4 | VMW-02I-20171108 | Total/NA | Water | 300.1B | |
| 440-196039-5 | VMW-02I-20171108-EB | Total/NA | Water | 300.1B | |
| MB 440-440635/5 | Method Blank | Total/NA | Water | 300.1B | |
| LCS 440-440635/4 | Lab Control Sample | Total/NA | Water | 300.1B | |
| MRL 440-440635/3 | Lab Control Sample | Total/NA | Water | 300.1B | |
| 440-195592-A-1 MS | Matrix Spike | Total/NA | Water | 300.1B | |
| 440-195592-A-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.1B | |

### Analysis Batch: 440974

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-196039-2 | VER-01I-20171108 | Total/NA | Water | 300.1B | |
| MB 440-440974/5 | Method Blank | Total/NA | Water | 300.1B | |
| LCS 440-440974/4 | Lab Control Sample | Total/NA | Water | 300.1B | |
| MRL 440-440974/3 | Lab Control Sample | Total/NA | Water | 300.1B | |

## HPLC/IC (Continued)

### Analysis Batch: 440974 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-195772-B-3 MS | Matrix Spike | Total/NA | Water | 300.1B | |
| 440-195772-B-3 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.1B | |

### Analysis Batch: 441516

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-196039-2 | VER-01I-20171108 | Total/NA | Water | 300.1B | |
| MB 440-441516/5 | Method Blank | Total/NA | Water | 300.1B | |
| LCS 440-441516/4 | Lab Control Sample | Total/NA | Water | 300.1B | |
| MRL 440-441516/3 | Lab Control Sample | Total/NA | Water | 300.1B | |
| 440-196337-A-4 MS | Matrix Spike | Total/NA | Water | 300.1B | |
| 440-196337-A-4 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.1B | |

### Analysis Batch: 443190

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-196039-3 | VMW-02D-20171108 | Total/NA | Water | 300.1B | |
| 440-196039-4 | VMW-02I-20171108 | Total/NA | Water | 300.1B | |
| MB 440-443190/5 | Method Blank | Total/NA | Water | 300.1B | |
| LCS 440-443190/4 | Lab Control Sample | Total/NA | Water | 300.1B | |
| MRL 440-443190/3 | Lab Control Sample | Total/NA | Water | 300.1B | |
| 440-197050-C-1 MS | Matrix Spike | Total/NA | Water | 300.1B | |
| 440-197050-C-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.1B | |

### Analysis Batch: 443545

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-196039-5 | VMW-02I-20171108-EB | Total/NA | Water | 314.0 LL | |
| MB 440-443545/5 | Method Blank | Total/NA | Water | 314.0 LL | |
| INF 440-443545/6 | Lab Control Sample | | Water | 314.0 LL | |
| LCS 440-443545/4 | Lab Control Sample | Total/NA | Water | 314.0 LL | |
| MRL 440-443545/7 | Lab Control Sample | Total/NA | Water | 314.0 LL | |
| 440-196686-H-1 MS | Matrix Spike | Total/NA | Water | 314.0 LL | |
| 440-196686-H-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 314.0 LL | |

### Analysis Batch: 443796

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-196039-2 | VER-01I-20171108 | Total/NA | Water | 314.0 LL | |
| 440-196039-3 | VMW-02D-20171108 | Total/NA | Water | 314.0 LL | |
| 440-196039-4 | VMW-02I-20171108 | Total/NA | Water | 314.0 LL | |
| MB 440-443796/5 | Method Blank | Total/NA | Water | 314.0 LL | |
| INF 440-443796/6 | Lab Control Sample | | Water | 314.0 LL | |
| LCS 440-443796/4 | Lab Control Sample | Total/NA | Water | 314.0 LL | |
| MRL 440-443796/7 | Lab Control Sample | Total/NA | Water | 314.0 LL | |
| 320-33164-D-1 MS | Matrix Spike | Total/NA | Water | 314.0 LL | |
| 320-33164-D-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 314.0 LL | |

## Metals

### Prep Batch: 441152

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-196039-2 | VER-01I-20171108 | Total Recoverable | Water | 3005A | |
| 440-196039-3 | VMW-02D-20171108 | Total Recoverable | Water | 3005A | |

## Metals (Continued)

### Prep Batch: 441152 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-196039-4 | VMW-02I-20171108 | Total Recoverable | Water | 3005A | |
| 440-196039-5 | VMW-02I-20171108-EB | Total Recoverable | Water | 3005A | |
| MB 440-441152/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 440-441152/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 440-196039-2 MS | VER-01I-20171108 | Total Recoverable | Water | 3005A | |
| 440-196039-2 MSD | VER-01I-20171108 | Total Recoverable | Water | 3005A | |

### Analysis Batch: 441521

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-196039-2 | VER-01I-20171108 | Total Recoverable | Water | 6010B | 441152 |
| 440-196039-3 | VMW-02D-20171108 | Total Recoverable | Water | 6010B | 441152 |
| 440-196039-4 | VMW-02I-20171108 | Total Recoverable | Water | 6010B | 441152 |
| 440-196039-5 | VMW-02I-20171108-EB | Total Recoverable | Water | 6010B | 441152 |
| MB 440-441152/1-A | Method Blank | Total Recoverable | Water | 6010B | 441152 |
| LCS 440-441152/2-A | Lab Control Sample | Total Recoverable | Water | 6010B | 441152 |
| 440-196039-2 MS | VER-01I-20171108 | Total Recoverable | Water | 6010B | 441152 |
| 440-196039-2 MSD | VER-01I-20171108 | Total Recoverable | Water | 6010B | 441152 |

# Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-196039-1

## Client Sample ID: Trip Blank
**Date Collected: 11/08/17 07:00**
**Date Received: 11/09/17 06:40**

## Lab Sample ID: 440-196039-1
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 442464 | 11/20/17 15:04 | RM | TAL IRV |

## Client Sample ID: VER-01I-20171108
**Date Collected: 11/08/17 08:05**
**Date Received: 11/09/17 06:40**

## Lab Sample ID: 440-196039-2
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 442464 | 11/20/17 16:57 | RM | TAL IRV |
| Total/NA | Analysis | 300.1B | | 20 | 440974 | 11/13/17 15:37 | YZ | TAL IRV |
| Total/NA | Analysis | 300.1B | | 5000 | 441516 | 11/15/17 18:09 | YZ | TAL IRV |
| Total/NA | Analysis | 314.0 LL | | 10000 | 443796 | 11/28/17 18:12 | CTH | TAL IRV |
| Total/NA | Analysis | 7199 | | 200 | 440295 | 11/09/17 07:26 | MN | TAL IRV |
| Total Recoverable | Prep | 3005A | | | 441152 | 11/13/17 15:46 | JL | TAL IRV |
| Total Recoverable | Analysis | 6010B | | 1 | 441521 | 11/14/17 18:37 | B1H | TAL IRV |

## Client Sample ID: VMW-02D-20171108
**Date Collected: 11/08/17 09:55**
**Date Received: 11/09/17 06:40**

## Lab Sample ID: 440-196039-3
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 442464 | 11/20/17 17:25 | RM | TAL IRV |
| Total/NA | Analysis | 300.1B | | 50 | 440635 | 11/11/17 06:04 | YZ | TAL IRV |
| Total/NA | Analysis | 300.1B | | 10 | 443190 | 11/24/17 10:24 | YZ | TAL IRV |
| Total/NA | Analysis | 314.0 LL | | 10 | 443796 | 11/28/17 18:30 | CTH | TAL IRV |
| Total/NA | Analysis | 7199 | | 1 | 440295 | 11/09/17 07:39 | MN | TAL IRV |
| Total Recoverable | Prep | 3005A | | | 441152 | 11/13/17 15:46 | JL | TAL IRV |
| Total Recoverable | Analysis | 6010B | | 1 | 441521 | 11/14/17 18:54 | B1H | TAL IRV |

## Client Sample ID: VMW-02I-20171108
**Date Collected: 11/08/17 11:30**
**Date Received: 11/09/17 06:40**

## Lab Sample ID: 440-196039-4
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 442464 | 11/20/17 17:53 | RM | TAL IRV |
| Total/NA | Analysis | 300.1B | | 50 | 440635 | 11/11/17 06:40 | YZ | TAL IRV |
| Total/NA | Analysis | 300.1B | | 2000 | 443190 | 11/24/17 11:00 | YZ | TAL IRV |
| Total/NA | Analysis | 314.0 LL | | 10000 | 443796 | 11/28/17 18:48 | CTH | TAL IRV |
| Total/NA | Analysis | 7199 | | 100 | 440295 | 11/09/17 08:31 | MN | TAL IRV |
| Total Recoverable | Prep | 3005A | | | 441152 | 11/13/17 15:46 | JL | TAL IRV |
| Total Recoverable | Analysis | 6010B | | 1 | 441521 | 11/14/17 18:56 | B1H | TAL IRV |

# Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-196039-1

## Client Sample ID: VMW-02I-20171108-EB

**Date Collected: 11/08/17 12:40**
**Date Received: 11/09/17 06:40**

## Lab Sample ID: 440-196039-5

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 442464 | 11/20/17 18:21 | RM | TAL IRV |
| Total/NA | Analysis | 300.1B | | 1 | 440634 | 11/10/17 17:20 | YZ | TAL IRV |
| Total/NA | Analysis | 300.1B | | 1 | 440635 | 11/10/17 17:20 | YZ | TAL IRV |
| Total/NA | Analysis | 314.0 LL | | 1 | 443545 | 11/27/17 13:31 | PS | TAL IRV |
| Total/NA | Analysis | 7199 | | 1 | 440295 | 11/09/17 09:16 | MN | TAL IRV |
| Total Recoverable | Prep | 3005A | | | 441152 | 11/13/17 15:46 | JL | TAL IRV |
| Total Recoverable | Analysis | 6010B | | 1 | 441521 | 11/14/17 18:58 | B1H | TAL IRV |

**Laboratory References:**

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

# Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-196039-1

## Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|---|---|---|---|---|
| Alaska | State Program | 10 | CA01531 | 06-30-18 |
| Arizona | State Program | 9 | AZ0671 | 10-14-18 |
| California | LA Cty Sanitation Districts | 9 | 10256 | 06-30-18 |
| California | State Program | 9 | CA ELAP 2706 | 06-30-18 |
| Guam | State Program | 9 | Cert. No. 17-003R | 01-23-18 |
| Hawaii | State Program | 9 | N/A | 01-29-18 |
| Kansas | NELAP | 7 | E-10420 | 07-31-18 |
| Nevada | State Program | 9 | CA015312018-1 | 07-31-18 |
| New Mexico | State Program | 6 | N/A | 01-29-18 * |
| Northern Mariana Islands | State Program | 9 | MP0002 | 01-29-17 * |
| Oregon | NELAP | 10 | 4028 | 01-29-18 |
| USDA | Federal | | P330-15-00184 | 07-08-18 |
| Washington | State Program | 10 | C900 | 09-03-18 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Method Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-196039-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL IRV |
| 300.1B | Disinfection By-Products, (IC) | EPA | TAL IRV |
| 314.0 LL | Perchlorate (IC) | EPA | TAL IRV |
| 7199 | Chromium, Hexavalent (IC) | SW846 | TAL IRV |
| 6010B | Metals (ICP) | SW846 | TAL IRV |

**Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

# Sample Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER M16

TestAmerica Job ID: 440-196039-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 440-196039-1 | Trip Blank | Water | 11/08/17 07:00 | 11/09/17 06:40 |
| 440-196039-2 | VER-01I-20171108 | Water | 11/08/17 08:05 | 11/09/17 06:40 |
| 440-196039-3 | VMW-02D-20171108 | Water | 11/08/17 09:55 | 11/09/17 06:40 |
| 440-196039-4 | VMW-02I-20171108 | Water | 11/08/17 11:30 | 11/09/17 06:40 |
| 440-196039-5 | VMW-02I-20171108-EB | Water | 11/08/17 12:40 | 11/09/17 06:40 |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: GCMS31 Analysis Batch Number: 439348

Lab Sample ID: STD05 440-439348/6 IC Client Sample ID:

Date Analyzed: 11/03/17 16:48 Lab File ID: NFK0306.D GC Column: DB-VRX C ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chloroethane | 3.87 | Unspecified | | |
| 2,2-Dichloropropane | 6.80 | Unspecified | | |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-11 Analysis Batch Number: 440974

Lab Sample ID: 440-195772-B-3 MS Client Sample ID:

Date Analyzed: 11/13/17 10:05 Lab File ID: 20171113011.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.19 | Baseline Smoothing | zakhrabovy | 11/13/17 11:09 |
| Dichloroacetic acid(Surr) | 13.30 | Baseline Smoothing | zakhrabovy | 11/13/17 11:09 |

Lab Sample ID: 440-195772-B-3 MSD Client Sample ID:

Date Analyzed: 11/13/17 10:38 Lab File ID: 20171113012.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.24 | Baseline Smoothing | zakhrabovy | 11/13/17 11:11 |
| Dichloroacetic acid(Surr) | 13.34 | Baseline Smoothing | zakhrabovy | 11/13/17 11:11 |

Lab Sample ID: CCV 440-440974/25 Client Sample ID:

Date Analyzed: 11/13/17 17:50 Lab File ID: 20171113025.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Dichloroacetic acid(Surr) | 13.36 | Assign Peak | zakhrabovy | 11/14/17 03:07 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-8  Analysis Batch Number: 423009

Lab Sample ID: STD1 440-423009/3 IC  Client Sample ID:

Date Analyzed: 08/14/17 06:04  Lab File ID: 440-0092153-003.d  GC Column: AS14  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.25 | Baseline Smoothing | zakhrabovy | 08/14/17 06:52 |

Lab Sample ID: STD2 440-423009/4 IC  Client Sample ID:

Date Analyzed: 08/14/17 06:40  Lab File ID: 440-0092153-004.d  GC Column: AS14  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.24 | Baseline Smoothing | zakhrabovy | 08/14/17 07:20 |

Lab Sample ID: STD3 440-423009/5 IC  Client Sample ID:

Date Analyzed: 08/14/17 07:17  Lab File ID: 440-0092153-005.d  GC Column: AS14  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.23 | Baseline Smoothing | zakhrabovy | 08/14/17 08:06 |

Lab Sample ID: ICV 440-423009/8  Client Sample ID:

Date Analyzed: 08/14/17 09:17  Lab File ID: 440-0092153-008.d  GC Column: AS14  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.24 | Baseline Smoothing | zakhrabovy | 08/14/17 10:22 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 423010

Lab Sample ID: STD1 440-423010/3 IC Client Sample ID:

Date Analyzed: 08/14/17 06:04 Lab File ID: 440-0092153-003.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.19 | Baseline Smoothing | zakhrabovy | 08/14/17 06:52 |

Lab Sample ID: STD2 440-423010/4 IC Client Sample ID:

Date Analyzed: 08/14/17 06:40 Lab File ID: 440-0092153-004.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.19 | Baseline Smoothing | zakhrabovy | 08/14/17 09:12 |

Lab Sample ID: STD3 440-423010/5 IC Client Sample ID:

Date Analyzed: 08/14/17 07:17 Lab File ID: 440-0092153-005.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.18 | Baseline Smoothing | zakhrabovy | 08/14/17 08:06 |

Lab Sample ID: STD4 440-423010/6 IC Client Sample ID:

Date Analyzed: 08/14/17 07:53 Lab File ID: 440-0092153-006.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.12 | Baseline Smoothing | zakhrabovy | 08/14/17 09:11 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 423010

Lab Sample ID: STD5 440-423010/7 IC Client Sample ID:

Date Analyzed: 08/14/17 08:29 Lab File ID: 440-0092153-007.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.12 | Baseline Smoothing | zakhrabovy | 08/14/17 09:16 |

Lab Sample ID: ICV 440-423010/8 Client Sample ID:

Date Analyzed: 08/14/17 09:17 Lab File ID: 440-0092153-008.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.18 | Baseline Smoothing | zakhrabovy | 08/14/17 10:22 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 440634

Lab Sample ID: CCV 440-440634/1 Client Sample ID:

Date Analyzed: 11/10/17 10:41 Lab File ID: 440-0096061-001.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.57 | Baseline Smoothing | zakhrabovy | 11/10/17 11:53 |

Lab Sample ID: MRL 440-440634/3 Client Sample ID:

Date Analyzed: 11/10/17 11:54 Lab File ID: 440-0096061-003.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorate | 17.74 | Baseline Smoothing | zakhrabovy | 11/10/17 12:35 |

Lab Sample ID: 440-195592-A-1 MS Client Sample ID:

Date Analyzed: 11/10/17 15:31 Lab File ID: 440-0096061-009.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Dichloroacetic acid(Surr) | 13.88 | Baseline Smoothing | zakhrabovy | 11/11/17 04:18 |
| Chlorate | 17.61 | Baseline Smoothing | zakhrabovy | 11/11/17 09:59 |

Lab Sample ID: 440-195592-A-1 MSD Client Sample ID:

Date Analyzed: 11/10/17 16:07 Lab File ID: 440-0096061-010.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Dichloroacetic acid(Surr) | 13.90 | Baseline Smoothing | zakhrabovy | 11/11/17 04:19 |
| Chlorate | 17.60 | Baseline Smoothing | zakhrabovy | 11/11/17 04:20 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 440634

Lab Sample ID: 440-196039-5 Client Sample ID: VMW-02I-20171108-EB

Date Analyzed: 11/10/17 17:20 Lab File ID: 440-0096061-012.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Dichloroacetic acid(Surr) | 13.97 | Baseline Smoothing | zakhrabovy | 11/11/17 04:21 |

Lab Sample ID: CCV 440-440634/13 Client Sample ID:

Date Analyzed: 11/10/17 17:56 Lab File ID: 440-0096061-013.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.62 | Baseline Smoothing | zakhrabovy | 11/11/17 04:21 |

Lab Sample ID: CCB 440-440634/14 Client Sample ID:

Date Analyzed: 11/10/17 18:32 Lab File ID: 440-0096061-014.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Dichloroacetic acid(Surr) | 14.03 | Baseline Smoothing | zakhrabovy | 11/11/17 04:21 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 440635

Lab Sample ID: CCV 440-440635/1 Client Sample ID:

Date Analyzed: 11/10/17 10:41 Lab File ID: 440-0096061-001.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.48 | Baseline Smoothing | zakhrabovy | 11/10/17 11:53 |

Lab Sample ID: LCS 440-440635/4 Client Sample ID:

Date Analyzed: 11/10/17 12:30 Lab File ID: 440-0096061-004.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.52 | Baseline Smoothing | zakhrabovy | 11/10/17 13:38 |

Lab Sample ID: 440-195592-A-1 MS Client Sample ID:

Date Analyzed: 11/10/17 15:31 Lab File ID: 440-0096061-009.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.16 | Baseline Smoothing | zakhrabovy | 11/11/17 04:18 |
| Dichloroacetic acid(Surr) | 13.88 | Baseline Smoothing | zakhrabovy | 11/11/17 04:18 |

Lab Sample ID: 440-195592-A-1 MSD Client Sample ID:

Date Analyzed: 11/10/17 16:07 Lab File ID: 440-0096061-010.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.13 | Baseline Smoothing | zakhrabovy | 11/11/17 04:20 |
| Dichloroacetic acid(Surr) | 13.90 | Baseline Smoothing | zakhrabovy | 11/11/17 04:19 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 440635

Lab Sample ID: 440-196039-5 Client Sample ID: VMW-02I-20171108-EB

Date Analyzed: 11/10/17 17:20 Lab File ID: 440-0096061-012.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Dichloroacetic acid(Surr) | 13.97 | Baseline Smoothing | zakhrabovy | 11/11/17 04:21 |

Lab Sample ID: CCV 440-440635/13 Client Sample ID:

Date Analyzed: 11/10/17 17:56 Lab File ID: 440-0096061-013.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.53 | Baseline Smoothing | zakhrabovy | 11/11/17 04:21 |

Lab Sample ID: CCB 440-440635/14 Client Sample ID:

Date Analyzed: 11/10/17 18:32 Lab File ID: 440-0096061-014.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Dichloroacetic acid(Surr) | 14.03 | Baseline Smoothing | zakhrabovy | 11/11/17 04:21 |

Lab Sample ID: 440-196039-4 Client Sample ID: VMW-02I-20171108

Date Analyzed: 11/11/17 06:40 Lab File ID: 440-0096061-032.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.35 | Baseline Smoothing | zakhrabovy | 11/11/17 08:09 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 440635

Lab Sample ID: CCV 440-440635/33 Client Sample ID:

Date Analyzed: 11/11/17 07:17 Lab File ID: 440-0096061-033.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.53 | Baseline Smoothing | zakhrabovy | 11/11/17 08:09 |

Lab Sample ID: CCB 440-440635/34 Client Sample ID:

Date Analyzed: 11/11/17 08:58 Lab File ID: 440-0096061-034.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Dichloroacetic acid(Surr) | 13.01 | Baseline Smoothing | zakhrabovy | 11/11/17 09:53 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 441234

Lab Sample ID: STD1 440-441234/3 IC Client Sample ID:

Date Analyzed: 11/14/17 04:43 Lab File ID: 440-0096201-003.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.38 | Baseline Smoothing | zakhrabovy | 11/14/17 05:53 |

Lab Sample ID: STD2 440-441234/4 IC Client Sample ID:

Date Analyzed: 11/14/17 05:19 Lab File ID: 440-0096201-004.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.26 | Baseline Smoothing | zakhrabovy | 11/14/17 06:08 |

Lab Sample ID: STD3 440-441234/5 IC Client Sample ID:

Date Analyzed: 11/14/17 05:55 Lab File ID: 440-0096201-005.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.48 | Baseline Smoothing | zakhrabovy | 11/14/17 06:36 |

Lab Sample ID: STD4 440-441234/6 IC Client Sample ID:

Date Analyzed: 11/14/17 06:32 Lab File ID: 440-0096201-006.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.23 | Baseline Smoothing | zakhrabovy | 11/14/17 07:14 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 441234

Lab Sample ID: STD5 440-441234/7 IC Client Sample ID:

Date Analyzed: 11/14/17 07:08 Lab File ID: 440-0096201-007.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.23 | Baseline Smoothing | zakhrabovy | 11/14/17 07:47 |

Lab Sample ID: ICV 440-441234/8 Client Sample ID:

Date Analyzed: 11/14/17 08:07 Lab File ID: 440-0096201-008.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.20 | Baseline Smoothing | zakhrabovy | 11/14/17 08:45 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 441516

Lab Sample ID: CCV 440-441516/1 Client Sample ID:

Date Analyzed: 11/15/17 07:13 Lab File ID: 440-0096272-001.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.43 | Baseline Smoothing | zakhrabovy | 11/15/17 08:31 |
| Dichloroacetic acid(Surr) | 13.51 | Baseline Smoothing | zakhrabovy | 11/15/17 08:31 |

Lab Sample ID: CCV 440-441516/13 Client Sample ID:

Date Analyzed: 11/15/17 14:31 Lab File ID: 440-0096272-013.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.41 | Baseline Smoothing | nguyennt | 11/15/17 15:30 |

Lab Sample ID: CCV 440-441516/25 Client Sample ID:

Date Analyzed: 11/15/17 21:46 Lab File ID: 440-0096272-025.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.39 | Baseline Smoothing | nguyennt | 11/15/17 22:38 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 443190

Lab Sample ID: CCV 440-443190/1 Client Sample ID:

Date Analyzed: 11/24/17 05:24 Lab File ID: 440-0096644-001.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.34 | Baseline Smoothing | zakhrabovy | 11/24/17 07:21 |

Lab Sample ID: MRL 440-443190/3 Client Sample ID:

Date Analyzed: 11/24/17 06:36 Lab File ID: 440-0096644-003.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorate | 17.03 | Split Peak | zakhrabovy | 11/24/17 07:22 |

Lab Sample ID: CCV 440-443190/13 Client Sample ID:

Date Analyzed: 11/24/17 12:49 Lab File ID: 440-0096644-013.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.28 | Baseline Smoothing | zakhrabovy | 11/25/17 06:35 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-23 Analysis Batch Number: 438803

Lab Sample ID: STD1 440-438803/2 IC Client Sample ID:

Date Analyzed: 11/01/17 12:13 Lab File ID: 440-0095613-002_02_ECD_1. GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 10.72 | Instrument noise | nguyennt | 11/01/17 17:44 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-23 Analysis Batch Number: 443545

Lab Sample ID: INF 440-443545/6 Client Sample ID:

Date Analyzed: 11/27/17 10:18 Lab File ID: 440-0096739-006_06_ECD_1. GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 10.56 | Incomplete Integration | hoangch | 11/27/17 10:45 |

Lab Sample ID: MRL 440-443545/7 Client Sample ID:

Date Analyzed: 11/27/17 10:36 Lab File ID: 440-0096739-007_07_ECD_1. GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 10.65 | Incomplete Integration | hoangch | 11/27/17 10:58 |

Lab Sample ID: 440-196686-H-1 MS Client Sample ID:

Date Analyzed: 11/27/17 11:16 Lab File ID: 440-0096739-009_09_ECD_1. GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 10.65 | Incomplete Integration | hoangch | 11/27/17 12:22 |

Lab Sample ID: 440-196686-H-1 MSD Client Sample ID:

Date Analyzed: 11/27/17 11:34 Lab File ID: 440-0096739-010_10_ECD_1. GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 10.65 | Incomplete Integration | hoangch | 11/27/17 12:21 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-24 Analysis Batch Number: 438806

Lab Sample ID: STD1 440-438806/2 IC Client Sample ID:

Date Analyzed: 11/01/17 12:16 Lab File ID: 440-0095615-00202ECD_1.d GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.75 | Instrument noise | nguyennt | 11/01/17 17:43 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-24 Analysis Batch Number: 443796

Lab Sample ID: INF 440-443796/6 Client Sample ID:

Date Analyzed: 11/28/17 11:30 Lab File ID: 440-0096789-00606ECD_1.d GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.59 | Incomplete Integration | hoangch | 11/28/17 12:02 |

Lab Sample ID: MRL 440-443796/7 Client Sample ID:

Date Analyzed: 11/28/17 11:48 Lab File ID: 440-0096789-00707ECD_1.d GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.70 | Incomplete Integration | hoangch | 11/28/17 12:14 |

Lab Sample ID: CCV 440-443796/14 Client Sample ID:

Date Analyzed: 11/28/17 14:02 Lab File ID: 440-0096789-01414ECD_1.d GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.68 | Incomplete Integration | hoangch | 11/28/17 14:29 |

Lab Sample ID: CCV 440-443796/26 Client Sample ID:

Date Analyzed: 11/28/17 17:36 Lab File ID: 440-0096789-02626ECD_1.d GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.68 | Incomplete Integration | hornm | 11/28/17 19:05 |

Lab Sample ID: 440-196039-3 Client Sample ID: VMW-02D-20171108

Date Analyzed: 11/28/17 18:30 Lab File ID: 440-0096789-02929ECD_1.d GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.68 | Incomplete Integration | saraubonp | 11/29/17 14:53 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-20  Analysis Batch Number: 410549

Lab Sample ID: STD1 440-410549/4 IC  Client Sample ID:

Date Analyzed: 06/07/17 10:00  Lab File ID: Info 2_IRVINSTIC20_Hexava  GC Column: AS7 A  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 7.37 | Incomplete Integration | nickloffn | 06/08/17 10:45 |

Lab Sample ID: STD2 440-410549/5 IC  Client Sample ID:

Date Analyzed: 06/07/17 10:13  Lab File ID: Info 2_IRVINSTIC20_Hexava  GC Column: AS7 A  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 7.37 | Incomplete Integration | nickloffn | 06/08/17 10:45 |

Lab Sample ID: ICV 440-410549/11  Client Sample ID:

Date Analyzed: 06/07/17 11:47  Lab File ID: Info 2_IRVINSTIC20_Hexava  GC Column: AS7 A  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 7.42 | Baseline Smoothing | nikbakhtm | 06/07/17 12:03 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-20 Analysis Batch Number: 440295

Lab Sample ID: CCV 440-440295/2 Client Sample ID:

Date Analyzed: 11/09/17 04:18 Lab File ID: Info 2_IRVINSTIC20_Hexava GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 6.11 | Baseline Smoothing | zakhrabovy | 11/09/17 04:44 |

Lab Sample ID: 440-196039-2 Client Sample ID: VER-01I-20171108

Date Analyzed: 11/09/17 07:26 Lab File ID: Info 2_IRVINSTIC20_Hexava GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 5.99 | Peak not integrated | nikbakhtm | 11/09/17 07:41 |

Lab Sample ID: 440-196039-3 Client Sample ID: VMW-02D-20171108

Date Analyzed: 11/09/17 07:39 Lab File ID: Info 2_IRVINSTIC20_Hexava GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 5.99 | Peak not integrated | nikbakhtm | 11/09/17 07:53 |

Lab Sample ID: 440-196039-4 Client Sample ID: VMW-02I-20171108

Date Analyzed: 11/09/17 08:31 Lab File ID: Info 2_IRVINSTIC20_Hexava GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 5.91 | Peak not integrated | nikbakhtm | 11/09/17 08:46 |

Lab Sample ID: CCV 440-440295/18 Client Sample ID:

Date Analyzed: 11/09/17 08:44 Lab File ID: Info 2_IRVINSTIC20_Hexava GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 5.91 | Peak not integrated | nikbakhtm | 11/09/17 09:01 |

7199

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-20  Analysis Batch Number: 440295

Lab Sample ID: 440-196039-3 MS  Client Sample ID: VMW-02D-20171108 MS

Date Analyzed: 11/09/17 09:29  Lab File ID: Info 2_IRVINSTIC20_Hexava  GC Column: AS7 A  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 5.91 | Peak not integrated | nikbakhtm | 11/09/17 09:49 |

Lab Sample ID: 440-196039-3 MSD  Client Sample ID: VMW-02D-20171108 MSD

Date Analyzed: 11/09/17 09:42  Lab File ID: Info 2_IRVINSTIC20_Hexava  GC Column: AS7 A  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 5.88 | Peak not integrated | nikbakhtm | 11/09/17 10:01 |

Lab Sample ID: CCV 440-440295/26  Client Sample ID:

Date Analyzed: 11/09/17 10:46  Lab File ID: Info 2_IRVINSTIC20_Hexava  GC Column: AS7 A  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 5.96 | Peak not integrated | nikbakhtm | 11/09/17 11:28 |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **ME HCl_00385** | 11/09/18 | Avantor Performance Materials, INc., Lot 0000183197 | | | (Purchased Reagent) | | Stock Chemical | 100 % |
| **ME HNO3_00404** | 06/15/19 | Macron Fine Chemicals, Lot 1117060 | | | (Purchased Reagent) | | Stock Chemical | 1 % |
| **ME ICP CRI 2x_00380** | 11/15/17 | 11/14/17 | 1%HNO3/0.5%HCl, Lot HNO3 | 50 mL | CRI CHK STD_00027 | 1 mL | Chromium | 0.01 ug/mL |
| .CRI CHK STD_00027 | 08/27/18 | ACCU STANDARD, Lot 217025071 | | | (Purchased Reagent) | | Chromium | 0.5 ug/mL |
| **ME ICP ICV2_01715** | 11/15/17 | 11/14/17 | 1%HNO3/2%HCl, Lot N/A | 50 mL | ME ICP SPKE A_00029 | 0.5 mL | Chromium | 1 mg/L |
| .ME ICP SPKE A_00029 | 03/30/18 | ACCUSTANDARD, Lot 216035030 | | | (Purchased Reagent) | | Chromium | 100 ug/mL |
| **ME ICP IFA_01741** | 11/15/17 | 11/14/17 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Al | 600 mg/L |
| | | | | | | | Ca | 600 mg/L |
| | | | | | | | Fe | 600 mg/L |
| | | | | | | | Mg | 600 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | o2si, Lot 10064997-1 | | | (Purchased Reagent) | | Al | 6000 mg/L |
| | | | | | | | Ca | 6000 mg/L |
| | | | | | | | Fe | 6000 mg/L |
| | | | | | | | Mg | 6000 mg/L |
| **ME ICP IFB_01760** | 11/15/17 | 11/14/17 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Al | 600.5 mg/L |
| | | | | | | | Ca | 602.5 mg/L |
| | | | | | | | Fe | 600.5 mg/L |
| | | | | | | | Mg | 602.5 mg/L |
| | | | | | ME ICP2 ICV1A_00051 | 0.25 mL | Ag | 0.25 mg/L |
| | | | | | | | Al | 600.5 mg/L |
| | | | | | | | As | 0.5 mg/L |
| | | | | | | | B | 0.5 mg/L |
| | | | | | | | Ba | 0.5 mg/L |
| | | | | | | | Be | 0.5 mg/L |
| | | | | | | | Ca | 602.5 mg/L |
| | | | | | | | Cd | 0.5 mg/L |
| | | | | | | | Chromium | 0.5 mg/L |
| | | | | | | | Co | 0.5 mg/L |
| | | | | | | | Cu | 0.5 mg/L |
| | | | | | | | Fe | 600.5 mg/L |
| | | | | | | | K | 10 mg/L |
| | | | | | | | Li | 0.5 mg/L |
| | | | | | | | Mg | 602.5 mg/L |
| | | | | | | | Mn | 0.5 mg/L |
| | | | | | | | Na | 10 mg/L |
| | | | | | | | Ni | 0.5 mg/L |
| | | | | | | | P | 0.5 mg/L |
| | | | | | | | Pb | 0.5 mg/L |
| | | | | | | | Se | 0.5 mg/L |
| | | | | | | | Sr | 0.5 mg/L |
| | | | | | | | Tl | 0.5 mg/L |
| | | | | | | | V | 0.5 mg/L |
| | | | | | | | Zn | 0.5 mg/L |
| | | | | | ME ICP2 ICV1B_00045 | 0.25 mL | Mo | 0.5 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Sb | 0.5 mg/L |
| | | | | | | | Si | 2.5 mg/L |
| | | | | | | | Sn | 0.5 mg/L |
| | | | | | | | Ti | 0.5 mg/L |
| | | | | | | | W | 0.5 mg/L |
| | | | | | | | Zr | 0.5 mg/L |
| | | | | | ME K_00007 | 0.25 mL | K | 10 mg/L |
| | | | | | ME Na_00010 | 0.25 mL | Na | 10 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | o2si, Lot 10064997-1 | | | (Purchased Reagent) | | Al | 6000 mg/L |
| | | | | | | | Ca | 6000 mg/L |
| | | | | | | | Fe | 6000 mg/L |
| | | | | | | | Mg | 6000 mg/L |
| .ME ICP2 ICV1A_00051 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662245 | | | (Purchased Reagent) | | Ag | 50 mg/L |
| | | | | | | | Al | 100 mg/L |
| | | | | | | | As | 100 mg/L |
| | | | | | | | B | 100 mg/L |
| | | | | | | | Ba | 100 mg/L |
| | | | | | | | Be | 100 mg/L |
| | | | | | | | Ca | 500 mg/L |
| | | | | | | | Cd | 100 mg/L |
| | | | | | | | Chromium | 100 mg/L |
| | | | | | | | Co | 100 mg/L |
| | | | | | | | Cu | 100 mg/L |
| | | | | | | | Fe | 100 mg/L |
| | | | | | | | K | 1000 mg/L |
| | | | | | | | Li | 100 mg/L |
| | | | | | | | Mg | 500 mg/L |
| | | | | | | | Mn | 100 mg/L |
| | | | | | | | Na | 1000 mg/L |
| | | | | | | | Ni | 100 mg/L |
| | | | | | | | P | 100 mg/L |
| | | | | | | | Pb | 100 mg/L |
| | | | | | | | Se | 100 mg/L |
| | | | | | | | Sr | 100 mg/L |
| | | | | | | | Tl | 100 mg/L |
| | | | | | | | V | 100 mg/L |
| | | | | | | | Zn | 100 mg/L |
| .ME ICP2 ICV1B_00045 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662246 | | | (Purchased Reagent) | | Mo | 100 mg/L |
| | | | | | | | Sb | 100 mg/L |
| | | | | | | | Si | 500 mg/L |
| | | | | | | | Sn | 100 mg/L |
| | | | | | | | Ti | 100 mg/L |
| | | | | | | | W | 100 mg/L |
| | | | | | | | Zr | 100 mg/L |
| .ME K_00007 | 08/17/18 | O2SI, Lot 1103100 | | | (Purchased Reagent) | | K | 1000 mg/L |
| .ME Na_00010 | 08/17/18 | O2SI, Lot 1103103 | | | (Purchased Reagent) | | Na | 1000 mg/L |
| **ME ICP STD3_01745** | 11/15/17 | 11/14/17 | 1%HNO3/2%HCL, Lot 211065110 | 100 mL | ME ICP2 ICV1A_00051 | 1 mL | Chromium | 1 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .ME ICP2 ICV1A_00051 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662245 | | | (Purchased Reagent) | | Chromium | 100 mg/L |
| | | | | | | | Ag | 50 mg/L |
| | | | | | | | Al | 100 mg/L |
| | | | | | | | As | 100 mg/L |
| | | | | | | | B | 100 mg/L |
| | | | | | | | Ba | 100 mg/L |
| | | | | | | | Be | 100 mg/L |
| | | | | | | | Ca | 500 mg/L |
| | | | | | | | Cd | 100 mg/L |
| | | | | | | | Chromium | 100 mg/L |
| | | | | | | | Co | 100 mg/L |
| | | | | | | | Cu | 100 mg/L |
| | | | | | | | Fe | 100 mg/L |
| | | | | | | | K | 1000 mg/L |
| | | | | | | | Li | 100 mg/L |
| | | | | | | | Mg | 500 mg/L |
| | | | | | | | Mn | 100 mg/L |
| | | | | | | | Na | 1000 mg/L |
| | | | | | | | Ni | 100 mg/L |
| | | | | | | | P | 100 mg/L |
| | | | | | | | Pb | 100 mg/L |
| | | | | | | | Se | 100 mg/L |
| | | | | | | | Sr | 100 mg/L |
| | | | | | | | Tl | 100 mg/L |
| | | | | | | | V | 100 mg/L |
| | | | | | | | Zn | 100 mg/L |
| **ME ICP2 ICV1B_00045** | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662246 | | | (Purchased Reagent) | | Mo | 100 mg/L |
| | | | | | | | Sb | 100 mg/L |
| | | | | | | | Si | 500 mg/L |
| | | | | | | | SiO2 | 1071.15 mg/L |
| | | | | | | | Sn | 100 mg/L |
| | | | | | | | Ti | 100 mg/L |
| | | | | | | | W | 100 mg/L |
| | | | | | | | Zr | 100 mg/L |
| **VMW8260TUNE1_00402** | | | | | | | 1,2-Dichloroethene, Total | |
| | | | | | | | 1,3-Dichloropropene, Total | |
| | | | | | | | Tentatively Identified Compound | |
| | | | | | | | Total Volatile Organic Compounds | |
| | | | | | | | Trihalomethanes, Total | |
| | | | | | | | Xylenes, Total | |
| | | | | | VMA8260BFB1_00039 | 10 uL | BFB | 25 ug/mL |
| .VMA8260BFB1_00039 | 03/02/18 | Absolute Standards, Lot 112514 | | | (Purchased Reagent) | | BFB | 2500 ug/mL |
| **VMW8260TUNE1_00405** | | | | | | | 1,2-Dichloroethene, Total | |
| | | | | | | | 1,3-Dichloropropene, Total | |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Tentatively Identified Compound | |
| | | | | | | | Total Volatile Organic Compounds | |
| | | | | | | | Trihalomethanes, Total | |
| | | | | | | | Xylenes, Total | |
| | | | | | VMA8260BFB1_00039 | 10 uL | BFB | 25 ug/mL |
| .VMA8260BFB1_00039 | 03/02/18 | Absolute Standards, Lot 112514 | | | (Purchased Reagent) | | BFB | 2500 ug/mL |
| **VMWNU8260002_00474** | 11/07/17 | 10/31/17 | Methanol, Lot 4415767 | 1 mL | VMWNU8260200_00168 | 10 uL | 2-Chloroethyl vinyl ether | 2 ug/mL |
| | | | | | | | Bromomethane | 2 ug/mL |
| | | | | | | | Butadiene | 2 ug/mL |
| | | | | | | | Chloroethane | 2 ug/mL |
| | | | | | | | Chloromethane | 2 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2 ug/mL |
| | | | | | | | Vinyl chloride | 2 ug/mL |
| | | | | | | | 2-Butanone (MEK) | 2 ug/mL |
| | | | | | | | 2-Hexanone | 2 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 2 ug/mL |
| | | | | | | | Acetone | 2 ug/mL |
| | | | | | | | 1,1,1,2-Tetrachloroethane | 2 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2 ug/mL |
| | | | | | | | Acrylonitrile | 20 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Benzene | 2 ug/mL |
| | | | | | | | Bromobenzene | 2 ug/mL |
| | | | | | | | Bromochloromethane | 2 ug/mL |
| | | | | | | | Bromodichloromethane | 2 ug/mL |
| | | | | | | | Bromoform | 2 ug/mL |
| | | | | | | | Carbon disulfide | 2 ug/mL |
| | | | | | | | Carbon tetrachloride | 2 ug/mL |
| | | | | | | | Chlorobenzene | 2 ug/mL |
| | | | | | | | Chloroform | 2 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2 ug/mL |
| | | | | | | | Cyclohexane | 2 ug/mL |
| | | | | | | | Dibromochloromethane | 2 ug/mL |
| | | | | | | | Dibromomethane | 2 ug/mL |
| | | | | | | | Ethyl ether | 2 ug/mL |
| | | | | | | | Ethyl methacrylate | 2 ug/mL |
| | | | | | | | Ethylbenzene | 2 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2 ug/mL |
| | | | | | | | Hexane | 2 ug/mL |
| | | | | | | | Iodomethane | 2 ug/mL |
| | | | | | | | Isobutyl alcohol | 50 ug/mL |
| | | | | | | | Isopropylbenzene | 2 ug/mL |
| | | | | | | | m,p-Xylene | 2 ug/mL |
| | | | | | | | Methyl acetate | 10 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2 ug/mL |
| | | | | | | | Methylcyclohexane | 2 ug/mL |
| | | | | | | | Methylene Chloride | 2 ug/mL |
| | | | | | | | n-Butylbenzene | 2 ug/mL |
| | | | | | | | n-Heptane | 2 ug/mL |
| | | | | | | | N-Propylbenzene | 2 ug/mL |
| | | | | | | | Naphthalene | 2 ug/mL |
| | | | | | | | o-Xylene | 2 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2 ug/mL |
| | | | | | | | sec-Butylbenzene | 2 ug/mL |
| | | | | | | | Styrene | 2 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 20 ug/mL |
| | | | | | | | tert-Butylbenzene | 2 ug/mL |
| | | | | | | | Tetrachloroethene | 2 ug/mL |
| | | | | | | | Tetrahydrofuran | 4 ug/mL |
| | | | | | | | Toluene | 2 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2 ug/mL |
| | | | | | | | Trichloroethene | 2 ug/mL |
| | | | | | | | Vinyl acetate | 2 ug/mL |
| | | | | | | | Ethanol | 100 ug/mL |
| | | | | | | | Acetonitrile | 20 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Isopropyl Ether (DIPE) | 2 ug/mL |
| | | | | | | | Propionitrile | 20 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2 ug/mL |
| | | | | | | | Acrolein | 2 ug/mL |
| .VMWNU8260200_00168 | 11/07/17 | 10/31/17 | Methanol, Lot 4415767 | 1 mL | VMA1582602CV1_00026 | 80 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |
| | | | | | VMA158260GAS1_00195 | 80 uL | Bromomethane | 200 ug/mL |
| | | | | | | | Butadiene | 200 ug/mL |
| | | | | | | | Chloroethane | 200 ug/mL |
| | | | | | | | Chloromethane | 200 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 200 ug/mL |
| | | | | | | | Dichlorofluoromethane | 200 ug/mL |
| | | | | | | | Trichlorofluoromethane | 200 ug/mL |
| | | | | | | | Vinyl chloride | 200 ug/mL |
| | | | | | VMA158260KET1_00040 | 16 uL | 2-Butanone (MEK) | 200 ug/mL |
| | | | | | | | 2-Hexanone | 200 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 200 ug/mL |
| | | | | | | | Acetone | 200 ug/mL |
| | | | | | VMA158260MEG1_00040 | 80 uL | 1,1,1,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 200 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 200 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 200 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 200 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 2-Chlorotoluene | 200 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 200 ug/mL |
| | | | | | | | 4-Chlorotoluene | 200 ug/mL |
| | | | | | | | Acrylonitrile | 2000 ug/mL |
| | | | | | | | Benzene | 200 ug/mL |
| | | | | | | | Bromobenzene | 200 ug/mL |
| | | | | | | | Bromochloromethane | 200 ug/mL |
| | | | | | | | Bromodichloromethane | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Bromoform | 200 ug/mL |
| | | | | | | | Carbon disulfide | 200 ug/mL |
| | | | | | | | Carbon tetrachloride | 200 ug/mL |
| | | | | | | | Chlorobenzene | 200 ug/mL |
| | | | | | | | Chloroform | 200 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | Cyclohexane | 200 ug/mL |
| | | | | | | | Dibromochloromethane | 200 ug/mL |
| | | | | | | | Dibromomethane | 200 ug/mL |
| | | | | | | | Ethyl ether | 200 ug/mL |
| | | | | | | | Ethyl methacrylate | 200 ug/mL |
| | | | | | | | Ethylbenzene | 200 ug/mL |
| | | | | | | | Hexachlorobutadiene | 200 ug/mL |
| | | | | | | | Hexane | 200 ug/mL |
| | | | | | | | Iodomethane | 200 ug/mL |
| | | | | | | | Isobutyl alcohol | 5000 ug/mL |
| | | | | | | | Isopropylbenzene | 200 ug/mL |
| | | | | | | | m,p-Xylene | 200 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 200 ug/mL |
| | | | | | | | Methylcyclohexane | 200 ug/mL |
| | | | | | | | Methylene Chloride | 200 ug/mL |
| | | | | | | | n-Butylbenzene | 200 ug/mL |
| | | | | | | | n-Heptane | 200 ug/mL |
| | | | | | | | N-Propylbenzene | 200 ug/mL |
| | | | | | | | Naphthalene | 200 ug/mL |
| | | | | | | | o-Xylene | 200 ug/mL |
| | | | | | | | p-Isopropyltoluene | 200 ug/mL |
| | | | | | | | sec-Butylbenzene | 200 ug/mL |
| | | | | | | | Styrene | 200 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 2000 ug/mL |
| | | | | | | | tert-Butylbenzene | 200 ug/mL |
| | | | | | | | Tetrachloroethene | 200 ug/mL |
| | | | | | | | Tetrahydrofuran | 400 ug/mL |
| | | | | | | | Toluene | 200 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 200 ug/mL |
| | | | | | | | Trichloroethene | 200 ug/mL |
| | | | | | VMA158260VA1_00043 | 40 uL | Vinyl acetate | 200 ug/mL |
| | | | | | VMA178260ETH1_00006 | 100 uL | Ethanol | 10000 ug/mL |
| | | | | | VMA178260POL1_00006 | 80 uL | Acetonitrile | 2000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 200 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 200 ug/mL |
| | | | | | | | Propionitrile | 2000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 200 ug/mL |
| | | | | | VMANU8260ACR1_00099 | 10 uL | Acrolein | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| ..VMA1582602CV1_00026 | 04/10/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| ..VMA158260GAS1_00195 | 04/30/18 | | Restek, Lot A0124278 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| ..VMA158260KET1_00040 | 04/10/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| ..VMA158260MEG1_00040 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| ..VMA158260VA1_00043 | 11/30/17 | | Restek, Lot A0127538 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| ..VMA178260ETH1_00006 | 04/10/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| ..VMA178260POL1_00006 | 04/10/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| ..VMANU8260ACR1_00099 | 01/17/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260200_00168** | 11/07/17 | 10/31/17 | Methanol, Lot 4415767 | 1 mL | VMA1582602CV1_00026 | 80 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |
| | | | | | VMA158260GAS1_00195 | 80 uL | Bromomethane | 200 ug/mL |
| | | | | | | | Butadiene | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Chloroethane | 200 ug/mL |
| | | | | | | | Chloromethane | 200 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 200 ug/mL |
| | | | | | | | Dichlorofluoromethane | 200 ug/mL |
| | | | | | | | Trichlorofluoromethane | 200 ug/mL |
| | | | | | | | Vinyl chloride | 200 ug/mL |
| | | | | | VMA158260KET1_00040 | 16 uL | 2-Butanone (MEK) | 200 ug/mL |
| | | | | | | | 2-Hexanone | 200 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 200 ug/mL |
| | | | | | | | Acetone | 200 ug/mL |
| | | | | | VMA158260MEG1_00040 | 80 uL | 1,1,1,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 200 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 200 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 200 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 200 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 2-Chlorotoluene | 200 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 200 ug/mL |
| | | | | | | | 4-Chlorotoluene | 200 ug/mL |
| | | | | | | | Acrylonitrile | 2000 ug/mL |
| | | | | | | | Benzene | 200 ug/mL |
| | | | | | | | Bromobenzene | 200 ug/mL |
| | | | | | | | Bromochloromethane | 200 ug/mL |
| | | | | | | | Bromodichloromethane | 200 ug/mL |
| | | | | | | | Bromoform | 200 ug/mL |
| | | | | | | | Carbon disulfide | 200 ug/mL |
| | | | | | | | Carbon tetrachloride | 200 ug/mL |
| | | | | | | | Chlorobenzene | 200 ug/mL |
| | | | | | | | Chloroform | 200 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Cyclohexane | 200 ug/mL |
| | | | | | | | Dibromochloromethane | 200 ug/mL |
| | | | | | | | Dibromomethane | 200 ug/mL |
| | | | | | | | Ethyl ether | 200 ug/mL |
| | | | | | | | Ethyl methacrylate | 200 ug/mL |
| | | | | | | | Ethylbenzene | 200 ug/mL |
| | | | | | | | Hexachlorobutadiene | 200 ug/mL |
| | | | | | | | Hexane | 200 ug/mL |
| | | | | | | | Iodomethane | 200 ug/mL |
| | | | | | | | Isobutyl alcohol | 5000 ug/mL |
| | | | | | | | Isopropylbenzene | 200 ug/mL |
| | | | | | | | m,p-Xylene | 200 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 200 ug/mL |
| | | | | | | | Methylcyclohexane | 200 ug/mL |
| | | | | | | | Methylene Chloride | 200 ug/mL |
| | | | | | | | n-Butylbenzene | 200 ug/mL |
| | | | | | | | n-Heptane | 200 ug/mL |
| | | | | | | | N-Propylbenzene | 200 ug/mL |
| | | | | | | | Naphthalene | 200 ug/mL |
| | | | | | | | o-Xylene | 200 ug/mL |
| | | | | | | | p-Isopropyltoluene | 200 ug/mL |
| | | | | | | | sec-Butylbenzene | 200 ug/mL |
| | | | | | | | Styrene | 200 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 2000 ug/mL |
| | | | | | | | tert-Butylbenzene | 200 ug/mL |
| | | | | | | | Tetrachloroethene | 200 ug/mL |
| | | | | | | | Tetrahydrofuran | 400 ug/mL |
| | | | | | | | Toluene | 200 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 200 ug/mL |
| | | | | | | | Trichloroethene | 200 ug/mL |
| | | | | | VMA158260VA1_00043 | 40 uL | Vinyl acetate | 200 ug/mL |
| | | | | | VMA178260ETH1_00006 | 100 uL | Ethanol | 10000 ug/mL |
| | | | | | VMA178260POL1_00006 | 80 uL | Acetonitrile | 2000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 200 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 200 ug/mL |
| | | | | | | | Propionitrile | 2000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 200 ug/mL |
| | | | | | VMANU8260ACR1_00099 | 10 uL | Acrolein | 200 ug/mL |
| .VMA1582602CV1_00026 | 04/10/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| .VMA158260GAS1_00195 | 04/30/18 | | Restek, Lot A0124278 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00040 | 04/10/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00040 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA158260VA1_00043 | 11/30/17 | | Restek, Lot A0127538 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| .VMA178260ETH1_00006 | 04/10/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| .VMA178260POL1_00006 | 04/10/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| .VMANU8260ACR1_00099 | 01/17/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260CCV1_00825** | 11/07/17 | 10/31/17 | Methanol, Lot 4415767 | 1 mL | VMA1582602CV1_00026 | 20 uL | 2-Chloroethyl vinyl ether | 50 ug/mL |
| | | | | | VMA158260GAS1_00195 | 20 uL | Bromomethane | 50 ug/mL |
| | | | | | | | Butadiene | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 50 ug/mL |
| | | | | | | | Dichlorofluoromethane | 50 ug/mL |
| | | | | | | | Trichlorofluoromethane | 50 ug/mL |
| | | | | | | | Vinyl chloride | 50 ug/mL |
| | | | | | VMA158260KET1_00040 | 4 uL | 2-Butanone (MEK) | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 2-Hexanone | 50 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ug/mL |
| | | | | | | | Acetone | 50 ug/mL |
| | | | | | VMA158260MEG1_00040 | 20 uL | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | Acrylonitrile | 500 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromochloromethane | 50 ug/mL |
| | | | | | | | Bromodichloromethane | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon disulfide | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Cyclohexane | 50 ug/mL |
| | | | | | | | Dibromochloromethane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Ethyl ether | 50 ug/mL |
| | | | | | | | Ethyl methacrylate | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Hexane | 50 ug/mL |
| | | | | | | | Iodomethane | 50 ug/mL |
| | | | | | | | Isobutyl alcohol | 1250 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m,p-Xylene | 50 ug/mL |
| | | | | | | | Methyl acetate | 250 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ug/mL |
| | | | | | | | Methylcyclohexane | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | n-Heptane | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | p-Isopropyltoluene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Tetrahydrofuran | 100 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | VMA158260VA1_00043 | 8 uL | Vinyl acetate | 40 ug/mL |
| | | | | | VMA178260ETH1_00006 | 20 uL | Ethanol | 2000 ug/mL |
| | | | | | VMA178260POL1_00006 | 20 uL | Acetonitrile | 500 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 50 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ug/mL |
| | | | | | | | Propionitrile | 500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ug/mL |
| | | | | | VMANU8260ACR1_00099 | 2.5 uL | Acrolein | 50 ug/mL |
| .VMA1582602CV1_00026 | 04/10/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| .VMA158260GAS1_00195 | 04/30/18 | | Restek, Lot A0124278 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00040 | 04/10/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00040 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | Analyte | Concentration |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA158260VA1_00043 | 11/30/17 | | Restek, Lot A0127538 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| .VMA178260ETH1_00006 | 04/10/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| .VMA178260POL1_00006 | 04/10/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| .VMANU8260ACR1_00099 | 01/17/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260CCV1_00838** | 11/21/17 | 11/14/17 | Methanol, Lot 4415769 | 1 mL | VMA158260GAS1_00198 | 20 uL | Bromomethane | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 50 ug/mL |
| | | | | | | | Trichlorofluoromethane | 50 ug/mL |
| | | | | | | | Vinyl chloride | 50 ug/mL |
| | | | | | VMA158260KET1_00041 | 4 uL | 2-Butanone (MEK) | 50 ug/mL |
| | | | | | | | 2-Hexanone | 50 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ug/mL |
| | | | | | | | Acetone | 50 ug/mL |
| | | | | | VMA158260MEG1_00041 | 20 uL | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromochloromethane | 50 ug/mL |
| | | | | | | | Bromodichloromethane | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Dibromochloromethane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m,p-Xylene | 50 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | p-Isopropyltoluene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | VMA178260POL1_00007 | 20 uL | Ethyl-t-butyl ether (ETBE) | 50 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ug/mL |
| .VMA158260GAS1_00198 | 05/14/18 | | Restek, Lot A0124278 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00041 | 05/07/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00041 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL1_00007 | 05/07/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNU8260IS_00167** | 11/09/17 | 10/09/17 | Methanol, Lot 4303540 | 1 mL | VMANU8260ISD1_00175 | 20 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00193 | 25 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00175 | 04/09/18 | | Restek, Lot A0123516 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00193 | 04/09/18 | | Restek, Lot A0128685 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00129** | 11/19/17 | 10/19/17 | Methanol, Lot 4415760 | 40 mL | VMANU8260ISD1_00180 | 800 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00188 | 1000 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00180 | 04/19/18 | | Restek, Lot A0123516 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00188 | 04/19/18 | | Restek, Lot A0123820 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00129** | 11/19/17 | 10/19/17 | Methanol, Lot 4415760 | 40 mL | VMANU8260SUR2_00033 | 800 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR2_00033 | 03/29/18 | | Restek, Lot A0115812 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **VMWNU8260ISS_00130** | 11/30/17 | 10/31/17 | Methanol, Lot 4415760 | 40 mL | VMANU8260ISD1_00181 | 800 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00190 | 1000 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00181 | 04/30/18 | | Restek, Lot A0123516 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00190 | 04/30/18 | | Restek, Lot A0123820 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00130** | 11/30/17 | 10/31/17 | Methanol, Lot 4415760 | 40 mL | VMANU8260SUR2_00033 | 800 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR2_00033 | 03/29/18 | | Restek, Lot A0115812 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNU8260LCS2_00162** | 11/08/17 | 11/01/17 | Methanol, Lot 4415760 | 10 mL | VMA158260GAS2_00211 | 200 uL | Bromomethane | 50 ppm |
| | | | | | | | Chloroethane | 50 ppm |
| | | | | | | | Chloromethane | 50 ppm |
| | | | | | | | Dichlorodifluoromethane | 50 ppm |
| | | | | | | | Trichlorofluoromethane | 50 ppm |
| | | | | | | | Vinyl chloride | 50 ppm |
| | | | | | VMA158260KET2_00039 | 40 uL | 2-Butanone (MEK) | 50 ppm |
| | | | | | | | 2-Hexanone | 50 ppm |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ppm |
| | | | | | | | Acetone | 50 ppm |
| | | | | | VMA158260MEG2_00050 | 200 uL | 1,1,1,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,1-Trichloroethane | 50 ppm |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,2-Trichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethene | 50 ppm |
| | | | | | | | 1,1-Dichloropropene | 50 ppm |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,3-Trichloropropane | 50 ppm |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ppm |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ppm |
| | | | | | | | 1,2-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,2-Dichloroethane | 50 ppm |
| | | | | | | | 1,2-Dichloropropane | 50 ppm |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,3-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,3-Dichloropropane | 50 ppm |
| | | | | | | | 1,4-Dichlorobenzene | 50 ppm |
| | | | | | | | 2,2-Dichloropropane | 50 ppm |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 2-Chlorotoluene | 50 ppm |
| | | | | | | | 4-Chlorotoluene | 50 ppm |
| | | | | | | | Benzene | 50 ppm |
| | | | | | | | Bromobenzene | 50 ppm |
| | | | | | | | Bromochloromethane | 50 ppm |
| | | | | | | | Bromodichloromethane | 50 ppm |
| | | | | | | | Bromoform | 50 ppm |
| | | | | | | | Carbon tetrachloride | 50 ppm |
| | | | | | | | Chlorobenzene | 50 ppm |
| | | | | | | | Chloroform | 50 ppm |
| | | | | | | | cis-1,2-Dichloroethene | 50 ppm |
| | | | | | | | cis-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Dibromochloromethane | 50 ppm |
| | | | | | | | Dibromomethane | 50 ppm |
| | | | | | | | Ethylbenzene | 50 ppm |
| | | | | | | | Hexachlorobutadiene | 50 ppm |
| | | | | | | | Isopropylbenzene | 50 ppm |
| | | | | | | | m,p-Xylene | 50 ppm |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ppm |
| | | | | | | | Methylene Chloride | 50 ppm |
| | | | | | | | n-Butylbenzene | 50 ppm |
| | | | | | | | N-Propylbenzene | 50 ppm |
| | | | | | | | Naphthalene | 50 ppm |
| | | | | | | | o-Xylene | 50 ppm |
| | | | | | | | p-Isopropyltoluene | 50 ppm |
| | | | | | | | sec-Butylbenzene | 50 ppm |
| | | | | | | | Styrene | 50 ppm |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ppm |
| | | | | | | | tert-Butylbenzene | 50 ppm |
| | | | | | | | Tetrachloroethene | 50 ppm |
| | | | | | | | Toluene | 50 ppm |
| | | | | | | | trans-1,2-Dichloroethene | 50 ppm |
| | | | | | | | trans-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Trichloroethene | 50 ppm |
| | | | | | VMA178260POL2_00008 | 200 uL | Ethyl-t-butyl ether (ETBE) | 50 ppm |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ppm |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ppm |
| .VMA158260GAS2_00211 | 05/01/18 | | Restek, Lot A0128832 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET2_00039 | 04/11/18 | | Restek, Lot A0123880 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG2_00050 | 07/31/18 | | Restek, Lot A0120604 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL2_00008 | 04/11/18 | Restek, Lot A0123771 | | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNU8260LCS2_00164** | 11/22/17 | 11/15/17 | Methanol, Lot 4415769 | 10 mL | VMA158260GAS2_00215 | 200 uL | Bromomethane | 50 ppm |
| | | | | | | | Chloroethane | 50 ppm |
| | | | | | | | Chloromethane | 50 ppm |
| | | | | | | | Dichlorodifluoromethane | 50 ppm |
| | | | | | | | Trichlorofluoromethane | 50 ppm |
| | | | | | | | Vinyl chloride | 50 ppm |
| | | | | | VMA158260KET2_00040 | 40 uL | 2-Butanone (MEK) | 50 ppm |
| | | | | | | | 2-Hexanone | 50 ppm |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ppm |
| | | | | | | | Acetone | 50 ppm |
| | | | | | VMA158260MEG2_00051 | 200 uL | 1,1,1,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,1-Trichloroethane | 50 ppm |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,2-Trichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethene | 50 ppm |
| | | | | | | | 1,1-Dichloropropene | 50 ppm |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,3-Trichloropropane | 50 ppm |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ppm |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ppm |
| | | | | | | | 1,2-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,2-Dichloroethane | 50 ppm |
| | | | | | | | 1,2-Dichloropropane | 50 ppm |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,3-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,3-Dichloropropane | 50 ppm |
| | | | | | | | 1,4-Dichlorobenzene | 50 ppm |
| | | | | | | | 2,2-Dichloropropane | 50 ppm |
| | | | | | | | 2-Chlorotoluene | 50 ppm |
| | | | | | | | 4-Chlorotoluene | 50 ppm |
| | | | | | | | Benzene | 50 ppm |
| | | | | | | | Bromobenzene | 50 ppm |
| | | | | | | | Bromochloromethane | 50 ppm |
| | | | | | | | Bromodichloromethane | 50 ppm |
| | | | | | | | Bromoform | 50 ppm |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Carbon tetrachloride | 50 ppm |
| | | | | | | | Chlorobenzene | 50 ppm |
| | | | | | | | Chloroform | 50 ppm |
| | | | | | | | cis-1,2-Dichloroethene | 50 ppm |
| | | | | | | | cis-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Dibromochloromethane | 50 ppm |
| | | | | | | | Dibromomethane | 50 ppm |
| | | | | | | | Ethylbenzene | 50 ppm |
| | | | | | | | Hexachlorobutadiene | 50 ppm |
| | | | | | | | Isopropylbenzene | 50 ppm |
| | | | | | | | m,p-Xylene | 50 ppm |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ppm |
| | | | | | | | Methylene Chloride | 50 ppm |
| | | | | | | | n-Butylbenzene | 50 ppm |
| | | | | | | | N-Propylbenzene | 50 ppm |
| | | | | | | | Naphthalene | 50 ppm |
| | | | | | | | o-Xylene | 50 ppm |
| | | | | | | | p-Isopropyltoluene | 50 ppm |
| | | | | | | | sec-Butylbenzene | 50 ppm |
| | | | | | | | Styrene | 50 ppm |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ppm |
| | | | | | | | tert-Butylbenzene | 50 ppm |
| | | | | | | | Tetrachloroethene | 50 ppm |
| | | | | | | | Toluene | 50 ppm |
| | | | | | | | trans-1,2-Dichloroethene | 50 ppm |
| | | | | | | | trans-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Trichloroethene | 50 ppm |
| | | | | | VMA178260POL2_00009 | 200 uL | Ethyl-t-butyl ether (ETBE) | 50 ppm |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ppm |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ppm |
| .VMA158260GAS2_00215 | 05/15/18 | | Restek, Lot A0128832 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET2_00040 | 05/08/18 | | Restek, Lot A0123880 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG2_00051 | 05/08/18 | | Restek, Lot A0120604 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL2_00009 | 05/08/18 | | Restek, Lot A0123771 | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNUSURR200_00164** | 11/30/17 | 10/31/17 | Methanol, Lot 4415767 | 1 mL | VMANU8260SUR1_00063 | 80 uL | 1,2-Dichloroethane-d4 (Surr) | 200 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 200 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 200 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 200 ug/mL |
| .VMANU8260SUR1_00063 | 04/30/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNUSURR50_00164** | 11/30/17 | 10/31/17 | Methanol, Lot 4415767 | 1 mL | VMANU8260SUR1_00063 | 20 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR1_00063 | 04/30/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **WC3001ICV_00034** | 12/31/17 | 06/14/17 | Di Water, Lot 20170614 | 100 mL | WC2CHLORATE_00004 | 0.4 mL | Chlorate | 4.004 mg/L |
| | | | | | WC2CHLORITE_00018 | 0.4 mL | Chlorite | 4 mg/L |
| .WC2CHLORATE_00004 | 11/30/20 | | Ultra Scientific, Lot CP-5286 | | (Purchased Reagent) | | Chlorate | 1001 mg/L |
| .WC2CHLORITE_00018 | 12/31/17 | | Ultra Scientific, Lot CR-2105 | | (Purchased Reagent) | | Chlorite | 1000 mg/L |
| **WC3001ICV_00035** | 12/31/17 | 11/14/17 | Di Water, Lot 20171114 | 100 mL | WC2CHLORATE_00004 | 0.4 mL | Chlorate | 4.004 mg/L |
| .WC2CHLORATE_00004 | 11/30/20 | | Ultra Scientific, Lot CP-5286 | | (Purchased Reagent) | | Chlorate | 1001 mg/L |
| **WC3001LCS_00049** | 12/08/17 | 08/08/17 | Di Water, Lot 20170808 | 100 mL | WC1BROMATE_00008 | 0.1 mL | Bromate | 1 mg/L |
| | | | | | WC1CHLORATE_00009 | 0.4 mL | Chlorate | 4 mg/L |
| | | | | | WC1CHLORITE_00007 | 0.4 mL | Chlorite | 4 mg/L |
| | | | | | wcbromide_00013 | 0.1 mL | Bromide | 10 mg/L |
| .WC1BROMATE_00008 | 01/01/19 | | O2Si, Lot 131599-4 | | (Purchased Reagent) | | Bromate | 1000 mg/L |
| .WC1CHLORATE_00009 | 01/01/19 | | O2Si, Lot 142627-2 | | (Purchased Reagent) | | Chlorate | 1000 mg/L |
| .WC1CHLORITE_00007 | 01/01/19 | | O2Si, Lot 119590-5 | | (Purchased Reagent) | | Chlorite | 1000 mg/L |
| .wcbromide_00013 | 12/08/17 | | high purity, Lot 1615819 | | (Purchased Reagent) | | Bromide | 10000 ug/mL |
| **WC3001LCS_00054** | 12/08/17 | 09/13/17 | Di Water, Lot 20170913 | 100 mL | WC1CHLORITE_00007 | 0.4 mL | Chlorite | 4 mg/L |
| .WC1CHLORITE_00007 | 01/01/19 | | O2Si, Lot 119590-5 | | (Purchased Reagent) | | Chlorite | 1000 mg/L |
| **WC3001LCS_00055** | 12/08/17 | 11/02/17 | Di Water, Lot 20171102 | 100 mL | WC1CHLORATE_00009 | 0.4 mL | Chlorate | 4 mg/L |
| | | | | | WC1CHLORITE_00007 | 0.4 mL | Chlorite | 4 mg/L |
| .WC1CHLORATE_00009 | 01/01/19 | | O2Si, Lot 142627-2 | | (Purchased Reagent) | | Chlorate | 1000 mg/L |
| .WC1CHLORITE_00007 | 01/01/19 | | O2Si, Lot 119590-5 | | (Purchased Reagent) | | Chlorite | 1000 mg/L |
| **WC3001LCS_00057** | 12/08/17 | 11/14/17 | Di Water, Lot 20171114 | 100 mL | WC1BROMATE_00008 | 0.1 mL | Bromate | 1 mg/L |
| | | | | | WC1CHLORATE_00009 | 0.4 mL | Chlorate | 4 mg/L |
| | | | | | wcbromide_00013 | 0.1 mL | Bromide | 10 mg/L |
| .WC1BROMATE_00008 | 01/01/19 | | O2Si, Lot 131599-4 | | (Purchased Reagent) | | Bromate | 1000 mg/L |
| .WC1CHLORATE_00009 | 01/01/19 | | O2Si, Lot 142627-2 | | (Purchased Reagent) | | Chlorate | 1000 mg/L |
| .wcbromide_00013 | 12/08/17 | | high purity, Lot 1615819 | | (Purchased Reagent) | | Bromide | 10000 ug/mL |
| **WC314.INF_00274** | 11/28/17 | 11/27/17 | DI water, Lot 20171127 | 50 mL | WCCLO41st-10_00011 | 0.125 mL | Perchlorate | 25 ppb |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .WCCLO41st-10_00011 | 12/10/17 | 09/10/17 | Di Water, Lot 09/10/17 | 100 mg/L | WCCLO4-1st_00002 | 1 mg/L | Perchlorate | 10 mg/L |
| ..WCCLO4-1st_00002 | 01/30/18 | | SPEX CERTIPREP, Lot 3-149CLO4-2Y | | (Purchased Reagent) | | Perchlorate | 1000 mg/L |
| **WC314.INF_00275** | 11/29/17 | 11/28/17 | DI water, Lot 20171128 | 50 mL | WCCLO41st-10_00011 | 0.125 mL | Perchlorate | 25 ppb |
| .WCCLO41st-10_00011 | 12/10/17 | 09/10/17 | Di Water, Lot 09/10/17 | 100 mg/L | WCCLO4-1st_00002 | 1 mg/L | Perchlorate | 10 mg/L |
| ..WCCLO4-1st_00002 | 01/30/18 | | SPEX CERTIPREP, Lot 3-149CLO4-2Y | | (Purchased Reagent) | | Perchlorate | 1000 mg/L |
| **WCCLO41st-10_00011** | 12/10/17 | 09/10/17 | Di Water, Lot 09/10/17 | 100 mg/L | WCCLO4-1st_00002 | 1 mg/L | Perchlorate | 10 mg/L |
| .WCCLO4-1st_00002 | 01/30/18 | | SPEX CERTIPREP, Lot 3-149CLO4-2Y | | (Purchased Reagent) | | Perchlorate | 1000 mg/L |
| **WCCLO4ICV10_00028** | 12/10/17 | 09/10/17 | Di Water, Lot 09/10/2017 | 100 mL | WCCLO4ICV_00015 | 1 mL | Perchlorate | 10.0002 mg/L |
| .WCCLO4ICV_00015 | 12/10/17 | 09/10/17 | Di Water, Lot 09/10/2017 | 250 mL | WCCLO4ICVSOLI_00002 | 0.3078 g | Perchlorate | 1000.02 mg/L |
| ..WCCLO4ICVSOLI_00002 | 06/01/22 | | SPECTRUM, Lot 2FH0070 | | (Purchased Reagent) | | Perchlorate | 0.81223 g/g |
| **WCCR6ICV5PPM_00048** | 07/07/17 | 06/07/17 | Di Water, Lot 20170607 | 50 mL | WCCR6ICV_00020 | 5 mL | Chromium, hexavalent | 4.99849 mg/L |
| .WCCR6ICV_00020 | 09/23/17 | 03/23/17 | Di Water, Lot 20170323 | 1000 mL | WCK2CR2O7_00003 | 0.1414 g | Chromium, hexavalent | 49.9849 mg/L |
| ..WCK2CR2O7_00003 | 03/22/22 | | FISHER, Lot 166724 | | (Purchased Reagent) | | Chromium, hexavalent | 0.3535 g/g |
| **WCCR6LCS5PPM_00094** | 07/05/17 | 06/05/17 | Di Water, Lot 20170605 | 50 mL | WCCR6LCS50PPM_00037 | 5 mL | Chromium, hexavalent | 5 mg/L |
| .WCCR6LCS50PPM_00037 | 12/03/17 | 06/05/17 | Di Water, Lot 20170605 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| ..WCCr6 K2Cr2O4_00009 | 04/30/19 | | ERA, Lot 040416 | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCCR6LCS5PPM_00099** | 11/23/17 | 10/23/17 | Di Water, Lot 20171023 | 50 mL | WCCR6LCS50PPM_00037 | 5 mL | Chromium, hexavalent | 5 mg/L |
| .WCCR6LCS50PPM_00037 | 12/03/17 | 06/05/17 | Di Water, Lot 20170605 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| ..WCCr6 K2Cr2O4_00009 | 04/30/19 | | ERA, Lot 040416 | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCDCA_00046** | 11/12/17 | 08/12/17 | Di Water, Lot 20170812 | 100 mL | WCKDCA_00003 | 0.065 g | Dichloroacetic acid(Surr) | 496.855 mg/L |
| .WCKDCA_00003 | 02/28/20 | | Aldrich, Lot MKBR8264V | | (Purchased Reagent) | | Dichloroacetic acid(Surr) | 0.764393 g/g |
| **WCDCA_00048** | 12/13/17 | 09/13/17 | Di Water, Lot 20170913 | 100 mL | WCKDCA_00003 | 0.065 g | Dichloroacetic acid(Surr) | 496.855 mg/L |
| .WCKDCA_00003 | 02/28/20 | | Aldrich, Lot MKBR8264V | | (Purchased Reagent) | | Dichloroacetic acid(Surr) | 0.764393 g/g |
| **WCDCA_00052** | 01/30/18 | 10/30/17 | Di Water, Lot 20171030 | 100 mL | WCKDCA_00003 | 0.065 g | Dichloroacetic acid(Surr) | 496.855 mg/L |
| .WCKDCA_00003 | 02/28/20 | | Aldrich, Lot MKBR8264V | | (Purchased Reagent) | | Dichloroacetic acid(Surr) | 0.764393 g/g |
| **WCDCA_00053** | 02/12/18 | 11/12/17 | Di Water, Lot 20171112 | 100 mL | WCKDCA_00003 | 0.065 g | Dichloroacetic acid(Surr) | 496.855 mg/L |
| .WCKDCA_00003 | 02/28/20 | | Aldrich, Lot MKBR8264V | | (Purchased Reagent) | | Dichloroacetic acid(Surr) | 0.764393 g/g |
| **WCDCA_00054** | 02/14/18 | 11/14/17 | Di Water, Lot 20171114 | 100 mL | WCKDCA_00003 | 0.065 g | Dichloroacetic acid(Surr) | 496.855 mg/L |
| .WCKDCA_00003 | 02/28/20 | | Aldrich, Lot MKBR8264V | | (Purchased Reagent) | | Dichloroacetic acid(Surr) | 0.764393 g/g |

# Method 8260B Low Level

## Volatile Organic Compounds (GC/MS) by Method 8260B Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-VRX C ID: 0.25(mm)

| Client Sample ID | Lab Sample ID | DBFM # | TOL # | BFB # |
|---|---|---|---|---|
| Trip Blank | 440-196039-1 | 100 | 101 | 101 |
| VER-01I-20171108 | 440-196039-2 | 104 | 100 | 100 |
| VMW-02D-20171108 | 440-196039-3 | 99 | 103 | 104 |
| VMW-02I-20171108 | 440-196039-4 | 105 | 104 | 100 |
| VMW-02I-20171108-EB | 440-196039-5 | 104 | 104 | 102 |
| | MB 440-442464/3 | 97 | 105 | 102 |
| | LCS 440-442464/4 | 102 | 99 | 102 |
| | 440-196038-A-2 MS | 97 | 97 | 101 |
| | 440-196038-A-2 MSD | 101 | 99 | 97 |

| | QC LIMITS |
|---|---|
| DBFM = Dibromofluoromethane (Surr) | 76-132 |
| TOL = Toluene-d8 (Surr) | 80-128 |
| BFB = 4-Bromofluorobenzene (Surr) | 80-120 |

# Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: NFK20004.D

Lab ID: LCS 440-442464/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Acetone | 25.0 | 27.3 | 109 | 10-150 | |
| Benzene | 25.0 | 25.2 | 101 | 68-130 | |
| Bromobenzene | 25.0 | 23.9 | 95 | 70-130 | |
| Bromochloromethane | 25.0 | 24.6 | 99 | 70-130 | |
| Bromodichloromethane | 25.0 | 26.5 | 106 | 70-132 | |
| Bromoform | 25.0 | 23.8 | 95 | 60-148 | |
| Bromomethane | 25.0 | 24.5 | 98 | 64-139 | |
| 2-Butanone (MEK) | 25.0 | 29.5 | 118 | 44-150 | |
| Carbon tetrachloride | 25.0 | 25.3 | 101 | 60-150 | |
| Chlorobenzene | 25.0 | 24.4 | 97 | 70-130 | |
| Chloroethane | 25.0 | 24.9 | 100 | 64-135 | |
| Chloroform | 25.0 | 25.5 | 102 | 70-130 | |
| Chloromethane | 25.0 | 23.9 | 96 | 47-140 | |
| 2-Chlorotoluene | 25.0 | 25.0 | 100 | 70-130 | |
| 4-Chlorotoluene | 25.0 | 25.2 | 101 | 70-130 | |
| cis-1,2-Dichloroethene | 25.0 | 25.6 | 103 | 70-133 | |
| cis-1,3-Dichloropropene | 25.0 | 25.9 | 104 | 70-133 | |
| Dibromochloromethane | 25.0 | 26.0 | 104 | 69-145 | |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 27.0 | 108 | 52-140 | |
| 1,2-Dibromoethane (EDB) | 25.0 | 24.2 | 97 | 70-130 | |
| Dibromomethane | 25.0 | 24.6 | 98 | 70-130 | |
| 1,2-Dichlorobenzene | 25.0 | 24.3 | 97 | 70-130 | |
| 1,3-Dichlorobenzene | 25.0 | 23.9 | 95 | 70-130 | |
| 1,4-Dichlorobenzene | 25.0 | 25.0 | 100 | 70-130 | |
| Dichlorodifluoromethane | 25.0 | 22.8 | 91 | 29-150 | |
| 1,1-Dichloroethane | 25.0 | 25.7 | 103 | 64-130 | |
| 1,2-Dichloroethane | 25.0 | 25.7 | 103 | 57-138 | |
| 1,1-Dichloroethene | 25.0 | 22.7 | 91 | 70-130 | |
| 1,2-Dichloropropane | 25.0 | 28.2 | 113 | 67-130 | |
| 1,3-Dichloropropane | 25.0 | 24.3 | 97 | 70-130 | |
| 2,2-Dichloropropane | 25.0 | 26.7 | 107 | 68-141 | |
| 1,1-Dichloropropene | 25.0 | 26.4 | 106 | 70-130 | |
| Ethylbenzene | 25.0 | 24.0 | 96 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 26.8 | 107 | 60-136 | |
| Hexachlorobutadiene | 25.0 | 24.3 | 97 | 10-150 | |
| 2-Hexanone | 25.0 | 27.8 | 111 | 10-150 | |
| Isopropylbenzene | 25.0 | 23.6 | 95 | 70-136 | |
| Isopropyl Ether (DIPE) | 25.0 | 26.9 | 108 | 58-139 | |
| Methylene Chloride | 25.0 | 23.4 | 93 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 28.3 | 113 | 59-149 | |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 26.4 | 106 | 63-131 | |
| m,p-Xylene | 25.0 | 24.4 | 98 | 70-130 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: NFK20004.D

Lab ID: LCS 440-442464/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Naphthalene | 25.0 | 23.1 | 92 | 60-140 | |
| n-Butylbenzene | 25.0 | 24.8 | 99 | 65-150 | |
| N-Propylbenzene | 25.0 | 25.1 | 100 | 67-139 | |
| o-Xylene | 25.0 | 23.8 | 95 | 70-130 | |
| p-Isopropyltoluene | 25.0 | 24.0 | 96 | 70-132 | |
| sec-Butylbenzene | 25.0 | 23.7 | 95 | 70-138 | |
| Styrene | 25.0 | 24.3 | 97 | 70-134 | |
| Tert-amyl-methyl ether (TAME) | 25.0 | 25.9 | 103 | 57-139 | |
| tert-Butyl alcohol (TBA) | 250 | 255 | 102 | 70-130 | |
| tert-Butylbenzene | 25.0 | 24.6 | 98 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 25.0 | 25.4 | 102 | 60-141 | |
| 1,1,2,2-Tetrachloroethane | 25.0 | 26.2 | 105 | 63-130 | |
| Tetrachloroethene | 25.0 | 24.2 | 97 | 70-130 | |
| Toluene | 25.0 | 24.4 | 98 | 70-130 | |
| trans-1,2-Dichloroethene | 25.0 | 25.9 | 104 | 70-130 | |
| trans-1,3-Dichloropropene | 25.0 | 26.2 | 105 | 70-132 | |
| 1,2,3-Trichlorobenzene | 25.0 | 23.8 | 95 | 60-140 | |
| 1,2,4-Trichlorobenzene | 25.0 | 24.6 | 99 | 60-140 | |
| 1,1,1-Trichloroethane | 25.0 | 24.9 | 100 | 70-130 | |
| 1,1,2-Trichloroethane | 25.0 | 25.8 | 103 | 70-130 | |
| Trichloroethene | 25.0 | 24.9 | 100 | 70-130 | |
| Trichlorofluoromethane | 25.0 | 24.9 | 100 | 60-150 | |
| 1,2,3-Trichloropropane | 25.0 | 25.8 | 103 | 63-130 | |
| 1,2,4-Trimethylbenzene | 25.0 | 24.5 | 98 | 70-135 | |
| 1,3,5-Trimethylbenzene | 25.0 | 24.7 | 99 | 70-136 | |
| Vinyl chloride | 25.0 | 24.4 | 98 | 59-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: NFK20007.D

Lab ID: 440-196038-A-2 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Acetone | 25.0 | ND | 25.2 | 101 | 10-150 | |
| Benzene | 25.0 | ND | 27.1 | 109 | 66-130 | |
| Bromobenzene | 25.0 | ND | 25.9 | 104 | 70-130 | |
| Bromochloromethane | 25.0 | ND | 25.8 | 103 | 70-130 | |
| Bromodichloromethane | 25.0 | ND | 26.5 | 106 | 70-138 | |
| Bromoform | 25.0 | ND | 23.9 | 95 | 59-150 | |
| Bromomethane | 25.0 | ND | 28.5 | 114 | 62-131 | |
| 2-Butanone (MEK) | 25.0 | ND | 23.9 | 96 | 48-140 | |
| Carbon tetrachloride | 25.0 | ND | 27.5 | 110 | 60-150 | |
| Chlorobenzene | 25.0 | ND | 26.4 | 105 | 70-130 | |
| Chloroethane | 25.0 | ND | 28.9 | 115 | 68-130 | |
| Chloroform | 25.0 | ND | 27.2 | 109 | 70-130 | |
| Chloromethane | 25.0 | ND | 26.4 | 106 | 39-144 | |
| 2-Chlorotoluene | 25.0 | ND | 27.3 | 109 | 70-130 | |
| 4-Chlorotoluene | 25.0 | ND | 27.1 | 108 | 70-130 | |
| cis-1,2-Dichloroethene | 25.0 | ND | 27.2 | 109 | 70-130 | |
| cis-1,3-Dichloropropene | 25.0 | ND | 27.2 | 109 | 70-133 | |
| Dibromochloromethane | 25.0 | ND | 27.9 | 112 | 70-148 | |
| 1,2-Dibromo-3-Chloropropane | 25.0 | ND | 27.7 | 111 | 48-140 | |
| 1,2-Dibromoethane (EDB) | 25.0 | ND | 25.5 | 102 | 70-131 | |
| Dibromomethane | 25.0 | ND | 25.2 | 101 | 70-130 | |
| 1,2-Dichlorobenzene | 25.0 | ND | 26.3 | 105 | 70-130 | |
| 1,3-Dichlorobenzene | 25.0 | ND | 25.7 | 103 | 70-130 | |
| 1,4-Dichlorobenzene | 25.0 | ND | 27.2 | 109 | 70-130 | |
| Dichlorodifluoromethane | 25.0 | ND | 23.7 | 95 | 25-142 | |
| 1,1-Dichloroethane | 25.0 | ND | 27.5 | 110 | 65-130 | |
| 1,2-Dichloroethane | 25.0 | ND | 27.3 | 109 | 56-146 | |
| 1,1-Dichloroethene | 25.0 | ND | 25.0 | 100 | 70-130 | |
| 1,2-Dichloropropane | 25.0 | ND | 29.1 | 116 | 69-130 | |
| 1,3-Dichloropropane | 25.0 | ND | 24.9 | 99 | 70-130 | |
| 2,2-Dichloropropane | 25.0 | ND | 29.7 | 119 | 69-138 | |
| 1,1-Dichloropropene | 25.0 | ND | 28.9 | 116 | 64-130 | |
| Ethylbenzene | 25.0 | ND | 26.2 | 105 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 25.0 | ND | 26.5 | 106 | 70-130 | |
| Hexachlorobutadiene | 25.0 | ND | 27.5 | 110 | 10-150 | |
| 2-Hexanone | 25.0 | ND | 25.1 | 101 | 10-150 | |
| Isopropylbenzene | 25.0 | ND | 26.1 | 104 | 70-132 | |
| Isopropyl Ether (DIPE) | 25.0 | ND | 28.0 | 112 | 64-138 | |
| Methylene Chloride | 25.0 | ND | 25.9 | 104 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | ND | 26.7 | 107 | 52-150 | |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | ND | 27.1 | 108 | 70-130 | |
| m,p-Xylene | 25.0 | ND | 26.6 | 106 | 70-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: NFK20007.D

Lab ID: 440-196038-A-2 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Naphthalene | 25.0 | ND | 24.0 | 96 | 60-140 | |
| n-Butylbenzene | 25.0 | ND | 27.2 | 109 | 61-149 | |
| N-Propylbenzene | 25.0 | ND | 27.6 | 111 | 66-135 | |
| o-Xylene | 25.0 | ND | 26.4 | 105 | 70-133 | |
| p-Isopropyltoluene | 25.0 | ND | 26.6 | 106 | 70-130 | |
| sec-Butylbenzene | 25.0 | ND | 26.4 | 106 | 67-134 | |
| Styrene | 25.0 | ND | 26.1 | 105 | 29-150 | |
| Tert-amyl-methyl ether (TAME) | 25.0 | ND | 25.7 | 103 | 68-133 | |
| tert-Butyl alcohol (TBA) | 250 | ND | 272 | 109 | 70-130 | |
| tert-Butylbenzene | 25.0 | ND | 26.8 | 107 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 25.0 | ND | 25.8 | 103 | 60-149 | |
| 1,1,2,2-Tetrachloroethane | 25.0 | ND | 27.4 | 109 | 63-130 | |
| Tetrachloroethene | 25.0 | ND | 26.4 | 106 | 70-137 | |
| Toluene | 25.0 | ND | 26.3 | 105 | 70-130 | |
| trans-1,2-Dichloroethene | 25.0 | ND | 27.9 | 112 | 70-130 | |
| trans-1,3-Dichloropropene | 25.0 | ND | 27.5 | 110 | 70-138 | |
| 1,2,3-Trichlorobenzene | 25.0 | ND | 25.9 | 104 | 60-140 | |
| 1,2,4-Trichlorobenzene | 25.0 | ND | 25.8 | 103 | 60-140 | |
| 1,1,1-Trichloroethane | 25.0 | ND | 26.9 | 108 | 70-130 | |
| 1,1,2-Trichloroethane | 25.0 | ND | 27.1 | 108 | 70-130 | |
| Trichloroethene | 25.0 | ND | 26.2 | 105 | 70-130 | |
| Trichlorofluoromethane | 25.0 | ND | 27.5 | 110 | 60-150 | |
| 1,2,3-Trichloropropane | 25.0 | ND | 24.3 | 97 | 60-130 | |
| 1,2,4-Trimethylbenzene | 25.0 | ND | 26.5 | 106 | 70-130 | |
| 1,3,5-Trimethylbenzene | 25.0 | ND | 26.3 | 105 | 70-130 | |
| Vinyl chloride | 25.0 | ND | 27.1 | 108 | 50-137 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: NFK20008.D

Lab ID: 440-196038-A-2 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Acetone | 25.0 | 25.4 | 102 | 1 | 35 | 10-150 | |
| Benzene | 25.0 | 27.1 | 109 | 0 | 20 | 66-130 | |
| Bromobenzene | 25.0 | 25.3 | 101 | 2 | 20 | 70-130 | |
| Bromochloromethane | 25.0 | 24.9 | 99 | 4 | 25 | 70-130 | |
| Bromodichloromethane | 25.0 | 27.1 | 109 | 2 | 20 | 70-138 | |
| Bromoform | 25.0 | 23.3 | 93 | 3 | 25 | 59-150 | |
| Bromomethane | 25.0 | 27.9 | 112 | 2 | 25 | 62-131 | |
| 2-Butanone (MEK) | 25.0 | 25.1 | 100 | 5 | 40 | 48-140 | |
| Carbon tetrachloride | 25.0 | 27.6 | 110 | 0 | 25 | 60-150 | |
| Chlorobenzene | 25.0 | 25.6 | 102 | 3 | 20 | 70-130 | |
| Chloroethane | 25.0 | 28.0 | 112 | 3 | 25 | 68-130 | |
| Chloroform | 25.0 | 27.6 | 110 | 1 | 20 | 70-130 | |
| Chloromethane | 25.0 | 24.9 | 100 | 6 | 25 | 39-144 | |
| 2-Chlorotoluene | 25.0 | 26.5 | 106 | 3 | 20 | 70-130 | |
| 4-Chlorotoluene | 25.0 | 26.7 | 107 | 1 | 20 | 70-130 | |
| cis-1,2-Dichloroethene | 25.0 | 27.8 | 111 | 2 | 20 | 70-130 | |
| cis-1,3-Dichloropropene | 25.0 | 27.5 | 110 | 1 | 20 | 70-133 | |
| Dibromochloromethane | 25.0 | 26.4 | 106 | 6 | 25 | 70-148 | |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 24.8 | 99 | 11 | 30 | 48-140 | |
| 1,2-Dibromoethane (EDB) | 25.0 | 24.8 | 99 | 3 | 25 | 70-131 | |
| Dibromomethane | 25.0 | 25.6 | 103 | 2 | 25 | 70-130 | |
| 1,2-Dichlorobenzene | 25.0 | 26.5 | 106 | 1 | 20 | 70-130 | |
| 1,3-Dichlorobenzene | 25.0 | 25.3 | 101 | 2 | 20 | 70-130 | |
| 1,4-Dichlorobenzene | 25.0 | 26.1 | 104 | 4 | 20 | 70-130 | |
| Dichlorodifluoromethane | 25.0 | 24.0 | 96 | 2 | 30 | 25-142 | |
| 1,1-Dichloroethane | 25.0 | 27.9 | 112 | 2 | 20 | 65-130 | |
| 1,2-Dichloroethane | 25.0 | 26.8 | 107 | 2 | 20 | 56-146 | |
| 1,1-Dichloroethene | 25.0 | 25.5 | 102 | 2 | 20 | 70-130 | |
| 1,2-Dichloropropane | 25.0 | 28.8 | 115 | 1 | 20 | 69-130 | |
| 1,3-Dichloropropane | 25.0 | 24.7 | 99 | 1 | 25 | 70-130 | |
| 2,2-Dichloropropane | 25.0 | 29.1 | 116 | 2 | 25 | 69-138 | |
| 1,1-Dichloropropene | 25.0 | 29.3 | 117 | 1 | 20 | 64-130 | |
| Ethylbenzene | 25.0 | 25.5 | 102 | 3 | 20 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 27.3 | 109 | 3 | 25 | 70-130 | |
| Hexachlorobutadiene | 25.0 | 26.3 | 105 | 4 | 20 | 10-150 | |
| 2-Hexanone | 25.0 | 25.2 | 101 | 0 | 35 | 10-150 | |
| Isopropylbenzene | 25.0 | 25.5 | 102 | 2 | 20 | 70-132 | |
| Isopropyl Ether (DIPE) | 25.0 | 28.3 | 113 | 1 | 25 | 64-138 | |
| Methylene Chloride | 25.0 | 24.8 | 99 | 5 | 20 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 25.9 | 103 | 3 | 35 | 52-150 | |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 27.0 | 108 | 0 | 25 | 70-130 | |
| m,p-Xylene | 25.0 | 26.1 | 104 | 2 | 25 | 70-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: NFK20008.D

Lab ID: 440-196038-A-2 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Naphthalene | 25.0 | 23.5 | 94 | 2 | 30 | 60-140 | |
| n-Butylbenzene | 25.0 | 26.4 | 105 | 3 | 20 | 61-149 | |
| N-Propylbenzene | 25.0 | 26.9 | 108 | 3 | 20 | 66-135 | |
| o-Xylene | 25.0 | 25.7 | 103 | 2 | 20 | 70-133 | |
| p-Isopropyltoluene | 25.0 | 26.2 | 105 | 1 | 20 | 70-130 | |
| sec-Butylbenzene | 25.0 | 25.7 | 103 | 3 | 20 | 67-134 | |
| Styrene | 25.0 | 25.3 | 101 | 3 | 35 | 29-150 | |
| Tert-amyl-methyl ether (TAME) | 25.0 | 26.1 | 105 | 2 | 30 | 68-133 | |
| tert-Butyl alcohol (TBA) | 250 | 284 | 114 | 4 | 25 | 70-130 | |
| tert-Butylbenzene | 25.0 | 25.7 | 103 | 4 | 20 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 25.0 | 26.0 | 104 | 1 | 20 | 60-149 | |
| 1,1,2,2-Tetrachloroethane | 25.0 | 27.2 | 109 | 0 | 30 | 63-130 | |
| Tetrachloroethene | 25.0 | 26.4 | 105 | 0 | 20 | 70-137 | |
| Toluene | 25.0 | 26.0 | 104 | 1 | 20 | 70-130 | |
| trans-1,2-Dichloroethene | 25.0 | 28.8 | 115 | 3 | 20 | 70-130 | |
| trans-1,3-Dichloropropene | 25.0 | 26.9 | 108 | 2 | 25 | 70-138 | |
| 1,2,3-Trichlorobenzene | 25.0 | 25.3 | 101 | 2 | 20 | 60-140 | |
| 1,2,4-Trichlorobenzene | 25.0 | 25.2 | 101 | 3 | 20 | 60-140 | |
| 1,1,1-Trichloroethane | 25.0 | 26.6 | 106 | 1 | 20 | 70-130 | |
| 1,1,2-Trichloroethane | 25.0 | 26.3 | 105 | 3 | 25 | 70-130 | |
| Trichloroethene | 25.0 | 26.3 | 105 | 0 | 20 | 70-130 | |
| Trichlorofluoromethane | 25.0 | 27.5 | 110 | 0 | 25 | 60-150 | |
| 1,2,3-Trichloropropane | 25.0 | 26.1 | 105 | 7 | 30 | 60-130 | |
| 1,2,4-Trimethylbenzene | 25.0 | 25.9 | 104 | 2 | 25 | 70-130 | |
| 1,3,5-Trimethylbenzene | 25.0 | 25.8 | 103 | 2 | 20 | 70-130 | |
| Vinyl chloride | 25.0 | 27.3 | 109 | 1 | 30 | 50-137 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab File ID: NFK20003.D Lab Sample ID: MB 440-442464/3

Matrix: Water Heated Purge:(Y/N) Y

Instrument ID: GCMS31 Date Analyzed: 11/20/2017 08:39

GC Column: DB-VRX C ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 440-442464/4 | NFK20004.D | 11/20/2017 09:07 |
| | 440-196038-A-2 MS | NFK20007.D | 11/20/2017 10:22 |
| | 440-196038-A-2 MSD | NFK20008.D | 11/20/2017 10:50 |
| Trip Blank | 440-196039-1 | NFK20017.D | 11/20/2017 15:04 |
| VER-01I-20171108 | 440-196039-2 | NFK20021.D | 11/20/2017 16:57 |
| VMW-02D-20171108 | 440-196039-3 | NFK20022.D | 11/20/2017 17:25 |
| VMW-02I-20171108 | 440-196039-4 | NFK20023.D | 11/20/2017 17:53 |
| VMW-02I-20171108-EB | 440-196039-5 | NFK20024.D | 11/20/2017 18:21 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab File ID: NFK0301.D BFB Injection Date: 11/03/2017

Instrument ID: GCMS31 BFB Injection Time: 14:24

Analysis Batch No.: 439348

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 19.0 | |
| 75 | 30.0 - 60.0 % of mass 95 | 50.9 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 6.8 | |
| 173 | Less than 2.0 % of mass 174 | 0.0 | (0.0) 1 |
| 174 | 50.0 - 120.00 % of mass 95 | 90.2 | |
| 175 | 5.0 - 9.0 % of mass 174 | 6.9 | (7.6) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 85.9 | (95.3) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 6.2 | (7.2) 2 |

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | STD02 440-439348/4 | NFK0304.D | 11/03/2017 | 15:52 |
| | STD04 440-439348/5 | NFK0305.D | 11/03/2017 | 16:20 |
| | STD05 440-439348/6 | NFK0306.D | 11/03/2017 | 16:48 |
| | STD1 440-439348/7 | NFK0307.D | 11/03/2017 | 17:16 |
| | STD2 440-439348/8 | NFK0308.D | 11/03/2017 | 17:44 |
| | STD5 440-439348/9 | NFK0309.D | 11/03/2017 | 18:12 |
| | STD10 440-439348/10 | NFK0310.D | 11/03/2017 | 18:40 |
| | ICIS 440-439348/11 | NFK0311.D | 11/03/2017 | 19:08 |
| | STD50 440-439348/12 | NFK0312.D | 11/03/2017 | 19:36 |
| | STD100 440-439348/13 | NFK0313.D | 11/03/2017 | 20:05 |
| | STD200 440-439348/14 | NFK0314.D | 11/03/2017 | 20:33 |
| | STD300 440-439348/15 | NFK0315.D | 11/03/2017 | 21:01 |
| | ICV 440-439348/18 | NFK0318.D | 11/03/2017 | 22:25 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Lab File ID: NFK02005.D  BFB Injection Date: 11/20/2017

Instrument ID: GCMS31  BFB Injection Time: 07:09

Analysis Batch No.: 442464

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 20.7 | |
| 75 | 30.0 - 60.0 % of mass 95 | 51.0 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 6.6 | |
| 173 | Less than 2.0 % of mass 174 | 0.0 | (0.0) 1 |
| 174 | 50.0 - 120.00 % of mass 95 | 92.7 | |
| 175 | 5.0 - 9.0 % of mass 174 | 7.3 | (7.9) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 89.8 | (96.8) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 5.9 | (6.6) 2 |

1-Value is % mass 174  2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | CCVIS 440-442464/2 | NFK20002.D | 11/20/2017 | 07:40 |
| | MB 440-442464/3 | NFK20003.D | 11/20/2017 | 08:39 |
| | LCS 440-442464/4 | NFK20004.D | 11/20/2017 | 09:07 |
| | 440-196038-A-2 MS | NFK20007.D | 11/20/2017 | 10:22 |
| | 440-196038-A-2 MSD | NFK20008.D | 11/20/2017 | 10:50 |
| Trip Blank | 440-196039-1 | NFK20017.D | 11/20/2017 | 15:04 |
| VER-01I-20171108 | 440-196039-2 | NFK20021.D | 11/20/2017 | 16:57 |
| VMW-02D-20171108 | 440-196039-3 | NFK20022.D | 11/20/2017 | 17:25 |
| VMW-02I-20171108 | 440-196039-4 | NFK20023.D | 11/20/2017 | 17:53 |
| VMW-02I-20171108-EB | 440-196039-5 | NFK20024.D | 11/20/2017 | 18:21 |

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Sample No.: ICIS 440-439348/11 Date Analyzed: 11/03/2017 19:08

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm)

Lab File ID (Standard): NFK0311.D Heated Purge: (Y/N) Y

Calibration ID: 17891

| | | TBAd9 | | FB | | CBNZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 203009 | 4.99 | 628160 | 7.87 | 555422 | 10.62 |
| UPPER LIMIT | | 406018 | 5.29 | 1256320 | 8.17 | 1110844 | 10.92 |
| LOWER LIMIT | | 101505 | 4.69 | 314080 | 7.57 | 277711 | 10.32 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 440-439348/18 | | 187660 | 4.99 | 605609 | 7.87 | 534302 | 10.62 |
| CCVIS 440-442464/2 | | 182911 | 4.99 | 531665 | 7.87 | 448115 | 10.62 |

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Sample No.: ICIS 440-439348/11 Date Analyzed: 11/03/2017 19:08

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm)

Lab File ID (Standard): NFK0311.D Heated Purge: (Y/N) Y

Calibration ID: 17891

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 292028 | 13.07 | | | | |
| UPPER LIMIT | | 584056 | 13.37 | | | | |
| LOWER LIMIT | | 146014 | 12.77 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 440-439348/18 | | 278906 | 13.07 | | | | |
| CCVIS 440-442464/2 | | 233171 | 13.07 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Sample No.: CCVIS 440-442464/2 Date Analyzed: 11/20/2017 07:40

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm)

Lab File ID (Standard): NFK20002.D Heated Purge: (Y/N) Y

Calibration ID: 17891

| | | TBAd9 | | FB | | CBNZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 182911 | 4.99 | 531665 | 7.87 | 448115 | 10.62 |
| UPPER LIMIT | | 365822 | 5.29 | 1063330 | 8.17 | 896230 | 10.92 |
| LOWER LIMIT | | 91456 | 4.69 | 265833 | 7.57 | 224058 | 10.32 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 440-442464/3 | | 175673 | 4.98 | 486984 | 7.87 | 402370 | 10.62 |
| LCS 440-442464/4 | | 169152 | 4.99 | 518644 | 7.87 | 455570 | 10.62 |
| 440-196038-A-2 MS | | 142201 | 4.99 | 491544 | 7.87 | 425568 | 10.62 |
| 440-196038-A-2 MSD | | 127847 | 4.99 | 481558 | 7.87 | 421129 | 10.62 |
| 440-196039-1 | Trip Blank | 171216 | 4.98 | 464499 | 7.87 | 402922 | 10.62 |
| 440-196039-2 | VER-01I-20171108 | 174688 | 4.99 | 445680 | 7.87 | 386135 | 10.62 |
| 440-196039-3 | VMW-02D-20171108 | 171479 | 4.99 | 442751 | 7.87 | 375469 | 10.62 |
| 440-196039-4 | VMW-02I-20171108 | 156366 | 4.99 | 430819 | 7.87 | 370442 | 10.62 |
| 440-196039-5 | VMW-02I-20171108-EB | 162353 | 4.98 | 444279 | 7.87 | 381574 | 10.62 |

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Sample No.: CCVIS 440-442464/2 Date Analyzed: 11/20/2017 07:40

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm)

Lab File ID (Standard): NFK20002.D Heated Purge: (Y/N) Y

Calibration ID: 17891

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 233171 | 13.07 | | | | |
| UPPER LIMIT | | 466342 | 13.37 | | | | |
| LOWER LIMIT | | 116586 | 12.77 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 440-442464/3 | | 214976 | 13.07 | | | | |
| LCS 440-442464/4 | | 239967 | 13.07 | | | | |
| 440-196038-A-2 MS | | 224458 | 13.07 | | | | |
| 440-196038-A-2 MSD | | 224217 | 13.07 | | | | |
| 440-196039-1 | Trip Blank | 210316 | 13.07 | | | | |
| 440-196039-2 | VER-01I-20171108 | 203732 | 13.07 | | | | |
| 440-196039-3 | VMW-02D-20171108 | 191554 | 13.07 | | | | |
| 440-196039-4 | VMW-02I-20171108 | 201150 | 13.07 | | | | |
| 440-196039-5 | VMW-02I-20171108-EB | 196839 | 13.07 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: Trip Blank | Lab Sample ID: 440-196039-1

Matrix: Water | Lab File ID: NFK20017.D

Analysis Method: 8260B | Date Collected: 11/08/2017 07:00

Sample wt/vol: 10(mL) | Date Analyzed: 11/20/2017 15:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442464 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | ND | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: Trip Blank | Lab Sample ID: 440-196039-1

Matrix: Water | Lab File ID: NFK20017.D

Analysis Method: 8260B | Date Collected: 11/08/2017 07:00

Sample wt/vol: 10(mL) | Date Analyzed: 11/20/2017 15:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442464 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Client Sample ID: Trip Blank Lab Sample ID: 440-196039-1

Matrix: Water Lab File ID: NFK20017.D

Analysis Method: 8260B Date Collected: 11/08/2017 07:00

Sample wt/vol: 10(mL) Date Analyzed: 11/20/2017 15:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 442464 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 101 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 101 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VER-01I-20171108 | Lab Sample ID: 440-196039-2

Matrix: Water | Lab File ID: NFK20021.D

Analysis Method: 8260B | Date Collected: 11/08/2017 08:05

Sample wt/vol: 10(mL) | Date Analyzed: 11/20/2017 16:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442464 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 110 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VER-01I-20171108 | Lab Sample ID: 440-196039-2

Matrix: Water | Lab File ID: NFK20021.D

Analysis Method: 8260B | Date Collected: 11/08/2017 08:05

Sample wt/vol: 10(mL) | Date Analyzed: 11/20/2017 16:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442464 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Client Sample ID: VER-01I-20171108 Lab Sample ID: 440-196039-2

Matrix: Water Lab File ID: NFK20021.D

Analysis Method: 8260B Date Collected: 11/08/2017 08:05

Sample wt/vol: 10(mL) Date Analyzed: 11/20/2017 16:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 442464 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 100 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 104 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 100 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02D-20171108 | Lab Sample ID: 440-196039-3

Matrix: Water | Lab File ID: NFK20022.D

Analysis Method: 8260B | Date Collected: 11/08/2017 09:55

Sample wt/vol: 10(mL) | Date Analyzed: 11/20/2017 17:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442464 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 0.45 | J | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02D-20171108 | Lab Sample ID: 440-196039-3

Matrix: Water | Lab File ID: NFK20022.D

Analysis Method: 8260B | Date Collected: 11/08/2017 09:55

Sample wt/vol: 10(mL) | Date Analyzed: 11/20/2017 17:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442464 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02D-20171108 Lab Sample ID: 440-196039-3

Matrix: Water Lab File ID: NFK20022.D

Analysis Method: 8260B Date Collected: 11/08/2017 09:55

Sample wt/vol: 10(mL) Date Analyzed: 11/20/2017 17:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 442464 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 104 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 99 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 103 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02I-20171108 | Lab Sample ID: 440-196039-4

Matrix: Water | Lab File ID: NFK20023.D

Analysis Method: 8260B | Date Collected: 11/08/2017 11:30

Sample wt/vol: 10(mL) | Date Analyzed: 11/20/2017 17:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442464 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 0.31 | J | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 69 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02I-20171108 | Lab Sample ID: 440-196039-4

Matrix: Water | Lab File ID: NFK20023.D

Analysis Method: 8260B | Date Collected: 11/08/2017 11:30

Sample wt/vol: 10(mL) | Date Analyzed: 11/20/2017 17:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442464 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02I-20171108 Lab Sample ID: 440-196039-4

Matrix: Water Lab File ID: NFK20023.D

Analysis Method: 8260B Date Collected: 11/08/2017 11:30

Sample wt/vol: 10(mL) Date Analyzed: 11/20/2017 17:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 442464 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 100 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 105 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 104 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02I-20171108-EB | Lab Sample ID: 440-196039-5

Matrix: Water | Lab File ID: NFK20024.D

Analysis Method: 8260B | Date Collected: 11/08/2017 12:40

Sample wt/vol: 10(mL) | Date Analyzed: 11/20/2017 18:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442464 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | ND | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02I-20171108-EB | Lab Sample ID: 440-196039-5

Matrix: Water | Lab File ID: NFK20024.D

Analysis Method: 8260B | Date Collected: 11/08/2017 12:40

Sample wt/vol: 10(mL) | Date Analyzed: 11/20/2017 18:21

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442464 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02I-20171108-EB Lab Sample ID: 440-196039-5

Matrix: Water Lab File ID: NFK20024.D

Analysis Method: 8260B Date Collected: 11/08/2017 12:40

Sample wt/vol: 10(mL) Date Analyzed: 11/20/2017 18:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 442464 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 102 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 104 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 104 | | 80-128 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD02 440-439348/4 | NFK0304.D |
| Level 2 | STD04 440-439348/5 | NFK0305.D |
| Level 3 | STD05 440-439348/6 | NFK0306.D |
| Level 4 | STD1 440-439348/7 | NFK0307.D |
| Level 5 | STD2 440-439348/8 | NFK0308.D |
| Level 6 | STD5 440-439348/9 | NFK0309.D |
| Level 7 | STD10 440-439348/10 | NFK0310.D |
| Level 8 | ICIS 440-439348/11 | NFK0311.D |
| Level 9 | STD50 440-439348/12 | NFK0312.D |
| Level 10 | STD100 440-439348/13 | NFK0313.D |
| Level 11 | STD200 440-439348/14 | NFK0314.D |
| Level 12 | STD300 440-439348/15 | NFK0315.D |

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 LVL 11 | LVL 2 LVL 7 LVL 12 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dichlorodifluoromethane | +++++ 0.4099 0.3501 | +++++ 0.3979 0.3301 | 0.3351 0.3898 | 0.3589 0.3407 | 0.3666 0.3504 | Ave | | 0.3629 | | | | 7.6 | | 15.0 | | | |
| Chloromethane | +++++ 0.2925 0.2941 | +++++ 0.3042 0.2778 | 0.3738 0.3049 | 0.3090 0.2853 | 0.3094 0.2905 | Ave | | 0.3042 | | | 0.1000 | 8.8 | | 15.0 | | | |
| Vinyl chloride | +++++ 0.2810 0.2777 | +++++ 0.2908 0.2578 | 0.2452 0.2715 | 0.2958 0.2731 | 0.2989 0.2813 | Ave | | 0.2773 | | | | 6.0 | | 30.0 | | | |
| 1,3-Butadiene | +++++ 0.2354 0.2424 | +++++ 0.2594 0.2285 | +++++ 0.2277 | 0.2675 0.2356 | 0.2555 0.2423 | Ave | | 0.2438 | | | | 5.8 | | 15.0 | | | |
| Bromomethane | +++++ 0.1987 0.2261 | +++++ 0.2180 0.2125 | 0.2020 0.2239 | 0.2085 0.2102 | 0.2212 0.2264 | Ave | | 0.2148 | | | | 4.6 | | 15.0 | | | |
| Chloroethane | +++++ 0.1607 0.1691 | +++++ 0.1751 0.1573 | 0.2036 0.1730 | 0.1388 0.1634 | 0.1823 0.1715 | Ave | | 0.1695 | | | | 10.0 | | 15.0 | | | |
| Ethanol | +++++ 0.1045 0.1128 | +++++ 0.1139 0.1165 | +++++ 0.1161 | +++++ 0.1156 | 0.1303 0.1221 | Ave | | 0.1165 | | | | 6.4 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dichlorofluoromethane | +++++<br>0.4613<br>0.4908 | +++++<br>0.5195<br>0.4595 | 0.4458<br>0.4966 | 0.4833<br>0.4855 | 0.4797<br>0.4985 | Ave | | 0.4821 | | | | 4.5 | | 15.0 | | | |
| Acrolein | +++++<br>0.0179<br>0.0251 | +++++<br>0.0206<br>0.0261 | +++++<br>0.0239 | +++++<br>0.0238 | +++++<br>0.0271 | Ave | | 0.0235 | | | | 13.8 | | 15.0 | | | |
| Acetonitrile | +++++<br>0.0287<br>0.0274 | +++++<br>0.0309<br>0.0256 | +++++<br>0.0311 | +++++<br>0.0247 | 0.0344<br>0.0283 | Ave | | 0.0289 | | | | 11.0 | | 15.0 | | | |
| Trichlorofluoromethane | +++++<br>0.5539<br>0.5708 | +++++<br>0.5897<br>0.5334 | 0.5314<br>0.5798 | 0.5937<br>0.5542 | 0.6115<br>0.5803 | Ave | | 0.5699 | | | | 4.6 | | 15.0 | | | |
| Acetone | +++++<br>+++++<br>0.0698 | +++++<br>0.0502<br>0.0687 | +++++<br>0.0508 | +++++<br>0.0562 | +++++<br>0.0669 | Lin2 | -0.199 | 0.0663 | | | | | | | 0.9900 | | 0.9900 |
| Diethyl ether | +++++<br>0.1688<br>0.1776 | +++++<br>0.1794<br>0.1682 | +++++<br>0.1783 | 0.1498<br>0.1794 | 0.1649<br>0.1856 | Ave | | 0.1724 | | | | 6.3 | | 15.0 | | | |
| 1,1-Dichloroethene | +++++<br>0.2424<br>0.2381 | +++++<br>0.2624<br>0.2274 | 0.2668<br>0.2392 | 0.2619<br>0.2384 | 0.2330<br>0.2498 | Ave | | 0.2459 | | | | 5.5 | | 30.0 | | | |
| tert-Butyl alcohol (TBA) | +++++<br>1.0629<br>1.0772 | +++++<br>1.2034<br>1.0821 | +++++<br>1.1894 | 1.1776<br>1.1193 | 1.1815<br>1.1663 | Ave | | 1.1400 | | | | 4.8 | | 15.0 | | | |
| Iodomethane | +++++<br>0.5463<br>0.5339 | +++++<br>0.5350<br>0.5033 | +++++<br>0.5352 | 0.5595<br>0.5115 | 0.5217<br>0.5333 | Ave | | 0.5311 | | | | 3.2 | | 15.0 | | | |
| Acrylonitrile | +++++<br>0.0698<br>0.0703 | 0.0525<br>0.0806<br>0.0646 | 0.0532<br>0.0746 | 0.0657<br>0.0666 | 0.0820<br>0.0743 | Ave | | 0.0686 | | | | 14.0 | | 15.0 | | | |
| Methylene Chloride | +++++<br>0.3029<br>0.2599 | +++++<br>0.2643<br>0.2421 | 0.6055<br>0.2579 | 0.4828<br>0.2493 | 0.3703<br>0.2460 | Lin2 | 0.1878 | 0.2553 | | | | | | | 0.9930 | | 0.9900 |
| Methyl acetate | +++++<br>0.1487<br>0.1544 | +++++<br>0.1679<br>0.1423 | +++++<br>0.1674 | +++++<br>0.1451 | 0.1533<br>0.1627 | Ave | | 0.1552 | | | | 6.4 | | 15.0 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | +++++<br>0.3026<br>0.3197 | +++++<br>0.3270<br>0.3003 | 0.3236<br>0.3200 | 0.3595<br>0.3154 | 0.3072<br>0.3333 | Ave | | 0.3208 | | | | 5.4 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Allyl chloride | +++++<br>0.4048<br>0.4015 | +++++<br>0.4463<br>0.3764 | +++++<br>0.4416 | 0.5208<br>0.4231 | 0.4774<br>0.4285 | Ave | | 0.4356 | | | | 9.9 | | 15.0 | | | |
| Carbon disulfide | +++++<br>0.8099<br>0.8114 | +++++<br>0.8504<br>0.7581 | 0.8885<br>0.8461 | 0.8723<br>0.8155 | 0.8516<br>0.8514 | Ave | | 0.8355 | | | | 4.5 | | 15.0 | | | |
| trans-1,2-Dichloroethene | +++++<br>0.2374<br>0.2571 | 0.2548<br>0.2507<br>0.2420 | 0.2241<br>0.2739 | 0.2751<br>0.2567 | 0.2401<br>0.2641 | Ave | | 0.2524 | | | | 6.2 | | 15.0 | | | |
| Methyl-t-Butyl Ether (MTBE) | +++++<br>0.6608<br>0.6898 | +++++<br>0.7086<br>0.6441 | 0.6675<br>0.7249 | 0.6519<br>0.6349 | 0.6912<br>0.6809 | Ave | | 0.6755 | | | | 4.3 | | 15.0 | | | |
| 1,1-Dichloroethane | +++++<br>0.4459<br>0.4383 | +++++<br>0.4595<br>0.4121 | 0.4107<br>0.4587 | 0.4870<br>0.4419 | 0.4788<br>0.4595 | Ave | | 0.4492 | | | 0.1000 | 5.6 | | 15.0 | | | |
| Propionitrile | +++++<br>0.0253<br>0.0303 | +++++<br>0.0326<br>0.0282 | +++++<br>0.0314 | +++++<br>0.0267 | 0.0231<br>0.0307 | Ave | | 0.0285 | | | | 11.5 | | 15.0 | | | |
| Vinyl acetate | +++++<br>0.3108<br>0.4359 | +++++<br>0.3557<br>0.4102 | +++++<br>0.3747 | +++++<br>0.3952 | 0.2517<br>0.4430 | Lin2 | -0.353 | 0.4146 | | | | | | | 0.9970 | | 0.9900 |
| Hexane | +++++<br>0.4250<br>0.3812 | +++++<br>0.3997<br>+++++ | +++++<br>0.4025 | 0.5045<br>0.3805 | 0.4630<br>0.4021 | Ave | | 0.4198 | | | | 10.3 | | 15.0 | | | |
| 2-Butanone (MEK) | +++++<br>0.0054<br>0.0282 | +++++<br>0.0197<br>0.0281 | +++++<br>0.0206 | +++++<br>0.0227 | +++++<br>0.0269 | Lin2 | -0.106 | 0.0274 | | | | | | | 0.9920 | | 0.9900 |
| Isopropyl Ether (DIPE) | +++++<br>0.8014<br>0.7767 | +++++<br>0.8406<br>0.7130 | 0.7594<br>0.8644 | 0.7942<br>0.7819 | 0.7966<br>0.8002 | Ave | | 0.7928 | | | | 5.2 | | 15.0 | | | |
| cis-1,2-Dichloroethene | +++++<br>0.2963<br>0.2795 | 0.2131<br>0.2699<br>0.2683 | 0.3122<br>0.2903 | 0.2250<br>0.2714 | 0.3262<br>0.2852 | Ave | | 0.2761 | | | | 12.1 | | 15.0 | | | |
| Bromochloromethane | +++++<br>0.1271<br>0.1486 | +++++<br>0.1425<br>0.1427 | 0.1451<br>0.1452 | 0.1663<br>0.1388 | 0.1352<br>0.1490 | Ave | | 0.1441 | | | | 7.1 | | 15.0 | | | |
| Chloroform | +++++<br>0.4619<br>0.4812 | +++++<br>0.4855<br>0.4555 | 0.4472<br>0.4949 | 0.4851<br>0.4764 | 0.4689<br>0.4898 | Ave | | 0.4746 | | | | 3.3 | | 30.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Ethyl-t-butyl ether (ETBE) | +++++<br>0.7669<br>0.7609 | +++++<br>0.8391<br>0.6946 | 0.7372<br>0.8391 | 0.8392<br>0.7737 | 0.7886<br>0.7983 | Ave | | 0.7838 | | | | 6.1 | | 15.0 | | | |
| 2,2-Dichloropropane | +++++<br>0.3465<br>0.3137 | +++++<br>0.3752<br>+++++ | 0.3688<br>0.3522 | 0.4217<br>0.3408 | 0.3536<br>0.3393 | Ave | | 0.3569 | | | | 8.4 | | 15.0 | | | |
| Isobutyl alcohol | +++++<br>0.5183<br>0.5246 | +++++<br>0.6014<br>0.5265 | 0.5265<br>0.5746 | 0.4804<br>0.5829 | 0.5419<br>0.5705 | Ave | | 0.5448 | | | | 6.7 | | 15.0 | | | |
| Tetrahydrofuran | +++++<br>0.0740<br>0.0727 | +++++<br>0.0776<br>0.0700 | +++++<br>0.0754 | 0.0741<br>0.0623 | 0.0815<br>0.0736 | Ave | | 0.0735 | | | | 7.2 | | 15.0 | | | |
| 1,2-Dichloroethane | +++++<br>0.3620<br>0.3694 | 0.2941<br>0.3722<br>0.3443 | 0.3486<br>0.3810 | 0.4084<br>0.3481 | 0.3464<br>0.3734 | Ave | | 0.3589 | | | | 8.0 | | 15.0 | | | |
| 1,1,1-Trichloroethane | +++++<br>0.4383<br>0.4842 | +++++<br>0.4832<br>0.4578 | 0.5128<br>0.4815 | 0.4484<br>0.4631 | 0.4966<br>0.4962 | Ave | | 0.4762 | | | | 5.0 | | 15.0 | | | |
| 1,1-Dichloropropene | +++++<br>0.3405<br>0.3508 | +++++<br>0.3705<br>0.3279 | 0.3137<br>0.3632 | 0.3510<br>0.3541 | 0.3965<br>0.3688 | Ave | | 0.3537 | | | | 6.6 | | 15.0 | | | |
| Cyclohexane | +++++<br>0.4612<br>0.4409 | +++++<br>0.4773<br>0.4078 | +++++<br>0.4624 | 0.5423<br>0.4457 | 0.5131<br>0.4636 | Ave | | 0.4683 | | | | 8.5 | | 15.0 | | | |
| Carbon tetrachloride | +++++<br>0.4297<br>0.4846 | +++++<br>0.4646<br>0.4529 | 0.4079<br>0.4661 | 0.4959<br>0.4568 | 0.4336<br>0.4924 | Ave | | 0.4585 | | | | 6.2 | | 15.0 | | | |
| Benzene | +++++<br>0.9381<br>0.9153 | +++++<br>1.0061<br>0.8404 | 1.0437<br>0.9733 | 1.0084<br>0.9426 | 1.0476<br>0.9752 | Ave | | 0.9691 | | | | 6.5 | | 15.0 | | | |
| Tert-amyl-methyl ether (TAME) | +++++<br>0.7065<br>0.7215 | +++++<br>0.8021<br>0.6662 | 0.7239<br>0.7717 | 0.7203<br>0.6872 | 0.6992<br>0.7269 | Ave | | 0.7225 | | | | 5.5 | | 15.0 | | | |
| n-Heptane | +++++<br>0.4266<br>0.4088 | +++++<br>0.4631<br>0.3694 | +++++<br>0.4480 | 0.4916<br>0.4321 | 0.4685<br>0.4450 | Ave | | 0.4392 | | | | 8.2 | | 15.0 | | | |
| Dibromomethane | +++++<br>0.1764<br>0.1732 | +++++<br>0.1788<br>0.1658 | 0.1564<br>0.1828 | 0.1947<br>0.1642 | 0.1793<br>0.1736 | Ave | | 0.1745 | | | | 6.1 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| 1,2-Dichloropropane | +++++<br>0.2238<br>0.2349 | +++++<br>0.2372<br>0.2236 | 0.1948<br>0.2469 | 0.2139<br>0.2303 | 0.2035<br>0.2462 | Ave | | 0.2255 | | | | 7.7 | | 30.0 | | | |
| Trichloroethene | +++++<br>0.2935<br>0.3101 | +++++<br>0.3140<br>0.2920 | 0.2998<br>0.3186 | 0.3446<br>0.3002 | 0.3091<br>0.3172 | Ave | | 0.3099 | | | | 5.0 | | 15.0 | | | |
| Bromodichloromethane | +++++<br>0.3334<br>0.3771 | +++++<br>0.3539<br>0.3576 | 0.3084<br>0.3701 | 0.3411<br>0.3536 | 0.3628<br>0.3829 | Ave | | 0.3541 | | | | 6.2 | | 15.0 | | | |
| 2-Chloroethyl vinyl ether | +++++<br>0.1785<br>0.1595 | +++++<br>0.2023<br>0.1438 | +++++<br>0.1764 | +++++<br>0.1588 | 0.1712<br>0.1722 | Ave | | 0.1703 | | | | 10.1 | | 15.0 | | | |
| Methylcyclohexane | +++++<br>0.4418<br>0.4548 | +++++<br>0.4761<br>0.4249 | +++++<br>0.4585 | 0.5050<br>0.4461 | 0.4609<br>0.4704 | Ave | | 0.4598 | | | | 5.0 | | 15.0 | | | |
| cis-1,3-Dichloropropene | +++++<br>0.4189<br>0.4290 | +++++<br>0.5051<br>0.3750 | 0.5070<br>0.4689 | 0.4763<br>0.4366 | 0.4848<br>0.4719 | Ave | | 0.4574 | | | | 9.1 | | 15.0 | | | |
| 4-Methyl-2-pentanone (MIBK) | +++++<br>0.2326<br>0.2687 | +++++<br>0.2829<br>0.2385 | +++++<br>0.2590 | +++++<br>0.2465 | 0.2971<br>0.2876 | Ave | | 0.2641 | | | | 9.0 | | 15.0 | | | |
| trans-1,3-Dichloropropene | +++++<br>0.4007<br>0.4039 | +++++<br>0.4489<br>0.3510 | 0.4197<br>0.4354 | 0.4269<br>0.4086 | 0.4120<br>0.4319 | Ave | | 0.4139 | | | | 6.5 | | 15.0 | | | |
| 1,1,2-Trichloroethane | +++++<br>0.1950<br>0.1866 | +++++<br>0.2135<br>0.1686 | 0.2547<br>0.2103 | 0.2081<br>0.1808 | 0.2231<br>0.1999 | Ave | | 0.2041 | | | | 11.9 | | 15.0 | | | |
| Toluene | +++++<br>1.2598<br>1.0782 | +++++<br>1.3732<br>+++++ | 1.4174<br>1.2635 | 1.3950<br>1.1891 | 1.2915<br>1.2319 | Ave | | 1.2777 | | | | 8.4 | | 30.0 | | | |
| 1,3-Dichloropropane | +++++<br>0.3867<br>0.3619 | +++++<br>0.4436<br>+++++ | 0.5106<br>0.4109 | 0.4211<br>0.3719 | 0.4273<br>0.4034 | Ave | | 0.4153 | | | | 10.7 | | 15.0 | | | |
| Ethyl methacrylate | +++++<br>0.3183<br>0.3078 | +++++<br>0.3567<br>0.2721 | +++++<br>0.3475 | +++++<br>0.3090 | 0.3136<br>0.3379 | Ave | | 0.3204 | | | | 8.4 | | 15.0 | | | |
| 2-Hexanone | +++++<br>0.1813<br>0.2002 | +++++<br>0.2144<br>0.1788 | +++++<br>0.1888 | +++++<br>0.1837 | 0.1925<br>0.2072 | Ave | | 0.1934 | | | | 6.6 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dibromochloromethane | +++++<br>0.2947<br>0.3548 | +++++<br>0.3547<br>0.3167 | 0.3289<br>0.3518 | 0.2782<br>0.3256 | 0.2812<br>0.3579 | Ave | | 0.3244 | | | | 9.6 | | 15.0 | | | |
| 1,2-Dibromoethane (EDB) | +++++<br>0.2648<br>0.2699 | +++++<br>0.3017<br>0.2422 | 0.3289<br>0.2935 | 0.2840<br>0.2633 | 0.3056<br>0.2851 | Ave | | 0.2839 | | | | 8.8 | | 15.0 | | | |
| Tetrachloroethene | +++++<br>0.3083<br>0.2852 | +++++<br>0.3379<br>+++++ | 0.3068<br>0.3161 | 0.3154<br>0.2998 | 0.3401<br>0.3194 | Ave | | 0.3143 | | | | 5.5 | | 15.0 | | | |
| 1,1,1,2-Tetrachloroethane | +++++<br>0.3233<br>0.3339 | +++++<br>0.3458<br>0.3035 | 0.3666<br>0.3497 | 0.3820<br>0.3256 | 0.3611<br>0.3570 | Ave | | 0.3449 | | | | 6.8 | | 15.0 | | | |
| Chlorobenzene | +++++<br>0.8551<br>0.7907 | +++++<br>0.9495<br>+++++ | 0.9095<br>0.8782 | 0.9037<br>0.8268 | 0.9672<br>0.8711 | Ave | | 0.8835 | | | 0.3000 | 6.4 | | 15.0 | | | |
| Ethylbenzene | +++++<br>1.4697<br>1.3022 | +++++<br>1.6118<br>+++++ | 1.5778<br>1.4745 | 1.7067<br>1.3831 | 1.5553<br>1.4623 | Ave | | 1.5048 | | | | 8.1 | | 30.0 | | | |
| m,p-Xylene | +++++<br>0.5849<br>0.5594 | +++++<br>0.6481<br>0.4994 | 0.6464<br>0.5825 | 0.6740<br>0.5669 | 0.5973<br>0.6070 | Ave | | 0.5966 | | | | 8.5 | | 15.0 | | | |
| Bromoform | +++++<br>0.1881<br>0.2579 | +++++<br>0.2394<br>0.2442 | 0.1556<br>0.2286 | 0.1950<br>0.2202 | 0.1985<br>0.2596 | Lin2 | -0.043 | 0.2354 | | | 0.1000 | | | | 0.9920 | | 0.9900 |
| Styrene | +++++<br>0.9139<br>0.9065 | +++++<br>1.0177<br>0.7994 | 1.1100<br>0.9754 | 0.9111<br>0.9019 | 0.8620<br>0.9720 | Ave | | 0.9370 | | | | 9.2 | | 15.0 | | | |
| 1,1,2,2-Tetrachloroethane | +++++<br>0.5593<br>0.5541 | +++++<br>0.6138<br>0.5327 | 0.6054<br>0.6225 | 0.6529<br>0.5514 | 0.6623<br>0.5990 | Ave | | 0.5953 | | | 0.3000 | 7.5 | | 15.0 | | | |
| o-Xylene | +++++<br>0.5797<br>0.5412 | 0.5906<br>0.6531<br>+++++ | 0.6814<br>0.5897 | 0.5688<br>0.5435 | 0.5880<br>0.5846 | Ave | | 0.5920 | | | | 7.4 | | 15.0 | | | |
| 1,2,3-Trichloropropane | +++++<br>0.2067<br>0.1803 | +++++<br>0.1946<br>0.1771 | +++++<br>0.1925 | 0.1504<br>0.1705 | 0.1845<br>0.1914 | Ave | | 0.1831 | | | | 8.9 | | 15.0 | | | |
| trans-1,4-Dichloro-2-butene | +++++<br>0.1781<br>0.1845 | +++++<br>0.1965<br>0.1769 | +++++<br>0.2147 | +++++<br>0.1818 | 0.1620<br>0.1957 | Ave | | 0.1863 | | | | 8.5 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Isopropylbenzene | +++++<br>1.5487<br>1.4146 | +++++<br>1.7192<br>+++++ | 1.6779<br>1.5800 | 1.7766<br>1.4779 | 1.6439<br>1.5914 | Ave | | 1.6034 | | | | 7.2 | | 15.0 | | | |
| Bromobenzene | +++++<br>0.8333<br>0.7609 | +++++<br>0.7945<br>0.7451 | 0.8126<br>0.8136 | 0.7583<br>0.7615 | 0.7372<br>0.8001 | Ave | | 0.7817 | | | | 4.2 | | 15.0 | | | |
| N-Propylbenzene | +++++<br>3.2962<br>2.8924 | +++++<br>3.5151<br>+++++ | 3.4257<br>3.3798 | 3.7200<br>3.2439 | 3.5864<br>3.3280 | Ave | | 3.3764 | | | | 7.0 | | 15.0 | | | |
| 2-Chlorotoluene | +++++<br>2.0784<br>1.8383 | +++++<br>2.0712<br>1.6974 | 2.1262<br>2.0457 | 2.3384<br>1.9453 | 2.1863<br>1.9925 | Ave | | 2.0320 | | | | 8.8 | | 15.0 | | | |
| 4-Chlorotoluene | +++++<br>2.0913<br>1.8951 | +++++<br>2.2056<br>1.7552 | 2.5761<br>2.1704 | 2.2068<br>2.0290 | 2.2149<br>2.0626 | Ave | | 2.1207 | | | | 10.3 | | 15.0 | | | |
| 1,3,5-Trimethylbenzene | +++++<br>2.5548<br>2.3389 | +++++<br>2.6156<br>2.1148 | 2.4756<br>2.6007 | 2.9330<br>2.4806 | 2.6887<br>2.5583 | Ave | | 2.5361 | | | | 8.5 | | 15.0 | | | |
| tert-Butylbenzene | +++++<br>2.2423<br>2.1576 | +++++<br>2.4173<br>1.9593 | 2.6444<br>2.3550 | 2.5168<br>2.2904 | 2.4746<br>2.3681 | Ave | | 2.3426 | | | | 8.3 | | 15.0 | | | |
| 1,2,4-Trimethylbenzene | +++++<br>2.5095<br>2.3716 | +++++<br>2.6288<br>2.1203 | 2.7313<br>2.6808 | 2.8831<br>2.5343 | 2.8377<br>2.6189 | Ave | | 2.5916 | | | | 8.7 | | 15.0 | | | |
| sec-Butylbenzene | +++++<br>3.3810<br>2.9909 | +++++<br>3.5555<br>+++++ | 3.8429<br>3.4937 | 3.7691<br>3.3211 | 3.7588<br>3.4201 | Ave | | 3.5037 | | | | 7.6 | | 15.0 | | | |
| 1,3-Dichlorobenzene | +++++<br>1.6163<br>1.5237 | +++++<br>1.5751<br>1.4314 | 1.6890<br>1.5988 | 1.6930<br>1.5281 | 1.5430<br>1.5827 | Ave | | 1.5781 | | | | 5.0 | | 15.0 | | | |
| 1,4-Dichlorobenzene | +++++<br>1.6229<br>1.4951 | +++++<br>1.6541<br>1.4143 | 1.5074<br>1.6174 | 1.8219<br>1.5407 | 1.6686<br>1.6018 | Ave | | 1.5944 | | | | 7.1 | | 15.0 | | | |
| p-Isopropyltoluene | +++++<br>2.9281<br>2.6895 | +++++<br>3.0622<br>+++++ | 3.0022<br>3.0421 | 3.1743<br>2.9197 | 3.1883<br>3.0157 | Ave | | 3.0024 | | | | 5.0 | | 15.0 | | | |
| 1,2-Dichlorobenzene | +++++<br>1.4847<br>1.4481 | +++++<br>1.4807<br>1.3484 | 1.5030<br>1.5362 | 1.6841<br>1.4386 | 1.4840<br>1.5166 | Ave | | 1.4924 | | | | 5.7 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| n-Butylbenzene | +++++<br>2.6642<br>2.3167 | +++++<br>2.7307<br>+++++ | 2.9546<br>2.6688 | 2.8865<br>2.5606 | 2.9661<br>2.5987 | Ave | | 2.7052 | | | | 7.7 | | 15.0 | | | |
| 1,2-Dibromo-3-Chloropropane | +++++<br>0.1652<br>0.1573 | +++++<br>0.1439<br>0.1498 | +++++<br>0.1493 | 0.1128<br>0.1443 | 0.1360<br>0.1594 | Ave | | 0.1464 | | | | 10.6 | | 15.0 | | | |
| 1,2,4-Trichlorobenzene | +++++<br>1.2398<br>1.1425 | +++++<br>1.2653<br>1.0326 | 1.2901<br>1.2853 | 1.3473<br>1.2210 | 1.3252<br>1.2230 | Ave | | 1.2372 | | | | 7.5 | | 15.0 | | | |
| Naphthalene | +++++<br>2.7992<br>2.5063 | +++++<br>2.9460<br>+++++ | 3.2634<br>2.9288 | 2.8318<br>2.6228 | 2.9462<br>2.7998 | Ave | | 2.8494 | | | | 7.6 | | 15.0 | | | |
| Hexachlorobutadiene | +++++<br>0.7157<br>0.7143 | +++++<br>0.7629<br>0.6173 | 0.8741<br>0.7300 | 0.7480<br>0.7441 | 0.7339<br>0.7819 | Ave | | 0.7422 | | | | 8.6 | | 15.0 | | | |
| 1,2,3-Trichlorobenzene | +++++<br>1.1179<br>1.0727 | +++++<br>1.2155<br>+++++ | 1.3754<br>1.2270 | 1.3673<br>1.1285 | 1.3159<br>1.1792 | Ave | | 1.2222 | | | | 9.0 | | 15.0 | | | |
| Dibromofluoromethane (Surr) | 0.3035 | 0.2856 | 0.2881 | 0.2741 | 0.3030 | Ave | | 0.2909 | | | | 4.3 | | 15.0 | | | |
| 1,2-Dichloroethane-d4 (Surr) | 0.3300 | 0.3313 | 0.3406 | 0.2988 | 0.3302 | Ave | | 0.3262 | | | | 4.9 | | 15.0 | | | |
| Toluene-d8 (Surr) | 1.1129 | 1.1978 | 1.0919 | 1.0171 | 1.1024 | Ave | | 1.1044 | | | | 5.8 | | 15.0 | | | |
| 4-Bromofluorobenzene (Surr) | 0.9018 | 0.8661 | 0.8856 | 0.8207 | 0.8733 | Ave | | 0.8695 | | | | 3.5 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD02 440-439348/4 | NFK0304.D |
| Level 2 | STD04 440-439348/5 | NFK0305.D |
| Level 3 | STD05 440-439348/6 | NFK0306.D |
| Level 4 | STD1 440-439348/7 | NFK0307.D |
| Level 5 | STD2 440-439348/8 | NFK0308.D |
| Level 6 | STD5 440-439348/9 | NFK0309.D |
| Level 7 | STD10 440-439348/10 | NFK0310.D |
| Level 8 | ICIS 440-439348/11 | NFK0311.D |
| Level 9 | STD50 440-439348/12 | NFK0312.D |
| Level 10 | STD100 440-439348/13 | NFK0313.D |
| Level 11 | STD200 440-439348/14 | NFK0314.D |
| Level 12 | STD300 440-439348/15 | NFK0315.D |

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Dichlorodifluoromethane | FB | Ave | +++++<br>51688<br>1717735 | +++++<br>98390<br>2550328 | 4338<br>244879 | 8626<br>432222 | 17327<br>834231 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloromethane | FB | Ave | +++++<br>36886<br>1443270 | +++++<br>75228<br>2146167 | 4840<br>191527 | 7427<br>362007 | 14621<br>691780 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Vinyl chloride | FB | Ave | +++++<br>35436<br>1362760 | +++++<br>71902<br>1992044 | 3175<br>170568 | 7111<br>346511 | 14127<br>669717 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Butadiene | FB | Ave | +++++<br>29688<br>1189605 | +++++<br>64139<br>1765129 | +++++<br>143056 | 6429<br>298886 | 12077<br>576917 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromomethane | FB | Ave | +++++<br>25059<br>1109520 | +++++<br>53899<br>1641930 | 2615<br>140671 | 5012<br>266638 | 10454<br>538995 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloroethane | FB | Ave | +++++<br>20269<br>829971 | +++++<br>43308<br>1215276 | 2636<br>108692 | 3336<br>207264 | 8614<br>408440 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethanol | TBAd 9 | Ave | +++++<br>16670<br>888342 | +++++<br>35073<br>1356887 | +++++<br>94285 | +++++<br>197100 | 10438<br>436950 | +++++<br>200<br>10000 | +++++<br>400<br>15000 | +++++<br>1000 | +++++<br>2500 | 100<br>5000 |
| Dichlorofluoromethane | FB | Ave | +++++<br>58174<br>2408312 | +++++<br>128449<br>3550080 | 5772<br>311975 | 11616<br>616003 | 22671<br>1187020 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Acrolein | FB | Ave | +++++<br>2255<br>123250 | +++++<br>5091<br>201746 | +++++<br>15010 | +++++<br>30211 | +++++<br>64584 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Acetonitrile | FB | Ave | +++++<br>36231<br>1342347 | +++++<br>76294<br>1976775 | +++++<br>195277 | +++++<br>312946 | 16247<br>673154 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | +++++<br>500 | 20.0<br>1000 |
| Trichlorofluoromethane | FB | Ave | +++++<br>69852<br>2800615 | +++++<br>145815<br>4121436 | 6880<br>364200 | 14271<br>703118 | 28900<br>1381579 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Acetone | FB | Lin2 | +++++<br>+++++<br>342441 | +++++<br>12405<br>531101 | +++++<br>31927 | +++++<br>71270 | +++++<br>159305 | +++++<br>+++++<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Diethyl ether | FB | Ave | +++++<br>21288<br>871651 | +++++<br>44368<br>1299902 | +++++<br>111981 | 3601<br>227561 | 7791<br>441819 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloroethene | FB | Ave | +++++<br>30576<br>1168080 | +++++<br>64880<br>1756555 | 3454<br>150286 | 6296<br>302488 | 11013<br>594751 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| tert-Butyl alcohol (TBA) | TBAd9 | Ave | +++++<br>42373<br>1696141 | +++++<br>92677<br>2519934 | +++++<br>241454 | 8446<br>381579 | 18928<br>834976 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Iodomethane | FB | Ave | +++++<br>68893<br>2619751 | +++++<br>132292<br>3888804 | +++++<br>336171 | 13448<br>649028 | 24657<br>1269814 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Acrylonitrile | FB | Ave | +++++<br>88024<br>3446972 | 5283<br>199239<br>4987409 | 6894<br>468700 | 15798<br>844437 | 38757<br>1769649 | +++++<br>50.0<br>2000 | 4.00<br>100<br>3000 | 5.00<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Methylene Chloride | FB | Lin2 | +++++<br>38205<br>1275211 | +++++<br>65361<br>1870110 | 7839<br>162000 | 11605<br>316253 | 17502<br>585650 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methyl acetate | FB | Ave | +++++<br>93737<br>3787208 | +++++<br>207622<br>5497943 | +++++<br>525710 | +++++<br>920439 | 36233<br>1937486 | +++++<br>25.0<br>1000 | +++++<br>50.0<br>1500 | +++++<br>125 | +++++<br>250 | 10.0<br>500 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | FB | Ave | +++++<br>38157<br>1568909 | +++++<br>80844<br>2319764 | 4189<br>200999 | 8640<br>400183 | 14518<br>793605 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Allyl chloride | FB | Ave | +++++<br>51049<br>1970254 | +++++<br>110353<br>2908136 | +++++<br>277417 | 12518<br>536791 | 22561<br>1020243 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Carbon disulfide | FB | Ave | +++++<br>102139<br>3981317 | +++++<br>210269<br>5856895 | 11503<br>531480 | 20966<br>1034621 | 40248<br>2027197 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| trans-1,2-Dichloroethene | FB | Ave | +++++<br>29942<br>1261526 | 2563<br>61990<br>1869807 | 2901<br>172044 | 6613<br>325697 | 11349<br>628721 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methyl-t-Butyl Ether (MTBE) | FB | Ave | +++++<br>83335<br>3384612 | +++++<br>175214<br>4976705 | 8642<br>455353 | 15670<br>805576 | 32666<br>1621301 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloroethane | FB | Ave | +++++<br>56236<br>2150837 | +++++<br>113614<br>3184185 | 5317<br>288107 | 11706<br>560656 | 22628<br>1094031 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Propionitrile | FB | Ave | +++++<br>31940<br>1485412 | +++++<br>80728<br>2180054 | +++++<br>196986 | +++++<br>339130 | 10920<br>731571 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | +++++<br>500 | 20.0<br>1000 |
| Vinyl acetate | FB | Lin2 | +++++<br>31360<br>2138833 | +++++<br>70352<br>3169091 | +++++<br>188278 | +++++<br>501477 | 11894<br>1054886 | +++++<br>4.00<br>200 | +++++<br>8.00<br>300 | +++++<br>20.0 | +++++<br>50.0 | 2.00<br>100 |
| Hexane | FB | Ave | +++++<br>53602<br>1870628 | +++++<br>98839<br>+++++ | +++++<br>252851 | 12127<br>482726 | 21881<br>957467 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Butanone (MEK) | FB | Lin2 | +++++<br>682<br>138174 | +++++<br>4882<br>217416 | +++++<br>12934 | +++++<br>28777 | +++++<br>64060 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Isopropyl Ether (DIPE) | FB | Ave | +++++<br>101063<br>3811106 | +++++<br>207845<br>5509042 | 9832<br>542966 | 19090<br>992045 | 37649<br>1905263 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| cis-1,2-Dichloroethene | FB | Ave | +++++<br>37366<br>1371246 | 2144<br>66724<br>2072552 | 4042<br>182367 | 5407<br>344384 | 15415<br>679082 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromochloromethane | FB | Ave | +++++<br>16025<br>729179 | +++++<br>35227<br>1102455 | 1878<br>91223 | 3998<br>176080 | 6391<br>354875 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloroform | FB | Ave | +++++<br>58252<br>2361065 | +++++<br>120042<br>3519105 | 5790<br>310877 | 11660<br>604482 | 22162<br>1166289 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethyl-t-butyl ether (ETBE) | FB | Ave | +++++<br>96716<br>3733722 | +++++<br>207477<br>5366523 | 9544<br>527067 | 20171<br>981680 | 37270<br>1900765 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 2,2-Dichloropropane | FB | Ave | +++++<br>43693<br>1539468 | +++++<br>92764<br>+++++ | 4775<br>221211 | 10135<br>432456 | 16710<br>807883 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Isobutyl alcohol | TBAd 9 | Ave | +++++<br>51661<br>2065162 | +++++<br>115800<br>3065063 | 5853<br>291613 | 8614<br>496809 | 21703<br>1021038 | +++++<br>125<br>5000 | +++++<br>250<br>7500 | 12.5<br>625 | 25.0<br>1250 | 50.0<br>2500 |
| Tetrahydrofuran | FB | Ave | +++++<br>18674<br>713896 | +++++<br>38351<br>1081505 | +++++<br>94749 | 3563<br>158035 | 7704<br>350408 | +++++<br>10.0<br>400 | +++++<br>20.0<br>600 | +++++<br>50.0 | 2.00<br>100 | 4.00<br>200 |
| 1,2-Dichloroethane | FB | Ave | +++++<br>45654<br>1812746 | 2958<br>92037<br>2659978 | 4513<br>239316 | 9817<br>441683 | 16372<br>889015 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,1-Trichloroethane | FB | Ave | +++++<br>55278<br>2376004 | +++++<br>119486<br>3536613 | 6639<br>302431 | 10778<br>587611 | 23468<br>1181521 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloropropene | FB | Ave | +++++<br>42944<br>1721351 | +++++<br>91610<br>2533352 | 4061<br>228146 | 8437<br>449250 | 18740<br>878028 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Cyclohexane | FB | Ave | +++++<br>58170<br>2163263 | +++++<br>118023<br>3150728 | +++++<br>290489 | 13035<br>565471 | 24251<br>1103727 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Carbon tetrachloride | FB | Ave | +++++<br>54194<br>2377785 | +++++<br>114886<br>3499474 | 5281<br>292792 | 11919<br>579510 | 20493<br>1172358 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Benzene | FB | Ave | +++++<br>118302<br>4491230 | +++++<br>248768<br>6493311 | 13512<br>611407 | 24237<br>1196000 | 49509<br>2321944 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Tert-amyl-methyl ether (TAME) | FB | Ave | +++++<br>89096<br>3540420 | +++++<br>198327<br>5147058 | 9372<br>484730 | 17312<br>871936 | 33043<br>1730719 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Heptane | FB | Ave | +++++<br>53800<br>2005961 | +++++<br>114499<br>2854050 | +++++<br>281408 | 11815<br>548192 | 22139<br>1059416 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Dibromomethane | FB | Ave | +++++<br>22241<br>849979 | +++++<br>44217<br>1281175 | 2025<br>114804 | 4680<br>208287 | 8472<br>413408 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2-Dichloropropane | FB | Ave | +++++<br>28223<br>1152491 | +++++<br>58661<br>1727812 | 2522<br>155119 | 5142<br>292154 | 9617<br>586280 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Trichloroethene | FB | Ave | +++++<br>37016<br>1521501 | +++++<br>77632<br>2255749 | 3881<br>200153 | 8283<br>380940 | 14607<br>755346 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromodichloromethane | FB | Ave | +++++<br>42049<br>1850542 | +++++<br>87517<br>2763112 | 3993<br>232488 | 8198<br>448606 | 17148<br>911660 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Chloroethyl vinyl ether | CBNZ d5 | Ave | +++++<br>19353<br>771204 | +++++<br>40690<br>1179277 | +++++<br>97981 | +++++<br>183009 | 6820<br>369576 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Methylcyclohexane | FB | Ave | +++++<br>55717<br>2231374 | +++++<br>117715<br>3282984 | +++++<br>288023 | 12138<br>566059 | 21783<br>1119978 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| cis-1,3-Dichloropropene | CBNZ d5 | Ave | +++++<br>45408<br>2073929 | +++++<br>101600<br>3075975 | 5389<br>260453 | 9452<br>503217 | 19314<br>1012710 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 4-Methyl-2-pentanone (MIBK) | CBNZ d5 | Ave | +++++<br>25214<br>1299144 | +++++<br>56904<br>1956506 | +++++<br>143829 | +++++<br>284183 | 11834<br>617092 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| trans-1,3-Dichloropropene | CBNZ d5 | Ave | +++++<br>43431<br>1952678 | +++++<br>90296<br>2878638 | 4461<br>241846 | 8471<br>470958 | 16412<br>926840 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2-Trichloroethane | CBNZ d5 | Ave | +++++<br>21131<br>902061 | +++++<br>42947<br>1382618 | 2708<br>116784 | 4129<br>208424 | 8889<br>428950 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Toluene | CBNZ d5 | Ave | +++++<br>136551<br>5212498 | +++++<br>276221<br>+++++ | 15067<br>701778 | 27683<br>1370673 | 51448<br>2643569 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Dichloropropane | CBNZ d5 | Ave | +++++<br>41916<br>1749608 | +++++<br>89229<br>+++++ | 5428<br>228233 | 8356<br>428716 | 17021<br>865729 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethyl methacrylate | CBNZ d5 | Ave | +++++<br>34504<br>1488282 | +++++<br>71744<br>2231875 | +++++<br>193027 | +++++<br>356213 | 12491<br>725243 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| 2-Hexanone | CBNZ d5 | Ave | +++++<br>19654<br>967779 | +++++<br>43132<br>1466362 | +++++<br>104863 | +++++<br>211780 | 7668<br>444756 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Dibromochloromethane | CBNZ d5 | Ave | +++++<br>31941<br>1715527 | +++++<br>71342<br>2597399 | 3496<br>195405 | 5521<br>375249 | 11203<br>768072 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 1,2-Dibromoethane (EDB) | CBNZ d5 | Ave | +++++<br>28702<br>1305007 | +++++<br>60694<br>1986824 | 3496<br>163010 | 5635<br>303510 | 12174<br>611917 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Tetrachloroethene | CBNZ d5 | Ave | +++++<br>33418<br>1378842 | +++++<br>67971<br>+++++ | 3261<br>175584 | 6259<br>345560 | 13547<br>685492 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,1,2-Tetrachloroethane | CBNZ d5 | Ave | +++++<br>35044<br>1614086 | +++++<br>69547<br>2489521 | 3897<br>194243 | 7581<br>375322 | 14387<br>766044 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chlorobenzene | CBNZ d5 | Ave | +++++<br>92682<br>3822585 | +++++<br>190998<br>+++++ | 9668<br>487752 | 17933<br>953043 | 38530<br>1869405 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethylbenzene | CBNZ d5 | Ave | +++++<br>159305<br>6295798 | +++++<br>324208<br>+++++ | 16772<br>818965 | 33869<br>1594233 | 61958<br>3138180 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| m,p-Xylene | CBNZ d5 | Ave | +++++<br>63393<br>2704539 | +++++<br>130368<br>4096454 | 6871<br>323533 | 13375<br>653441 | 23793<br>1302700 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromoform | CBNZ d5 | Lin2 | +++++<br>20385<br>1246692 | +++++<br>48157<br>2003179 | 1654<br>126986 | 3869<br>253867 | 7909<br>557189 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Styrene | CBNZ d5 | Ave | +++++<br>99060<br>4382732 | +++++<br>204702<br>6556899 | 11800<br>541734 | 18081<br>1039564 | 34341<br>2085852 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2,2-Tetrachloroethane | DCBd 4 | Ave | +++++<br>31682<br>1474046 | +++++<br>69848<br>2245559 | 3535<br>181793 | 7028<br>332119 | 14176<br>705746 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| o-Xylene | CBNZ d5 | Ave | +++++<br>62833<br>2616542 | 4974<br>131371<br>+++++ | 7243<br>327517 | 11287<br>626424 | 23426<br>1254582 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,3-Trichloropropane | DCBd 4 | Ave | +++++<br>11708<br>479507 | +++++<br>22141<br>746421 | +++++<br>56218 | 1619<br>102713 | 3948<br>225467 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| trans-1,4-Dichloro-2-butene | DCBd 4 | Ave | +++++<br>10089<br>490896 | +++++<br>22360<br>745559 | +++++<br>62702 | +++++<br>109497 | 3468<br>230611 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Isopropylbenzene | CBNZ d5 | Ave | +++++<br>167865<br>6839241 | +++++<br>345811<br>+++++ | 17836<br>877570 | 35256<br>1703537 | 65489<br>3415072 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Bromobenzene | DCBd 4 | Ave | +++++<br>47207<br>2024208 | +++++<br>90410<br>3141135 | 4745<br>237602 | 8163<br>458627 | 15778<br>942659 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| N-Propylbenzene | DCBd 4 | Ave | +++++<br>186724<br>7694232 | +++++<br>399982<br>+++++ | 20003<br>986992 | 40044<br>1953781 | 76762<br>3921120 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Chlorotoluene | DCBd 4 | Ave | +++++<br>117734<br>4890107 | +++++<br>235684<br>7155731 | 12415<br>597408 | 25172<br>1171636 | 46796<br>2347661 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 4-Chlorotoluene | DCBd 4 | Ave | +++++<br>118465<br>5041151 | +++++<br>250974<br>7399365 | 15042<br>633828 | 23755<br>1222036 | 47407<br>2430225 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3,5-Trimethylbenzene | DCBd 4 | Ave | +++++<br>144722<br>6221771 | +++++<br>297628<br>8915429 | 14455<br>759478 | 31573<br>1494055 | 57548<br>3014259 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| tert-Butylbenzene | DCBd 4 | Ave | +++++<br>127021<br>5739413 | +++++<br>275059<br>8259741 | 15441<br>687732 | 27092<br>1379505 | 52966<br>2790224 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,4-Trimethylbenzene | DCBd 4 | Ave | +++++<br>142156<br>6308780 | +++++<br>299133<br>8938760 | 15948<br>782883 | 31036<br>1526402 | 60738<br>3085716 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| sec-Butylbenzene | DCBd 4 | Ave | +++++<br>191527<br>7956304 | +++++<br>404580<br>+++++ | 22439<br>1020263 | 40573<br>2000238 | 80454<br>4029653 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Dichlorobenzene | DCBd 4 | Ave | +++++<br>91558<br>4053347 | +++++<br>179231<br>6034608 | 9862<br>466895 | 18224<br>920376 | 33027<br>1864769 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,4-Dichlorobenzene | DCBd 4 | Ave | +++++<br>91932<br>3977156 | +++++<br>188224<br>5962420 | 8802<br>472319 | 19612<br>927932 | 35715<br>1887261 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| p-Isopropyltoluene | DCBd 4 | Ave | +++++<br>165868<br>7154377 | +++++<br>348452<br>+++++ | 17530<br>888375 | 34170<br>1758486 | 68242<br>3553226 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2-Dichlorobenzene | DCBd 4 | Ave | +++++<br>84103<br>3852174 | +++++<br>168490<br>5684378 | 8776<br>448628 | 18129<br>866459 | 31764<br>1786956 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Butylbenzene | DCBd 4 | Ave | +++++<br>150919<br>6162647 | +++++<br>310730<br>+++++ | 17252<br>779373 | 31072<br>1542201 | 63487<br>3061858 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 439348

SDG No.:

Instrument ID: GCMS31 GC Column: DB-VRX C ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/03/2017 15:52 Calibration End Date: 11/03/2017 21:01 Calibration ID: 17891

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 1,2-Dibromo-3-Chloropropane | DCBd 4 | Ave | +++++<br>9360<br>418480 | +++++<br>16379<br>631709 | +++++<br>43588 | 1214<br>86890 | 2910<br>187857 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,4-Trichlorobenzene | DCBd 4 | Ave | +++++<br>70234<br>3039317 | +++++<br>143980<br>4353356 | 7533<br>375336 | 14503<br>735388 | 28365<br>1441011 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Naphthalene | DCBd 4 | Ave | +++++<br>158570<br>6667235 | +++++<br>335230<br>+++++ | 19055<br>855292 | 30483<br>1579700 | 63061<br>3298825 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Hexachlorobutadiene | DCBd 4 | Ave | +++++<br>40543<br>1900008 | +++++<br>86814<br>2602216 | 5104<br>213193 | 8052<br>448190 | 15709<br>921307 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,3-Trichlorobenzene | DCBd 4 | Ave | +++++<br>63325<br>2853559 | +++++<br>138310<br>+++++ | 8031<br>358316 | 14719<br>679670 | 28166<br>1389318 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Dibromofluoromethane (Surr) | FB | Ave | 38275 | 70617 | 180990 | 347717 | 721498 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| 1,2-Dichloroethane-d4 (Surr) | FB | Ave | 41619 | 81917 | 213979 | 379160 | 786240 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| Toluene-d8 (Surr) | CBNZ d5 | Ave | 120632 | 240924 | 606438 | 1172336 | 2365805 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| 4-Bromofluorobenzene (Surr) | DCBd 4 | Ave | 51083 | 98551 | 258623 | 494296 | 1028911 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |

Curve Type Legend:

| |
|---|
| Ave = Average ISTD |
| Lin2 = Linear 1/conc^2 ISTD |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: ICV 440-439348/18 Calibration Date: 11/03/2017 22:25

Instrument ID: GCMS31 Calib Start Date: 11/03/2017 15:52

GC Column: DB-VRX C ID: 0.25(mm) Calib End Date: 11/03/2017 21:01

Lab File ID: NFK0318.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.3629 | 0.3635 | | 25.0 | 25.0 | 0.2 | 40.0 |
| Chloromethane | Ave | 0.3042 | 0.3025 | 0.1000 | 24.9 | 25.0 | -0.6 | 40.0 |
| Vinyl chloride | Ave | 0.2773 | 0.2852 | | 25.7 | 25.0 | 2.9 | 30.0 |
| 1,3-Butadiene | Ave | 0.2438 | 0.2372 | | 24.3 | 25.0 | -2.7 | 30.0 |
| Bromomethane | Ave | 0.2148 | 0.2218 | | 25.8 | 25.0 | 3.3 | 30.0 |
| Chloroethane | Ave | 0.1695 | 0.1734 | | 25.6 | 25.0 | 2.3 | 30.0 |
| Ethanol | Ave | 0.1165 | 0.1101 | | 945 | 1000 | -5.5 | 40.0 |
| Dichlorofluoromethane | Ave | 0.4821 | 0.5228 | | 27.1 | 25.0 | 8.4 | 40.0 |
| Acrolein | Ave | 0.0235 | 0.0247 | | 26.3 | 25.0 | 5.3 | 40.0 |
| Acetonitrile | Ave | 0.0289 | 0.0275 | | 238 | 250 | -4.6 | 40.0 |
| Trichlorofluoromethane | Ave | 0.5699 | 0.5582 | | 24.5 | 25.0 | -2.0 | 40.0 |
| Acetone | Lin2 | | 0.0596 | | 25.4 | 25.0 | 1.8 | 40.0 |
| Diethyl ether | Ave | 0.1724 | 0.1798 | | 26.1 | 25.0 | 4.2 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.2459 | 0.2248 | | 22.9 | 25.0 | -8.6 | 30.0 |
| Iodomethane | Ave | 0.5311 | 0.5033 | | 23.7 | 25.0 | -5.2 | 40.0 |
| tert-Butyl alcohol (TBA) | Ave | 1.140 | 1.161 | | 255 | 250 | 1.8 | 30.0 |
| Acrylonitrile | Ave | 0.0686 | 0.0722 | | 263 | 250 | 5.3 | 40.0 |
| Methylene Chloride | Lin2 | | 0.2490 | | 23.6 | 25.0 | -5.4 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.3208 | 0.2989 | | 23.3 | 25.0 | -6.8 | 40.0 |
| Allyl chloride | Ave | 0.4356 | 0.4179 | | 24.0 | 25.0 | -4.1 | 40.0 |
| Carbon disulfide | Ave | 0.8355 | 0.7690 | | 23.0 | 25.0 | -8.0 | 40.0 |
| trans-1,2-Dichloroethene | Ave | 0.2524 | 0.2428 | | 24.1 | 25.0 | -3.8 | 30.0 |
| Methyl-t-Butyl Ether (MTBE) | Ave | 0.6755 | 0.6924 | | 25.6 | 25.0 | 2.5 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.4492 | 0.4501 | 0.1000 | 25.0 | 25.0 | 0.2 | 30.0 |
| Propionitrile | Ave | 0.0285 | 0.0303 | | 266 | 250 | 6.2 | 40.0 |
| Vinyl acetate | Lin2 | | 0.4745 | | 29.5 | 25.0 | 17.8 | 40.0 |
| Hexane | Ave | 0.4198 | 0.3741 | | 22.3 | 25.0 | -10.9 | 40.0 |
| 2-Butanone (MEK) | Lin2 | | 0.0232 | | 25.1 | 25.0 | 0.2 | 40.0 |
| Isopropyl Ether (DIPE) | Ave | 0.7928 | 0.8174 | | 25.8 | 25.0 | 3.1 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.2761 | 0.2768 | | 25.1 | 25.0 | 0.2 | 30.0 |
| Bromochloromethane | Ave | 0.1441 | 0.1419 | | 24.6 | 25.0 | -1.5 | 30.0 |
| Chloroform | Ave | 0.4746 | 0.4774 | | 25.1 | 25.0 | 0.6 | 30.0 |
| Ethyl-t-butyl ether (ETBE) | Ave | 0.7838 | 0.8124 | | 25.9 | 25.0 | 3.6 | 30.0 |
| 2,2-Dichloropropane | Ave | 0.3569 | 0.3165 | | 22.2 | 25.0 | -11.3 | 30.0 |
| Isobutyl alcohol | Ave | 0.5448 | 0.5660 | | 649 | 625 | 3.9 | 40.0 |
| Tetrahydrofuran | Ave | 0.0735 | 0.0698 | | 47.5 | 50.0 | -5.1 | 40.0 |
| 1,2-Dichloroethane | Ave | 0.3589 | 0.3576 | | 24.9 | 25.0 | -0.4 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.4762 | 0.4590 | | 24.1 | 25.0 | -3.6 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.3537 | 0.3530 | | 25.0 | 25.0 | -0.2 | 30.0 |
| Cyclohexane | Ave | 0.4683 | 0.4426 | | 23.6 | 25.0 | -5.5 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: ICV 440-439348/18 Calibration Date: 11/03/2017 22:25

Instrument ID: GCMS31 Calib Start Date: 11/03/2017 15:52

GC Column: DB-VRX C ID: 0.25(mm) Calib End Date: 11/03/2017 21:01

Lab File ID: NFK0318.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Carbon tetrachloride | Ave | 0.4585 | 0.4474 | | 24.4 | 25.0 | -2.4 | 40.0 |
| Benzene | Ave | 0.9691 | 0.9513 | | 24.5 | 25.0 | -1.8 | 30.0 |
| Tert-amyl-methyl ether (TAME) | Ave | 0.7225 | 0.7467 | | 25.8 | 25.0 | 3.3 | 30.0 |
| n-Heptane | Ave | 0.4392 | 0.4131 | | 23.5 | 25.0 | -5.9 | 30.0 |
| Dibromomethane | Ave | 0.1745 | 0.1684 | | 24.1 | 25.0 | -3.5 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.2255 | 0.2394 | | 26.5 | 25.0 | 6.1 | 30.0 |
| Trichloroethene | Ave | 0.3099 | 0.3092 | | 24.9 | 25.0 | -0.2 | 30.0 |
| Bromodichloromethane | Ave | 0.3541 | 0.3478 | | 24.6 | 25.0 | -1.8 | 30.0 |
| 2-Chloroethyl vinyl ether | Ave | 0.1703 | 0.1623 | | 23.8 | 25.0 | -4.7 | 40.0 |
| cis-1,3-Dichloropropene | Ave | 0.4574 | 0.4562 | | 24.9 | 25.0 | -0.3 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.2641 | 0.2929 | | 27.7 | 25.0 | 10.9 | 40.0 |
| trans-1,3-Dichloropropene | Ave | 0.4139 | 0.4131 | | 25.0 | 25.0 | -0.2 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.2041 | 0.2047 | | 25.1 | 25.0 | 0.3 | 30.0 |
| Toluene | Ave | 1.278 | 1.227 | | 24.0 | 25.0 | -4.0 | 30.0 |
| 1,3-Dichloropropane | Ave | 0.4153 | 0.3939 | | 23.7 | 25.0 | -5.2 | 30.0 |
| Ethyl methacrylate | Ave | 0.3204 | 0.3351 | | 26.1 | 25.0 | 4.6 | 40.0 |
| 2-Hexanone | Ave | 0.1934 | 0.2009 | | 26.0 | 25.0 | 3.9 | 40.0 |
| Dibromochloromethane | Ave | 0.3244 | 0.3451 | | 26.6 | 25.0 | 6.4 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2839 | 0.2805 | | 24.7 | 25.0 | -1.2 | 30.0 |
| Tetrachloroethene | Ave | 0.3143 | 0.2911 | | 23.2 | 25.0 | -7.4 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.3449 | 0.3407 | | 24.7 | 25.0 | -1.2 | 40.0 |
| Chlorobenzene | Ave | 0.8835 | 0.8475 | 0.3000 | 24.0 | 25.0 | -4.1 | 30.0 |
| Ethylbenzene | Ave | 1.505 | 1.394 | | 23.2 | 25.0 | -7.3 | 30.0 |
| m,p-Xylene | Ave | 0.5966 | 0.5629 | | 23.6 | 25.0 | -5.7 | 30.0 |
| Bromoform | Lin2 | | 0.2328 | 0.1000 | 24.9 | 25.0 | -0.4 | 40.0 |
| Styrene | Ave | 0.9370 | 0.9264 | | 24.7 | 25.0 | -1.1 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5953 | 0.6100 | 0.3000 | 25.6 | 25.0 | 2.5 | 30.0 |
| o-Xylene | Ave | 0.5920 | 0.5518 | | 23.3 | 25.0 | -6.8 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.1831 | 0.1804 | | 24.6 | 25.0 | -1.5 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.1863 | 0.1922 | | 25.8 | 25.0 | 3.2 | 40.0 |
| Isopropylbenzene | Ave | 1.603 | 1.482 | | 23.1 | 25.0 | -7.6 | 30.0 |
| Bromobenzene | Ave | 0.7817 | 0.7975 | | 25.5 | 25.0 | 2.0 | 30.0 |
| N-Propylbenzene | Ave | 3.376 | 3.257 | | 24.1 | 25.0 | -3.5 | 30.0 |
| 2-Chlorotoluene | Ave | 2.032 | 1.967 | | 24.2 | 25.0 | -3.2 | 30.0 |
| 4-Chlorotoluene | Ave | 2.121 | 2.058 | | 24.3 | 25.0 | -3.0 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.536 | 2.514 | | 24.8 | 25.0 | -0.9 | 30.0 |
| tert-Butylbenzene | Ave | 2.343 | 2.281 | | 24.3 | 25.0 | -2.6 | 30.0 |
| 1,2,4-Trimethylbenzene | Ave | 2.592 | 2.537 | | 24.5 | 25.0 | -2.1 | 30.0 |
| sec-Butylbenzene | Ave | 3.504 | 3.310 | | 23.6 | 25.0 | -5.5 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.578 | 1.513 | | 24.0 | 25.0 | -4.1 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Lab Sample ID: ICV 440-439348/18  Calibration Date: 11/03/2017 22:25

Instrument ID: GCMS31  Calib Start Date: 11/03/2017 15:52

GC Column: DB-VRX C  ID: 0.25(mm)  Calib End Date: 11/03/2017 21:01

Lab File ID: NFK0318.D  Conc. Units: ug/L  Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | Ave | 1.594 | 1.566 | | 24.5 | 25.0 | -1.8 | 30.0 |
| p-Isopropyltoluene | Ave | 3.002 | 2.863 | | 23.8 | 25.0 | -4.6 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.492 | 1.485 | | 24.9 | 25.0 | -0.5 | 30.0 |
| n-Butylbenzene | Ave | 2.705 | 2.487 | | 23.0 | 25.0 | -8.1 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Ave | 0.1464 | 0.1560 | | 26.6 | 25.0 | 6.5 | 40.0 |
| 1,2,4-Trichlorobenzene | Ave | 1.237 | 1.202 | | 24.3 | 25.0 | -2.8 | 40.0 |
| Naphthalene | Ave | 2.849 | 2.787 | | 24.5 | 25.0 | -2.2 | 40.0 |
| Hexachlorobutadiene | Ave | 0.7422 | 0.7386 | | 24.9 | 25.0 | -0.5 | 40.0 |
| 1,2,3-Trichlorobenzene | Ave | 1.222 | 1.201 | | 24.6 | 25.0 | -1.7 | 40.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2909 | 0.2827 | | 24.3 | 25.0 | -2.8 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.3262 | 0.3136 | | 24.0 | 25.0 | -3.9 | |
| Toluene-d8 (Surr) | Ave | 1.104 | 1.076 | | 24.4 | 25.0 | -2.6 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.8695 | 0.8936 | | 25.7 | 25.0 | 2.8 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCVIS 440-442464/2 Calibration Date: 11/20/2017 07:40

Instrument ID: GCMS31 Calib Start Date: 11/03/2017 15:52

GC Column: DB-VRX C ID: 0.25(mm) Calib End Date: 11/03/2017 21:01

Lab File ID: NFK20002.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.3629 | 0.3650 | | 25.1 | 25.0 | 0.6 | 40.0 |
| Chloromethane | Ave | 0.3042 | 0.3039 | 0.1000 | 25.0 | 25.0 | -0.1 | 40.0 |
| Vinyl chloride | Ave | 0.2773 | 0.2901 | | 26.2 | 25.0 | 4.6 | 20.0 |
| 1,3-Butadiene | Ave | 0.2438 | 0.2413 | | 24.7 | 25.0 | -1.0 | 30.0 |
| Bromomethane | Ave | 0.2148 | 0.2236 | | 26.0 | 25.0 | 4.1 | 30.0 |
| Chloroethane | Ave | 0.1695 | 0.1762 | | 26.0 | 25.0 | 3.9 | 30.0 |
| Ethanol | Ave | 0.1165 | 0.1105 | | 949 | 1000 | -5.1 | 40.0 |
| Dichlorofluoromethane | Ave | 0.4821 | 0.5244 | | 27.2 | 25.0 | 8.8 | 40.0 |
| Acrolein | Ave | 0.0235 | 0.0243 | | 25.8 | 25.0 | 3.2 | 40.0 |
| Acetonitrile | Ave | 0.0289 | 0.0312 | | 271 | 250 | 8.2 | 40.0 |
| Trichlorofluoromethane | Ave | 0.5699 | 0.5790 | | 25.4 | 25.0 | 1.6 | 40.0 |
| Acetone | Lin2 | | 0.0614 | | 26.1 | 25.0 | 4.5 | 40.0 |
| Diethyl ether | Ave | 0.1724 | 0.1792 | | 26.0 | 25.0 | 3.9 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.2459 | 0.2299 | | 23.4 | 25.0 | -6.5 | 20.0 |
| tert-Butyl alcohol (TBA) | Ave | 1.140 | 1.178 | | 258 | 250 | 3.3 | 30.0 |
| Iodomethane | Ave | 0.5311 | 0.5100 | | 24.0 | 25.0 | -4.0 | 40.0 |
| Acrylonitrile | Ave | 0.0686 | 0.0800 | | 292 | 250 | 16.7 | 40.0 |
| Methylene Chloride | Lin2 | | 0.2505 | | 23.8 | 25.0 | -4.8 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.3208 | 0.3215 | | 25.0 | 25.0 | 0.2 | 40.0 |
| Allyl chloride | Ave | 0.4356 | 0.4320 | | 24.8 | 25.0 | -0.8 | 40.0 |
| Carbon disulfide | Ave | 0.8355 | 0.8476 | | 25.4 | 25.0 | 1.5 | 40.0 |
| trans-1,2-Dichloroethene | Ave | 0.2524 | 0.2516 | | 24.9 | 25.0 | -0.3 | 30.0 |
| Methyl-t-Butyl Ether (MTBE) | Ave | 0.6755 | 0.7142 | | 26.4 | 25.0 | 5.7 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.4492 | 0.4571 | 0.1000 | 25.4 | 25.0 | 1.8 | 30.0 |
| Propionitrile | Ave | 0.0285 | 0.0323 | | 283 | 250 | 13.2 | 40.0 |
| Vinyl acetate | Lin2 | | 0.4943 | | 24.7 | 20.0 | 23.5 | 40.0 |
| Hexane | Ave | 0.4198 | 0.4029 | | 24.0 | 25.0 | -4.0 | 40.0 |
| 2-Butanone (MEK) | Lin2 | | 0.0223 | | 24.3 | 25.0 | -3.0 | 40.0 |
| Isopropyl Ether (DIPE) | Ave | 0.7928 | 0.8305 | | 26.2 | 25.0 | 4.8 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.2761 | 0.2778 | | 25.2 | 25.0 | 0.6 | 30.0 |
| Bromochloromethane | Ave | 0.1441 | 0.1350 | | 23.4 | 25.0 | -6.3 | 30.0 |
| Chloroform | Ave | 0.4746 | 0.4826 | | 25.4 | 25.0 | 1.7 | 20.0 |
| Ethyl-t-butyl ether (ETBE) | Ave | 0.7838 | 0.8390 | | 26.8 | 25.0 | 7.0 | 30.0 |
| 2,2-Dichloropropane | Ave | 0.3569 | 0.3988 | | 27.9 | 25.0 | 11.8 | 30.0 |
| Isobutyl alcohol | Ave | 0.5448 | 0.5618 | | 645 | 625 | 3.1 | 40.0 |
| Tetrahydrofuran | Ave | 0.0735 | 0.0790 | | 53.7 | 50.0 | 7.5 | 40.0 |
| 1,2-Dichloroethane | Ave | 0.3589 | 0.3754 | | 26.1 | 25.0 | 4.6 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.4762 | 0.4654 | | 24.4 | 25.0 | -2.3 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.3537 | 0.3623 | | 25.6 | 25.0 | 2.4 | 30.0 |
| Cyclohexane | Ave | 0.4683 | 0.4675 | | 25.0 | 25.0 | -0.2 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCVIS 440-442464/2 Calibration Date: 11/20/2017 07:40

Instrument ID: GCMS31 Calib Start Date: 11/03/2017 15:52

GC Column: DB-VRX C ID: 0.25(mm) Calib End Date: 11/03/2017 21:01

Lab File ID: NFK20002.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Carbon tetrachloride | Ave | 0.4585 | 0.4726 | | 25.8 | 25.0 | 3.1 | 40.0 |
| Benzene | Ave | 0.9691 | 0.9744 | | 25.1 | 25.0 | 0.6 | 30.0 |
| Tert-amyl-methyl ether (TAME) | Ave | 0.7225 | 0.7285 | | 25.2 | 25.0 | 0.8 | 30.0 |
| n-Heptane | Ave | 0.4392 | 0.4545 | | 25.9 | 25.0 | 3.5 | 30.0 |
| Dibromomethane | Ave | 0.1745 | 0.1751 | | 25.1 | 25.0 | 0.3 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.2255 | 0.2478 | | 27.5 | 25.0 | 9.9 | 20.0 |
| Trichloroethene | Ave | 0.3099 | 0.2947 | | 23.8 | 25.0 | -4.9 | 30.0 |
| Bromodichloromethane | Ave | 0.3541 | 0.3551 | | 25.1 | 25.0 | 0.3 | 30.0 |
| 2-Chloroethyl vinyl ether | Ave | 0.1703 | 0.1601 | | 23.5 | 25.0 | -6.0 | 40.0 |
| cis-1,3-Dichloropropene | Ave | 0.4574 | 0.4887 | | 26.7 | 25.0 | 6.9 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.2641 | 0.2836 | | 26.8 | 25.0 | 7.4 | 40.0 |
| trans-1,3-Dichloropropene | Ave | 0.4139 | 0.4523 | | 27.3 | 25.0 | 9.3 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.2041 | 0.2145 | | 26.3 | 25.0 | 5.1 | 30.0 |
| Toluene | Ave | 1.278 | 1.265 | | 24.7 | 25.0 | -1.0 | 20.0 |
| 1,3-Dichloropropane | Ave | 0.4153 | 0.4203 | | 25.3 | 25.0 | 1.2 | 30.0 |
| Ethyl methacrylate | Ave | 0.3204 | 0.3302 | | 25.8 | 25.0 | 3.1 | 40.0 |
| 2-Hexanone | Ave | 0.1934 | 0.2074 | | 26.8 | 25.0 | 7.3 | 40.0 |
| Dibromochloromethane | Ave | 0.3244 | 0.3517 | | 27.1 | 25.0 | 8.4 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2839 | 0.2836 | | 25.0 | 25.0 | -0.1 | 30.0 |
| Tetrachloroethene | Ave | 0.3143 | 0.3127 | | 24.9 | 25.0 | -0.5 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.3449 | 0.3437 | | 24.9 | 25.0 | -0.3 | 40.0 |
| Chlorobenzene | Ave | 0.8835 | 0.8754 | 0.3000 | 24.8 | 25.0 | -0.9 | 30.0 |
| Ethylbenzene | Ave | 1.505 | 1.478 | | 24.6 | 25.0 | -1.8 | 20.0 |
| m,p-Xylene | Ave | 0.5966 | 0.6069 | | 25.4 | 25.0 | 1.7 | 30.0 |
| Bromoform | Lin2 | | 0.2359 | 0.1000 | 25.2 | 25.0 | 0.9 | 40.0 |
| Styrene | Ave | 0.9370 | 0.9073 | | 24.2 | 25.0 | -3.2 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5953 | 0.6751 | 0.3000 | 28.3 | 25.0 | 13.4 | 30.0 |
| o-Xylene | Ave | 0.5920 | 0.5712 | | 24.1 | 25.0 | -3.5 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.1831 | 0.2042 | | 27.9 | 25.0 | 11.5 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.1863 | 0.2263 | | 30.4 | 25.0 | 21.5 | 40.0 |
| Isopropylbenzene | Ave | 1.603 | 1.561 | | 24.3 | 25.0 | -2.6 | 30.0 |
| Bromobenzene | Ave | 0.7817 | 0.7828 | | 25.0 | 25.0 | 0.1 | 30.0 |
| N-Propylbenzene | Ave | 3.376 | 3.513 | | 26.0 | 25.0 | 4.0 | 30.0 |
| 2-Chlorotoluene | Ave | 2.032 | 2.079 | | 25.6 | 25.0 | 2.3 | 30.0 |
| 4-Chlorotoluene | Ave | 2.121 | 2.204 | | 26.0 | 25.0 | 3.9 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.536 | 2.576 | | 25.4 | 25.0 | 1.6 | 30.0 |
| tert-Butylbenzene | Ave | 2.343 | 2.350 | | 25.1 | 25.0 | 0.3 | 30.0 |
| 1,2,4-Trimethylbenzene | Ave | 2.592 | 2.666 | | 25.7 | 25.0 | 2.9 | 30.0 |
| sec-Butylbenzene | Ave | 3.504 | 3.545 | | 25.3 | 25.0 | 1.2 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.578 | 1.572 | | 24.9 | 25.0 | -0.4 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCVIS 440-442464/2  Calibration Date: 11/20/2017 07:40

Instrument ID: GCMS31  Calib Start Date: 11/03/2017 15:52

GC Column: DB-VRX C  ID: 0.25(mm)  Calib End Date: 11/03/2017 21:01

Lab File ID: NFK20002.D  Conc. Units: ug/L  Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | Ave | 1.594 | 1.621 | | 25.4 | 25.0 | 1.6 | 30.0 |
| p-Isopropyltoluene | Ave | 3.002 | 2.974 | | 24.8 | 25.0 | -1.0 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.492 | 1.532 | | 25.7 | 25.0 | 2.6 | 30.0 |
| n-Butylbenzene | Ave | 2.705 | 2.779 | | 25.7 | 25.0 | 2.7 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Ave | 0.1464 | 0.1623 | | 27.7 | 25.0 | 10.8 | 40.0 |
| 1,2,4-Trichlorobenzene | Ave | 1.237 | 1.253 | | 25.3 | 25.0 | 1.3 | 40.0 |
| Naphthalene | Ave | 2.849 | 2.807 | | 24.6 | 25.0 | -1.5 | 40.0 |
| Hexachlorobutadiene | Ave | 0.7422 | 0.7578 | | 25.5 | 25.0 | 2.1 | 40.0 |
| 1,2,3-Trichlorobenzene | Ave | 1.222 | 1.173 | | 24.0 | 25.0 | -4.0 | 40.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2909 | 0.2855 | | 24.5 | 25.0 | -1.8 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.3262 | 0.3396 | | 26.0 | 25.0 | 4.1 | |
| Toluene-d8 (Surr) | Ave | 1.104 | 1.117 | | 25.3 | 25.0 | 1.1 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.8695 | 0.9035 | | 26.0 | 25.0 | 3.9 | 20.0 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-442464/3

Matrix: Water | Lab File ID: NFK20003.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 11/20/2017 08:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442464 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | ND | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-442464/3

Matrix: Water | Lab File ID: NFK20003.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 11/20/2017 08:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442464 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 440-442464/3

Matrix: Water  Lab File ID: NFK20003.D

Analysis Method: 8260B  Date Collected:

Sample wt/vol: 10(mL)  Date Analyzed: 11/20/2017 08:39

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX C  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 442464  Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 102 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 97 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 105 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-442464/4

Matrix: Water | Lab File ID: NFK20004.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 11/20/2017 09:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442464 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 27.3 | | 20 | 10 |
| 71-43-2 | Benzene | 25.2 | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | 23.9 | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | 24.6 | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 26.5 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 23.8 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | 24.5 | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | 29.5 | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 25.3 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | 24.4 | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | 24.9 | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 25.5 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | 23.9 | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | 25.0 | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | 25.2 | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | 25.6 | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25.9 | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 26.0 | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 27.0 | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 24.2 | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | 24.6 | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 24.3 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 23.9 | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 25.0 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | 22.8 | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | 25.7 | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | 25.7 | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | 22.7 | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | 28.2 | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | 24.3 | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | 26.7 | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | 26.4 | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | 24.0 | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 26.8 | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | 24.3 | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | 27.8 | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-442464/4

Matrix: Water | Lab File ID: NFK20004.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 11/20/2017 09:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442464 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 23.6 | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | 26.9 | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 23.4 | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 28.3 | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 26.4 | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | 24.4 | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | 23.1 | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | 24.8 | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | 25.1 | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | 23.8 | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | 24.0 | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | 23.7 | | 0.50 | 0.25 |
| 100-42-5 | Styrene | 24.3 | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 25.9 | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 255 | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | 24.6 | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 25.4 | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 26.2 | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 24.2 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | 24.4 | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | 25.9 | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | 26.2 | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 23.8 | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 24.6 | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | 24.9 | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | 25.8 | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 24.9 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | 24.9 | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | 25.8 | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 24.5 | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 24.7 | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | 24.4 | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | 48.2 | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 440-442464/4

Matrix: Water Lab File ID: NFK20004.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 10(mL) Date Analyzed: 11/20/2017 09:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 442464 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 102 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 102 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 99 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-196038-A-2 MS

Matrix: Water | Lab File ID: NFK20007.D

Analysis Method: 8260B | Date Collected: 11/08/2017 13:40

Sample wt/vol: 10(mL) | Date Analyzed: 11/20/2017 10:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442464 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 25.2 | | 20 | 10 |
| 71-43-2 | Benzene | 27.1 | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | 25.9 | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | 25.8 | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 26.5 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 23.9 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | 28.5 | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | 23.9 | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 27.5 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | 26.4 | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | 28.9 | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 27.2 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | 26.4 | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | 27.3 | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | 27.1 | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | 27.2 | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | 27.2 | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 27.9 | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 27.7 | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 25.5 | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | 25.2 | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 26.3 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 25.7 | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 27.2 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | 23.7 | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | 27.5 | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | 27.3 | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | 25.0 | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | 29.1 | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | 24.9 | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | 29.7 | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | 28.9 | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | 26.2 | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 26.5 | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | 27.5 | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | 25.1 | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-196038-A-2 MS

Matrix: Water | Lab File ID: NFK20007.D

Analysis Method: 8260B | Date Collected: 11/08/2017 13:40

Sample wt/vol: 10(mL) | Date Analyzed: 11/20/2017 10:22

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442464 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 26.1 | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | 28.0 | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 25.9 | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 26.7 | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 27.1 | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | 26.6 | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | 24.0 | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | 27.2 | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | 27.6 | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | 26.4 | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | 26.6 | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | 26.4 | | 0.50 | 0.25 |
| 100-42-5 | Styrene | 26.1 | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 25.7 | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 272 | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | 26.8 | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 25.8 | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 27.4 | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 26.4 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | 26.3 | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | 27.9 | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | 27.5 | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 25.9 | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 25.8 | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | 26.9 | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | 27.1 | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 26.2 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | 27.5 | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | 24.3 | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 26.5 | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 26.3 | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | 27.1 | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | 53.0 | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Client Sample ID: Lab Sample ID: 440-196038-A-2 MS

Matrix: Water Lab File ID: NFK20007.D

Analysis Method: 8260B Date Collected: 11/08/2017 13:40

Sample wt/vol: 10(mL) Date Analyzed: 11/20/2017 10:22

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 442464 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 101 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 97 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 97 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-196038-A-2 MSD

Matrix: Water | Lab File ID: NFK20008.D

Analysis Method: 8260B | Date Collected: 11/08/2017 13:40

Sample wt/vol: 10(mL) | Date Analyzed: 11/20/2017 10:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442464 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 25.4 | | 20 | 10 |
| 71-43-2 | Benzene | 27.1 | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | 25.3 | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | 24.9 | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 27.1 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 23.3 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | 27.9 | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | 25.1 | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 27.6 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | 25.6 | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | 28.0 | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 27.6 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | 24.9 | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | 26.5 | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | 26.7 | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | 27.8 | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | 27.5 | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 26.4 | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 24.8 | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 24.8 | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | 25.6 | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 26.5 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 25.3 | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 26.1 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | 24.0 | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | 27.9 | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | 26.8 | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | 25.5 | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | 28.8 | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | 24.7 | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | 29.1 | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | 29.3 | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | 25.5 | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 27.3 | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | 26.3 | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | 25.2 | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-196038-A-2 MSD

Matrix: Water | Lab File ID: NFK20008.D

Analysis Method: 8260B | Date Collected: 11/08/2017 13:40

Sample wt/vol: 10(mL) | Date Analyzed: 11/20/2017 10:50

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX C ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 442464 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 25.5 | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | 28.3 | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 24.8 | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 25.9 | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 27.0 | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | 26.1 | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | 23.5 | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | 26.4 | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | 26.9 | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | 25.7 | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | 26.2 | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | 25.7 | | 0.50 | 0.25 |
| 100-42-5 | Styrene | 25.3 | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 26.1 | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 284 | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | 25.7 | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 26.0 | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 27.2 | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 26.4 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | 26.0 | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | 28.8 | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | 26.9 | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 25.3 | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 25.2 | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | 26.6 | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | 26.3 | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 26.3 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | 27.5 | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | 26.1 | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 25.9 | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25.8 | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | 27.3 | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | 51.8 | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Client Sample ID:  Lab Sample ID: 440-196038-A-2 MSD

Matrix: Water  Lab File ID: NFK20008.D

Analysis Method: 8260B  Date Collected: 11/08/2017 13:40

Sample wt/vol: 10(mL)  Date Analyzed: 11/20/2017 10:50

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX C  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 442464  Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 97 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 101 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 99 | | 80-128 |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: GCMS31 Start Date: 11/03/2017 14:24

Analysis Batch Number: 439348 End Date: 11/03/2017 22:25

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-439348/1 | | 11/03/2017 14:24 | 1 | NFK0301.D | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/03/2017 14:56 | 1 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/03/2017 15:24 | 1 | | DB-VRX C 0.25(mm) |
| STD02 440-439348/4 IC | | 11/03/2017 15:52 | 1 | NFK0304.D | DB-VRX C 0.25(mm) |
| STD04 440-439348/5 IC | | 11/03/2017 16:20 | 1 | NFK0305.D | DB-VRX C 0.25(mm) |
| STD05 440-439348/6 IC | | 11/03/2017 16:48 | 1 | NFK0306.D | DB-VRX C 0.25(mm) |
| STD1 440-439348/7 IC | | 11/03/2017 17:16 | 1 | NFK0307.D | DB-VRX C 0.25(mm) |
| STD2 440-439348/8 IC | | 11/03/2017 17:44 | 1 | NFK0308.D | DB-VRX C 0.25(mm) |
| STD5 440-439348/9 IC | | 11/03/2017 18:12 | 1 | NFK0309.D | DB-VRX C 0.25(mm) |
| STD10 440-439348/10 IC | | 11/03/2017 18:40 | 1 | NFK0310.D | DB-VRX C 0.25(mm) |
| ICIS 440-439348/11 | | 11/03/2017 19:08 | 1 | NFK0311.D | DB-VRX C 0.25(mm) |
| STD50 440-439348/12 IC | | 11/03/2017 19:36 | 1 | NFK0312.D | DB-VRX C 0.25(mm) |
| STD100 440-439348/13 IC | | 11/03/2017 20:05 | 1 | NFK0313.D | DB-VRX C 0.25(mm) |
| STD200 440-439348/14 IC | | 11/03/2017 20:33 | 1 | NFK0314.D | DB-VRX C 0.25(mm) |
| STD300 440-439348/15 IC | | 11/03/2017 21:01 | 1 | NFK0315.D | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/03/2017 21:29 | 1 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/03/2017 21:57 | 1 | | DB-VRX C 0.25(mm) |
| ICV 440-439348/18 | | 11/03/2017 22:25 | 1 | NFK0318.D | DB-VRX C 0.25(mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: GCMS31 Start Date: 11/20/2017 07:09

Analysis Batch Number: 442464 End Date: 11/20/2017 18:21

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-442464/5 | | 11/20/2017 07:09 | 1 | NFK02005.D | DB-VRX C 0.25(mm) |
| CCVIS 440-442464/2 | | 11/20/2017 07:40 | 1 | NFK20002.D | DB-VRX C 0.25(mm) |
| MB 440-442464/3 | | 11/20/2017 08:39 | 1 | NFK20003.D | DB-VRX C 0.25(mm) |
| LCS 440-442464/4 | | 11/20/2017 09:07 | 1 | NFK20004.D | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/20/2017 09:54 | 1 | | DB-VRX C 0.25(mm) |
| 440-196038-A-2 MS | | 11/20/2017 10:22 | 1 | NFK20007.D | DB-VRX C 0.25(mm) |
| 440-196038-A-2 MSD | | 11/20/2017 10:50 | 1 | NFK20008.D | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/20/2017 11:19 | 1 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/20/2017 11:47 | 1 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/20/2017 12:15 | 1 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/20/2017 12:43 | 1 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/20/2017 13:11 | 1 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/20/2017 13:39 | 1 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/20/2017 14:07 | 1 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/20/2017 14:35 | 1 | | DB-VRX C 0.25(mm) |
| 440-196039-1 | | 11/20/2017 15:04 | 1 | NFK20017.D | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/20/2017 15:32 | 1 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/20/2017 16:00 | 1 | | DB-VRX C 0.25(mm) |
| ZZZZZ | | 11/20/2017 16:29 | 1 | | DB-VRX C 0.25(mm) |
| 440-196039-2 | | 11/20/2017 16:57 | 1 | NFK20021.D | DB-VRX C 0.25(mm) |
| 440-196039-3 | | 11/20/2017 17:25 | 1 | NFK20022.D | DB-VRX C 0.25(mm) |
| 440-196039-4 | | 11/20/2017 17:53 | 1 | NFK20023.D | DB-VRX C 0.25(mm) |
| 440-196039-5 | | 11/20/2017 18:21 | 1 | NFK20024.D | DB-VRX C 0.25(mm) |

# 314.0_LL

## Perchlorate (IC)

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096739-004_04_ECD_1.d

Lab ID: LCS 440-443545/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 25.0 | 25.4 | 102 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096789-00404ECD_1.d

Lab ID: LCS 440-443796/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 25.0 | 25.2 | 101 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096739-007_07_ECD_1.d

Lab ID: MRL 440-443545/7 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 4.00 | 4.29 | 107 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096789-00707ECD_1.d

Lab ID: MRL 440-443796/7 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 4.00 | 4.83 | 121 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096739-009_09_ECD_1.d

Lab ID: 440-196686-H-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Perchlorate | 25.0 | 1.8 | 30.7 | 116 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096789-01616ECD_1.d

Lab ID: 320-33164-D-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Perchlorate | 25.0 | 6.6 | 34.9 | 113 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096739-010_10_ECD_1.d

Lab ID: 440-196686-H-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Perchlorate | 25.0 | 30.1 | 113 | 2 | 20 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096789-01717ECD_1.d

Lab ID: 320-33164-D-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Perchlorate | 25.0 | 34.9 | 113 | 0 | 20 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096739-006_06_ECD_1.d

Lab ID: INF 440-443545/6 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | INF CONCENTRATION (ug/L) | INF % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 25.0 | 24.5 | 98 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096789-00606ECD_1.d

Lab ID: INF 440-443796/6 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | INF CONCENTRATION (ug/L) | INF % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 25.0 | 26.4 | 105 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab File ID: 440-0096739-005_05_ECD_1.d Lab Sample ID: MB 440-443545/5

Matrix: Water Date Extracted:

Instrument ID: IC-23 Date Analyzed: 11/27/2017 10:00

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-443545/3 | 440-0096739-003_03_ECD_1.d | 11/27/2017 09:24 |
| | LCS 440-443545/4 | 440-0096739-004_04_ECD_1.d | 11/27/2017 09:42 |
| | 440-196686-H-1 MS | 440-0096739-009_09_ECD_1.d | 11/27/2017 11:16 |
| | 440-196686-H-1 MSD | 440-0096739-010_10_ECD_1.d | 11/27/2017 11:34 |
| | CCB 440-443545/15 | 440-0096739-015_15_ECD_1.d | 11/27/2017 13:03 |
| VMW-02I-20171108-EB | 440-196039-5 | 440-0096739-016_16_ECD_1.d | 11/27/2017 13:31 |
| | CCB 440-443545/27 | 440-0096739-027_27_ECD_1.d | 11/27/2017 17:21 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab File ID: 440-0096789-00505ECD_1.d Lab Sample ID: MB 440-443796/5

Matrix: Water Date Extracted:

Instrument ID: IC-24 Date Analyzed: 11/28/2017 11:12

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-443796/3 | 440-0096789-00303ECD_1.d | 11/28/2017 10:36 |
| | LCS 440-443796/4 | 440-0096789-00404ECD_1.d | 11/28/2017 10:54 |
| | CCB 440-443796/15 | 440-0096789-01515ECD_1.d | 11/28/2017 14:20 |
| | 320-33164-D-1 MS | 440-0096789-01616ECD_1.d | 11/28/2017 14:38 |
| | 320-33164-D-1 MSD | 440-0096789-01717ECD_1.d | 11/28/2017 14:56 |
| | CCB 440-443796/27 | 440-0096789-02727ECD_1.d | 11/28/2017 17:54 |
| VER-01I-20171108 | 440-196039-2 | 440-0096789-02828ECD_1.d | 11/28/2017 18:12 |
| VMW-02D-20171108 | 440-196039-3 | 440-0096789-02929ECD_1.d | 11/28/2017 18:30 |
| VMW-02I-20171108 | 440-196039-4 | 440-0096789-03030ECD_1.d | 11/28/2017 18:48 |
| | CCB 440-443796/39 | 440-0096789-03939ECD_1.d | 11/28/2017 21:29 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VER-01I-20171108 | Lab Sample ID: 440-196039-2

Matrix: Water | Lab File ID: 440-0096789-02828ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 11/08/2017 08:05

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/28/2017 18:12

Con. Extract Vol.: | Dilution Factor: 10000

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443796 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 300000 | | 10000 | 5000 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02D-20171108 | Lab Sample ID: 440-196039-3

Matrix: Water | Lab File ID: 440-0096789-02929ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 11/08/2017 09:55

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/28/2017 18:30

Con. Extract Vol.: | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443796 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 280 | | 10 | 5.0 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02I-20171108 | Lab Sample ID: 440-196039-4

Matrix: Water | Lab File ID: 440-0096789-03030ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 11/08/2017 11:30

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/28/2017 18:48

Con. Extract Vol.: | Dilution Factor: 10000

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443796 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 320000 | | 10000 | 5000 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02I-20171108-EB | Lab Sample ID: 440-196039-5

Matrix: Water | Lab File ID: 440-0096739-016_16_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 11/08/2017 12:40

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/27/2017 13:31

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443545 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | ^ | 1.0 | 0.50 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 438803

SDG No.:

Instrument ID: IC-23 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/01/2017 11:55 Calibration End Date: 11/01/2017 14:00 Calibration ID: 17860

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-438803/2 | 440-0095613-002_02_ECD_1.d |
| Level 2 | STD2 440-438803/3 | 440-0095613-003_03_ECD_1.d |
| Level 3 | STD3 440-438803/4 | 440-0095613-004_04_ECD_1.d |
| Level 4 | STD4 440-438803/5 | 440-0095613-005_05_ECD_1.d |
| Level 5 | STD5 440-438803/6 | 440-0095613-006_06_ECD_1.d |
| Level 6 | STD6 440-438803/7 | 440-0095613-007_07_ECD_1.d |
| Level 7 | STD7 440-438803/8 | 440-0095613-008_08_ECD_1.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 10.719 | 10.755 | 10.728 | 10.722 | 10.704 | 10.694 | 10.679 | | | | 10.183 - 11.255 | 10.714 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 438803

SDG No.:

Instrument ID: IC-23 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/01/2017 11:55 Calibration End Date: 11/01/2017 14:00 Calibration ID: 17860

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-438803/2 | 440-0095613-002_02_ECD_1.d |
| Level 2 | STD2 440-438803/3 | 440-0095613-003_03_ECD_1.d |
| Level 3 | STD3 440-438803/4 | 440-0095613-004_04_ECD_1.d |
| Level 4 | STD4 440-438803/5 | 440-0095613-005_05_ECD_1.d |
| Level 5 | STD5 440-438803/6 | 440-0095613-006_06_ECD_1.d |
| Level 6 | STD6 440-438803/7 | 440-0095613-007_07_ECD_1.d |
| Level 7 | STD7 440-438803/8 | 440-0095613-008_08_ECD_1.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Perchlorate | 68553<br>126941 | 123626<br>131154 | 106943<br>134494 | 125792 | Qua | -38298.291 | 127929.655 | 69.9110303 | | | | | | 1.0000 | | 0.9950 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 438803

SDG No.:

Instrument ID: IC-23 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/01/2017 11:55 Calibration End Date: 11/01/2017 14:00 Calibration ID: 17860

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-438803/2 | 440-0095613-002_02_ECD_1.d |
| Level 2 | STD2 440-438803/3 | 440-0095613-003_03_ECD_1.d |
| Level 3 | STD3 440-438803/4 | 440-0095613-004_04_ECD_1.d |
| Level 4 | STD4 440-438803/5 | 440-0095613-005_05_ECD_1.d |
| Level 5 | STD5 440-438803/6 | 440-0095613-006_06_ECD_1.d |
| Level 6 | STD6 440-438803/7 | 440-0095613-007_07_ECD_1.d |
| Level 7 | STD7 440-438803/8 | 440-0095613-008_08_ECD_1.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| Perchlorate | Qua | 68553<br>6557688 | 247252<br>13449444 | 427771 | 1257916 | 3173525 | 1.00<br>50.0 | 2.00<br>100 | 4.00 | 10.0 | 25.0 |

Curve Type Legend:
Qua = Quadratic

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 438806

SDG No.:

Instrument ID: IC-24 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/01/2017 11:58 Calibration End Date: 11/01/2017 14:03 Calibration ID: 17854

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-438806/1 | 440-0095615-00101ECD_1.d |
| Level 2 | STD1 440-438806/2 | 440-0095615-00202ECD_1.d |
| Level 3 | STD2 440-438806/3 | 440-0095615-00303ECD_1.d |
| Level 4 | STD3 440-438806/4 | 440-0095615-00404ECD_1.d |
| Level 5 | STD4 440-438806/5 | 440-0095615-00505ECD_1.d |
| Level 6 | STD5 440-438806/6 | 440-0095615-00606ECD_1.d |
| Level 7 | STD6 440-438806/7 | 440-0095615-00707ECD_1.d |
| Level 8 | STD7 440-438806/8 | 440-0095615-00808ECD_1.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | LVL 8 | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | | 11.747 | 11.761 | 11.764 | 11.757 | 11.754 | 11.747 | 11.734 | | | 0.000 - 0.000 | 11.752 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 438806

SDG No.:

Instrument ID: IC-24 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/01/2017 11:58 Calibration End Date: 11/01/2017 14:03 Calibration ID: 17854

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-438806/1 | 440-0095615-00101ECD_1.d |
| Level 2 | STD1 440-438806/2 | 440-0095615-00202ECD_1.d |
| Level 3 | STD2 440-438806/3 | 440-0095615-00303ECD_1.d |
| Level 4 | STD3 440-438806/4 | 440-0095615-00404ECD_1.d |
| Level 5 | STD4 440-438806/5 | 440-0095615-00505ECD_1.d |
| Level 6 | STD5 440-438806/6 | 440-0095615-00606ECD_1.d |
| Level 7 | STD6 440-438806/7 | 440-0095615-00707ECD_1.d |
| Level 8 | STD7 440-438806/8 | 440-0095615-00808ECD_1.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4<br>LVL 8 | | B | M1 | M2 | | | | | | | | |
| Perchlorate | 114617 | 92604<br>120893 | 111120<br>120691 | 114179<br>124725 | Lin | -57668.730 | 124523.405 | | | | | | | 1.0000 | | 0.9950 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 438806

SDG No.:

Instrument ID: IC-24 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/01/2017 11:58 Calibration End Date: 11/01/2017 14:03 Calibration ID: 17854

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-438806/1 | 440-0095615-00101ECD_1.d |
| Level 2 | STD1 440-438806/2 | 440-0095615-00202ECD_1.d |
| Level 3 | STD2 440-438806/3 | 440-0095615-00303ECD_1.d |
| Level 4 | STD3 440-438806/4 | 440-0095615-00404ECD_1.d |
| Level 5 | STD4 440-438806/5 | 440-0095615-00505ECD_1.d |
| Level 6 | STD5 440-438806/6 | 440-0095615-00606ECD_1.d |
| Level 7 | STD6 440-438806/7 | 440-0095615-00707ECD_1.d |
| Level 8 | STD7 440-438806/8 | 440-0095615-00808ECD_1.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 |
| Perchlorate | Lin | 3022336 | 92604<br>6034537 | 222240<br>12472537 | 456717 | 1146173 | 0.000000<br>25.0 | 1.00<br>50.0 | 2.00<br>100 | 4.00 | 10.0 |

Curve Type Legend:
Lin = Linear

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: ICV 440-438803/9 Calibration Date: 11/01/2017 14:18

Instrument ID: IC-23 Calib Start Date: 11/01/2017 11:55

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:00

Lab File ID: 440-0095613-009_09_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 49.9 | 50.0 | 100 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: ICV 440-438803/9 Calibration Date: 11/01/2017 14:18

Instrument ID: IC-23 Calib Start Date: 11/01/2017 11:55

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:00

Lab File ID: 440-0095613-009_09_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 10.69 | 10.18 | 11.26 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-443545/2 Calibration Date: 11/27/2017 09:02

Instrument ID: IC-23 Calib Start Date: 11/01/2017 11:55

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:00

Lab File ID: 440-0096739-002_02_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 24.5 | 25.0 | 98 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-443545/2 Calibration Date: 11/27/2017 09:02

Instrument ID: IC-23 Calib Start Date: 11/01/2017 11:55

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:00

Lab File ID: 440-0096739-002_02_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 10.67 | 10.14 | 11.21 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-443545/14 Calibration Date: 11/27/2017 12:45

Instrument ID: IC-23 Calib Start Date: 11/01/2017 11:55

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:00

Lab File ID: 440-0096739-014_14_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 28.4 | 25.0 | 114 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-443545/14 Calibration Date: 11/27/2017 12:45

Instrument ID: IC-23 Calib Start Date: 11/01/2017 11:55

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:00

Lab File ID: 440-0096739-014_14_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 10.65 | 10.12 | 11.18 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-443545/26 Calibration Date: 11/27/2017 17:04

Instrument ID: IC-23 Calib Start Date: 11/01/2017 11:55

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:00

Lab File ID: 440-0096739-026_26_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 92.4 | 75.0 | 123* | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-443545/26 Calibration Date: 11/27/2017 17:04

Instrument ID: IC-23 Calib Start Date: 11/01/2017 11:55

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:00

Lab File ID: 440-0096739-026_26_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 10.66 | 10.13 | 11.19 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: ICV 440-438806/9 Calibration Date: 11/01/2017 14:21

Instrument ID: IC-24 Calib Start Date: 11/01/2017 11:58

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:03

Lab File ID: 440-0095615-00909ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 48.5 | 50.0 | 97 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: ICV 440-438806/9 Calibration Date: 11/01/2017 14:21

Instrument ID: IC-24 Calib Start Date: 11/01/2017 11:58

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:03

Lab File ID: 440-0095615-00909ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.74 | 11.18 | 12.36 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-443796/2 Calibration Date: 11/28/2017 10:09

Instrument ID: IC-24 Calib Start Date: 11/01/2017 11:58

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:03

Lab File ID: 440-0096789-00202ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 25.8 | 25.0 | 103 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-443796/2 Calibration Date: 11/28/2017 10:09

Instrument ID: IC-24 Calib Start Date: 11/01/2017 11:58

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:03

Lab File ID: 440-0096789-00202ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.74 | 11.16 | 12.33 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-443796/14 Calibration Date: 11/28/2017 14:02

Instrument ID: IC-24 Calib Start Date: 11/01/2017 11:58

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:03

Lab File ID: 440-0096789-01414ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 25.1 | 25.0 | 100 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-443796/14 Calibration Date: 11/28/2017 14:02

Instrument ID: IC-24 Calib Start Date: 11/01/2017 11:58

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:03

Lab File ID: 440-0096789-01414ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.68 | 11.10 | 12.27 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-443796/26 Calibration Date: 11/28/2017 17:36

Instrument ID: IC-24 Calib Start Date: 11/01/2017 11:58

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:03

Lab File ID: 440-0096789-02626ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 85.7 | 75.0 | 114 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-443796/26 Calibration Date: 11/28/2017 17:36

Instrument ID: IC-24 Calib Start Date: 11/01/2017 11:58

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:03

Lab File ID: 440-0096789-02626ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.68 | 11.10 | 12.27 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV25 440-443796/38 Calibration Date: 11/28/2017 21:11

Instrument ID: IC-24 Calib Start Date: 11/01/2017 11:58

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:03

Lab File ID: 440-0096789-03838ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 25.8 | 25.0 | 103 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV25 440-443796/38 Calibration Date: 11/28/2017 21:11

Instrument ID: IC-24 Calib Start Date: 11/01/2017 11:58

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 11/01/2017 14:03

Lab File ID: 440-0096789-03838ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.69 | 11.10 | 12.27 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 440-443545/5

Matrix: Water Lab File ID: 440-0096739-005_05_ECD_1.d

Analysis Method: 314.0 LL Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 11/27/2017 10:00

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: AS7 A ID: 4(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 443545 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-443796/5

Matrix: Water | Lab File ID: 440-0096789-00505ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/28/2017 11:12

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443796 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-443545/3

Matrix: Water | Lab File ID: 440-0096739-003_03_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/27/2017 09:24

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443545 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-443545/15

Matrix: Water | Lab File ID: 440-0096739-015_15_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/27/2017 13:03

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443545 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-443545/27

Matrix: Water | Lab File ID: 440-0096739-027_27_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/27/2017 17:21

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443545 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-443796/3

Matrix: Water | Lab File ID: 440-0096789-00303ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/28/2017 10:36

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443796 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-443796/15

Matrix: Water | Lab File ID: 440-0096789-01515ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/28/2017 14:20

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443796 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-443796/27

Matrix: Water | Lab File ID: 440-0096789-02727ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/28/2017 17:54

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443796 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-443796/39

Matrix: Water | Lab File ID: 440-0096789-03939ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/28/2017 21:29

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443796 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-443545/4

Matrix: Water | Lab File ID: 440-0096739-004_04_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/27/2017 09:42

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443545 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 25.4 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-443796/4

Matrix: Water | Lab File ID: 440-0096789-00404ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/28/2017 10:54

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443796 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 25.2 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-443545/7

Matrix: Water | Lab File ID: 440-0096739-007_07_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/27/2017 10:36

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443545 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 4.29 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-443796/7

Matrix: Water | Lab File ID: 440-0096789-00707ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/28/2017 11:48

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443796 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 4.83 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: INF 440-443545/6

Matrix: Water | Lab File ID: 440-0096739-006_06_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/27/2017 10:18

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443545 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 24.5 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: INF 440-443796/6

Matrix: Water | Lab File ID: 440-0096789-00606ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/28/2017 11:30

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443796 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 26.4 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-196686-H-1 MS

Matrix: Water | Lab File ID: 440-0096739-009_09_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 11/16/2017 12:40

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/27/2017 11:16

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443545 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 30.7 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: 320-33164-D-1 MS

Matrix: Water | Lab File ID: 440-0096789-01616ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 11/09/2017 10:19

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/28/2017 14:38

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443796 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 34.9 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-196686-H-1 MSD

Matrix: Water | Lab File ID: 440-0096739-010_10_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 11/16/2017 12:40

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/27/2017 11:34

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443545 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 30.1 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: 320-33164-D-1 MSD

Matrix: Water | Lab File ID: 440-0096789-01717ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 11/09/2017 10:19

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 11/28/2017 14:56

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443796 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 34.9 | | 1.0 | 0.50 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-23 Start Date: 11/01/2017 11:55

Analysis Batch Number: 438803 End Date: 11/01/2017 14:35

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| STD0 440-438803/1 IC | | 11/01/2017 11:55 | 1 | | AS7 A 4(mm) |
| STD1 440-438803/2 IC | | 11/01/2017 12:13 | 1 | 440-0095613-002 02 ECD 1.d | AS7 A 4(mm) |
| STD2 440-438803/3 IC | | 11/01/2017 12:31 | 1 | 440-0095613-003 03 ECD 1.d | AS7 A 4(mm) |
| STD3 440-438803/4 IC | | 11/01/2017 12:48 | 1 | 440-0095613-004 04 ECD 1.d | AS7 A 4(mm) |
| STD4 440-438803/5 IC | | 11/01/2017 13:06 | 1 | 440-0095613-005 05 ECD 1.d | AS7 A 4(mm) |
| STD5 440-438803/6 IC | | 11/01/2017 13:24 | 1 | 440-0095613-006 06 ECD 1.d | AS7 A 4(mm) |
| STD6 440-438803/7 IC | | 11/01/2017 13:42 | 1 | 440-0095613-007 07 ECD 1.d | AS7 A 4(mm) |
| STD7 440-438803/8 IC | | 11/01/2017 14:00 | 1 | 440-0095613-008 08 ECD 1.d | AS7 A 4(mm) |
| ICV 440-438803/9 | | 11/01/2017 14:18 | 1 | 440-0095613-009 09 ECD 1.d | AS7 A 4(mm) |
| ICB 440-438803/10 | | 11/01/2017 14:35 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-23 Start Date: 11/27/2017 08:44

Analysis Batch Number: 443545 End Date: 11/27/2017 20:38

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 11/27/2017 08:44 | 1 | | AS7 A 4(mm) |
| CCV 440-443545/2 | | 11/27/2017 09:02 | 1 | 440-0096739-002 02 ECD 1.d | AS7 A 4(mm) |
| CCB 440-443545/3 | | 11/27/2017 09:24 | 1 | 440-0096739-003 03 ECD 1.d | AS7 A 4(mm) |
| LCS 440-443545/4 | | 11/27/2017 09:42 | 1 | 440-0096739-004 04 ECD 1.d | AS7 A 4(mm) |
| MB 440-443545/5 | | 11/27/2017 10:00 | 1 | 440-0096739-005 05 ECD 1.d | AS7 A 4(mm) |
| INF 440-443545/6 | | 11/27/2017 10:18 | 1 | 440-0096739-006 06 ECD 1.d | AS7 A 4(mm) |
| MRL 440-443545/7 | | 11/27/2017 10:36 | 1 | 440-0096739-007 07 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 11/27/2017 10:59 | 1 | | AS7 A 4(mm) |
| 440-196686-H-1 MS | | 11/27/2017 11:16 | 1 | 440-0096739-009 09 ECD 1.d | AS7 A 4(mm) |
| 440-196686-H-1 MSD | | 11/27/2017 11:34 | 1 | 440-0096739-010 10 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 11/27/2017 11:52 | 2000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/27/2017 12:10 | 50000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/27/2017 12:28 | 20000 | | AS7 A 4(mm) |
| CCV 440-443545/14 | | 11/27/2017 12:45 | 1 | 440-0096739-014 14 ECD 1.d | AS7 A 4(mm) |
| CCB 440-443545/15 | | 11/27/2017 13:03 | 1 | 440-0096739-015 15 ECD 1.d | AS7 A 4(mm) |
| 440-196039-5 | | 11/27/2017 13:31 | 1 | 440-0096739-016 16 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 11/27/2017 13:49 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/27/2017 14:07 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 11/27/2017 14:25 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/27/2017 15:17 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 11/27/2017 15:34 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/27/2017 15:52 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/27/2017 16:10 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/27/2017 16:28 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/27/2017 16:46 | 1000 | | AS7 A 4(mm) |
| CCV 440-443545/26 | | 11/27/2017 17:04 | 1 | 440-0096739-026 26 ECD 1.d | AS7 A 4(mm) |
| CCB 440-443545/27 | | 11/27/2017 17:21 | 1 | 440-0096739-027 27 ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 11/27/2017 17:39 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/27/2017 17:57 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/27/2017 18:15 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/27/2017 18:33 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/27/2017 18:51 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/27/2017 19:09 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/27/2017 19:27 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/27/2017 19:44 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/27/2017 20:02 | 100 | | AS7 A 4(mm) |
| CCV 440-443545/37 | | 11/27/2017 20:20 | 1 | | AS7 A 4(mm) |
| CCB 440-443545/38 | | 11/27/2017 20:38 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-24 Start Date: 11/01/2017 11:58

Analysis Batch Number: 438806 End Date: 11/02/2017 13:24

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| STD0 440-438806/1 IC | | 11/01/2017 11:58 | 1 | 440-0095615-001 01ECD 1.d | AS7 A 4(mm) |
| STD1 440-438806/2 IC | | 11/01/2017 12:16 | 1 | 440-0095615-002 02ECD 1.d | AS7 A 4(mm) |
| STD2 440-438806/3 IC | | 11/01/2017 12:33 | 1 | 440-0095615-003 03ECD 1.d | AS7 A 4(mm) |
| STD3 440-438806/4 IC | | 11/01/2017 12:51 | 1 | 440-0095615-004 04ECD 1.d | AS7 A 4(mm) |
| STD4 440-438806/5 IC | | 11/01/2017 13:09 | 1 | 440-0095615-005 05ECD 1.d | AS7 A 4(mm) |
| STD5 440-438806/6 IC | | 11/01/2017 13:27 | 1 | 440-0095615-006 06ECD 1.d | AS7 A 4(mm) |
| STD6 440-438806/7 IC | | 11/01/2017 13:45 | 1 | 440-0095615-007 07ECD 1.d | AS7 A 4(mm) |
| STD7 440-438806/8 IC | | 11/01/2017 14:03 | 1 | 440-0095615-008 08ECD 1.d | AS7 A 4(mm) |
| ICV 440-438806/9 | | 11/01/2017 14:21 | 1 | 440-0095615-009 09ECD 1.d | AS7 A 4(mm) |
| ICB 440-438806/10 | | 11/01/2017 14:39 | 1 | | AS7 A 4(mm) |
| CCV 440-438806/11 | | 11/01/2017 18:48 | 1 | | AS7 A 4(mm) |
| CCB 440-438806/12 | | 11/01/2017 19:06 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/01/2017 19:46 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/01/2017 20:04 | 1 | | AS7 A 4(mm) |
| INF 440-438806/15 | | 11/01/2017 20:24 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/01/2017 20:42 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/01/2017 21:35 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/01/2017 21:53 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/01/2017 22:10 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/01/2017 22:28 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/01/2017 22:46 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/01/2017 23:04 | 1 | | AS7 A 4(mm) |
| CCV 440-438806/23 | | 11/01/2017 23:22 | 1 | | AS7 A 4(mm) |
| CCB 440-438806/24 | | 11/01/2017 23:40 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/01/2017 23:58 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 00:16 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 00:33 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 00:51 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 01:09 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 01:27 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 01:45 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 02:03 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 02:21 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 02:38 | 100 | | AS7 A 4(mm) |
| CCV 440-438806/35 | | 11/02/2017 02:56 | 1 | | AS7 A 4(mm) |
| CCB 440-438806/36 | | 11/02/2017 03:14 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 03:32 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 03:50 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 04:08 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 04:26 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 04:44 | 100 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-24 Start Date: 11/01/2017 11:58

Analysis Batch Number: 438806 End Date: 11/02/2017 13:24

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 11/02/2017 05:01 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 05:19 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 05:37 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 05:55 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 06:13 | 100 | | AS7 A 4(mm) |
| CCV 440-438806/47 | | 11/02/2017 06:31 | 1 | | AS7 A 4(mm) |
| CCB 440-438806/48 | | 11/02/2017 06:49 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 07:07 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 07:24 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 07:42 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 07:59 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 08:17 | 100 | | AS7 A 4(mm) |
| CCV 440-438806/54 | | 11/02/2017 08:35 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 08:53 | 1 | | AS7 A 4(mm) |
| CCB 440-438806/56 | | 11/02/2017 09:55 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 10:21 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 10:38 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 11:02 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 11:19 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 11:37 | 10000 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 11:55 | 200 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 12:12 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 12:30 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 11/02/2017 12:48 | 10 | | AS7 A 4(mm) |
| CCV 440-438806/66 | | 11/02/2017 13:06 | 1 | | AS7 A 4(mm) |
| CCB 440-438806/67 | | 11/02/2017 13:24 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-24 Start Date: 11/28/2017 09:52

Analysis Batch Number: 443796 End Date: 11/29/2017 01:06

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 11/28/2017 09:52 | 1 | | AS7 A 4(mm) |
| CCV 440-443796/2 | | 11/28/2017 10:09 | 1 | 440-0096789-002 02ECD 1.d | AS7 A 4(mm) |
| CCB 440-443796/3 | | 11/28/2017 10:36 | 1 | 440-0096789-003 03ECD 1.d | AS7 A 4(mm) |
| LCS 440-443796/4 | | 11/28/2017 10:54 | 1 | 440-0096789-004 04ECD 1.d | AS7 A 4(mm) |
| MB 440-443796/5 | | 11/28/2017 11:12 | 1 | 440-0096789-005 05ECD 1.d | AS7 A 4(mm) |
| INF 440-443796/6 | | 11/28/2017 11:30 | 1 | 440-0096789-006 06ECD 1.d | AS7 A 4(mm) |
| MRL 440-443796/7 | | 11/28/2017 11:48 | 1 | 440-0096789-007 07ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 12:15 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 12:33 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 12:50 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 13:08 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 13:26 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 13:44 | 100 | | AS7 A 4(mm) |
| CCV 440-443796/14 | | 11/28/2017 14:02 | 1 | 440-0096789-014 14ECD 1.d | AS7 A 4(mm) |
| CCB 440-443796/15 | | 11/28/2017 14:20 | 1 | 440-0096789-015 15ECD 1.d | AS7 A 4(mm) |
| 320-33164-D-1 MS | | 11/28/2017 14:38 | 1 | 440-0096789-016 16ECD 1.d | AS7 A 4(mm) |
| 320-33164-D-1 MSD | | 11/28/2017 14:56 | 1 | 440-0096789-017 17ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 15:13 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 15:31 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 15:49 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 16:07 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 16:25 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 16:43 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 17:01 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 17:18 | 5000 | | AS7 A 4(mm) |
| CCV 440-443796/26 | | 11/28/2017 17:36 | 1 | 440-0096789-026 26ECD 1.d | AS7 A 4(mm) |
| CCB 440-443796/27 | | 11/28/2017 17:54 | 1 | 440-0096789-027 27ECD 1.d | AS7 A 4(mm) |
| 440-196039-2 | | 11/28/2017 18:12 | 10000 | 440-0096789-028 28ECD 1.d | AS7 A 4(mm) |
| 440-196039-3 | | 11/28/2017 18:30 | 10 | 440-0096789-029 29ECD 1.d | AS7 A 4(mm) |
| 440-196039-4 | | 11/28/2017 18:48 | 10000 | 440-0096789-030 30ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 19:06 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 19:24 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 19:41 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 19:59 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 20:17 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 20:35 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 20:53 | 100 | | AS7 A 4(mm) |
| CCV25 440-443796/38 | | 11/28/2017 21:11 | 1 | 440-0096789-038 38ECD 1.d | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-24 Start Date: 11/28/2017 09:52

Analysis Batch Number: 443796 End Date: 11/29/2017 01:06

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCB 440-443796/39 | | 11/28/2017 21:29 | 1 | 440-0096789-039 39ECD 1.d | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 21:47 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 22:04 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 22:22 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 22:43 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 23:00 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 23:18 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 23:36 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/28/2017 23:54 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/29/2017 00:12 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 11/29/2017 00:30 | 1 | | AS7 A 4(mm) |
| CCV 440-443796/50 | | 11/29/2017 00:48 | 1 | | AS7 A 4(mm) |
| CCB 440-443796/51 | | 11/29/2017 01:06 | 1 | | AS7 A 4(mm) |

# Method 7199

## Chromium, Hexavalent (IC) by Method 7199

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Lab ID: LCS 440-440295/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 50.5 | 101 | 90-110 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Lab ID: MRL 440-440295/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 1.00 | 1.07 J | 107 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Lab ID: 440-196039-3 MS Client ID: VMW-02D-20171108 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 22 | 72.7 | 102 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Lab ID: 440-196039-3 MSD Client ID: VMW-02D-20171108 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 71.6 | 99 | 1 | 20 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Lab Sample ID: MB 440-440295/6

Matrix: Water Date Extracted:

Instrument ID: IC-20 Date Analyzed: 11/09/2017 05:10

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-440295/3 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 171109-0444 14.d | 11/09/2017 04:31 |
| | LCS 440-440295/5 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 171109-0510 10.d | 11/09/2017 04:57 |
| VER-01I-20171108 | 440-196039-2 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 171109-0739 10.d | 11/09/2017 07:26 |
| VMW-02D-20171108 | 440-196039-3 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 171109-0752 11.d | 11/09/2017 07:39 |
| VMW-02I-20171108 | 440-196039-4 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 171109-0844 20.d | 11/09/2017 08:31 |
| | CCB 440-440295/19 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 171109-0916 07.d | 11/09/2017 09:03 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Lab Sample ID: MB 440-440295/6

Matrix: Water Date Extracted:

Instrument ID: IC-20 Date Analyzed: 11/09/2017 05:10

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| VMW-02I-20171108-EB | 440-196039-5 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 171109-0929 11.d | 11/09/2017 09:16 |
| VMW-02D-20171108 MS | 440-196039-3 MS | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 171109-0942 15.d | 11/09/2017 09:29 |
| VMW-02D-20171108 MSD | 440-196039-3 MSD | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 171109-0955 25.d | 11/09/2017 09:42 |
| | CCB 440-440295/27 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 171109-1112 30.d | 11/09/2017 10:59 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VER-01I-20171108 | Lab Sample ID: 440-196039-2

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected: 11/08/2017 08:05

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/09/2017 07:26

Con. Extract Vol.: | Dilution Factor: 200

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440295 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 2200 | | 400 | 50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02D-20171108 | Lab Sample ID: 440-196039-3

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected: 11/08/2017 09:55

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/09/2017 07:39

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440295 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 22 | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02I-20171108 | Lab Sample ID: 440-196039-4

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected: 11/08/2017 11:30

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/09/2017 08:31

Con. Extract Vol.: | Dilution Factor: 100

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440295 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 1000 | | 200 | 25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02I-20171108-EB | Lab Sample ID: 440-196039-5

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected: 11/08/2017 12:40

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/09/2017 09:16

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440295 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 410549

SDG No.:

Instrument ID: IC-20 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/07/2017 09:47 Calibration End Date: 06/07/2017 11:17 Calibration ID: 16876

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-410549/4 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-101305.d |
| Level 2 | STD2 440-410549/5 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-102559.d |
| Level 3 | STD3 440-410549/6 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-103854.d |
| Level 4 | STD4 440-410549/7 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-105148.d |
| Level 5 | STD5 440-410549/8 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-110442.d |
| Level 6 | STD6 440-410549/9 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-111737.d |
| Level 7 | STD7 440-410549/10 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-113032.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 7.371 | 7.371 | 7.371 | 7.371 | 7.371 | 7.358 | 7.371 | | | | 7.002 - 7.740 | 7.369 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 410549

SDG No.:

Instrument ID: IC-20 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/07/2017 09:47 Calibration End Date: 06/07/2017 11:17 Calibration ID: 16876

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-410549/4 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-101305.d |
| Level 2 | STD2 440-410549/5 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-102559.d |
| Level 3 | STD3 440-410549/6 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-103854.d |
| Level 4 | STD4 440-410549/7 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-105148.d |
| Level 5 | STD5 440-410549/8 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-110442.d |
| Level 6 | STD6 440-410549/9 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-111737.d |
| Level 7 | STD7 440-410549/10 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-113032.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Chromium, hexavalent | 39603<br>30033 | 33986<br>30081 | 32664<br>29991 | 30361 | Lin1 | 3556.70380 | 30093.5173 | | | | | | | 1.0000 | | 0.9990 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 410549

SDG No.:

Instrument ID: IC-20 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/07/2017 09:47 Calibration End Date: 06/07/2017 11:17 Calibration ID: 16876

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-410549/4 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-101305.d |
| Level 2 | STD2 440-410549/5 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-102559.d |
| Level 3 | STD3 440-410549/6 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-103854.d |
| Level 4 | STD4 440-410549/7 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-105148.d |
| Level 5 | STD5 440-410549/8 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-110442.d |
| Level 6 | STD6 440-410549/9 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-111737.d |
| Level 7 | STD7 440-410549/10 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-113032.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| Chromium, hexavalent | Lin1 | 11881<br>2256046 | 33986<br>2999122 | 326644 | 759021 | 1501633 | 0.300<br>75.0 | 1.00<br>100 | 10.0 | 25.0 | 50.0 |

Curve Type Legend:
Lin1 = Linear 1/conc

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: ICV 440-410549/11 Calibration Date: 06/07/2017 11:47

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 48.3 | 50.0 | 97 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: ICV 440-410549/11 Calibration Date: 06/07/2017 11:47

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.42 | 7.00 | 7.74 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440295/2 Calibration Date: 11/09/2017 04:18

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 51.4 | 50.0 | 103 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440295/2 Calibration Date: 11/09/2017 04:18

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 6.11 | 5.81 | 6.42 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440295/18 Calibration Date: 11/09/2017 08:44

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 50.8 | 50.0 | 102 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440295/18 Calibration Date: 11/09/2017 08:44

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 5.91 | 6.31 | 6.97 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440295/26 Calibration Date: 11/09/2017 10:46

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 48.0 | 50.0 | 96 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440295/26 Calibration Date: 11/09/2017 10:46

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 5.96 | 6.31 | 6.97 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-440295/6

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/09/2017 05:10

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440295 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-440295/3

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/09/2017 04:31

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440295 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-440295/19

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/09/2017 09:03

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440295 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-440295/27

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/09/2017 10:59

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440295 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-440295/5

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/09/2017 04:57

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440295 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 50.5 | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-440295/4

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/09/2017 04:44

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440295 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 1.07 | J | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02D-20171108 MS | Lab Sample ID: 440-196039-3 MS

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected: 11/08/2017 09:55

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/09/2017 09:29

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440295 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 72.7 | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02D-20171108 MSD | Lab Sample ID: 440-196039-3 MSD

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected: 11/08/2017 09:55

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 11/09/2017 09:42

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440295 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 71.6 | | 2.0 | 0.25 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-20 Start Date: 06/07/2017 09:21

Analysis Batch Number: 410549 End Date: 06/08/2017 03:31

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 06/07/2017 09:21 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 09:34 | 1 | | AS7 A 4(mm) |
| STD0 440-410549/3 IC | | 06/07/2017 09:47 | 1 | | AS7 A 4(mm) |
| STD1 440-410549/4 IC | | 06/07/2017 10:00 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-101305.d | AS7 A 4(mm) |
| STD2 440-410549/5 IC | | 06/07/2017 10:13 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-102559.d | AS7 A 4(mm) |
| STD3 440-410549/6 IC | | 06/07/2017 10:26 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-103854.d | AS7 A 4(mm) |
| STD4 440-410549/7 IC | | 06/07/2017 10:38 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-105148.d | AS7 A 4(mm) |
| STD5 440-410549/8 IC | | 06/07/2017 10:51 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-110442.d | AS7 A 4(mm) |
| STD6 440-410549/9 IC | | 06/07/2017 11:04 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-111737.d | AS7 A 4(mm) |
| STD7 440-410549/10 IC | | 06/07/2017 11:17 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-113032.d | AS7 A 4(mm) |
| ICV 440-410549/11 | | 06/07/2017 11:47 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-120018.d | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 12:06 | 1 | | AS7 A 4(mm) |
| CCV 440-410549/1012 | | 06/07/2017 12:06 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 12:19 | 1 | | AS7 A 4(mm) |
| CCB 440-410549/1013 | | 06/07/2017 12:19 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 12:32 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 12:45 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 21:46 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 22:38 | 1 | | AS7 A 4(mm) |
| CCV 440-410549/26 | | 06/07/2017 22:51 | 1 | | AS7 A 4(mm) |
| CCB 440-410549/27 | | 06/07/2017 23:04 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 23:25 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 23:38 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 23:51 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-20 Start Date: 06/07/2017 09:21

Analysis Batch Number: 410549 End Date: 06/08/2017 03:31

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 06/08/2017 00:04 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 00:17 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 00:30 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 00:43 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 00:56 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 01:09 | 1 | | AS7 A 4(mm) |
| CCV 440-410549/38 | | 06/08/2017 01:35 | 1 | | AS7 A 4(mm) |
| CCB 440-410549/39 | | 06/08/2017 01:48 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 02:01 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 02:14 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 02:27 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 02:40 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 02:53 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 03:06 | 1 | | AS7 A 4(mm) |
| CCV 440-410549/46 | | 06/08/2017 03:18 | 1 | | AS7 A 4(mm) |
| CCB 440-410549/47 | | 06/08/2017 03:31 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-20 Start Date: 11/09/2017 03:48

Analysis Batch Number: 440295 End Date: 11/10/2017 02:10

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 11/09/2017 03:48 | 1 | | AS7 A 4(mm) |
| CCV 440-440295/2 | | 11/09/2017 04:18 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171109-043114.d | AS7 A 4(mm) |
| CCB 440-440295/3 | | 11/09/2017 04:31 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171109-044414.d | AS7 A 4(mm) |
| MRL 440-440295/4 | | 11/09/2017 04:44 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171109-045712.d | AS7 A 4(mm) |
| LCS 440-440295/5 | | 11/09/2017 04:57 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171109-051010.d | AS7 A 4(mm) |
| MB 440-440295/6 | | 11/09/2017 05:10 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171109-052311.d | AS7 A 4(mm) |
| ZZZZZ | | 11/09/2017 05:23 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/09/2017 06:05 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/09/2017 06:23 | 2 | | AS7 A 4(mm) |
| 440-196039-2 | | 11/09/2017 07:26 | 200 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171109-073910.d | AS7 A 4(mm) |
| 440-196039-3 | | 11/09/2017 07:39 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171109-075211.d | AS7 A 4(mm) |
| 440-196039-4 | | 11/09/2017 08:31 | 100 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171109-084420.d | AS7 A 4(mm) |
| CCV 440-440295/18 | | 11/09/2017 08:44 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171109-085723.d | AS7 A 4(mm) |
| CCB 440-440295/19 | | 11/09/2017 09:03 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171109-091607.d | AS7 A 4(mm) |
| 440-196039-5 | | 11/09/2017 09:16 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171109-092911.d | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-20 Start Date: 11/09/2017 03:48

Analysis Batch Number: 440295 End Date: 11/10/2017 02:10

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| 440-196039-3 MS | | 11/09/2017 09:29 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171109-094215.d | AS7 A 4(mm) |
| 440-196039-3 MSD | | 11/09/2017 09:42 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171109-095525.d | AS7 A 4(mm) |
| 440-196039-2 | | 11/09/2017 09:55 | 200 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171109-100829.d | AS7 A 4(mm) |
| 440-196039-3 | | 11/09/2017 10:08 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171109-102133.d | AS7 A 4(mm) |
| 440-196039-4 | | 11/09/2017 10:21 | 100 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171109-103439.d | AS7 A 4(mm) |
| CCV 440-440295/26 | | 11/09/2017 10:46 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171109-105926.d | AS7 A 4(mm) |
| CCB 440-440295/27 | | 11/09/2017 10:59 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20171109-111230.d | AS7 A 4(mm) |
| ZZZZZ | | 11/09/2017 18:14 | 1 | | AS7 A 4(mm) |
| CCV 440-440295/29 | | 11/09/2017 18:27 | 1 | | AS7 A 4(mm) |
| CCB 440-440295/30 | | 11/09/2017 18:40 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/09/2017 19:59 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/09/2017 20:13 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/09/2017 20:26 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/09/2017 20:39 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/09/2017 20:52 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 11/09/2017 21:05 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 11/09/2017 21:18 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/09/2017 21:31 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/09/2017 21:44 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/09/2017 21:57 | 1 | | AS7 A 4(mm) |
| CCV 440-440295/41 | | 11/09/2017 22:10 | 1 | | AS7 A 4(mm) |
| CCB 440-440295/42 | | 11/09/2017 22:23 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 11/09/2017 22:42 | 1 | | AS7 A 4(mm) |
| CCV 440-440295/52 | | 11/10/2017 01:57 | 1 | | AS7 A 4(mm) |
| CCB 440-440295/53 | | 11/10/2017 02:10 | 1 | | AS7 A 4(mm) |

# Method 300.1

## Disinfection By-Products (IC) by Method 300.1

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): AS14 ID: 4 (mm)

| Client Sample ID | Lab Sample ID | DCAA # |
|---|---|---|
| VER-01I-20171108 | 440-196039-2 | 95 |
| VER-01I-20171108 | 440-196039-2 | 105 |
| VMW-02D-20171108 | 440-196039-3 | 101 |
| VMW-02D-20171108 | 440-196039-3 | 102 |
| VMW-02I-20171108 | 440-196039-4 | 98 |
| VMW-02I-20171108 | 440-196039-4 | 105 |
| VMW-02I-20171108-EB | 440-196039-5 | 97 |
| VMW-02I-20171108-EB | 440-196039-5 | 97 |
| | MB 440-440634/5 | 96 |
| | MB 440-440635/5 | 96 |
| | MB 440-440974/5 | 95 |
| | MB 440-441516/5 | 101 |
| | MB 440-443190/5 | 103 |
| | LCS 440-440634/4 | 97 |
| | LCS 440-440635/4 | 97 |
| | LCS 440-440974/4 | 96 |
| | LCS 440-441516/4 | 100 |
| | LCS 440-443190/4 | 103 |
| | MRL 440-440634/3 | 96 |
| | MRL 440-440635/3 | 96 |
| | MRL 440-440974/3 | 99 |
| | MRL 440-441516/3 | 100 |
| | MRL 440-443190/3 | 102 |
| | 440-195592-A-1 MS | 95 |
| | 440-195592-A-1 MS | 95 |
| | 440-195772-B-3 MS | 105 |
| | 440-196337-A-4 MS | 102 |
| | 440-197050-C-1 MS | 102 |
| | 440-195592-A-1 MSD | 96 |
| | 440-195592-A-1 MSD | 96 |

| | QC LIMITS |
|---|---|
| DCAA = Dichloroacetic acid(Surr) | 90-115 |

# Column to be used to flag recovery values

FORM II 300.1B

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): AS14 ID: 4 (mm)

| Client Sample ID | Lab Sample ID | DCAA # |
|---|---|---|
| | 440-195772-B-3 MSD | 94 |
| | 440-196337-A-4 MSD | 102 |
| | 440-197050-C-1 MSD | 100 |

| | QC LIMITS |
|---|---|
| DCAA = Dichloroacetic acid(Surr) | 90-115 |

# Column to be used to flag recovery values

FORM II 300.1B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096061-004.d

Lab ID: LCS 440-440634/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 100 | 102 | 102 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096061-004.d

Lab ID: LCS 440-440635/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorite | 100 | 102 | 102 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20171113004.d

Lab ID: LCS 440-440974/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorite | 100 | 94.8 | 95 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096272-004.d

Lab ID: LCS 440-441516/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 100 | 98.1 | 98 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096644-004.d

Lab ID: LCS 440-443190/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 100 | 98.7 | 99 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096061-003.d

Lab ID: MRL 440-440634/3 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 20.0 | 22.3 | 111 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096061-003.d

Lab ID: MRL 440-440635/3 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorite | 20.0 | 20.0 | 100 | 10-200 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20171113003.d

Lab ID: MRL 440-440974/3 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorite | 20.0 | 18.8 J | 94 | 10-200 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096272-003.d

Lab ID: MRL 440-441516/3 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 20.0 | 21.2 | 106 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096644-003.d

Lab ID: MRL 440-443190/3 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 20.0 | 16.8 J | 84 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096061-009.d

Lab ID: 440-195592-A-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorate | 200 | 960 | 1170 | 107 | 75-125 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096061-009.d

Lab ID: 440-195592-A-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorite | 200 | ND | 160 | 80 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20171113011.d

Lab ID: 440-195772-B-3 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorite | 200 | ND | 215 | 107 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096272-017.d

Lab ID: 440-196337-A-4 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorate | 200 | 260 | 463 | 100 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096644-011.d

Lab ID: 440-197050-C-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorate | 200 | ND | 217 | 108 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096061-010.d

Lab ID: 440-195592-A-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chlorate | 200 | 1140 | 93 | 3 | 25 | 75-125 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096061-010.d

Lab ID: 440-195592-A-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chlorite | 200 | 164 | 82 | 3 | 25 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20171113012.d

Lab ID: 440-195772-B-3 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chlorite | 200 | 192 | 96 | 11 | 25 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096272-018.d

Lab ID: 440-196337-A-4 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chlorate | 200 | 455 | 96 | 2 | 25 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0096644-012.d

Lab ID: 440-197050-C-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chlorate | 200 | 199 | 99 | 9 | 25 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab File ID: 20171113005.d Lab Sample ID: MB 440-440974/5

Matrix: Water Date Extracted:

Instrument ID: IC-11 Date Analyzed: 11/13/2017 06:46

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-440974/2 | 20171113002.d | 11/13/2017 05:06 |
| | LCS 440-440974/4 | 20171113004.d | 11/13/2017 06:13 |
| | 440-195772-B-3 MS | 20171113011.d | 11/13/2017 10:05 |
| | 440-195772-B-3 MSD | 20171113012.d | 11/13/2017 10:38 |
| | CCB 440-440974/14 | 20171113014.d | 11/13/2017 11:45 |
| VER-01I-20171108 | 440-196039-2 | 20171113021.d | 11/13/2017 15:37 |
| | CCB 440-440974/36 | 20171113036.d | 11/13/2017 23:55 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab File ID: 440-0096061-005.d Lab Sample ID: MB 440-440634/5

Matrix: Water Date Extracted:

Instrument ID: IC-8 Date Analyzed: 11/10/2017 13:06

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-440634/2 | 440-0096061-002.d | 11/10/2017 11:17 |
| | LCS 440-440634/4 | 440-0096061-004.d | 11/10/2017 12:30 |
| | 440-195592-A-1 MS | 440-0096061-009.d | 11/10/2017 15:31 |
| | 440-195592-A-1 MSD | 440-0096061-010.d | 11/10/2017 16:07 |
| VMW-02I-20171108-EB | 440-196039-5 | 440-0096061-012.d | 11/10/2017 17:20 |
| | CCB 440-440634/14 | 440-0096061-014.d | 11/10/2017 18:32 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab File ID: 440-0096061-005.d Lab Sample ID: MB 440-440635/5

Matrix: Water Date Extracted:

Instrument ID: IC-8 Date Analyzed: 11/10/2017 13:06

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-440635/2 | 440-0096061-002.d | 11/10/2017 11:17 |
| | LCS 440-440635/4 | 440-0096061-004.d | 11/10/2017 12:30 |
| | 440-195592-A-1 MS | 440-0096061-009.d | 11/10/2017 15:31 |
| | 440-195592-A-1 MSD | 440-0096061-010.d | 11/10/2017 16:07 |
| VMW-02I-20171108-EB | 440-196039-5 | 440-0096061-012.d | 11/10/2017 17:20 |
| | CCB 440-440635/14 | 440-0096061-014.d | 11/10/2017 18:32 |
| | CCB 440-440635/26 | 440-0096061-026.d | 11/11/2017 01:47 |
| VMW-02D-20171108 | 440-196039-3 | 440-0096061-031.d | 11/11/2017 06:04 |
| VMW-02I-20171108 | 440-196039-4 | 440-0096061-032.d | 11/11/2017 06:40 |
| | CCB 440-440635/34 | 440-0096061-034.d | 11/11/2017 08:58 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab File ID: 440-0096272-005.d Lab Sample ID: MB 440-441516/5

Matrix: Water Date Extracted:

Instrument ID: IC-8 Date Analyzed: 11/15/2017 09:41

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-441516/2 | 440-0096272-002.d | 11/15/2017 07:49 |
| | LCS 440-441516/4 | 440-0096272-004.d | 11/15/2017 09:05 |
| | CCB 440-441516/14 | 440-0096272-014.d | 11/15/2017 15:07 |
| | 440-196337-A-4 MS | 440-0096272-017.d | 11/15/2017 16:56 |
| | 440-196337-A-4 MSD | 440-0096272-018.d | 11/15/2017 17:32 |
| VER-01I-20171108 | 440-196039-2 | 440-0096272-019.d | 11/15/2017 18:09 |
| | CCB 440-441516/26 | 440-0096272-026.d | 11/15/2017 22:22 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab File ID: 440-0096644-005.d Lab Sample ID: MB 440-443190/5

Matrix: Water Date Extracted:

Instrument ID: IC-8 Date Analyzed: 11/24/2017 07:59

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-443190/2 | 440-0096644-002.d | 11/24/2017 06:00 |
| | LCS 440-443190/4 | 440-0096644-004.d | 11/24/2017 07:23 |
| VMW-02D-20171108 | 440-196039-3 | 440-0096644-009.d | 11/24/2017 10:24 |
| VMW-02I-20171108 | 440-196039-4 | 440-0096644-010.d | 11/24/2017 11:00 |
| | 440-197050-C-1 MS | 440-0096644-011.d | 11/24/2017 11:36 |
| | 440-197050-C-1 MSD | 440-0096644-012.d | 11/24/2017 12:13 |
| | CCB 440-443190/14 | 440-0096644-014.d | 11/24/2017 13:25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VER-01I-20171108 | Lab Sample ID: 440-196039-2

Matrix: Water | Lab File ID: 20171113021.d

Analysis Method: 300.1B | Date Collected: 11/08/2017 08:05

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/13/2017 15:37

Con. Extract Vol.: | Dilution Factor: 20

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440974 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 400 | 200 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 95 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VER-01I-20171108 | Lab Sample ID: 440-196039-2

Matrix: Water | Lab File ID: 440-0096272-019.d

Analysis Method: 300.1B | Date Collected: 11/08/2017 08:05

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/15/2017 18:09

Con. Extract Vol.: | Dilution Factor: 5000

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441516 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 680000 | | 100000 | 50000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 105 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02D-20171108 | Lab Sample ID: 440-196039-3

Matrix: Water | Lab File ID: 440-0096644-009.d

Analysis Method: 300.1B | Date Collected: 11/08/2017 09:55

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/24/2017 10:24

Con. Extract Vol.: | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443190 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 500 | | 200 | 100 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02D-20171108 | Lab Sample ID: 440-196039-3

Matrix: Water | Lab File ID: 440-0096061-031.d

Analysis Method: 300.1B | Date Collected: 11/08/2017 09:55

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/11/2017 06:04

Con. Extract Vol.: | Dilution Factor: 50

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440635 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 1000 | 500 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02I-20171108 | Lab Sample ID: 440-196039-4

Matrix: Water | Lab File ID: 440-0096061-032.d

Analysis Method: 300.1B | Date Collected: 11/08/2017 11:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/11/2017 06:40

Con. Extract Vol.: | Dilution Factor: 50

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440635 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 1000 | 500 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 98 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02I-20171108 | Lab Sample ID: 440-196039-4

Matrix: Water | Lab File ID: 440-0096644-010.d

Analysis Method: 300.1B | Date Collected: 11/08/2017 11:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/24/2017 11:00

Con. Extract Vol.: | Dilution Factor: 2000

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443190 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 470000 | | 40000 | 20000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 105 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02I-20171108-EB | Lab Sample ID: 440-196039-5

Matrix: Water | Lab File ID: 440-0096061-012.d

Analysis Method: 300.1B | Date Collected: 11/08/2017 12:40

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 17:20

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440634 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 97 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: VMW-02I-20171108-EB | Lab Sample ID: 440-196039-5

Matrix: Water | Lab File ID: 440-0096061-012.d

Analysis Method: 300.1B | Date Collected: 11/08/2017 12:40

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 17:20

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440635 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 97 | | 90-115 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 431297

SDG No.:

Instrument ID: IC-11 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2017 09:02 Calibration End Date: 09/26/2017 11:48 Calibration ID: 17563

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-431297/2 | 20170926002.d |
| Level 2 | STD1 440-431297/3 | 20170926003.d |
| Level 3 | STD2 440-431297/4 | 20170926004.d |
| Level 4 | STD3 440-431297/5 | 20170926005.d |
| Level 5 | STD4 440-431297/6 | 20170926006.d |
| Level 6 | STD5 440-431297/7 | 20170926007.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | 7.332 | 7.306 | 7.348 | 7.320 | 7.225 | | | | | 0.000 - 0.000 | 7.306 |
| Dichloroacetic acid(Surr) | 13.568 | 13.559 | 13.544 | 13.590 | 13.540 | 13.433 | | | | | 12.610 - 14.508 | 13.539 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 431297

SDG No.:

Instrument ID: IC-11 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2017 09:02 Calibration End Date: 09/26/2017 11:48 Calibration ID: 17563

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-431297/2 | 20170926002.d |
| Level 2 | STD1 440-431297/3 | 20170926003.d |
| Level 3 | STD2 440-431297/4 | 20170926004.d |
| Level 4 | STD3 440-431297/5 | 20170926005.d |
| Level 5 | STD4 440-431297/6 | 20170926006.d |
| Level 6 | STD5 440-431297/7 | 20170926007.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Chlorite | 27628 | 24008<br>27917 | 28189 | 26950 | Lin | -43247.617 | 27969.4671 | | | | | | | 1.0000 | | 0.9950 |
| Dichloroacetic acid(Surr) | 14369<br>14171 | 14094<br>14063 | 14268 | 14179 | Ave | | 14190.7071 | | | | 0.8 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 431297

SDG No.:

Instrument ID: IC-11 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2017 09:02 Calibration End Date: 09/26/2017 11:48 Calibration ID: 17563

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-431297/2 | 20170926002.d |
| Level 2 | STD1 440-431297/3 | 20170926003.d |
| Level 3 | STD2 440-431297/4 | 20170926004.d |
| Level 4 | STD3 440-431297/5 | 20170926005.d |
| Level 5 | STD4 440-431297/6 | 20170926006.d |
| Level 6 | STD5 440-431297/7 | 20170926007.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Chlorite | Lin | 11166724 | 480167 | 1409439 | 2695008 | 5525666 | 0.000000<br>400 | 20.0 | 50.0 | 100 | 200 |
| Dichloroacetic acid(Surr) | Ave | 14278762<br>13974525 | 14005340 | 14178518 | 14089380 | 14082237 | 994<br>994 | 994 | 994 | 994 | 994 |

Curve Type Legend:

Ave = Average
Lin = Linear

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 423009

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/14/2017 05:28 Calibration End Date: 08/14/2017 08:29 Calibration ID: 17250

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-423009/2 | 440-0092153-002.d |
| Level 2 | STD1 440-423009/3 | 440-0092153-003.d |
| Level 3 | STD2 440-423009/4 | 440-0092153-004.d |
| Level 4 | STD3 440-423009/5 | 440-0092153-005.d |
| Level 5 | STD4 440-423009/6 | 440-0092153-006.d |
| Level 6 | STD5 440-423009/7 | 440-0092153-007.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromate | | 8.250 | 8.242 | 8.233 | 8.150 | 8.150 | | | | | 0.000 - 0.000 | 8.205 |
| Bromide | | 15.967 | 15.975 | 15.933 | 15.742 | 15.717 | | | | | 0.000 - 0.000 | 15.867 |
| Chlorate | | 17.400 | 17.417 | 17.367 | 17.167 | 17.150 | | | | | 0.000 - 0.000 | 17.300 |
| Dichloroacetic acid(Surr) | 13.600 | 13.592 | 13.592 | 13.575 | 13.442 | 13.450 | | | | | 12.640 - 14.543 | 13.542 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 423009

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/14/2017 05:28 Calibration End Date: 08/14/2017 08:29 Calibration ID: 17250

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-423009/2 | 440-0092153-002.d |
| Level 2 | STD1 440-423009/3 | 440-0092153-003.d |
| Level 3 | STD2 440-423009/4 | 440-0092153-004.d |
| Level 4 | STD3 440-423009/5 | 440-0092153-005.d |
| Level 5 | STD4 440-423009/6 | 440-0092153-006.d |
| Level 6 | STD5 440-423009/7 | 440-0092153-007.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Bromate | 79304 | 72780<br>82443 | 79270 | 77699 | Lin | -61097.627 | 82458.7416 | | | | | | | 1.0000 | | 0.9950 |
| Bromide | 145707 | 141083<br>154023 | 142935 | 143857 | Lin | -1402152.1 | 153856.952 | | | | | | | 0.9990 | | 0.9950 |
| Chlorate | 131916 | 131347<br>136786 | 128457 | 131179 | Lin | -332635.33 | 136702.749 | | | | | | | 1.0000 | | 0.9950 |
| Dichloroacetic acid(Surr) | 78811<br>79249 | 81917<br>82668 | 80083 | 80175 | Ave | | 80483.8714 | | | | 1.9 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 423009

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/14/2017 05:28 Calibration End Date: 08/14/2017 08:29 Calibration ID: 17250

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-423009/2 | 440-0092153-002.d |
| Level 2 | STD1 440-423009/3 | 440-0092153-003.d |
| Level 3 | STD2 440-423009/4 | 440-0092153-004.d |
| Level 4 | STD3 440-423009/5 | 440-0092153-005.d |
| Level 5 | STD4 440-423009/6 | 440-0092153-006.d |
| Level 6 | STD5 440-423009/7 | 440-0092153-007.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Bromate | Lin | 8244283 | 363900 | 990869 | 1942473 | 3965197 | 0.000000<br>100 | 5.00 | 12.5 | 25.0 | 50.0 |
| Bromide | Lin | 154022782 | 7054125 | 17866886 | 35964194 | 72853733 | 0.000000<br>1000 | 50.0 | 125 | 250 | 500 |
| Chlorate | Lin | 54714474 | 2626944 | 6422839 | 13117939 | 26383109 | 0.000000<br>400 | 20.0 | 50.0 | 100 | 200 |
| Dichloroacetic acid(Surr) | Ave | 78315176<br>82148091 | 81402171 | 79578914 | 79671177 | 78750673 | 994<br>994 | 994 | 994 | 994 | 994 |

Curve Type Legend:

Ave = Average
Lin = Linear

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 423010

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/14/2017 05:28 Calibration End Date: 08/14/2017 08:29 Calibration ID: 17251

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-423010/2 | 440-0092153-002.d |
| Level 2 | STD1 440-423010/3 | 440-0092153-003.d |
| Level 3 | STD2 440-423010/4 | 440-0092153-004.d |
| Level 4 | STD3 440-423010/5 | 440-0092153-005.d |
| Level 5 | STD4 440-423010/6 | 440-0092153-006.d |
| Level 6 | STD5 440-423010/7 | 440-0092153-007.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | 7.192 | 7.192 | 7.183 | 7.117 | 7.117 | | | | | 0.000 - 0.000 | 7.160 |
| Dichloroacetic acid(Surr) | 13.600 | 13.592 | 13.592 | 13.575 | 13.442 | 13.450 | | | | | 12.640 - 14.543 | 13.542 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 423010

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/14/2017 05:28 Calibration End Date: 08/14/2017 08:29 Calibration ID: 17251

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-423010/2 | 440-0092153-002.d |
| Level 2 | STD1 440-423010/3 | 440-0092153-003.d |
| Level 3 | STD2 440-423010/4 | 440-0092153-004.d |
| Level 4 | STD3 440-423010/5 | 440-0092153-005.d |
| Level 5 | STD4 440-423010/6 | 440-0092153-006.d |
| Level 6 | STD5 440-423010/7 | 440-0092153-007.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Chlorite | 147793 | 150290<br>153150 | 145577 | 148204 | Lin | -303353.14 | 152913.760 | | | | | | | 1.0000 | | 0.9950 |
| Dichloroacetic acid(Surr) | 78811<br>79249 | 81917<br>82668 | 80083 | 80175 | Ave | | 80483.8714 | | | | 1.9 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 423010

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/14/2017 05:28 Calibration End Date: 08/14/2017 08:29 Calibration ID: 17251

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-423010/2 | 440-0092153-002.d |
| Level 2 | STD1 440-423010/3 | 440-0092153-003.d |
| Level 3 | STD2 440-423010/4 | 440-0092153-004.d |
| Level 4 | STD3 440-423010/5 | 440-0092153-005.d |
| Level 5 | STD4 440-423010/6 | 440-0092153-006.d |
| Level 6 | STD5 440-423010/7 | 440-0092153-007.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Chlorite | Lin | 61259862 | 3005792 | 7278865 | 14820378 | 29558579 | 0.000000<br>400 | 20.0 | 50.0 | 100 | 200 |
| Dichloroacetic acid(Surr) | Ave | 78315176<br>82148091 | 81402171 | 79578914 | 79671177 | 78750673 | 994<br>994 | 994 | 994 | 994 | 994 |

Curve Type Legend:

Ave = Average
Lin = Linear

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 441234

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/14/2017 04:07 Calibration End Date: 11/14/2017 07:08 Calibration ID: 17947

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-441234/2 | 440-0096201-002.d |
| Level 2 | STD1 440-441234/3 | 440-0096201-003.d |
| Level 3 | STD2 440-441234/4 | 440-0096201-004.d |
| Level 4 | STD3 440-441234/5 | 440-0096201-005.d |
| Level 5 | STD4 440-441234/6 | 440-0096201-006.d |
| Level 6 | STD5 440-441234/7 | 440-0096201-007.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromate | | 8.383 | 8.259 | 8.475 | 8.225 | 8.234 | | | | | 0.000 - 0.000 | 8.315 |
| Bromide | | 16.117 | 15.825 | 16.300 | 15.792 | 15.825 | | | | | 0.000 - 0.000 | 15.972 |
| Chlorate | | 17.308 | 17.000 | 17.492 | 16.975 | 17.000 | | | | | 0.000 - 0.000 | 17.155 |
| Dichloroacetic acid(Surr) | 13.509 | 13.442 | 13.225 | 13.584 | 13.184 | 13.209 | | | | | 12.501 - 14.383 | 13.359 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 441234

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/14/2017 04:07 Calibration End Date: 11/14/2017 07:08 Calibration ID: 17947

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-441234/2 | 440-0096201-002.d |
| Level 2 | STD1 440-441234/3 | 440-0096201-003.d |
| Level 3 | STD2 440-441234/4 | 440-0096201-004.d |
| Level 4 | STD3 440-441234/5 | 440-0096201-005.d |
| Level 5 | STD4 440-441234/6 | 440-0096201-006.d |
| Level 6 | STD5 440-441234/7 | 440-0096201-007.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Bromate | 72922 | 64907<br>71889 | 63551 | 73443 | Lin | -24464.832 | 72398.8259 | | | | | | | 1.0000 | | 0.9950 |
| Bromide | 132149 | 129173<br>133216 | 133462 | 134853 | Lin | -15178.220 | 133109.827 | | | | | | | 1.0000 | | 0.9950 |
| Chlorate | 119346 | 139027<br>118579 | 140094 | 124278 | Lin | 518413.215 | 117407.265 | | | | | | | 1.0000 | | 0.9950 |
| Dichloroacetic acid(Surr) | 70686<br>71179 | 69933<br>71325 | 69587 | 72993 | Ave | | 70950.6652 | | | | 1.7 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-196039-1 Analy Batch No.: 441234

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/14/2017 04:07 Calibration End Date: 11/14/2017 07:08 Calibration ID: 17947

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-441234/2 | 440-0096201-002.d |
| Level 2 | STD1 440-441234/3 | 440-0096201-003.d |
| Level 3 | STD2 440-441234/4 | 440-0096201-004.d |
| Level 4 | STD3 440-441234/5 | 440-0096201-005.d |
| Level 5 | STD4 440-441234/6 | 440-0096201-006.d |
| Level 6 | STD5 440-441234/7 | 440-0096201-007.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Bromate | Lin | 7188870 | 324537 | 794387 | 1836067 | 3646124 | 0.000000<br>100 | 5.00 | 12.5 | 25.0 | 50.0 |
| Bromide | Lin | 133216191 | 6458653 | 16682697 | 33713275 | 66074531 | 0.000000<br>1000 | 50.0 | 125 | 250 | 500 |
| Chlorate | Lin | 47431773 | 2780545 | 7004686 | 12427834 | 23869235 | 0.000000<br>400 | 20.0 | 50.0 | 100 | 200 |
| Dichloroacetic acid(Surr) | Ave | 70241930<br>70876720 | 69492803 | 69149565 | 72534200 | 70731478 | 994<br>994 | 994 | 994 | 994 | 994 |

Curve Type Legend:

Ave = Average
Lin = Linear

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: ICV 440-431297/8 Calibration Date: 09/26/2017 12:33

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20170926008.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 27411 | | 119 | 120 | -0.7 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14191 | 14065 | | 985 | 994 | -0.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: ICV 440-431297/8 Calibration Date: 09/26/2017 12:33

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20170926008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.33 | 6.82 | 7.85 |
| Dichloroacetic acid(Surr) | 13.56 | 12.61 | 14.51 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440974/1  Calibration Date: 11/13/2017 04:33

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171113001.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 26942 | | 97.9 | 100 | -2.1 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14191 | 13695 | | 959 | 994 | -3.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440974/1 Calibration Date: 11/13/2017 04:33

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171113001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.27 | 6.82 | 7.85 |
| Dichloroacetic acid(Surr) | 13.37 | 12.61 | 14.51 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440974/13  Calibration Date: 11/13/2017 11:12

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171113013.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 26131 | | 188 | 200 | -5.8 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14191 | 13723 | | 961 | 994 | -3.3 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440974/13 Calibration Date: 11/13/2017 11:12

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171113013.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.17 | 6.82 | 7.85 |
| Dichloroacetic acid(Surr) | 13.27 | 12.61 | 14.51 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440974/25  Calibration Date: 11/13/2017 17:50

Instrument ID: IC-11  Calib Start Date: 09/26/2017 09:02

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 09/26/2017 11:48

Lab File ID: 20171113025.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 25899 | | 94.1 | 100 | -5.9 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14191 | 13855 | | 970 | 994 | -2.4 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440974/25 Calibration Date: 11/13/2017 17:50

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171113025.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.25 | 6.82 | 7.85 |
| Dichloroacetic acid(Surr) | 13.36 | 12.61 | 14.51 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440974/35 Calibration Date: 11/13/2017 23:22

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171113035.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 26286 | | 190 | 200 | -5.2 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 14191 | 14186 | | 993 | 994 | -0.0 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440974/35 Calibration Date: 11/13/2017 23:22

Instrument ID: IC-11 Calib Start Date: 09/26/2017 09:02

GC Column: AS14 ID: 4.00(mm) Calib End Date: 09/26/2017 11:48

Lab File ID: 20171113035.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.17 | 6.82 | 7.85 |
| Dichloroacetic acid(Surr) | 13.22 | 12.61 | 14.51 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Lab Sample ID: ICV 440-423009/8  Calibration Date: 08/14/2017 09:17

Instrument ID: IC-8  Calib Start Date: 08/14/2017 05:28

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0092153-008.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 77668 | | 29.1 | 30.1 | -3.3 | 15.0 |
| Bromide | Lin | | 144321 | | 291 | 300 | -3.2 | 15.0 |
| Chlorate | Lin | | 132909 | | 119 | 120 | -0.7 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 80484 | 79835 | | 986 | 994 | -0.8 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: ICV 440-423009/8 Calibration Date: 08/14/2017 09:17

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0092153-008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.24 | 7.67 | 8.83 |
| Bromide | 15.93 | 14.85 | 17.09 |
| Chlorate | 17.38 | 16.53 | 18.27 |
| Dichloroacetic acid(Surr) | 13.59 | 12.64 | 14.54 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: ICV 440-423010/8 Calibration Date: 08/14/2017 09:17

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0092153-008.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 147168 | | 117 | 120 | -2.1 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 80484 | 79835 | | 986 | 994 | -0.8 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: ICV 440-423010/8 Calibration Date: 08/14/2017 09:17

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0092153-008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.18 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 13.59 | 12.64 | 14.54 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440634/1 Calibration Date: 11/10/2017 10:41

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0096061-001.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 80212 | | 25.1 | 25.0 | 0.2 | 15.0 |
| Bromide | Lin | | 142461 | | 241 | 250 | -3.8 | 15.0 |
| Chlorate | Lin | | 132232 | | 99.2 | 100 | -0.8 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 80484 | 78837 | | 973 | 994 | -2.0 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440634/1 Calibration Date: 11/10/2017 10:41

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0096061-001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.57 | 7.67 | 8.83 |
| Bromide | 16.44 | 14.85 | 17.09 |
| Chlorate | 17.73 | 16.53 | 18.27 |
| Dichloroacetic acid(Surr) | 13.93 | 12.64 | 14.54 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440635/1 Calibration Date: 11/10/2017 10:41

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0096061-001.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 153728 | | 103 | 100 | 2.5 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 80484 | 78837 | | 973 | 994 | -2.0 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440635/1 Calibration Date: 11/10/2017 10:41

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0096061-001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.48 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 13.93 | 12.64 | 14.54 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440634/13 Calibration Date: 11/10/2017 17:56

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0096061-013.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 76690 | | 47.2 | 50.0 | -5.5 | 15.0 |
| Bromide | Lin | | 143612 | | 476 | 500 | -4.8 | 15.0 |
| Chlorate | Lin | | 134955 | | 200 | 200 | -0.0 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 80484 | 79079 | | 976 | 994 | -1.7 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440634/13 Calibration Date: 11/10/2017 17:56

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0096061-013.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.62 | 7.67 | 8.83 |
| Bromide | 16.57 | 14.85 | 17.09 |
| Chlorate | 17.87 | 16.53 | 18.27 |
| Dichloroacetic acid(Surr) | 14.03 | 12.64 | 14.54 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440635/13  Calibration Date: 11/10/2017 17:56

Instrument ID: IC-8  Calib Start Date: 08/14/2017 05:28

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0096061-013.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 154231 | | 204 | 200 | 1.9 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 80484 | 79079 | | 976 | 994 | -1.7 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440635/13 Calibration Date: 11/10/2017 17:56

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0096061-013.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.53 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.03 | 12.64 | 14.54 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440635/25  Calibration Date: 11/11/2017 01:11

Instrument ID: IC-8  Calib Start Date: 08/14/2017 05:28

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0096061-025.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 157497 | | 105 | 100 | 5.0 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 80484 | 77552 | | 958 | 994 | -3.6 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440635/25 Calibration Date: 11/11/2017 01:11

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0096061-025.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.52 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 13.99 | 12.64 | 14.54 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440635/33 Calibration Date: 11/11/2017 07:17

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0096061-033.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 148148 | | 196 | 200 | -2.1 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 80484 | 75537 | | 933 | 994 | -6.1 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-440635/33 Calibration Date: 11/11/2017 07:17

Instrument ID: IC-8 Calib Start Date: 08/14/2017 05:28

GC Column: AS14 ID: 4.00(mm) Calib End Date: 08/14/2017 08:29

Lab File ID: 440-0096061-033.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.53 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 13.98 | 12.64 | 14.54 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Lab Sample ID: ICV 440-441234/8  Calibration Date: 11/14/2017 08:07

Instrument ID: IC-8  Calib Start Date: 11/14/2017 04:07

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096201-008.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 71574 | | 30.1 | 30.1 | -0.0 | 15.0 |
| Bromide | Lin | | 129520 | | 292 | 300 | -2.7 | 15.0 |
| Chlorate | Lin | | 118550 | | 117 | 120 | -2.7 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 70951 | 69209 | | 969 | 994 | -2.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: ICV 440-441234/8 Calibration Date: 11/14/2017 08:07

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096201-008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.20 | 7.80 | 8.97 |
| Bromide | 15.78 | 14.99 | 17.25 |
| Chlorate | 16.93 | 16.44 | 18.17 |
| Dichloroacetic acid(Surr) | 13.11 | 12.50 | 14.38 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-441516/1  Calibration Date: 11/15/2017 07:13

Instrument ID: IC-8  Calib Start Date: 11/14/2017 04:07

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096272-001.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 73068 | | 25.6 | 25.0 | 2.3 | 15.0 |
| Bromide | Lin | | 136142 | | 256 | 250 | 2.3 | 15.0 |
| Chlorate | Lin | | 120350 | | 98.1 | 100 | -1.9 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 70951 | 72271 | | 1010 | 994 | 1.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-441516/1 Calibration Date: 11/15/2017 07:13

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096272-001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.43 | 7.80 | 8.97 |
| Bromide | 16.21 | 14.99 | 17.25 |
| Chlorate | 17.41 | 16.44 | 18.17 |
| Dichloroacetic acid(Surr) | 13.51 | 12.50 | 14.38 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-441516/13 Calibration Date: 11/15/2017 14:31

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096272-013.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 70158 | | 48.8 | 50.0 | -2.4 | 15.0 |
| Bromide | Lin | | 134254 | | 504 | 500 | 0.9 | 15.0 |
| Chlorate | Lin | | 119582 | | 199 | 200 | -0.4 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 70951 | 73090 | | 1020 | 994 | 3.0 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-441516/13 Calibration Date: 11/15/2017 14:31

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096272-013.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.41 | 7.80 | 8.97 |
| Bromide | 16.08 | 14.99 | 17.25 |
| Chlorate | 17.31 | 16.44 | 18.17 |
| Dichloroacetic acid(Surr) | 13.53 | 12.50 | 14.38 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-441516/25  Calibration Date: 11/15/2017 21:46

Instrument ID: IC-8  Calib Start Date: 11/14/2017 04:07

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096272-025.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 71407 | | 25.0 | 25.0 | -0.0 | 15.0 |
| Bromide | Lin | | 138221 | | 260 | 250 | 3.9 | 15.0 |
| Chlorate | Lin | | 126401 | | 103 | 100 | 3.2 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 70951 | 73271 | | 1030 | 994 | 3.3 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-441516/25 Calibration Date: 11/15/2017 21:46

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096272-025.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.39 | 7.80 | 8.97 |
| Bromide | 16.03 | 14.99 | 17.25 |
| Chlorate | 17.27 | 16.44 | 18.17 |
| Dichloroacetic acid(Surr) | 13.51 | 12.50 | 14.38 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-443190/1  Calibration Date: 11/24/2017 05:24

Instrument ID: IC-8  Calib Start Date: 11/14/2017 04:07

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096644-001.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 78614 | | 27.5 | 25.0 | 9.9 | 15.0 |
| Bromide | Lin | | 139707 | | 263 | 250 | 5.0 | 15.0 |
| Chlorate | Lin | | 126175 | | 103 | 100 | 3.1 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 70951 | 72263 | | 1010 | 994 | 1.8 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-443190/1 Calibration Date: 11/24/2017 05:24

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096644-001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.34 | 7.80 | 8.97 |
| Bromide | 16.07 | 14.99 | 17.25 |
| Chlorate | 17.23 | 16.44 | 18.17 |
| Dichloroacetic acid(Surr) | 13.35 | 12.50 | 14.38 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-443190/13 Calibration Date: 11/24/2017 12:49

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096644-013.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 74405 | | 51.7 | 50.0 | 3.4 | 15.0 |
| Bromide | Lin | | 132682 | | 499 | 500 | -0.3 | 15.0 |
| Chlorate | Lin | | 119163 | | 199 | 200 | -0.7 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 70951 | 72391 | | 1010 | 994 | 2.0 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Lab Sample ID: CCV 440-443190/13 Calibration Date: 11/24/2017 12:49

Instrument ID: IC-8 Calib Start Date: 11/14/2017 04:07

GC Column: AS14 ID: 4.00(mm) Calib End Date: 11/14/2017 07:08

Lab File ID: 440-0096644-013.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.28 | 7.80 | 8.97 |
| Bromide | 15.66 | 14.99 | 17.25 |
| Chlorate | 16.88 | 16.44 | 18.17 |
| Dichloroacetic acid(Surr) | 13.36 | 12.50 | 14.38 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 440-440634/5

Matrix: Water  Lab File ID: 440-0096061-005.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 11/10/2017 13:06

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 440634  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 96 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-440635/5

Matrix: Water | Lab File ID: 440-0096061-005.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 13:06

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440635 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 96 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-440974/5

Matrix: Water | Lab File ID: 20171113005.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/13/2017 06:46

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440974 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 95 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-441516/5

Matrix: Water | Lab File ID: 440-0096272-005.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/15/2017 09:41

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441516 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 440-443190/5

Matrix: Water  Lab File ID: 440-0096644-005.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 11/24/2017 07:59

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 443190  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-440634/2

Matrix: Water  Lab File ID: 440-0096061-002.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 11/10/2017 11:17

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 440634  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 96 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-440634/14

Matrix: Water  Lab File ID: 440-0096061-014.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 11/10/2017 18:32

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 440634  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 98 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-440635/2

Matrix: Water | Lab File ID: 440-0096061-002.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 11:17

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440635 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 96 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-440635/14

Matrix: Water | Lab File ID: 440-0096061-014.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 18:32

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440635 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 98 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-440635/26

Matrix: Water | Lab File ID: 440-0096061-026.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/11/2017 01:47

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440635 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 95 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-440635/34

Matrix: Water  Lab File ID: 440-0096061-034.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 11/11/2017 08:58

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 440635  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 108 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-440974/2

Matrix: Water | Lab File ID: 20171113002.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/13/2017 05:06

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440974 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 97 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-440974/14

Matrix: Water  Lab File ID: 20171113014.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 11/13/2017 11:45

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 440974  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 99 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-440974/36

Matrix: Water | Lab File ID: 20171113036.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/13/2017 23:55

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440974 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-441516/2

Matrix: Water  Lab File ID: 440-0096272-002.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 11/15/2017 07:49

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 441516  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-441516/14

Matrix: Water | Lab File ID: 440-0096272-014.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/15/2017 15:07

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441516 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-441516/26

Matrix: Water | Lab File ID: 440-0096272-026.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/15/2017 22:22

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441516 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-443190/2

Matrix: Water  Lab File ID: 440-0096644-002.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 11/24/2017 06:00

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 443190  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-443190/14

Matrix: Water  Lab File ID: 440-0096644-014.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 11/24/2017 13:25

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 443190  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 440-440634/4

Matrix: Water  Lab File ID: 440-0096061-004.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 11/10/2017 12:30

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 440634  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 102 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 97 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 440-440635/4

Matrix: Water  Lab File ID: 440-0096061-004.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 11/10/2017 12:30

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 440635  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 102 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 97 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-440974/4

Matrix: Water | Lab File ID: 20171113004.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/13/2017 06:13

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440974 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 94.8 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 96 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-441516/4

Matrix: Water | Lab File ID: 440-0096272-004.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/15/2017 09:05

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441516 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 98.1 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-443190/4

Matrix: Water | Lab File ID: 440-0096644-004.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/24/2017 07:23

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443190 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 98.7 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-440634/3

Matrix: Water | Lab File ID: 440-0096061-003.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 11:54

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440634 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 22.3 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 96 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-440635/3

Matrix: Water | Lab File ID: 440-0096061-003.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 11:54

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440635 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 20.0 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 96 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-440974/3

Matrix: Water | Lab File ID: 20171113003.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/13/2017 05:40

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440974 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 18.8 | J | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 99 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-441516/3

Matrix: Water | Lab File ID: 440-0096272-003.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/15/2017 08:25

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441516 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 21.2 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Client Sample ID:  Lab Sample ID: MRL 440-443190/3

Matrix: Water  Lab File ID: 440-0096644-003.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 11/24/2017 06:36

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS14  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 443190  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 16.8 | J | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-195592-A-1 MS

Matrix: Water | Lab File ID: 440-0096061-009.d

Analysis Method: 300.1B | Date Collected: 11/02/2017 10:10

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 15:31

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440634 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 1170 | | 100 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 95 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-195592-A-1 MS

Matrix: Water | Lab File ID: 440-0096061-009.d

Analysis Method: 300.1B | Date Collected: 11/02/2017 10:10

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 15:31

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440635 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 160 | | 100 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 95 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-195772-B-3 MS

Matrix: Water | Lab File ID: 20171113011.d

Analysis Method: 300.1B | Date Collected: 11/06/2017 13:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/13/2017 10:05

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440974 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 215 | | 100 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 105 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-196337-A-4 MS

Matrix: Water | Lab File ID: 440-0096272-017.d

Analysis Method: 300.1B | Date Collected: 11/12/2017 09:48

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/15/2017 16:56

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441516 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 463 | | 100 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-197050-C-1 MS

Matrix: Water | Lab File ID: 440-0096644-011.d

Analysis Method: 300.1B | Date Collected: 11/21/2017 12:45

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/24/2017 11:36

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443190 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 217 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-195592-A-1 MSD

Matrix: Water | Lab File ID: 440-0096061-010.d

Analysis Method: 300.1B | Date Collected: 11/02/2017 10:10

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 16:07

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440634 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 1140 | | 100 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 96 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-195592-A-1 MSD

Matrix: Water | Lab File ID: 440-0096061-010.d

Analysis Method: 300.1B | Date Collected: 11/02/2017 10:10

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/10/2017 16:07

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440635 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 164 | | 100 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 96 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-195772-B-3 MSD

Matrix: Water | Lab File ID: 20171113012.d

Analysis Method: 300.1B | Date Collected: 11/06/2017 13:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/13/2017 10:38

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 440974 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 192 | | 100 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 94 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-196337-A-4 MSD

Matrix: Water | Lab File ID: 440-0096272-018.d

Analysis Method: 300.1B | Date Collected: 11/12/2017 09:48

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/15/2017 17:32

Con. Extract Vol.: | Dilution Factor: 5

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 441516 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 455 | | 100 | 50 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-197050-C-1 MSD

Matrix: Water | Lab File ID: 440-0096644-012.d

Analysis Method: 300.1B | Date Collected: 11/21/2017 12:45

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 11/24/2017 12:13

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 443190 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 199 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-11 Start Date: 09/26/2017 08:29

Analysis Batch Number: 431297 End Date: 09/27/2017 10:57

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 09/26/2017 08:29 | 1 | | AS14 4(mm) |
| STD0 440-431297/2 IC | | 09/26/2017 09:02 | 1 | 20170926002.d | AS14 4(mm) |
| STD1 440-431297/3 IC | | 09/26/2017 09:36 | 1 | 20170926003.d | AS14 4(mm) |
| STD2 440-431297/4 IC | | 09/26/2017 10:09 | 1 | 20170926004.d | AS14 4(mm) |
| STD3 440-431297/5 IC | | 09/26/2017 10:42 | 1 | 20170926005.d | AS14 4(mm) |
| STD4 440-431297/6 IC | | 09/26/2017 11:15 | 1 | 20170926006.d | AS14 4(mm) |
| STD5 440-431297/7 IC | | 09/26/2017 11:48 | 1 | 20170926007.d | AS14 4(mm) |
| ICV 440-431297/8 | | 09/26/2017 12:33 | 1 | | AS14 4(mm) |
| ICB 440-431297/9 | | 09/26/2017 13:06 | 1 | | AS14 4(mm) |
| CCV 440-431297/44 | | 09/27/2017 10:24 | 1 | | AS14 4(mm) |
| CCB 440-431297/45 | | 09/27/2017 10:57 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-11 Start Date: 11/13/2017 04:33

Analysis Batch Number: 440974 End Date: 11/13/2017 23:55

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-440974/1 | | 11/13/2017 04:33 | 1 | 20171113001.d | AS14 4(mm) |
| CCB 440-440974/2 | | 11/13/2017 05:06 | 1 | 20171113002.d | AS14 4(mm) |
| MRL 440-440974/3 | | 11/13/2017 05:40 | 1 | 20171113003.d | AS14 4(mm) |
| LCS 440-440974/4 | | 11/13/2017 06:13 | 1 | 20171113004.d | AS14 4(mm) |
| MB 440-440974/5 | | 11/13/2017 06:46 | 1 | 20171113005.d | AS14 4(mm) |
| ZZZZZ | | 11/13/2017 07:52 | 5 | | AS14 4(mm) |
| 440-195772-B-3 MS | | 11/13/2017 10:05 | 5 | 20171113011.d | AS14 4(mm) |
| 440-195772-B-3 MSD | | 11/13/2017 10:38 | 5 | 20171113012.d | AS14 4(mm) |
| CCV 440-440974/13 | | 11/13/2017 11:12 | 1 | 20171113013.d | AS14 4(mm) |
| CCB 440-440974/14 | | 11/13/2017 11:45 | 1 | 20171113014.d | AS14 4(mm) |
| ZZZZZ | | 11/13/2017 15:04 | 5 | | AS14 4(mm) |
| 440-196039-2 | | 11/13/2017 15:37 | 20 | 20171113021.d | AS14 4(mm) |
| ZZZZZ | | 11/13/2017 16:10 | 1 | | AS14 4(mm) |
| CCV 440-440974/25 | | 11/13/2017 17:50 | 1 | 20171113025.d | AS14 4(mm) |
| CCV 440-440974/35 | | 11/13/2017 23:22 | 1 | 20171113035.d | AS14 4(mm) |
| CCB 440-440974/36 | | 11/13/2017 23:55 | 1 | 20171113036.d | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-8 Start Date: 08/14/2017 04:52

Analysis Batch Number: 423009 End Date: 08/15/2017 09:39

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 08/14/2017 04:52 | 1 | | AS14 4(mm) |
| STD0 440-423009/2 IC | | 08/14/2017 05:28 | 1 | 440-0092153-002.d | AS14 4(mm) |
| STD1 440-423009/3 IC | | 08/14/2017 06:04 | 1 | 440-0092153-003.d | AS14 4(mm) |
| STD2 440-423009/4 IC | | 08/14/2017 06:40 | 1 | 440-0092153-004.d | AS14 4(mm) |
| STD3 440-423009/5 IC | | 08/14/2017 07:17 | 1 | 440-0092153-005.d | AS14 4(mm) |
| STD4 440-423009/6 IC | | 08/14/2017 07:53 | 1 | 440-0092153-006.d | AS14 4(mm) |
| STD5 440-423009/7 IC | | 08/14/2017 08:29 | 1 | 440-0092153-007.d | AS14 4(mm) |
| ICV 440-423009/8 | | 08/14/2017 09:17 | 1 | 440-0092153-008.d | AS14 4(mm) |
| ICB 440-423009/9 | | 08/14/2017 09:53 | 1 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 11:16 | 1 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 11:57 | 1 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 12:33 | 1 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 13:09 | 5 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 13:46 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 14:22 | 5 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 14:58 | 5 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 15:34 | 10000 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 16:11 | 10000 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 16:47 | 10000 | | AS14 4(mm) |
| CCV 440-423009/20 | | 08/14/2017 17:23 | 1 | | AS14 4(mm) |
| CCB 440-423009/21 | | 08/14/2017 17:59 | 1 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 18:36 | 5 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 19:12 | 5 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 19:48 | 5 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 20:24 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 21:01 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 21:37 | 10000 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 22:13 | 10000 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 22:49 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 23:26 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 08/15/2017 00:02 | 10000 | | AS14 4(mm) |
| CCV 440-423009/32 | | 08/15/2017 00:38 | 1 | | AS14 4(mm) |
| CCB 440-423009/33 | | 08/15/2017 01:14 | 1 | | AS14 4(mm) |
| ZZZZZ | | 08/15/2017 01:51 | 20000 | | AS14 4(mm) |
| ZZZZZ | | 08/15/2017 02:27 | 20000 | | AS14 4(mm) |
| ZZZZZ | | 08/15/2017 03:03 | 20000 | | AS14 4(mm) |
| ZZZZZ | | 08/15/2017 03:39 | 50 | | AS14 4(mm) |
| ZZZZZ | | 08/15/2017 04:16 | 20000 | | AS14 4(mm) |
| ZZZZZ | | 08/15/2017 04:52 | 20000 | | AS14 4(mm) |
| ZZZZZ | | 08/15/2017 05:28 | 20000 | | AS14 4(mm) |
| ZZZZZ | | 08/15/2017 06:04 | 20000 | | AS14 4(mm) |
| ZZZZZ | | 08/15/2017 06:41 | 100 | | AS14 4(mm) |

300.1B

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-8 Start Date: 08/14/2017 04:52

Analysis Batch Number: 423009 End Date: 08/15/2017 09:39

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 08/15/2017 07:17 | 1000 | | AS14 4(mm) |
| CCV 440-423009/44 | | 08/15/2017 08:19 | 1 | | AS14 4(mm) |
| CCB 440-423009/45 | | 08/15/2017 09:39 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-8 Start Date: 08/14/2017 04:52

Analysis Batch Number: 423010 End Date: 08/15/2017 09:39

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 08/14/2017 04:52 | 1 | | AS14 4(mm) |
| STD0 440-423010/2 IC | | 08/14/2017 05:28 | 1 | 440-0092153-002.d | AS14 4(mm) |
| STD1 440-423010/3 IC | | 08/14/2017 06:04 | 1 | 440-0092153-003.d | AS14 4(mm) |
| STD2 440-423010/4 IC | | 08/14/2017 06:40 | 1 | 440-0092153-004.d | AS14 4(mm) |
| STD3 440-423010/5 IC | | 08/14/2017 07:17 | 1 | 440-0092153-005.d | AS14 4(mm) |
| STD4 440-423010/6 IC | | 08/14/2017 07:53 | 1 | 440-0092153-006.d | AS14 4(mm) |
| STD5 440-423010/7 IC | | 08/14/2017 08:29 | 1 | 440-0092153-007.d | AS14 4(mm) |
| ICV 440-423010/8 | | 08/14/2017 09:17 | 1 | 440-0092153-008.d | AS14 4(mm) |
| ICB 440-423010/9 | | 08/14/2017 09:53 | 1 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 11:16 | 1 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 11:57 | 1 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 12:33 | 1 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 13:09 | 5 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 14:22 | 5 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 14:58 | 5 | | AS14 4(mm) |
| CCV 440-423010/20 | | 08/14/2017 17:23 | 1 | | AS14 4(mm) |
| CCB 440-423010/21 | | 08/14/2017 17:59 | 1 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 18:36 | 5 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 19:12 | 5 | | AS14 4(mm) |
| ZZZZZ | | 08/14/2017 19:48 | 5 | | AS14 4(mm) |
| CCV 440-423010/32 | | 08/15/2017 00:38 | 1 | | AS14 4(mm) |
| CCB 440-423010/33 | | 08/15/2017 01:14 | 1 | | AS14 4(mm) |
| CCV 440-423010/44 | | 08/15/2017 08:19 | 1 | | AS14 4(mm) |
| CCB 440-423010/45 | | 08/15/2017 09:39 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-8 Start Date: 11/10/2017 10:41

Analysis Batch Number: 440634 End Date: 11/11/2017 08:58

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-440634/1 | | 11/10/2017 10:41 | 1 | 440-0096061-001.d | AS14 4(mm) |
| CCB 440-440634/2 | | 11/10/2017 11:17 | 1 | 440-0096061-002.d | AS14 4(mm) |
| MRL 440-440634/3 | | 11/10/2017 11:54 | 1 | 440-0096061-003.d | AS14 4(mm) |
| LCS 440-440634/4 | | 11/10/2017 12:30 | 1 | 440-0096061-004.d | AS14 4(mm) |
| MB 440-440634/5 | | 11/10/2017 13:06 | 1 | 440-0096061-005.d | AS14 4(mm) |
| ZZZZZ | | 11/10/2017 13:42 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/10/2017 14:19 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/10/2017 14:55 | 100 | | AS14 4(mm) |
| 440-195592-A-1 MS | | 11/10/2017 15:31 | 5 | 440-0096061-009.d | AS14 4(mm) |
| 440-195592-A-1 MSD | | 11/10/2017 16:07 | 5 | 440-0096061-010.d | AS14 4(mm) |
| ZZZZZ | | 11/10/2017 16:44 | 1000 | | AS14 4(mm) |
| 440-196039-5 | | 11/10/2017 17:20 | 1 | 440-0096061-012.d | AS14 4(mm) |
| CCV 440-440634/13 | | 11/10/2017 17:56 | 1 | 440-0096061-013.d | AS14 4(mm) |
| CCB 440-440634/14 | | 11/10/2017 18:32 | 1 | 440-0096061-014.d | AS14 4(mm) |
| ZZZZZ | | 11/10/2017 19:09 | 2000 | | AS14 4(mm) |
| ZZZZZ | | 11/10/2017 19:45 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 11/10/2017 20:21 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 11/10/2017 20:57 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 11/10/2017 21:34 | 5000 | | AS14 4(mm) |
| ZZZZZ | | 11/10/2017 22:10 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/10/2017 22:46 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/10/2017 23:22 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/10/2017 23:58 | 10 | | AS14 4(mm) |
| ZZZZZ | | 11/11/2017 00:35 | 1 | | AS14 4(mm) |
| CCV 440-440634/25 | | 11/11/2017 01:11 | 1 | | AS14 4(mm) |
| CCB 440-440634/26 | | 11/11/2017 01:47 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/11/2017 02:23 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/11/2017 04:16 | 20 | | AS14 4(mm) |
| ZZZZZ | | 11/11/2017 04:52 | 100 | | AS14 4(mm) |
| ZZZZZ | | 11/11/2017 05:28 | 100 | | AS14 4(mm) |
| ZZZZZ | | 11/11/2017 06:04 | 50 | | AS14 4(mm) |
| ZZZZZ | | 11/11/2017 06:40 | 50 | | AS14 4(mm) |
| CCV 440-440634/33 | | 11/11/2017 07:17 | 1 | | AS14 4(mm) |
| CCB 440-440634/34 | | 11/11/2017 08:58 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-8 Start Date: 11/10/2017 10:41

Analysis Batch Number: 440635 End Date: 11/11/2017 08:58

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-440635/1 | | 11/10/2017 10:41 | 1 | 440-0096061-001.d | AS14 4(mm) |
| CCB 440-440635/2 | | 11/10/2017 11:17 | 1 | 440-0096061-002.d | AS14 4(mm) |
| MRL 440-440635/3 | | 11/10/2017 11:54 | 1 | 440-0096061-003.d | AS14 4(mm) |
| LCS 440-440635/4 | | 11/10/2017 12:30 | 1 | 440-0096061-004.d | AS14 4(mm) |
| MB 440-440635/5 | | 11/10/2017 13:06 | 1 | 440-0096061-005.d | AS14 4(mm) |
| ZZZZZ | | 11/10/2017 14:19 | 5 | | AS14 4(mm) |
| 440-195592-A-1 MS | | 11/10/2017 15:31 | 5 | 440-0096061-009.d | AS14 4(mm) |
| 440-195592-A-1 MSD | | 11/10/2017 16:07 | 5 | 440-0096061-010.d | AS14 4(mm) |
| 440-196039-5 | | 11/10/2017 17:20 | 1 | 440-0096061-012.d | AS14 4(mm) |
| CCV 440-440635/13 | | 11/10/2017 17:56 | 1 | 440-0096061-013.d | AS14 4(mm) |
| CCB 440-440635/14 | | 11/10/2017 18:32 | 1 | 440-0096061-014.d | AS14 4(mm) |
| CCV 440-440635/25 | | 11/11/2017 01:11 | 1 | 440-0096061-025.d | AS14 4(mm) |
| CCB 440-440635/26 | | 11/11/2017 01:47 | 1 | 440-0096061-026.d | AS14 4(mm) |
| 440-196039-3 | | 11/11/2017 06:04 | 50 | 440-0096061-031.d | AS14 4(mm) |
| 440-196039-4 | | 11/11/2017 06:40 | 50 | 440-0096061-032.d | AS14 4(mm) |
| CCV 440-440635/33 | | 11/11/2017 07:17 | 1 | 440-0096061-033.d | AS14 4(mm) |
| CCB 440-440635/34 | | 11/11/2017 08:58 | 1 | 440-0096061-034.d | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-8 Start Date: 11/14/2017 03:31

Analysis Batch Number: 441234 End Date: 11/15/2017 06:28

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 11/14/2017 03:31 | 1 | | AS14 4(mm) |
| STD0 440-441234/2 IC | | 11/14/2017 04:07 | 1 | 440-0096201-002.d | AS14 4(mm) |
| STD1 440-441234/3 IC | | 11/14/2017 04:43 | 1 | 440-0096201-003.d | AS14 4(mm) |
| STD2 440-441234/4 IC | | 11/14/2017 05:19 | 1 | 440-0096201-004.d | AS14 4(mm) |
| STD3 440-441234/5 IC | | 11/14/2017 05:55 | 1 | 440-0096201-005.d | AS14 4(mm) |
| STD4 440-441234/6 IC | | 11/14/2017 06:32 | 1 | 440-0096201-006.d | AS14 4(mm) |
| STD5 440-441234/7 IC | | 11/14/2017 07:08 | 1 | 440-0096201-007.d | AS14 4(mm) |
| ICV 440-441234/8 | | 11/14/2017 08:07 | 1 | | AS14 4(mm) |
| ICB 440-441234/9 | | 11/14/2017 08:43 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 09:19 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 09:56 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 10:32 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 11:44 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 12:21 | 200 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 12:57 | 100 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 13:33 | 100 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 14:09 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 14:46 | 5 | | AS14 4(mm) |
| CCV 440-441234/20 | | 11/14/2017 15:22 | 1 | | AS14 4(mm) |
| CCB 440-441234/21 | | 11/14/2017 15:58 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 17:11 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 17:47 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 18:23 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 18:59 | 200 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 19:36 | 10 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 20:12 | 20 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 20:48 | 2000 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 21:24 | 2000 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 22:01 | 100 | | AS14 4(mm) |
| CCV 440-441234/32 | | 11/14/2017 22:37 | 1 | | AS14 4(mm) |
| CCB 440-441234/33 | | 11/14/2017 23:13 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/14/2017 23:49 | 200 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 00:26 | 20 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 01:02 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 01:38 | 50 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 02:14 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 02:51 | 2 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 03:27 | 50 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 04:03 | 10 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 04:39 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 05:16 | 1000 | | AS14 4(mm) |
| CCV 440-441234/44 | | 11/15/2017 05:52 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-8 Start Date: 11/14/2017 03:31

Analysis Batch Number: 441234 End Date: 11/15/2017 06:28

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCB 440-441234/45 | | 11/15/2017 06:28 | 1 | | AS14 4(mm) |

300.1B

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-8 Start Date: 11/15/2017 07:13

Analysis Batch Number: 441516 End Date: 11/16/2017 05:01

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-441516/1 | | 11/15/2017 07:13 | 1 | 440-0096272-001.d | AS14 4(mm) |
| CCB 440-441516/2 | | 11/15/2017 07:49 | 1 | 440-0096272-002.d | AS14 4(mm) |
| MRL 440-441516/3 | | 11/15/2017 08:25 | 1 | 440-0096272-003.d | AS14 4(mm) |
| LCS 440-441516/4 | | 11/15/2017 09:05 | 1 | 440-0096272-004.d | AS14 4(mm) |
| MB 440-441516/5 | | 11/15/2017 09:41 | 1 | 440-0096272-005.d | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 10:54 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 11:30 | 10 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 12:06 | 2000 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 12:42 | 500 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 13:19 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 13:55 | 5 | | AS14 4(mm) |
| CCV 440-441516/13 | | 11/15/2017 14:31 | 1 | 440-0096272-013.d | AS14 4(mm) |
| CCB 440-441516/14 | | 11/15/2017 15:07 | 1 | 440-0096272-014.d | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 16:20 | 5 | | AS14 4(mm) |
| 440-196337-A-4 MS | | 11/15/2017 16:56 | 5 | 440-0096272-017.d | AS14 4(mm) |
| 440-196337-A-4 MSD | | 11/15/2017 17:32 | 5 | 440-0096272-018.d | AS14 4(mm) |
| 440-196039-2 | | 11/15/2017 18:09 | 5000 | 440-0096272-019.d | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 18:45 | 500 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 19:21 | 2 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 19:57 | 50 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 20:33 | 2 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 21:10 | 1000 | | AS14 4(mm) |
| CCV 440-441516/25 | | 11/15/2017 21:46 | 1 | 440-0096272-025.d | AS14 4(mm) |
| CCB 440-441516/26 | | 11/15/2017 22:22 | 1 | 440-0096272-026.d | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 22:58 | 10 | | AS14 4(mm) |
| ZZZZZ | | 11/15/2017 23:35 | 10000 | | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 00:11 | 10000 | | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 00:47 | 20000 | | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 01:23 | 10000 | | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 02:00 | 10000 | | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 02:36 | 10000 | | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 03:12 | 10000 | | AS14 4(mm) |
| ZZZZZ | | 11/16/2017 03:48 | 1 | | AS14 4(mm) |
| CCV 440-441516/36 | | 11/16/2017 04:25 | 1 | | AS14 4(mm) |
| CCB 440-441516/37 | | 11/16/2017 05:01 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Instrument ID: IC-8 Start Date: 11/24/2017 05:24

Analysis Batch Number: 443190 End Date: 11/25/2017 03:55

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-443190/1 | | 11/24/2017 05:24 | 1 | 440-0096644-001.d | AS14 4(mm) |
| CCB 440-443190/2 | | 11/24/2017 06:00 | 1 | 440-0096644-002.d | AS14 4(mm) |
| MRL 440-443190/3 | | 11/24/2017 06:36 | 1 | 440-0096644-003.d | AS14 4(mm) |
| LCS 440-443190/4 | | 11/24/2017 07:23 | 1 | 440-0096644-004.d | AS14 4(mm) |
| MB 440-443190/5 | | 11/24/2017 07:59 | 1 | 440-0096644-005.d | AS14 4(mm) |
| ZZZZZ | | 11/24/2017 08:35 | 1 | | AS14 4(mm) |
| 440-196039-3 | | 11/24/2017 10:24 | 10 | 440-0096644-009.d | AS14 4(mm) |
| 440-196039-4 | | 11/24/2017 11:00 | 2000 | 440-0096644-010.d | AS14 4(mm) |
| 440-197050-C-1 MS | | 11/24/2017 11:36 | 1 | 440-0096644-011.d | AS14 4(mm) |
| 440-197050-C-1 MSD | | 11/24/2017 12:13 | 1 | 440-0096644-012.d | AS14 4(mm) |
| CCV 440-443190/13 | | 11/24/2017 12:49 | 1 | 440-0096644-013.d | AS14 4(mm) |
| CCB 440-443190/14 | | 11/24/2017 13:25 | 1 | 440-0096644-014.d | AS14 4(mm) |
| ZZZZZ | | 11/24/2017 14:01 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/24/2017 14:38 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/24/2017 15:14 | 50 | | AS14 4(mm) |
| ZZZZZ | | 11/24/2017 15:50 | 50 | | AS14 4(mm) |
| ZZZZZ | | 11/24/2017 16:26 | 50 | | AS14 4(mm) |
| ZZZZZ | | 11/24/2017 17:03 | 50 | | AS14 4(mm) |
| ZZZZZ | | 11/24/2017 17:39 | 50 | | AS14 4(mm) |
| ZZZZZ | | 11/24/2017 18:15 | 2000 | | AS14 4(mm) |
| ZZZZZ | | 11/24/2017 18:51 | 5 | | AS14 4(mm) |
| ZZZZZ | | 11/24/2017 19:28 | 5 | | AS14 4(mm) |
| CCV 440-443190/25 | | 11/24/2017 20:04 | 1 | | AS14 4(mm) |
| CCB 440-443190/26 | | 11/24/2017 20:40 | 1 | | AS14 4(mm) |
| ZZZZZ | | 11/24/2017 21:16 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 11/24/2017 21:52 | 50 | | AS14 4(mm) |
| ZZZZZ | | 11/24/2017 22:29 | 100 | | AS14 4(mm) |
| ZZZZZ | | 11/24/2017 23:05 | 2000 | | AS14 4(mm) |
| ZZZZZ | | 11/24/2017 23:41 | 1000 | | AS14 4(mm) |
| ZZZZZ | | 11/25/2017 00:17 | 10000 | | AS14 4(mm) |
| ZZZZZ | | 11/25/2017 00:54 | 10000 | | AS14 4(mm) |
| ZZZZZ | | 11/25/2017 01:30 | 10 | | AS14 4(mm) |
| ZZZZZ | | 11/25/2017 02:06 | 50 | | AS14 4(mm) |
| ZZZZZ | | 11/25/2017 02:42 | 20000 | | AS14 4(mm) |
| CCV 440-443190/37 | | 11/25/2017 03:19 | 1 | | AS14 4(mm) |
| CCB 440-443190/38 | | 11/25/2017 03:55 | 1 | | AS14 4(mm) |

# METALS

COVER PAGE
METALS

Lab Name: TestAmerica Irvine  Job Number: 440-196039-1

SDG No.:

Project: NERT VER M16

| Client Sample ID | Lab Sample ID |
|---|---|
| VER-01I-20171108 | 440-196039-2 |
| VMW-02D-20171108 | 440-196039-3 |
| VMW-02I-20171108 | 440-196039-4 |
| VMW-02I-20171108-EB | 440-196039-5 |

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: VER-01I-20171108 Lab Sample ID: 440-196039-2

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG ID.:

Matrix: Water Date Sampled: 11/08/2017 08:05

Reporting Basis: WET Date Received: 11/09/2017 06:40

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 2.5 | 0.0050 | 0.0025 | mg/L | | | 1 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: VMW-02D-20171108 Lab Sample ID: 440-196039-3

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG ID.:

Matrix: Water Date Sampled: 11/08/2017 09:55

Reporting Basis: WET Date Received: 11/09/2017 06:40

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 0.028 | 0.0050 | 0.0025 | mg/L | | | 1 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: VMW-02I-20171108 Lab Sample ID: 440-196039-4

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG ID.:

Matrix: Water Date Sampled: 11/08/2017 11:30

Reporting Basis: WET Date Received: 11/09/2017 06:40

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 1.2 | 0.0050 | 0.0025 | mg/L | | | 1 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: VMW-02I-20171108-EB
Lab Sample ID: 440-196039-5
Lab Name: TestAmerica Irvine
Job No.: 440-196039-1
SDG ID.:
Matrix: Water
Date Sampled: 11/08/2017 12:40
Reporting Basis: WET
Date Received: 11/09/2017 06:40

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | ND | 0.0050 | 0.0025 | mg/L | | | 1 | 6010B |

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

ICV Source: ME ICP ICV2_01715  Concentration Units: mg/L

CCV Source: ME ICP STD3_01745

| Analyte | ICV 440-441521/5 11/14/2017 16:20 | | | | CCV 440-441521/14 11/14/2017 18:27 | | | | CCV 440-441521/22 11/14/2017 18:45 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Found | C | True | %R | Found | C | True | %R | Found | C | True | %R |
| **Chromium** | 1.02 | | 1.00 | 102 | 0.959 | | 1.00 | 96 | 1.02 | | 1.00 | 102 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

ICV Source: ME ICP ICV2_01715 Concentration Units: mg/L

CCV Source: ME ICP STD3_01745

| Analyte | CCV 440-441521/34 11/14/2017 19:15 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Found | C | True | %R | Found | C | True | %R | Found | C | True | %R |
| **Chromium** | 1.01 | | 1.00 | 101 | | | | | | | | |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Method: 6010B Instrument ID: ICP9

Lab Sample ID: CRI 440-441521/13 Concentration Units: mg/L

CRQL Check Standard Source: ME ICP CRI 2x_00380

| Analyte | CRQL Check Standard | | | | |
|---|---|---|---|---|---|
| | True | Found | Qualifiers | %R(1) | Limits |
| Chromium | 0.0100 | 0.0108 | | 108 | 50-150 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Concentration Units: mg/L

| Analyte | RL | ICB 440-441521/7 11/14/2017 16:28 | | CCB 440-441521/15 11/14/2017 18:29 | | CCB 440-441521/23 11/14/2017 18:47 | | CCB 440-441521/35 11/14/2017 19:17 | |
|---|---|---|---|---|---|---|---|---|---|
| | | Found | C | Found | C | Found | C | Found | C |
| **Chromium** | 0.0050 | ND | | ND | | ND | | ND | |

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 440-441152/1-A

Instrument Code: ICP9 Batch No.: 441521

| CAS No. | Analyte | Concentration | C | Q | Method |
|---|---|---|---|---|---|
| 7440-47-3 | Chromium | ND | | | 6010B |

FORM III-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Lab Sample ID: ICSA 440-441521/8  Instrument ID: ICP9

Lab File ID: 171114-4B.csv  ICS Source: ME ICP IFA_01741

Concentration Units: mg/L

| Analyte | True Solution A | Found Solution A | Percent Recovery |
|---|---|---|---|
| **Chromium** | | **0.0006** | |
| *Aluminum* | *600* | *681* | *114* |
| *Antimony* | | *0.0008* | |
| *Arsenic* | | *0.0077* | |
| *Barium* | | *0.0039* | |
| *Beryllium* | | *0.0013* | |
| *Boron* | | *-0.0327* | |
| *Cadmium* | | *0.0034* | |
| *Calcium* | *600* | *680* | *113* |
| *Cobalt* | | *0.0084* | |
| *Copper* | | *-0.0102* | |
| *Iron* | *600* | *603* | *100* |
| *Lead* | | *-0.0041* | |
| *Lithium* | | *-0.0127* | |
| *Magnesium* | *600* | *643* | *107* |
| *Manganese* | | *0.0016* | |
| *Molybdenum* | | *0.0007* | |
| *Nickel* | | *0.0003* | |
| *Phosphorus* | | *-0.0259* | |
| *Potassium* | | *-0.0523* | |
| *Selenium* | | *0.0051* | |
| *Silicon* | | *-0.0509* | |
| *Silver* | | *-0.0054* | |
| *Sodium* | | *0.302* | |
| *Strontium* | | *-0.0198* | |
| *Thallium* | | *-0.0109* | |
| *Tin* | | *-0.0023* | |
| *Titanium* | | *0.0020* | |
| *Tungsten* | | *0.0049* | |
| *Vanadium* | | *-0.0019* | |
| *Zinc* | | *-0.0041* | |
| *Zirconium* | | *0.0000* | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Lab Sample ID: ICSAB 440-441521/9  Instrument ID: ICP9

Lab File ID: 171114-4B.csv  ICS Source: ME ICP IFB_01760

Concentration Units: mg/L

| Analyte | True Solution AB | Found Solution AB | Percent Recovery |
|---|---|---|---|
| **Chromium** | **0.500** | **0.554** | **111** |
| *Aluminum* | *601* | *686* | *114* |
| *Antimony* | *0.500* | *0.598* | *120* |
| *Arsenic* | *0.500* | *0.595* | *119* |
| *Barium* | *0.500* | *0.524* | *105* |
| *Beryllium* | *0.500* | *0.587* | *117* |
| *Boron* | *0.500* | *0.550* | *110* |
| *Cadmium* | *0.500* | *0.516* | *103* |
| *Calcium* | *603* | *693* | *115* |
| *Cobalt* | *0.500* | *0.518* | *104* |
| *Copper* | *0.500* | *0.598* | *120* |
| *Iron* | *601* | *609* | *101* |
| *Lead* | *0.500* | *0.523* | *105* |
| *Lithium* | *0.500* | *0.591* | *118* |
| *Magnesium* | *603* | *650* | *108* |
| *Manganese* | *0.500* | *0.535* | *107* |
| *Molybdenum* | *0.500* | *0.559* | *112* |
| *Nickel* | *0.500* | *0.506* | *101* |
| *Phosphorus* | *0.500* | *0.555* | *111* |
| *Potassium* | *10.0* | *12.0* | *120* |
| *Selenium* | *0.500* | *0.535* | *107* |
| *Silicon* | *2.50* | *2.89* | *116* |
| *Silver* | *0.250* | *0.298* | *119* |
| *Sodium* | *10.0* | *11.9* | *119* |
| *Strontium* | *0.500* | *0.548* | *110* |
| *Thallium* | *0.500* | *0.506* | *101* |
| *Tin* | *0.500* | *0.523* | *105* |
| *Titanium* | *0.500* | *0.573* | *115* |
| *Tungsten* | *0.500* | *0.562* | *112* |
| *Vanadium* | *0.500* | *0.563* | *113* |
| *Zinc* | *0.500* | *0.492* | *98* |
| *Zirconium* | *0.500* | *0.553* | *111* |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: VER-01I-20171108 MS
Lab ID: 440-196039-2 MS
Lab Name: TestAmerica Irvine
Job No.: 440-196039-1
SDG No.:
Matrix: Water
Concentration Units: mg/L
% Solids:

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 3.51 | | 2.5 | | 1.00 | 103 | 75-125 | | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: VER-01I-20171108 MSD
Lab ID: 440-196039-2 MSD
Lab Name: TestAmerica Irvine
Job No.: 440-196039-1
SDG No.:
Matrix: Water
Concentration Units: mg/L
% Solids:

| Analyte | (SDR) | C | Spike Added (SA) | %R | Control Limit %R | RPD | RPD Limit | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 3.59 | | 1.00 | 111 | 75-125 | 2 | 20 | | 6010B |

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: VER-01I-20171108 PDS | Lab ID: 440-196039-2 PDS

Lab Name: TestAmerica Irvine | Job No.: 440-196039-1

SDG No.:

Matrix: Water | Concentration Units: mg/L

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 3.52 | | 2.5 | | 1.00 | 105 | 75-125 | | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 440-441152/2-A

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

Sample Matrix: Water  LCS Source: ME ICP2 ICV1A_00051

| Analyte | Water(mg/L) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | True | Found | C | %R | Limits | | Q | Method |
| Chromium | 1.00 | 1.16 | | 116 | 80 | 120 | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 440-196039-2

SDG No:

Lab Name: TestAmerica Irvine Job No: 440-196039-1

Matrix: Water Concentration Units: mg/L

| Analyte | Initial Sample Result (I) | C | Serial Dilution Result (S) | C | % Difference | Q | Method |
|---|---|---|---|---|---|---|---|
| Chromium | 2.5 | | 2.17 | | 13 | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine  Job Number: 440-196039-1

SDG Number:

Matrix: Water  Instrument ID: ICP9

Method: 6010B  MDL Date: 06/15/2017 17:45

Prep Method: 3005A

| Analyte | Wavelength/ Mass | RL (mg/L) | MDL (mg/L) |
|---|---|---|---|
| Chromium | 205.552 | 0.005 | 0.0025 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine Job Number: 440-196039-1

SDG Number:

Matrix: Water Instrument ID: ICP9

Method: 6010B XMDL Date: 06/15/2017 17:46

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Chromium | 205.552 | 0.005 | 0.0025 |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-196039-1

SDG No.:

ICP-AES Instrument ID: ICP9 Date: 11/06/2017

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 396.152 | | -0.000113 | 0.000335 | 0.000181 | 0.000104 | -0.000033 | 0.000059 | 0.000156 | 0.027697 | 0.000141 | 0.000151 | 0.0001 | 0.000149 | 0.001271 |
| Antimony | 206.834 | -0.00004 | -0.000006 | 0.00011 | 0.011494 | 0.000046 | 0.000044 | -0.000008 | -0.000015 | -0.016976 | 0.000031 | 0.000285 | 0.000246 | 0.000194 | -0.000311 |
| Arsenic | 188.980 | -0.000001 | 0.000004 | 0.00001 | -0.011892 | -0.000057 | 0.000006 | 0.000003 | -0.000097 | -0.000247 | -0.000118 | -0.000045 | -0.0003 | -0.000181 | 0.000746 |
| Barium | 233.527 | 0 | 0 | -0.000008 | 0.000005 | 0.000003 | 0.000002 | 0.000002 | 0.000003 | -0.0002 | -0.000001 | -0.000013 | -0.000001 | -0.000166 | 0.000131 |
| Beryllium | 234.861 | 0 | 0 | 0.000005 | -0.000003 | -0.000001 | 0.000113 | 0 | -0.000065 | -0.000283 | -0.000005 | 0 | 0.000001 | -0.000001 | -0.000002 |
| Boron | 249.678 | 0 | 0 | 0.000864 | 0.000331 | -0.000038 | -0.00009 | -0.000003 | -0.000106 | -0.000041 | -0.000044 | -0.000044 | -0.000026 | -0.000044 | -0.010089 |
| Cadmium | 214.439 | -0.000001 | 0 | -0.000005 | -0.000016 | -0.000003 | 0.00001 | 0 | -0.000001 | -0.000015 | -0.000002 | -0.000003 | 0 | -0.000004 | -0.000105 |
| Calcium | 422.673 | -0.00001 | | 0.000994 | 0.000535 | -0.000109 | -0.00006 | 0.000043 | 0.00015 | -0.000274 | 0.00001 | 0.000023 | -0.000301 | 0.000679 | -0.000279 |
| Chromium | 205.560 | 0.000002 | 0.000001 | -0.000004 | | 0.000103 | 0.000001 | 0.000001 | 0.000002 | -0.000689 | -0.000347 | -0.000006 | 0.000025 | -0.000003 | 0.000429 |
| Cobalt | 228.615 | -0.000074 | -0.000001 | | 0.000295 | 0.000012 | 0.000079 | 0.000001 | 0.000008 | 0.000035 | 0.000122 | 0.000003 | 0.00196 | 0.000006 | 0.000203 |
| Copper | 324.754 | 0.000001 | -0.000036 | 0.000007 | -0.000005 | | 0.000017 | 0.000003 | 0.000004 | 0.00028 | -0.000017 | 0.000003 | -0.000201 | -0.000162 | 0.000005 |
| Iron | 238.204 | -0.000001 | 0.000002 | -0.000563 | -0.000085 | -0.000005 | | 0.000038 | 0.000026 | -0.000037 | -0.00012 | -0.00005 | -0.000012 | -0.000018 | -0.000026 |
| Lead | 220.353 | -0.000075 | 0 | 0.00001 | -0.00002 | 0.000012 | 0.000049 | 0.000005 | 0.000163 | -0.001276 | 0.000103 | 0.000085 | -0.000369 | -0.000017 | -0.001029 |
| Lithium | 670.783 | -0.000008 | 0.000091 | -0.000403 | -0.000358 | -0.000417 | 0.000007 | -0.000043 | -0.000191 | -0.000044 | 0.000649 | -0.000155 | 0.000322 | -0.000365 | -0.000287 |
| Magnesium | 279.078 | -0.000008 | 0.000004 | -0.000345 | -0.000396 | -0.00006 | -0.000154 | | 0.000619 | -0.000486 | -0.000082 | -0.000084 | -0.000074 | 0.000166 | -0.000444 |
| Manganese | 259.372 | 0 | 0.000001 | 0.000014 | -0.000012 | 0.000001 | 0.001255 | 0.000037 | | 0.00506 | 0.000001 | 0.000001 | 0.000019 | 0.000008 | 0.000003 |
| Molybdenum | 204.598 | 0.00002 | -0.000002 | -0.000026 | 0.000026 | -0.000025 | 0.000001 | -0.000003 | -0.000008 | | -0.000008 | 0.000011 | -0.000055 | -0.000071 | -0.000042 |
| Nickel | 231.604 | -0.000054 | -0.000002 | -0.000729 | -0.000004 | -0.000007 | 0.000068 | 0.000003 | -0.000086 | -0.000043 | | 0.000055 | 0.000025 | -0.000031 | -0.000076 |
| Phosphorus | 213.618 | 0.00001 | -0.000003 | 0.000107 | -0.000002 | -0.049125 | -0.000015 | 0.000002 | -0.000009 | -0.022058 | 0.000016 | -0.000101 | 0.000039 | 0.000032 | -0.000338 |
| Potassium | 766.491 | -0.000164 | -0.000312 | -0.002978 | -0.00312 | -0.002577 | -0.00015 | 0.000377 | -0.003299 | -0.003487 | -0.001449 | -0.002276 | -0.001505 | -0.002888 | -0.003948 |
| Selenium | 196.026 | -0.000002 | 0.000001 | -0.000473 | -0.00005 | -0.000118 | -0.000256 | 0.000003 | 0.000473 | -0.000001 | -0.000076 | 0.00001 | -0.000029 | -0.000143 | 0.008371 |
| Silicon | 251.611 | 0.000025 | 0.000032 | 0.000226 | 0.000128 | 0.000078 | -0.000059 | 0.000052 | 0.000244 | 0.011459 | 0.00022 | 0.000666 | 0.003874 | 0.000343 | 0.066637 |
| Silver | 328.068 | 0 | -0.000002 | 0.000013 | -0.000014 | 0.000008 | -0.000006 | -0.000001 | 0.000077 | 0.000057 | 0.000007 | -0.000002 | -0.000079 | 0.000092 | 0.000005 |
| Sodium | 589.592 | 0.000011 | 0.000027 | -0.000151 | 0.000095 | -0.000181 | -0.000033 | 0.000018 | 0.000103 | 0.001732 | -0.000426 | -0.000326 | -0.000135 | -0.000514 | 0.002616 |
| Strontium | 421.552 | 0 | 0.000032 | 0 | -0.000002 | -0.000001 | 0.000001 | 0 | 0.000001 | 0 | -0.000003 | 0.000004 | 0.000002 | 0.000002 | 0.000015 |
| Thallium | 190.794 | 0.000008 | 0.000006 | 0.00333 | 0.000217 | 0.000096 | 0.000009 | 0.000005 | 0.001473 | 0.000248 | -0.000006 | 0.000051 | -0.013168 | -0.022591 | 0.000561 |
| Tin | 189.925 | -0.000002 | 0.000001 | 0.000038 | 0.000046 | 0.000048 | 0.000002 | 0.000006 | 0.000043 | 0.000032 | 0.000087 | | 0.000059 | 0.000459 | 0.000154 |
| Titanium | 336.122 | 0 | -0.000009 | -0.000016 | -0.000021 | 0.000001 | 0 | 0.000001 | 0.000001 | -0.000126 | -0.000041 | 0 | | -0.000256 | 0.000448 |
| Tungsten | 207.912 | 0.000002 | -0.000007 | -0.00009 | -0.000027 | -0.000032 | 0.000002 | -0.000002 | -0.000039 | 0.00016 | -0.000017 | 0.000023 | -0.000013 | -0.000051 | |
| Vanadium | 292.401 | 0 | 0.000004 | 0.000002 | 0.000275 | 0.000012 | 0.000033 | 0.000002 | 0.000011 | -0.009648 | 0.000021 | 0.000013 | 0.000804 | | 0.000223 |

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-196039-1

SDG No.:

ICP-AES Instrument ID: ICP9 Date: 11/06/2017

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Zinc | 202.548 | 0.000003 | 0.000003 | -0.000028 | -0.001505 | 0.007594 | -0.0000366 | 0.000008 | 0.000073 | 0.000042 | -0.000032 | 0.000032 | 0.000063 | 0.000033 | 0.0003 |
| Zirconium | 343.823 | 0 | 0.000002 | -0.000094 | -0.000006 | 0 | 0.000011 | 0 | -0.000024 | 0.000007 | -0.000004 | 0.000016 | 0 | -0.000003 | 0.000114 |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-196039-1

SDG No.:

ICP-AES Instrument ID: ICP9 Date: 11/06/2017

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 396.152 | 0.000144 | 0.008724 | | | | | | | | | | | | |
| Antimony | 206.834 | 0.00016 | -0.000045 | | | | | | | | | | | | |
| Arsenic | 188.980 | -0.00006 | -0.000056 | | | | | | | | | | | | |
| Barium | 233.527 | 0.000001 | 0.000002 | | | | | | | | | | | | |
| Beryllium | 234.861 | 0.000001 | 0.000008 | | | | | | | | | | | | |
| Boron | 249.678 | -0.000001 | 0.000463 | | | | | | | | | | | | |
| Cadmium | 214.439 | -0.000002 | -0.000004 | | | | | | | | | | | | |
| Calcium | 422.673 | -0.00032 | -0.00005 | | | | | | | | | | | | |
| Chromium | 205.560 | -0.000026 | 0.000017 | | | | | | | | | | | | |
| Cobalt | 228.615 | -0.000005 | 0.000009 | | | | | | | | | | | | |
| Copper | 324.754 | -0.000013 | 0.000007 | | | | | | | | | | | | |
| Iron | 238.204 | -0.00003 | 0.000223 | | | | | | | | | | | | |
| Lead | 220.353 | -0.000019 | -0.00027 | | | | | | | | | | | | |
| Lithium | 670.783 | -0.000044 | -0.000041 | | | | | | | | | | | | |
| Magnesium | 279.078 | -0.000127 | -0.000031 | | | | | | | | | | | | |
| Manganese | 259.372 | 0.000002 | 0.000041 | | | | | | | | | | | | |
| Molybdenum | 204.598 | -0.00003 | 0.000023 | | | | | | | | | | | | |
| Nickel | 231.604 | -0.000011 | -0.000035 | | | | | | | | | | | | |
| Phosphorus | 213.618 | 0.00003 | 0.000123 | | | | | | | | | | | | |
| Potassium | 766.491 | -0.003593 | -0.003514 | | | | | | | | | | | | |
| Selenium | 196.026 | -0.000005 | -0.000021 | | | | | | | | | | | | |
| Silicon | 251.611 | 0.002002 | 0.0079 | | | | | | | | | | | | |
| Silver | 328.068 | 0.000017 | 0.003635 | | | | | | | | | | | | |
| Sodium | 589.592 | -0.00036 | -0.000181 | | | | | | | | | | | | |
| Strontium | 421.552 | -0.000002 | -0.000021 | | | | | | | | | | | | |
| Thallium | 190.794 | 0.000009 | -0.000081 | | | | | | | | | | | | |
| Tin | 189.925 | 0.000176 | 0.000611 | | | | | | | | | | | | |
| Titanium | 336.122 | 0.000008 | 0.000128 | | | | | | | | | | | | |
| Tungsten | 207.912 | 0.009684 | 0.000018 | | | | | | | | | | | | |
| Vanadium | 292.401 | 0.000017 | -0.000005 | | | | | | | | | | | | |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-196039-1

SDG No.:

ICP-AES Instrument ID: ICP9 Date: 11/06/2017

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | 0 | 0 | | | | | | | | | | | | |
| Zinc | 202.548 | | 0.000211 | | | | | | | | | | | | |
| Zirconium | 343.823 | 0.000006 | | | | | | | | | | | | | |

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Irvine Job No: 440-196039-1

SDG No.:

Instrument ID: ICP9 Date: 06/15/2017 18:17

| Analyte | Integ. Time (Sec.) | Concentration (mg/L) | Method |
|---|---|---|---|
| Chromium | | 30 | 6010B |

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Irvine Job No.: 440-196039-1

SDG No.:

Prep Method: 3005A

| Lab Sample ID | Preparation Date | Prep Batch | Initial Weight | Initial Volume (mL) | Final Volume (mL) |
|---|---|---|---|---|---|
| MB 440-441152/1-A | 11/13/2017 15:46 | 441152 | | 25 | 25 |
| LCS 440-441152/2-A | 11/13/2017 15:46 | 441152 | | 25 | 25 |
| 440-196039-2 | 11/13/2017 15:46 | 441152 | | 25 | 25 |
| 440-196039-2 MS | 11/13/2017 15:46 | 441152 | | 25 | 25 |
| 440-196039-2 MSD | 11/13/2017 15:46 | 441152 | | 25 | 25 |
| 440-196039-3 | 11/13/2017 15:46 | 441152 | | 25 | 25 |
| 440-196039-4 | 11/13/2017 15:46 | 441152 | | 25 | 25 |
| 440-196039-5 | 11/13/2017 15:46 | 441152 | | 25 | 25 |

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Instrument ID: ICP9  Analysis Method: 6010B

Start Date: 11/14/2017 16:12  End Date: 11/14/2017 21:40

| Lab Sample Id | D/F | Type | Time | Analytes |
|---|---|---|---|---|
| | | | | Cr |
| ICIS 440-441521/1 | 1 | | 16:12 | X |
| STD1 440-441521/2 IC | | | 16:14 | X |
| STD2 440-441521/3 IC | | | 16:16 | X |
| STD3 440-441521/4 IC | | | 16:18 | X |
| ICV 440-441521/5 | 1 | | 16:20 | X |
| ZZZZZZ | | | 16:25 | |
| ICB 440-441521/7 | 1 | | 16:28 | X |
| ICSA 440-441521/8 | 1 | | 16:30 | X |
| ICSAB 440-441521/9 | 1 | | 16:32 | X |
| ZZZZZZ | | | 16:42 | |
| RINSE 440-441521/11 | | | 16:44 | |
| ZZZZZZ | | | 16:46 | |
| CRI 440-441521/13 | 1 | | 16:48 | X |
| CCV 440-441521/14 | 1 | | 18:27 | X |
| CCB 440-441521/15 | 1 | | 18:29 | X |
| MB 440-441152/1-A | 1 | R | 18:32 | X |
| LCS 440-441152/2-A | 1 | R | 18:34 | X |
| 440-196039-2 | 1 | R | 18:37 | X |
| 440-196039-2 MS | 1 | R | 18:39 | X |
| 440-196039-2 MSD | 1 | R | 18:41 | X |
| 440-196039-2 PDS | 1 | R | 18:43 | X |
| CCV 440-441521/22 | 1 | | 18:45 | X |
| CCB 440-441521/23 | 1 | | 18:47 | X |
| 440-196039-2 SD | 5 | R | 18:52 | X |
| 440-196039-3 | 1 | R | 18:54 | X |
| 440-196039-4 | 1 | R | 18:56 | X |
| 440-196039-5 | 1 | R | 18:58 | X |
| ZZZZZZ | | | 19:01 | |
| ZZZZZZ | | | 19:03 | |
| ZZZZZZ | | | 19:07 | |
| ZZZZZZ | | | 19:09 | |
| ZZZZZZ | | | 19:11 | |
| ZZZZZZ | | | 19:13 | |
| CCV 440-441521/34 | 1 | | 19:15 | X |
| CCB 440-441521/35 | 1 | | 19:17 | X |
| ZZZZZZ | | | 19:19 | |
| ZZZZZZ | | | 19:21 | |
| ZZZZZZ | | | 19:23 | |
| ZZZZZZ | | | 19:25 | |
| ZZZZZZ | | | 19:27 | |
| ZZZZZZ | | | 19:29 | |
| ZZZZZZ | | | 19:31 | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Instrument ID: ICP9  Analysis Method: 6010B

Start Date: 11/14/2017 16:12  End Date: 11/14/2017 21:40

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Cr | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:36 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 440-441521/46 | | | 19:40 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 440-441521/47 | | | 19:42 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:44 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:46 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:48 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:50 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:52 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:54 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:56 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:58 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:00 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:03 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 440-441521/58 | | | 20:05 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 440-441521/59 | | | 20:07 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:09 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:11 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:13 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:15 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:17 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:19 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:21 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:23 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:25 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:27 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 440-441521/70 | | | 20:29 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 440-441521/71 | | | 20:31 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:34 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:36 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:40 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:42 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:44 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:46 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:48 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:50 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:52 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 440-441521/82 | | | 20:54 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 440-441521/83 | | | 20:56 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:58 | | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Instrument ID: ICP9  Analysis Method: 6010B

Start Date: 11/14/2017 16:12  End Date: 11/14/2017 21:40

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Cr | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:00 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:03 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:05 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:07 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:09 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:11 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:13 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:15 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:17 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 440-441521/94 | | | 21:19 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 440-441521/95 | | | 21:21 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:23 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:25 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 440-441521/98 | | | 21:27 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 440-441521/99 | | | 21:29 | | | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 440-441521/100 | | | 21:31 | | | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 440-441521/101 | | | 21:33 | | | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 440-441521/102 | | | 21:36 | | | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 440-441521/103 | | | 21:38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 440-441521/104 | | | 21:40 | | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
R = Total Recoverable

FORM XIII-IN

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Batch Number: 441152  Batch Start Date: 11/13/17 15:46  Batch Analyst: Lopez-Canseco, Jessica

Batch Method: 3005A  Batch End Date: 11/13/17 21:58

| Lab Sample ID | Client Sample ID | Method Chain | Basis | Initial pH | InitialAmount | FinalAmount | ME HCl 00385 | ME HNO3 00404 | ME ICP2 ICV1A 00051 |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-441152/1 | | 3005A, 6010B | | | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| LCS 440-441152/2 | | 3005A, 6010B | | | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-196039-G-2 | VER-01I-20171108 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| 440-196039-G-2 MS | VER-01I-20171108 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-196039-G-2 MSD | VER-01I-20171108 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-196039-G-3 | VMW-02D-20171108 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| 440-196039-G-4 | VMW-02I-20171108 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| 440-196039-G-5 | VMW-02I-20171108 -EB | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| 440-196039-G-2 PDS | VER-01I-20171108 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | ME ICP2 ICV1B 00045 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-441152/1 | | 3005A, 6010B | | | | | | | |
| LCS 440-441152/2 | | 3005A, 6010B | | 250 uL | | | | | |
| 440-196039-G-2 | VER-01I-20171108 | 3005A, 6010B | R | | | | | | |
| 440-196039-G-2 MS | VER-01I-20171108 | 3005A, 6010B | R | 250 uL | | | | | |
| 440-196039-G-2 MSD | VER-01I-20171108 | 3005A, 6010B | R | 250 uL | | | | | |
| 440-196039-G-3 | VMW-02D-20171108 | 3005A, 6010B | R | | | | | | |
| 440-196039-G-4 | VMW-02I-20171108 | 3005A, 6010B | R | | | | | | |
| 440-196039-G-5 | VMW-02I-20171108 -EB | 3005A, 6010B | R | | | | | | |
| 440-196039-G-2 PDS | VER-01I-20171108 | 3005A, 6010B | R | 250 uL | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-196039-1

SDG No.:

Batch Number: 441152  Batch Start Date: 11/13/17 15:46  Batch Analyst: Lopez-Canseco, Jessica

Batch Method: 3005A  Batch End Date: 11/13/17 21:58

| Batch Notes | |
|---|---|
| Temperature - Corrected - End | 94 Deg. C |
| Temperature - Corrected - Start | 94 Deg. C |
| Digestion End Time | 11/13/2017 21:40 |
| Digestion Start Time | 11/13/2017 17:40 |
| Digestion Unit ID | 10 |
| Hydrochloric Acid ID | 0000175648 |
| Nitric Acid ID | 1117060 |
| Pipette/Syringe/Dispenser ID | #100 |
| Thermometer ID | P-067 Loc B3 CF= -1 |
| Digestion Tube/Cup ID | 1707186 |
| Temperature - Uncorrected - End | 95 Deg. C |
| Temperature - Uncorrected - Start | 95 Deg. C |

| Basis | Basis Description |
|---|---|
| R | Total Recoverable |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Shipping and Receiving Documents

**TestAmerica Irvine**
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

# Chain of Custody Record

TestAmerica

SWA

| Client Information | Sampler: Jeff Richeson | Lab PM: Mata, Patty | Carrier Tracking No(s): 526 6663 9552 | COC No: |
|---|---|---|---|---|
| Client Contact: Mike Crews | Phone: (805) 660-1774 | E-Mail: patty.mata@testamericainc.com | | Page: 1 of 1 |
| Company: Tetra Tech, Inc. | | | | Job #: |
| Address: 17885 Von Karman Ave, Ste 500 | Due Date Requested: | | | |
| City: Irvine | TAT Requested (days): | | | |
| State, Zip: CA, 92614 | | | | |
| Phone: 949-809-5041(Tel) | PO #: | | | |
| Email: mike.crews@tetratech.com | WO #: | | | |
| Project Name: NERT VER Treatability Study | Project #: M16 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

| | |
|---|---|
| A - HCL | M - Hexane |
| B - NaOH | N - None |
| C - Zn Acetate | O - AsNaO2 |
| D - Nitric Acid | P - Na2O4S |
| E - NaHSO4 | Q - Na2SO3 |
| F - MeOH | R - Na2S2O3 |
| G - Amchlor | S - H2SO4 |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice | U - Acetone |
| J - DI Water | V - MCAA |
| K - EDTA | W - pH 4-5 |
| L - EDA | Z - other (specify) |

Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 7199_ORGFM - Chromium, hexavalent | 314.0_LL - Perchlorate | E300.1 Chlorate and Chlorite | SW846 5035A VOCs | 200.7 Total Chromium | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | X | X | N | N | L | A | D | X | |
| Trip Blank | 11/8/17 | 0709 | G | W | | | | | | X | | 3 | |
| VER-01I-20171108 | | 0805 | | | X | | X | X | X | X | X | 7 | |
| VMW-02D-20171108 | | 0955 | | | X | | X | X | X | X | X | 7 | |
| VMW-02I-20171108 | | 1139 | | | | | X | X | X | X | X | 7 | |
| VMW-02I-20171108-EB | ↓ | 1240 | ↓ | ↓ | | | X | X | X | X | X | 7 | |

440-196039 Chain of Custody

**Possible Hazard Identification**
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: Level 3 QC

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|---|
| 1 | | 11/8/17 1409 | Tetra Tech | | 11-8-17 1545 | TA |
| 2 | | 11-8-17 1700 | TA | SWA/SHIPMENT | 110917 0640 | TAI |
| 3 | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.0 2.0 IR5 TALV 17.6 5.2/5.2 IR5

fed # 4164 7440 5722

# Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 440-196039-1

**Login Number: 196039**
**List Number: 1**
**Creator: Fama, Sheri M**

**List Source: TestAmerica Irvine**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | N/A | Not Present |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

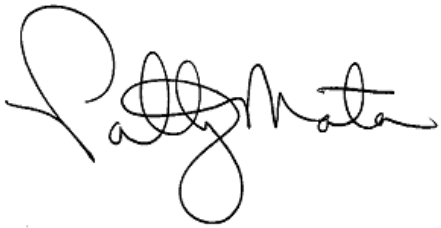
# ANALYTICAL REPORT

Job Number: 440-200466-1

Job Description: NERT VER Treatability Study

For:
Tetra Tech, Inc.
17885 Von Karman Ave, Ste 500
Irvine, CA 92614

Attention: Jeff Richeson



Approved for release.
Patty Mata
Senior Project Manager
1/23/2018 12:52 PM

Patty Mata, Senior Project Manager
17461 Derian Ave, Irvine, CA, 92614-5817
patty.mata@testamericainc.com
01/23/2018

# Table of Contents


Cover Title Page . . . . . 1

Data Summaries . . . . . 6

Definitions . . . . . 6

Case Narrative . . . . . 7

Detection Summary . . . . . 8

Client Sample Results . . . . . 9

Default Detection Limits . . . . . 15

Surrogate Summary . . . . . 17

QC Sample Results . . . . . 18

QC Association . . . . . 31

Chronicle . . . . . 33

Certification Summary . . . . . 34

Method Summary . . . . . 35

Sample Summary . . . . . 36

Manual Integration Summary . . . . . 37

Reagent Traceability . . . . . 50

Organic Sample Data . . . . . 78

GC/MS VOA . . . . . 78

Method 8260B Low Level . . . . . 78

Method 8260B Low Level QC Summary . . . . . 79

Method 8260B Low Level Sample Data . . . . . 93

Standards Data . . . . . 102

Method 8260B Low Level ICAL Data . . . . . 102

Method 8260B Low Level CCAL Data . . . . . 118

Raw QC Data . . . . . 124

Method 8260B Low Level Blank Data . . . . . 124

# Table of Contents


Method 8260B Low Level LCS/LCSD Data . . . . . 127

Method 8260B Low Level MS/MSD Data . . . . . 130

Method 8260B Low Level Run Logs . . . . . 136

Method 8260B Low Level Prep Data . . . . . 138

HPLC/IC . . . . . 140

314.0_LL . . . . . 140

314.0_LL QC Summary . . . . . 141

314.0_LL Sample Data . . . . . 147

Standards Data . . . . . 149

314.0_LL ICAL Data . . . . . 149

314.0_LL CCAL Data . . . . . 152

Raw QC Data . . . . . 164

314.0_LL Blank Data . . . . . 164

314.0_LL LCS/LCSD Data . . . . . 170

314.0_LL MS/MSD Data . . . . . 173

314.0_LL Run Logs . . . . . 175

Method 7199 . . . . . 178

Method 7199 QC Summary . . . . . 179

Method 7199 Sample Data . . . . . 190

Standards Data . . . . . 192

Method 7199 ICAL Data . . . . . 192

Method 7199 CCAL Data . . . . . 195

Raw QC Data . . . . . 211

Method 7199 Blank Data . . . . . 211

Method 7199 LCS/LCSD Data . . . . . 220

Method 7199 MS/MSD Data . . . . . 224

# Table of Contents


Method 7199 Run Logs . . . . . 228

Method 300.1 . . . . . 235

Method 300.1 QC Summary . . . . . 236

Method 300.1 Sample Data . . . . . 252

Standards Data . . . . . 256

Method 300.1 ICAL Data . . . . . 256

Method 300.1 CCAL Data . . . . . 262

Raw QC Data . . . . . 288

Method 300.1 Blank Data . . . . . 288

Method 300.1 LCS/LCSD Data . . . . . 302

Method 300.1 MS/MSD Data . . . . . 308

Method 300.1 Run Logs . . . . . 314

Inorganic Sample Data . . . . . 321

Metals Data . . . . . 321

Met Cover Page . . . . . 322

Met Sample Data . . . . . 323

Met QC Data . . . . . 325

Met ICV/CCV . . . . . 325

Met CRQL . . . . . 326

Met Blanks . . . . . 327

Met ICSA/ICSAB . . . . . 329

Met MS/MSD/PDS . . . . . 331

Met LCS/LCSD . . . . . 334

Met Serial Dilution . . . . . 335

Met MDL . . . . . 336

Met IECF . . . . . 338

# Table of Contents


Met Linear Ranges . . . . . 342

Met Preparation Log . . . . . 343

Met Analysis Run Log . . . . . 344

Met Prep Data . . . . . 345

Shipping and Receiving Documents . . . . . 347

Client Chain of Custody . . . . . 348

Sample Receipt Checklist . . . . . 350

## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| E | Result exceeded calibration range. |
| F1 | MS and/or MSD Recovery is outside acceptance limits. |

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| W | PS: Post-digestion spike was outside control limits |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| PQL | Practical Quantitation Limit |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

**Job Narrative**
**440-200466-1**

**Comments**
No additional comments.

**Receipt**
The samples on page 1 of the COC form were received on 1/11/2018 6:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.1º C and 5.8º C. The following sample was received on 1/12/2018 at 6:35 AM but was included in this report with samples received at an earlier date/time per client request: VER-01I-B-12 (440-200466-3).

**GC/MS VOA**
Method(s) 8260B: The method blank for analytical batch 440-451774 contained Methylene Chloride above the method detection limit (MDL). This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**HPLC/IC**
Method(s) 300.1B: The following samples were diluted for the chlorite analyte due to the nature of the sample matrix: VER-01I-B-BL (440-200466-1) and Ver-01I-B-12 (440-200466-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**Metals**
No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**VOA Prep**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-200466-1

## Client Sample ID: VER-01I-B-BL — Lab Sample ID: 440-200466-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 140 | J | 200 | 100 | ug/L | 10 | | 8260B | Total/NA |
| 2-Butanone (MEK) | 75 | | 50 | 25 | ug/L | 10 | | 8260B | Total/NA |
| Chloroform | 460 | | 5.0 | 2.5 | ug/L | 10 | | 8260B | Total/NA |
| Chlorate | 2400000 | | 200000 | 100000 | ug/L | 10000 | | 300.1B | Total/NA |
| Perchlorate | 930000 | | 50000 | 25000 | ug/L | 50000 | | 314.0 LL | Total/NA |
| Chromium, hexavalent | 8400 | | 1000 | 130 | ug/L | 500 | | 7199 | Total/NA |
| Chromium | 8.8 | | 0.025 | 0.013 | mg/L | 5 | | 6010B | Total Recoverable |

## Client Sample ID: Trip Blank — Lab Sample ID: 440-200466-2

No Detections.

## Client Sample ID: Ver-01I-B-12 — Lab Sample ID: 440-200466-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloroform | 710 | | 5.0 | 2.5 | ug/L | 10 | | 8260B | Total/NA |
| 1,2-Dichlorobenzene | 4.9 | J | 5.0 | 2.5 | ug/L | 10 | | 8260B | Total/NA |
| Chlorate | 3200000 | | 200000 | 100000 | ug/L | 10000 | | 300.1B | Total/NA |
| Perchlorate | 1200000 | | 100000 | 50000 | ug/L | 100000 | | 314.0 LL | Total/NA |
| Chromium, hexavalent | 12000 | | 2000 | 250 | ug/L | 1000 | | 7199 | Total/NA |
| Chromium | 15 | | 0.025 | 0.013 | mg/L | 5 | | 6010B | Total Recoverable |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: VER-01I-B-BL
**Date Collected: 01/11/18 03:30**
**Date Received: 01/11/18 18:45**

## Lab Sample ID: 440-200466-1
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Acetone** | **140** | **J** | 200 | 100 | ug/L | | | 01/15/18 20:02 | 10 |
| Benzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| Bromobenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| Bromochloromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| Bromodichloromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| Bromoform | ND | | 10 | 4.0 | ug/L | | | 01/15/18 20:02 | 10 |
| Bromomethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| **2-Butanone (MEK)** | **75** | | 50 | 25 | ug/L | | | 01/15/18 20:02 | 10 |
| Carbon tetrachloride | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| Chlorobenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| Chloroethane | ND | | 10 | 4.0 | ug/L | | | 01/15/18 20:02 | 10 |
| **Chloroform** | **460** | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| Chloromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| 2-Chlorotoluene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| 4-Chlorotoluene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| cis-1,2-Dichloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| cis-1,3-Dichloropropene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| Dibromochloromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| 1,2-Dibromo-3-Chloropropane | ND | | 10 | 5.0 | ug/L | | | 01/15/18 20:02 | 10 |
| 1,2-Dibromoethane (EDB) | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| Dibromomethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| 1,2-Dichlorobenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| 1,3-Dichlorobenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| 1,4-Dichlorobenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| Dichlorodifluoromethane | ND | | 10 | 4.0 | ug/L | | | 01/15/18 20:02 | 10 |
| 1,1-Dichloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| 1,2-Dichloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| 1,1-Dichloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| 1,2-Dichloropropane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| 1,3-Dichloropropane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| 2,2-Dichloropropane | ND | | 10 | 4.0 | ug/L | | | 01/15/18 20:02 | 10 |
| 1,1-Dichloropropene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| Ethylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| Ethyl-t-butyl ether (ETBE) | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| Hexachlorobutadiene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| 2-Hexanone | ND | | 50 | 25 | ug/L | | | 01/15/18 20:02 | 10 |
| Isopropylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| Isopropyl Ether (DIPE) | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| Methylene Chloride | ND | | 20 | 8.8 | ug/L | | | 01/15/18 20:02 | 10 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 50 | 25 | ug/L | | | 01/15/18 20:02 | 10 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| m,p-Xylene | ND | | 10 | 5.0 | ug/L | | | 01/15/18 20:02 | 10 |
| Naphthalene | ND | | 10 | 4.0 | ug/L | | | 01/15/18 20:02 | 10 |
| n-Butylbenzene | ND | | 10 | 4.0 | ug/L | | | 01/15/18 20:02 | 10 |
| N-Propylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| o-Xylene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| p-Isopropyltoluene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| sec-Butylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| Styrene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |

**Client Sample ID: VER-01I-B-BL** **Lab Sample ID: 440-200466-1**
**Date Collected: 01/11/18 03:30** **Matrix: Water**
**Date Received: 01/11/18 18:45**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Tert-amyl-methyl ether (TAME) | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| tert-Butyl alcohol (TBA) | ND | | 100 | 50 | ug/L | | | 01/15/18 20:02 | 10 |
| tert-Butylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| 1,1,1,2-Tetrachloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| 1,1,2,2-Tetrachloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| Tetrachloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| Toluene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| trans-1,2-Dichloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| trans-1,3-Dichloropropene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| 1,2,3-Trichlorobenzene | ND | | 10 | 4.0 | ug/L | | | 01/15/18 20:02 | 10 |
| 1,2,4-Trichlorobenzene | ND | | 10 | 4.0 | ug/L | | | 01/15/18 20:02 | 10 |
| 1,1,1-Trichloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| 1,1,2-Trichloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| Trichloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| Trichlorofluoromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| 1,2,3-Trichloropropane | ND | | 10 | 4.0 | ug/L | | | 01/15/18 20:02 | 10 |
| 1,2,4-Trimethylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| 1,3,5-Trimethylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| Vinyl chloride | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:02 | 10 |
| Xylenes, Total | ND | | 10 | 5.0 | ug/L | | | 01/15/18 20:02 | 10 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *110* | | *80 - 120* | | *01/15/18 20:02* | *10* |
| *Dibromofluoromethane (Surr)* | *106* | | *76 - 132* | | *01/15/18 20:02* | *10* |
| *Toluene-d8 (Surr)* | *105* | | *80 - 128* | | *01/15/18 20:02* | *10* |

## Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 2000 | 1000 | ug/L | | | 01/14/18 12:25 | 100 |
| **Chlorate** | **2400000** | | 200000 | 100000 | ug/L | | | 01/13/18 09:55 | 10000 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* | | *01/13/18 09:55* | *10000* |
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* | | *01/14/18 12:25* | *100* |

## Method: 314.0 LL - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perchlorate** | **930000** | | 50000 | 25000 | ug/L | | | 01/12/18 16:31 | 50000 |

## Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium, hexavalent** | **8400** | | 1000 | 130 | ug/L | | | 01/11/18 21:02 | 500 |

## Method: 6010B - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **8.8** | | 0.025 | 0.013 | mg/L | | 01/16/18 09:54 | 01/16/18 17:53 | 5 |

## Client Sample ID: Trip Blank — Lab Sample ID: 440-200466-2

**Date Collected: 01/11/18 03:30** — **Matrix: Water**
**Date Received: 01/11/18 18:45**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 01/15/18 20:28 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 01/15/18 20:28 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:28 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 01/15/18 20:28 | 1 |
| Chloroform | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 01/15/18 20:28 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 01/15/18 20:28 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/15/18 20:28 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:28 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 01/15/18 20:28 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:28 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 01/15/18 20:28 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 01/15/18 20:28 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/15/18 20:28 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |

## Client Sample ID: Trip Blank — Lab Sample ID: 440-200466-2

**Date Collected: 01/11/18 03:30** — **Matrix: Water**
**Date Received: 01/11/18 18:45**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 01/15/18 20:28 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/15/18 20:28 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/15/18 20:28 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/15/18 20:28 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 20:28 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 01/15/18 20:28 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *111* | | *80 - 120* | | *01/15/18 20:28* | *1* |
| *Dibromofluoromethane (Surr)* | *103* | | *76 - 132* | | *01/15/18 20:28* | *1* |
| *Toluene-d8 (Surr)* | *107* | | *80 - 128* | | *01/15/18 20:28* | *1* |

## Client Sample ID: Ver-01I-B-12 — Lab Sample ID: 440-200466-3

**Date Collected: 01/11/18 15:30** — **Matrix: Water**
**Date Received: 01/11/18 18:45**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 200 | 100 | ug/L | | | 01/15/18 20:55 | 10 |
| Benzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| Bromobenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| Bromochloromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| Bromodichloromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| Bromoform | ND | | 10 | 4.0 | ug/L | | | 01/15/18 20:55 | 10 |
| Bromomethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| 2-Butanone (MEK) | ND | | 50 | 25 | ug/L | | | 01/15/18 20:55 | 10 |
| Carbon tetrachloride | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| Chlorobenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| Chloroethane | ND | | 10 | 4.0 | ug/L | | | 01/15/18 20:55 | 10 |
| **Chloroform** | **710** | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| Chloromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| 2-Chlorotoluene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| 4-Chlorotoluene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| cis-1,2-Dichloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| cis-1,3-Dichloropropene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| Dibromochloromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |

## Client Sample ID: Ver-01I-B-12 Lab Sample ID: 440-200466-3

**Date Collected: 01/11/18 15:30** **Matrix: Water**
**Date Received: 01/11/18 18:45**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromo-3-Chloropropane | ND | | 10 | 5.0 | ug/L | | | 01/15/18 20:55 | 10 |
| 1,2-Dibromoethane (EDB) | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| Dibromomethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| **1,2-Dichlorobenzene** | **4.9** | **J** | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| 1,3-Dichlorobenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| 1,4-Dichlorobenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| Dichlorodifluoromethane | ND | | 10 | 4.0 | ug/L | | | 01/15/18 20:55 | 10 |
| 1,1-Dichloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| 1,2-Dichloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| 1,1-Dichloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| 1,2-Dichloropropane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| 1,3-Dichloropropane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| 2,2-Dichloropropane | ND | | 10 | 4.0 | ug/L | | | 01/15/18 20:55 | 10 |
| 1,1-Dichloropropene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| Ethylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| Ethyl-t-butyl ether (ETBE) | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| Hexachlorobutadiene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| 2-Hexanone | ND | | 50 | 25 | ug/L | | | 01/15/18 20:55 | 10 |
| Isopropylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| Isopropyl Ether (DIPE) | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| Methylene Chloride | ND | | 20 | 8.8 | ug/L | | | 01/15/18 20:55 | 10 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 50 | 25 | ug/L | | | 01/15/18 20:55 | 10 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| m,p-Xylene | ND | | 10 | 5.0 | ug/L | | | 01/15/18 20:55 | 10 |
| Naphthalene | ND | | 10 | 4.0 | ug/L | | | 01/15/18 20:55 | 10 |
| n-Butylbenzene | ND | | 10 | 4.0 | ug/L | | | 01/15/18 20:55 | 10 |
| N-Propylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| o-Xylene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| p-Isopropyltoluene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| sec-Butylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| Styrene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| Tert-amyl-methyl ether (TAME) | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| tert-Butyl alcohol (TBA) | ND | | 100 | 50 | ug/L | | | 01/15/18 20:55 | 10 |
| tert-Butylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| 1,1,1,2-Tetrachloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| 1,1,2,2-Tetrachloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| Tetrachloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| Toluene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| trans-1,2-Dichloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| trans-1,3-Dichloropropene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| 1,2,3-Trichlorobenzene | ND | | 10 | 4.0 | ug/L | | | 01/15/18 20:55 | 10 |
| 1,2,4-Trichlorobenzene | ND | | 10 | 4.0 | ug/L | | | 01/15/18 20:55 | 10 |
| 1,1,1-Trichloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| 1,1,2-Trichloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| Trichloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| Trichlorofluoromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| 1,2,3-Trichloropropane | ND | | 10 | 4.0 | ug/L | | | 01/15/18 20:55 | 10 |
| 1,2,4-Trimethylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| 1,3,5-Trimethylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |

## Client Sample ID: Ver-01I-B-12 — Lab Sample ID: 440-200466-3

**Date Collected: 01/11/18 15:30** — **Matrix: Water**
**Date Received: 01/11/18 18:45**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl chloride | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 20:55 | 10 |
| Xylenes, Total | ND | | 10 | 5.0 | ug/L | | | 01/15/18 20:55 | 10 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *111* | | *80 - 120* | | *01/15/18 20:55* | *10* |
| *Dibromofluoromethane (Surr)* | *106* | | *76 - 132* | | *01/15/18 20:55* | *10* |
| *Toluene-d8 (Surr)* | *105* | | *80 - 128* | | *01/15/18 20:55* | *10* |

### Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 2000 | 1000 | ug/L | | | 01/14/18 13:02 | 100 |
| **Chlorate** | **3200000** | | 200000 | 100000 | ug/L | | | 01/14/18 13:38 | 10000 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* | | *01/14/18 13:38* | *10000* |
| *Dichloroacetic acid(Surr)* | *99* | | *90 - 115* | | *01/14/18 13:02* | *100* |

### Method: 314.0 LL - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perchlorate** | **1200000** | | 100000 | 50000 | ug/L | | | 01/13/18 06:23 | 100000 |

### Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium, hexavalent** | **12000** | | 2000 | 250 | ug/L | | | 01/12/18 07:35 | 1000 |

### Method: 6010B - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **15** | | 0.025 | 0.013 | mg/L | | 01/16/18 09:54 | 01/16/18 18:03 | 5 |

# Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-200466-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,1-Trichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,2,2-Tetrachloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,2-Trichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2,3-Trichlorobenzene | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,3-Trichloropropane | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,4-Trichlorobenzene | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,4-Trimethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dibromo-3-Chloropropane | 1.0 | 0.50 | ug/L | 8260B |
| 1,2-Dibromoethane (EDB) | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichloropropane | 0.50 | 0.25 | ug/L | 8260B |
| 1,3,5-Trimethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,3-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,3-Dichloropropane | 0.50 | 0.25 | ug/L | 8260B |
| 1,4-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 2,2-Dichloropropane | 1.0 | 0.40 | ug/L | 8260B |
| 2-Butanone (MEK) | 5.0 | 2.5 | ug/L | 8260B |
| 2-Chlorotoluene | 0.50 | 0.25 | ug/L | 8260B |
| 2-Hexanone | 5.0 | 2.5 | ug/L | 8260B |
| 4-Chlorotoluene | 0.50 | 0.25 | ug/L | 8260B |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | 2.5 | ug/L | 8260B |
| Acetone | 20 | 10 | ug/L | 8260B |
| Benzene | 0.50 | 0.25 | ug/L | 8260B |
| Bromobenzene | 0.50 | 0.25 | ug/L | 8260B |
| Bromochloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Bromodichloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Bromoform | 1.0 | 0.40 | ug/L | 8260B |
| Bromomethane | 0.50 | 0.25 | ug/L | 8260B |
| Carbon tetrachloride | 0.50 | 0.25 | ug/L | 8260B |
| Chlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| Chloroethane | 1.0 | 0.40 | ug/L | 8260B |
| Chloroform | 0.50 | 0.25 | ug/L | 8260B |
| Chloromethane | 0.50 | 0.25 | ug/L | 8260B |
| cis-1,2-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| cis-1,3-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| Dibromochloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Dibromomethane | 0.50 | 0.25 | ug/L | 8260B |
| Dichlorodifluoromethane | 1.0 | 0.40 | ug/L | 8260B |
| Ethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Ethyl-t-butyl ether (ETBE) | 0.50 | 0.25 | ug/L | 8260B |
| Hexachlorobutadiene | 0.50 | 0.25 | ug/L | 8260B |
| Isopropyl Ether (DIPE) | 0.50 | 0.25 | ug/L | 8260B |
| Isopropylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| m,p-Xylene | 1.0 | 0.50 | ug/L | 8260B |
| Methylene Chloride | 2.0 | 0.88 | ug/L | 8260B |
| Methyl-t-Butyl Ether (MTBE) | 0.50 | 0.25 | ug/L | 8260B |
| Naphthalene | 1.0 | 0.40 | ug/L | 8260B |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| n-Butylbenzene | 1.0 | 0.40 | ug/L | 8260B |
| N-Propylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| o-Xylene | 0.50 | 0.25 | ug/L | 8260B |
| p-Isopropyltoluene | 0.50 | 0.25 | ug/L | 8260B |
| sec-Butylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Styrene | 0.50 | 0.25 | ug/L | 8260B |
| Tert-amyl-methyl ether (TAME) | 0.50 | 0.25 | ug/L | 8260B |
| tert-Butyl alcohol (TBA) | 10 | 5.0 | ug/L | 8260B |
| tert-Butylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Tetrachloroethene | 0.50 | 0.25 | ug/L | 8260B |
| Toluene | 0.50 | 0.25 | ug/L | 8260B |
| trans-1,2-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| trans-1,3-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| Trichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| Trichlorofluoromethane | 0.50 | 0.25 | ug/L | 8260B |
| Vinyl chloride | 0.50 | 0.25 | ug/L | 8260B |
| Xylenes, Total | 1.0 | 0.50 | ug/L | 8260B |

## Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chlorate | 20 | 10 | ug/L | 300.1B |
| Chlorite | 20 | 10 | ug/L | 300.1B |

## Method: 314.0 LL - Perchlorate (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Perchlorate | 1.0 | 0.50 | ug/L | 314.0 LL |

## Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chromium, hexavalent | 2.0 | 0.25 | ug/L | 7199 |

## Method: 6010B - Metals (ICP) - Total Recoverable

### Prep: 3005A

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chromium | 0.0050 | 0.0025 | mg/L | 6010B |

# Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-200466-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Matrix: Water**

**Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | |
|---|---|---|---|---|
| | | BFB | DBFM | TOL |
| Lab Sample ID | Client Sample ID | (80-120) | (76-132) | (80-128) |
| 440-200466-1 | VER-01I-B-BL | 110 | 106 | 105 |
| 440-200466-2 | Trip Blank | 111 | 103 | 107 |
| 440-200466-3 | Ver-01I-B-12 | 111 | 106 | 105 |
| 440-200580-B-1 MS | Matrix Spike | 104 | 102 | 100 |
| 440-200580-B-1 MSD | Matrix Spike Duplicate | 106 | 100 | 101 |
| LCS 440-451774/5 | Lab Control Sample | 101 | 103 | 102 |
| MB 440-451774/4 | Method Blank | 107 | 102 | 109 |

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

## Method: 300.1B - Disinfection By-Products, (IC)

**Matrix: Water**

**Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) |
|---|---|---|
| | | DCAA |
| Lab Sample ID | Client Sample ID | (90-115) |
| 440-200423-A-3 MS | Matrix Spike | 100 |
| 440-200423-A-3 MSD | Matrix Spike Duplicate | 101 |
| 440-200466-1 | VER-01I-B-BL | 100 |
| 440-200466-1 | VER-01I-B-BL | 100 |
| 440-200466-3 | Ver-01I-B-12 | 101 |
| 440-200466-3 | Ver-01I-B-12 | 99 |
| 440-200494-A-1 MS | Matrix Spike | 102 |
| 440-200494-A-1 MSD | Matrix Spike Duplicate | 103 |
| 440-200614-A-1 MS | Matrix Spike | 103 |
| 440-200614-A-1 MSD | Matrix Spike Duplicate | 99 |
| LCS 440-451306/4 | Lab Control Sample | 100 |
| LCS 440-451611/4 | Lab Control Sample | 100 |
| LCS 440-451612/4 | Lab Control Sample | 100 |
| MB 440-451306/5 | Method Blank | 103 |
| MB 440-451611/5 | Method Blank | 100 |
| MB 440-451612/5 | Method Blank | 100 |
| MRL 440-451306/3 | Lab Control Sample | 101 |
| MRL 440-451611/3 | Lab Control Sample | 100 |
| MRL 440-451612/3 | Lab Control Sample | 100 |

**Surrogate Legend**

DCAA = Dichloroacetic acid(Surr)

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 440-451774/4**
**Matrix: Water**
**Analysis Batch: 451774**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 01/15/18 17:31 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 01/15/18 17:31 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 17:31 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 01/15/18 17:31 | 1 |
| Chloroform | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 01/15/18 17:31 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 01/15/18 17:31 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/15/18 17:31 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 17:31 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| Methylene Chloride | 1.71 | J | 2.0 | 0.88 | ug/L | | | 01/15/18 17:31 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 01/15/18 17:31 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 01/15/18 17:31 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 01/15/18 17:31 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/15/18 17:31 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 440-451774/4**
**Matrix: Water**
**Analysis Batch: 451774**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 01/15/18 17:31 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/15/18 17:31 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/15/18 17:31 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/15/18 17:31 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 01/15/18 17:31 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 01/15/18 17:31 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *107* | | *80 - 120* | | *01/15/18 17:31* | *1* |
| *Dibromofluoromethane (Surr)* | *102* | | *76 - 132* | | *01/15/18 17:31* | *1* |
| *Toluene-d8 (Surr)* | *109* | | *80 - 128* | | *01/15/18 17:31* | *1* |

**Lab Sample ID: LCS 440-451774/5**
**Matrix: Water**
**Analysis Batch: 451774**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acetone | 25.0 | 28.9 | | ug/L | | 116 | 10 - 150 |
| Benzene | 25.0 | 26.2 | | ug/L | | 105 | 68 - 130 |
| Bromobenzene | 25.0 | 25.0 | | ug/L | | 100 | 70 - 130 |
| Bromochloromethane | 25.0 | 24.6 | | ug/L | | 98 | 70 - 130 |
| Bromodichloromethane | 25.0 | 25.7 | | ug/L | | 103 | 70 - 132 |
| Bromoform | 25.0 | 23.4 | | ug/L | | 93 | 60 - 148 |
| Bromomethane | 25.0 | 21.7 | | ug/L | | 87 | 64 - 139 |
| 2-Butanone (MEK) | 25.0 | 24.7 | | ug/L | | 99 | 44 - 150 |
| Carbon tetrachloride | 25.0 | 23.4 | | ug/L | | 93 | 60 - 150 |
| Chlorobenzene | 25.0 | 24.8 | | ug/L | | 99 | 70 - 130 |
| Chloroethane | 25.0 | 25.9 | | ug/L | | 104 | 64 - 135 |
| Chloroform | 25.0 | 25.3 | | ug/L | | 101 | 70 - 130 |
| Chloromethane | 25.0 | 27.7 | | ug/L | | 111 | 47 - 140 |
| 2-Chlorotoluene | 25.0 | 26.0 | | ug/L | | 104 | 70 - 130 |
| 4-Chlorotoluene | 25.0 | 26.2 | | ug/L | | 105 | 70 - 130 |
| cis-1,2-Dichloroethene | 25.0 | 24.2 | | ug/L | | 97 | 70 - 133 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 440-451774/5**
**Matrix: Water**
**Analysis Batch: 451774**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| cis-1,3-Dichloropropene | 25.0 | 24.9 | | ug/L | | 100 | 70 - 133 |
| Dibromochloromethane | 25.0 | 24.7 | | ug/L | | 99 | 69 - 145 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 24.8 | | ug/L | | 99 | 52 - 140 |
| 1,2-Dibromoethane (EDB) | 25.0 | 24.6 | | ug/L | | 98 | 70 - 130 |
| Dibromomethane | 25.0 | 24.1 | | ug/L | | 96 | 70 - 130 |
| 1,2-Dichlorobenzene | 25.0 | 25.3 | | ug/L | | 101 | 70 - 130 |
| 1,3-Dichlorobenzene | 25.0 | 25.6 | | ug/L | | 102 | 70 - 130 |
| 1,4-Dichlorobenzene | 25.0 | 25.1 | | ug/L | | 101 | 70 - 130 |
| Dichlorodifluoromethane | 25.0 | 24.6 | | ug/L | | 98 | 29 - 150 |
| 1,1-Dichloroethane | 25.0 | 26.8 | | ug/L | | 107 | 64 - 130 |
| 1,2-Dichloroethane | 25.0 | 25.4 | | ug/L | | 101 | 57 - 138 |
| 1,1-Dichloroethene | 25.0 | 22.9 | | ug/L | | 92 | 70 - 130 |
| 1,2-Dichloropropane | 25.0 | 26.3 | | ug/L | | 105 | 67 - 130 |
| 1,3-Dichloropropane | 25.0 | 25.5 | | ug/L | | 102 | 70 - 130 |
| 2,2-Dichloropropane | 25.0 | 25.6 | | ug/L | | 102 | 68 - 141 |
| 1,1-Dichloropropene | 25.0 | 25.3 | | ug/L | | 101 | 70 - 130 |
| Ethylbenzene | 25.0 | 24.4 | | ug/L | | 97 | 70 - 130 |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 24.5 | | ug/L | | 98 | 60 - 136 |
| Hexachlorobutadiene | 25.0 | 23.2 | | ug/L | | 93 | 10 - 150 |
| 2-Hexanone | 25.0 | 32.1 | | ug/L | | 128 | 10 - 150 |
| Isopropylbenzene | 25.0 | 24.4 | | ug/L | | 98 | 70 - 136 |
| Isopropyl Ether (DIPE) | 25.0 | 30.7 | | ug/L | | 123 | 58 - 139 |
| Methylene Chloride | 25.0 | 24.9 | | ug/L | | 100 | 52 - 130 |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 32.7 | | ug/L | | 131 | 59 - 149 |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 23.1 | | ug/L | | 92 | 63 - 131 |
| m,p-Xylene | 25.0 | 24.8 | | ug/L | | 99 | 70 - 130 |
| Naphthalene | 25.0 | 24.7 | | ug/L | | 99 | 60 - 140 |
| n-Butylbenzene | 25.0 | 25.5 | | ug/L | | 102 | 65 - 150 |
| N-Propylbenzene | 25.0 | 26.4 | | ug/L | | 105 | 67 - 139 |
| o-Xylene | 25.0 | 25.2 | | ug/L | | 101 | 70 - 130 |
| p-Isopropyltoluene | 25.0 | 25.2 | | ug/L | | 101 | 70 - 132 |
| sec-Butylbenzene | 25.0 | 26.0 | | ug/L | | 104 | 70 - 138 |
| Styrene | 25.0 | 24.5 | | ug/L | | 98 | 70 - 134 |
| Tert-amyl-methyl ether (TAME) | 25.0 | 21.2 | | ug/L | | 85 | 57 - 139 |
| tert-Butyl alcohol (TBA) | 250 | 279 | | ug/L | | 112 | 70 - 130 |
| tert-Butylbenzene | 25.0 | 25.0 | | ug/L | | 100 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 22.0 | | ug/L | | 88 | 60 - 141 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 26.3 | | ug/L | | 105 | 63 - 130 |
| Tetrachloroethene | 25.0 | 23.7 | | ug/L | | 95 | 70 - 130 |
| Toluene | 25.0 | 25.2 | | ug/L | | 101 | 70 - 130 |
| trans-1,2-Dichloroethene | 25.0 | 24.4 | | ug/L | | 98 | 70 - 130 |
| trans-1,3-Dichloropropene | 25.0 | 24.4 | | ug/L | | 98 | 70 - 132 |
| 1,2,3-Trichlorobenzene | 25.0 | 25.4 | | ug/L | | 102 | 60 - 140 |
| 1,2,4-Trichlorobenzene | 25.0 | 24.4 | | ug/L | | 97 | 60 - 140 |
| 1,1,1-Trichloroethane | 25.0 | 23.3 | | ug/L | | 93 | 70 - 130 |
| 1,1,2-Trichloroethane | 25.0 | 26.2 | | ug/L | | 105 | 70 - 130 |
| Trichloroethene | 25.0 | 24.0 | | ug/L | | 96 | 70 - 130 |
| Trichlorofluoromethane | 25.0 | 22.5 | | ug/L | | 90 | 60 - 150 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 440-451774/5**
**Matrix: Water**
**Analysis Batch: 451774**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,2,3-Trichloropropane | 25.0 | 25.9 | | ug/L | | 103 | 63 - 130 |
| 1,2,4-Trimethylbenzene | 25.0 | 25.2 | | ug/L | | 101 | 70 - 135 |
| 1,3,5-Trimethylbenzene | 25.0 | 25.7 | | ug/L | | 103 | 70 - 136 |
| Vinyl chloride | 25.0 | 24.1 | | ug/L | | 96 | 59 - 133 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *101* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *103* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *102* | | *80 - 128* |

**Lab Sample ID: 440-200580-B-1 MS**
**Matrix: Water**
**Analysis Batch: 451774**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | F1 | 25.0 | ND | F1 | ug/L | | 0 | 10 - 150 |
| Benzene | 1.0 | | 25.0 | 27.1 | | ug/L | | 104 | 66 - 130 |
| Bromobenzene | ND | | 25.0 | 24.8 | | ug/L | | 99 | 70 - 130 |
| Bromochloromethane | ND | | 25.0 | 25.1 | | ug/L | | 100 | 70 - 130 |
| Bromodichloromethane | ND | | 25.0 | 26.1 | | ug/L | | 105 | 70 - 138 |
| Bromoform | ND | | 25.0 | 24.4 | | ug/L | | 98 | 59 - 150 |
| Bromomethane | ND | | 25.0 | 21.3 | | ug/L | | 85 | 62 - 131 |
| 2-Butanone (MEK) | 12 | | 25.0 | 39.0 | | ug/L | | 108 | 48 - 140 |
| Carbon tetrachloride | ND | | 25.0 | 24.4 | | ug/L | | 97 | 60 - 150 |
| Chlorobenzene | ND | | 25.0 | 24.7 | | ug/L | | 99 | 70 - 130 |
| Chloroethane | ND | | 25.0 | 25.9 | | ug/L | | 104 | 68 - 130 |
| Chloroform | ND | | 25.0 | 25.7 | | ug/L | | 103 | 70 - 130 |
| Chloromethane | ND | | 25.0 | 27.2 | | ug/L | | 109 | 39 - 144 |
| 2-Chlorotoluene | ND | | 25.0 | 25.6 | | ug/L | | 103 | 70 - 130 |
| 4-Chlorotoluene | ND | | 25.0 | 27.0 | | ug/L | | 108 | 70 - 130 |
| cis-1,2-Dichloroethene | ND | | 25.0 | 24.0 | | ug/L | | 96 | 70 - 130 |
| cis-1,3-Dichloropropene | ND | | 25.0 | 25.1 | | ug/L | | 100 | 70 - 133 |
| Dibromochloromethane | ND | | 25.0 | 24.7 | | ug/L | | 99 | 70 - 148 |
| 1,2-Dibromo-3-Chloropropane | ND | | 25.0 | 29.5 | | ug/L | | 118 | 48 - 140 |
| 1,2-Dibromoethane (EDB) | ND | | 25.0 | 25.2 | | ug/L | | 101 | 70 - 131 |
| Dibromomethane | ND | | 25.0 | 24.7 | | ug/L | | 99 | 70 - 130 |
| 1,2-Dichlorobenzene | ND | | 25.0 | 25.0 | | ug/L | | 100 | 70 - 130 |
| 1,3-Dichlorobenzene | ND | | 25.0 | 25.2 | | ug/L | | 101 | 70 - 130 |
| 1,4-Dichlorobenzene | ND | | 25.0 | 25.0 | | ug/L | | 100 | 70 - 130 |
| Dichlorodifluoromethane | ND | | 25.0 | 24.2 | | ug/L | | 97 | 25 - 142 |
| 1,1-Dichloroethane | ND | | 25.0 | 26.1 | | ug/L | | 104 | 65 - 130 |
| 1,2-Dichloroethane | 300 | E | 25.0 | 329 | E 4 | ug/L | | 98 | 56 - 146 |
| 1,1-Dichloroethene | ND | | 25.0 | 23.7 | | ug/L | | 95 | 70 - 130 |
| 1,2-Dichloropropane | ND | | 25.0 | 26.1 | | ug/L | | 105 | 69 - 130 |
| 1,3-Dichloropropane | ND | | 25.0 | 24.9 | | ug/L | | 100 | 70 - 130 |
| 2,2-Dichloropropane | ND | | 25.0 | 26.1 | | ug/L | | 104 | 69 - 138 |
| 1,1-Dichloropropene | ND | | 25.0 | 25.7 | | ug/L | | 103 | 64 - 130 |
| Ethylbenzene | 6.3 | | 25.0 | 30.6 | | ug/L | | 97 | 70 - 130 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-200580-B-1 MS**
**Matrix: Water**
**Analysis Batch: 451774**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Ethyl-t-butyl ether (ETBE) | ND | | 25.0 | 24.8 | | ug/L | | 99 | 70 - 130 |
| Hexachlorobutadiene | ND | | 25.0 | 23.8 | | ug/L | | 95 | 10 - 150 |
| 2-Hexanone | 5.2 | | 25.0 | 35.4 | | ug/L | | 121 | 10 - 150 |
| Isopropylbenzene | 5.8 | | 25.0 | 30.2 | | ug/L | | 98 | 70 - 132 |
| Isopropyl Ether (DIPE) | 93 | | 25.0 | 121 | | ug/L | | 114 | 64 - 138 |
| Methylene Chloride | 0.89 | J B | 25.0 | 24.4 | | ug/L | | 94 | 52 - 130 |
| 4-Methyl-2-pentanone (MIBK) | ND | F1 | 25.0 | 48.0 | F1 | ug/L | | 192 | 52 - 150 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 25.0 | 29.7 | | ug/L | | 119 | 70 - 130 |
| m,p-Xylene | 7.1 | | 25.0 | 31.8 | | ug/L | | 99 | 70 - 133 |
| Naphthalene | 0.69 | J | 25.0 | 27.8 | | ug/L | | 108 | 60 - 140 |
| n-Butylbenzene | 3.8 | | 25.0 | 28.6 | | ug/L | | 99 | 61 - 149 |
| N-Propylbenzene | 23 | | 25.0 | 47.8 | | ug/L | | 98 | 66 - 135 |
| o-Xylene | 1.7 | | 25.0 | 26.0 | | ug/L | | 97 | 70 - 133 |
| p-Isopropyltoluene | 0.35 | J | 25.0 | 24.8 | | ug/L | | 98 | 70 - 130 |
| sec-Butylbenzene | 3.7 | | 25.0 | 28.5 | | ug/L | | 99 | 67 - 134 |
| Styrene | ND | | 25.0 | 24.2 | | ug/L | | 97 | 29 - 150 |
| Tert-amyl-methyl ether (TAME) | ND | | 25.0 | 22.0 | | ug/L | | 88 | 68 - 133 |
| tert-Butyl alcohol (TBA) | 70 | | 250 | 331 | | ug/L | | 104 | 70 - 130 |
| tert-Butylbenzene | 0.27 | J | 25.0 | 24.8 | | ug/L | | 98 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | ND | | 25.0 | 22.2 | | ug/L | | 89 | 60 - 149 |
| 1,1,2,2-Tetrachloroethane | ND | | 25.0 | 25.8 | | ug/L | | 103 | 63 - 130 |
| Tetrachloroethene | ND | | 25.0 | 24.4 | | ug/L | | 97 | 70 - 137 |
| Toluene | 3.9 | | 25.0 | 28.3 | | ug/L | | 98 | 70 - 130 |
| trans-1,2-Dichloroethene | ND | | 25.0 | 24.7 | | ug/L | | 99 | 70 - 130 |
| trans-1,3-Dichloropropene | ND | | 25.0 | 24.9 | | ug/L | | 100 | 70 - 138 |
| 1,2,3-Trichlorobenzene | ND | | 25.0 | 27.2 | | ug/L | | 109 | 60 - 140 |
| 1,2,4-Trichlorobenzene | ND | | 25.0 | 26.4 | | ug/L | | 105 | 60 - 140 |
| 1,1,1-Trichloroethane | ND | | 25.0 | 23.7 | | ug/L | | 95 | 70 - 130 |
| 1,1,2-Trichloroethane | 1.8 | | 25.0 | 30.5 | | ug/L | | 115 | 70 - 130 |
| Trichloroethene | ND | | 25.0 | 24.5 | | ug/L | | 98 | 70 - 130 |
| Trichlorofluoromethane | ND | | 25.0 | 23.4 | | ug/L | | 94 | 60 - 150 |
| 1,2,3-Trichloropropane | ND | | 25.0 | 26.9 | | ug/L | | 108 | 60 - 130 |
| 1,2,4-Trimethylbenzene | 7.8 | | 25.0 | 32.8 | | ug/L | | 100 | 70 - 130 |
| 1,3,5-Trimethylbenzene | 0.30 | J | 25.0 | 25.6 | | ug/L | | 101 | 70 - 130 |
| Vinyl chloride | ND | | 25.0 | 24.1 | | ug/L | | 96 | 50 - 137 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *104* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *102* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *100* | | *80 - 128* |

**Lab Sample ID: 440-200580-B-1 MSD**
**Matrix: Water**
**Analysis Batch: 451774**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | F1 | 25.0 | ND | F1 | ug/L | | 0 | 10 - 150 | NC | 35 |
| Benzene | 1.0 | | 25.0 | 26.8 | | ug/L | | 103 | 66 - 130 | 1 | 20 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-200580-B-1 MSD**
**Matrix: Water**
**Analysis Batch: 451774**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromobenzene | ND | | 25.0 | 25.2 | | ug/L | | 101 | 70 - 130 | 2 | 20 |
| Bromochloromethane | ND | | 25.0 | 24.5 | | ug/L | | 98 | 70 - 130 | 3 | 25 |
| Bromodichloromethane | ND | | 25.0 | 24.6 | | ug/L | | 99 | 70 - 138 | 6 | 20 |
| Bromoform | ND | | 25.0 | 23.6 | | ug/L | | 94 | 59 - 150 | 3 | 25 |
| Bromomethane | ND | | 25.0 | 20.5 | | ug/L | | 82 | 62 - 131 | 4 | 25 |
| 2-Butanone (MEK) | 12 | | 25.0 | 36.7 | | ug/L | | 99 | 48 - 140 | 6 | 40 |
| Carbon tetrachloride | ND | | 25.0 | 24.1 | | ug/L | | 96 | 60 - 150 | 1 | 25 |
| Chlorobenzene | ND | | 25.0 | 24.3 | | ug/L | | 97 | 70 - 130 | 2 | 20 |
| Chloroethane | ND | | 25.0 | 24.6 | | ug/L | | 99 | 68 - 130 | 5 | 25 |
| Chloroform | ND | | 25.0 | 25.0 | | ug/L | | 100 | 70 - 130 | 3 | 20 |
| Chloromethane | ND | | 25.0 | 25.9 | | ug/L | | 103 | 39 - 144 | 5 | 25 |
| 2-Chlorotoluene | ND | | 25.0 | 25.8 | | ug/L | | 103 | 70 - 130 | 1 | 20 |
| 4-Chlorotoluene | ND | | 25.0 | 27.1 | | ug/L | | 108 | 70 - 130 | 0 | 20 |
| cis-1,2-Dichloroethene | ND | | 25.0 | 23.9 | | ug/L | | 95 | 70 - 130 | 0 | 20 |
| cis-1,3-Dichloropropene | ND | | 25.0 | 24.5 | | ug/L | | 98 | 70 - 133 | 2 | 20 |
| Dibromochloromethane | ND | | 25.0 | 24.3 | | ug/L | | 97 | 70 - 148 | 2 | 25 |
| 1,2-Dibromo-3-Chloropropane | ND | | 25.0 | 28.7 | | ug/L | | 115 | 48 - 140 | 3 | 30 |
| 1,2-Dibromoethane (EDB) | ND | | 25.0 | 24.4 | | ug/L | | 98 | 70 - 131 | 3 | 25 |
| Dibromomethane | ND | | 25.0 | 23.8 | | ug/L | | 95 | 70 - 130 | 4 | 25 |
| 1,2-Dichlorobenzene | ND | | 25.0 | 25.4 | | ug/L | | 102 | 70 - 130 | 1 | 20 |
| 1,3-Dichlorobenzene | ND | | 25.0 | 25.4 | | ug/L | | 101 | 70 - 130 | 0 | 20 |
| 1,4-Dichlorobenzene | ND | | 25.0 | 25.0 | | ug/L | | 100 | 70 - 130 | 0 | 20 |
| Dichlorodifluoromethane | ND | | 25.0 | 23.7 | | ug/L | | 95 | 25 - 142 | 2 | 30 |
| 1,1-Dichloroethane | ND | | 25.0 | 26.3 | | ug/L | | 105 | 65 - 130 | 1 | 20 |
| 1,2-Dichloroethane | 300 | E | 25.0 | 312 | E 4 | ug/L | | 29 | 56 - 146 | 5 | 20 |
| 1,1-Dichloroethene | ND | | 25.0 | 22.8 | | ug/L | | 91 | 70 - 130 | 4 | 20 |
| 1,2-Dichloropropane | ND | | 25.0 | 25.3 | | ug/L | | 101 | 69 - 130 | 3 | 20 |
| 1,3-Dichloropropane | ND | | 25.0 | 24.2 | | ug/L | | 97 | 70 - 130 | 3 | 25 |
| 2,2-Dichloropropane | ND | | 25.0 | 25.7 | | ug/L | | 103 | 69 - 138 | 2 | 25 |
| 1,1-Dichloropropene | ND | | 25.0 | 25.1 | | ug/L | | 100 | 64 - 130 | 3 | 20 |
| Ethylbenzene | 6.3 | | 25.0 | 29.9 | | ug/L | | 95 | 70 - 130 | 2 | 20 |
| Ethyl-t-butyl ether (ETBE) | ND | | 25.0 | 23.9 | | ug/L | | 96 | 70 - 130 | 4 | 25 |
| Hexachlorobutadiene | ND | | 25.0 | 24.9 | | ug/L | | 100 | 10 - 150 | 4 | 20 |
| 2-Hexanone | 5.2 | | 25.0 | 31.0 | | ug/L | | 103 | 10 - 150 | 13 | 35 |
| Isopropylbenzene | 5.8 | | 25.0 | 29.9 | | ug/L | | 97 | 70 - 132 | 1 | 20 |
| Isopropyl Ether (DIPE) | 93 | | 25.0 | 112 | | ug/L | | 78 | 64 - 138 | 8 | 25 |
| Methylene Chloride | 0.89 | J B | 25.0 | 23.7 | | ug/L | | 91 | 52 - 130 | 3 | 20 |
| 4-Methyl-2-pentanone (MIBK) | ND | F1 | 25.0 | 43.0 | F1 | ug/L | | 172 | 52 - 150 | 11 | 35 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 25.0 | 28.6 | | ug/L | | 115 | 70 - 130 | 4 | 25 |
| m,p-Xylene | 7.1 | | 25.0 | 31.3 | | ug/L | | 97 | 70 - 133 | 1 | 25 |
| Naphthalene | 0.69 | J | 25.0 | 27.2 | | ug/L | | 106 | 60 - 140 | 2 | 30 |
| n-Butylbenzene | 3.8 | | 25.0 | 28.8 | | ug/L | | 100 | 61 - 149 | 1 | 20 |
| N-Propylbenzene | 23 | | 25.0 | 47.0 | | ug/L | | 95 | 66 - 135 | 2 | 20 |
| o-Xylene | 1.7 | | 25.0 | 26.1 | | ug/L | | 97 | 70 - 133 | 0 | 20 |
| p-Isopropyltoluene | 0.35 | J | 25.0 | 25.2 | | ug/L | | 100 | 70 - 130 | 2 | 20 |
| sec-Butylbenzene | 3.7 | | 25.0 | 29.2 | | ug/L | | 102 | 67 - 134 | 2 | 20 |
| Styrene | ND | | 25.0 | 23.7 | | ug/L | | 95 | 29 - 150 | 2 | 35 |
| Tert-amyl-methyl ether (TAME) | ND | | 25.0 | 21.6 | | ug/L | | 86 | 68 - 133 | 2 | 30 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-200580-B-1 MSD**
**Matrix: Water**
**Analysis Batch: 451774**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| tert-Butyl alcohol (TBA) | 70 | | 250 | 325 | | ug/L | | 102 | 70 - 130 | 2 | 25 |
| tert-Butylbenzene | 0.27 | J | 25.0 | 25.4 | | ug/L | | 100 | 70 - 130 | 2 | 20 |
| 1,1,1,2-Tetrachloroethane | ND | | 25.0 | 22.1 | | ug/L | | 89 | 60 - 149 | 0 | 20 |
| 1,1,2,2-Tetrachloroethane | ND | | 25.0 | 25.3 | | ug/L | | 101 | 63 - 130 | 2 | 30 |
| Tetrachloroethene | ND | | 25.0 | 24.1 | | ug/L | | 96 | 70 - 137 | 1 | 20 |
| Toluene | 3.9 | | 25.0 | 27.4 | | ug/L | | 94 | 70 - 130 | 3 | 20 |
| trans-1,2-Dichloroethene | ND | | 25.0 | 24.5 | | ug/L | | 98 | 70 - 130 | 1 | 20 |
| trans-1,3-Dichloropropene | ND | | 25.0 | 24.1 | | ug/L | | 96 | 70 - 138 | 3 | 25 |
| 1,2,3-Trichlorobenzene | ND | | 25.0 | 27.0 | | ug/L | | 108 | 60 - 140 | 1 | 20 |
| 1,2,4-Trichlorobenzene | ND | | 25.0 | 26.5 | | ug/L | | 106 | 60 - 140 | 0 | 20 |
| 1,1,1-Trichloroethane | ND | | 25.0 | 24.0 | | ug/L | | 96 | 70 - 130 | 1 | 20 |
| 1,1,2-Trichloroethane | 1.8 | | 25.0 | 27.3 | | ug/L | | 102 | 70 - 130 | 11 | 25 |
| Trichloroethene | ND | | 25.0 | 24.1 | | ug/L | | 96 | 70 - 130 | 2 | 20 |
| Trichlorofluoromethane | ND | | 25.0 | 22.4 | | ug/L | | 90 | 60 - 150 | 4 | 25 |
| 1,2,3-Trichloropropane | ND | | 25.0 | 26.9 | | ug/L | | 107 | 60 - 130 | 0 | 30 |
| 1,2,4-Trimethylbenzene | 7.8 | | 25.0 | 33.0 | | ug/L | | 101 | 70 - 130 | 1 | 25 |
| 1,3,5-Trimethylbenzene | 0.30 | J | 25.0 | 25.9 | | ug/L | | 102 | 70 - 130 | 1 | 20 |
| Vinyl chloride | ND | | 25.0 | 22.7 | | ug/L | | 91 | 50 - 137 | 6 | 30 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *106* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *100* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *101* | | *80 - 128* |

## Method: 300.1B - Disinfection By-Products, (IC)

**Lab Sample ID: MB 440-451306/5**
**Matrix: Water**
**Analysis Batch: 451306**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorate | ND | | 20 | 10 | ug/L | | | 01/12/18 08:34 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *103* | | *90 - 115* | | *01/12/18 08:34* | *1* |

**Lab Sample ID: LCS 440-451306/4**
**Matrix: Water**
**Analysis Batch: 451306**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 100 | 109 | | ug/L | | 109 | 75 - 125 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

**Lab Sample ID: MRL 440-451306/3**
**Matrix: Water**
**Analysis Batch: 451306**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 20.0 | 22.6 | | ug/L | | 113 | 50 - 150 | | |

| *Surrogate* | *MRL %Recovery* | *MRL Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

**Lab Sample ID: 440-200423-A-3 MS**
**Matrix: Water**
**Analysis Batch: 451306**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 170000 | | 200 | 189000 | 4 | ug/L | | 12077 | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

**Lab Sample ID: 440-200423-A-3 MSD**
**Matrix: Water**
**Analysis Batch: 451306**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 170000 | | 200 | 178000 | 4 | ug/L | | 6462 | 75 - 125 | 6 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

**Lab Sample ID: MB 440-451611/5**
**Matrix: Water**
**Analysis Batch: 451611**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorate | ND | | 20 | 10 | ug/L | | | 01/14/18 10:01 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* | | *01/14/18 10:01* | *1* |

**Lab Sample ID: LCS 440-451611/4**
**Matrix: Water**
**Analysis Batch: 451611**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 100 | 104 | | ug/L | | 104 | 75 - 125 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

**Lab Sample ID: MRL 440-451611/3**
**Matrix: Water**
**Analysis Batch: 451611**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 20.0 | 22.5 | | ug/L | | 113 | 50 - 150 | | |

| *Surrogate* | *MRL %Recovery* | *MRL Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

**Lab Sample ID: 440-200494-A-1 MS**
**Matrix: Water**
**Analysis Batch: 451611**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 120 | | 200 | 318 | | ug/L | | 97 | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *102* | | *90 - 115* |

**Lab Sample ID: 440-200494-A-1 MSD**
**Matrix: Water**
**Analysis Batch: 451611**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 120 | | 200 | 331 | | ug/L | | 104 | 75 - 125 | 4 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *103* | | *90 - 115* |

**Lab Sample ID: MB 440-451612/5**
**Matrix: Water**
**Analysis Batch: 451612**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 20 | 10 | ug/L | | | 01/14/18 10:01 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* | | *01/14/18 10:01* | *1* |

**Lab Sample ID: LCS 440-451612/4**
**Matrix: Water**
**Analysis Batch: 451612**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | | 100 | 100 | | ug/L | | 100 | 85 - 115 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

**Lab Sample ID: MRL 440-451612/3**
**Matrix: Water**
**Analysis Batch: 451612**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | | 20.0 | 21.7 | | ug/L | | 109 | 10 - 200 | | |

| *Surrogate* | *MRL %Recovery* | *MRL Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

**Lab Sample ID: 440-200614-A-1 MS**
**Matrix: Water**
**Analysis Batch: 451612**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 200 | 203 | | ug/L | | 102 | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *103* | | *90 - 115* |

**Lab Sample ID: 440-200614-A-1 MSD**
**Matrix: Water**
**Analysis Batch: 451612**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 200 | 208 | | ug/L | | 104 | 75 - 125 | 2 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *99* | | *90 - 115* |

## Method: 314.0 LL - Perchlorate (IC)

**Lab Sample ID: MB 440-451351/6**
**Matrix: Water**
**Analysis Batch: 451351**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 1.0 | 0.50 | ug/L | | | 01/12/18 11:12 | 1 |

**Lab Sample ID: LCS 440-451351/5**
**Matrix: Water**
**Analysis Batch: 451351**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | | | 10.0 | 9.38 | | ug/L | | 94 | 85 - 115 | | |

**Lab Sample ID: MRL 440-451351/4**
**Matrix: Water**
**Analysis Batch: 451351**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | | | 1.00 | 1.00 | | ug/L | | 100 | 75 - 125 | | |

## Method: 314.0 LL - Perchlorate (IC) (Continued)

**Lab Sample ID: 440-200117-F-1 MS**
**Matrix: Water**
**Analysis Batch: 451351**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 140 | | 100 | 233 | | ug/L | | 90 | 80 - 120 |

**Lab Sample ID: 440-200117-F-1 MSD**
**Matrix: Water**
**Analysis Batch: 451351**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 140 | | 100 | 233 | | ug/L | | 90 | 80 - 120 | 0 | 20 |

**Lab Sample ID: INF 440-451351/7**
**Matrix: Water**
**Analysis Batch: 451351**

**Client Sample ID: Lab Control Sample**

| Analyte | Spike Added | INF Result | INF Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 9.82 | | ug/L | | 98 | 80 - 120 |

## Method: 7199 - Chromium, Hexavalent (IC)

**Lab Sample ID: MB 440-451048/6**
**Matrix: Water**
**Analysis Batch: 451048**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 2.0 | 0.25 | ug/L | | | 01/11/18 04:48 | 1 |

**Lab Sample ID: LCS 440-451048/5**
**Matrix: Water**
**Analysis Batch: 451048**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 49.3 | | ug/L | | 99 | 90 - 110 |

**Lab Sample ID: MRL 440-451048/4**
**Matrix: Water**
**Analysis Batch: 451048**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 1.00 | 1.09 | J | ug/L | | 109 | 50 - 150 |

**Lab Sample ID: 440-200593-J-16 MS**
**Matrix: Water**
**Analysis Batch: 451048**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 50.0 | 50.0 | | ug/L | | 100 | 85 - 115 |

## Method: 7199 - Chromium, Hexavalent (IC) (Continued)

**Lab Sample ID: 440-200593-J-16 MSD**
**Matrix: Water**
**Analysis Batch: 451048**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 50.0 | 50.0 | | ug/L | | 100 | 85 - 115 | 0 | 20 |

**Lab Sample ID: MB 440-451317/6**
**Matrix: Water**
**Analysis Batch: 451317**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 2.0 | 0.25 | ug/L | | | 01/12/18 06:58 | 1 |

**Lab Sample ID: LCS 440-451317/5**
**Matrix: Water**
**Analysis Batch: 451317**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 49.7 | | ug/L | | 99 | 90 - 110 |

**Lab Sample ID: MRL 440-451317/4**
**Matrix: Water**
**Analysis Batch: 451317**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 1.00 | 0.984 | J | ug/L | | 98 | 50 - 150 |

**Lab Sample ID: 440-200466-3 MS**
**Matrix: Water**
**Analysis Batch: 451317**

**Client Sample ID: Ver-01I-B-12**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 12000 | | 1000 | 13200 | 4 | ug/L | | 105 | 85 - 115 |

**Lab Sample ID: 440-200466-3 MSD**
**Matrix: Water**
**Analysis Batch: 451317**

**Client Sample ID: Ver-01I-B-12**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 12000 | | 1000 | 13100 | 4 | ug/L | | 90 | 85 - 115 | 1 | 20 |

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 440-451930/1-A**
**Matrix: Water**
**Analysis Batch: 452067**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 451930**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | ND | | 0.0050 | 0.0025 | mg/L | | 01/16/18 09:54 | 01/16/18 17:48 | 1 |

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: LCS 440-451930/2-A**
**Matrix: Water**
**Analysis Batch: 452067**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 451930**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium | 1.00 | 0.989 | | mg/L | | 99 | 80 - 120 |

**Lab Sample ID: 440-200466-1 MS**
**Matrix: Water**
**Analysis Batch: 452067**

**Client Sample ID: VER-01I-B-BL**
**Prep Type: Total Recoverable**
**Prep Batch: 451930**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 8.8 | | 1.00 | 10.5 | 4 | mg/L | | 173 | 75 - 125 |

**Lab Sample ID: 440-200466-1 MSD**
**Matrix: Water**
**Analysis Batch: 452067**

**Client Sample ID: VER-01I-B-BL**
**Prep Type: Total Recoverable**
**Prep Batch: 451930**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 8.8 | | 1.00 | 10.3 | 4 | mg/L | | 153 | 75 - 125 | 2 | 20 |

## GC/MS VOA

### Analysis Batch: 451774

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200466-1 | VER-01I-B-BL | Total/NA | Water | 8260B | |
| 440-200466-2 | Trip Blank | Total/NA | Water | 8260B | |
| 440-200466-3 | Ver-01I-B-12 | Total/NA | Water | 8260B | |
| MB 440-451774/4 | Method Blank | Total/NA | Water | 8260B | |
| LCS 440-451774/5 | Lab Control Sample | Total/NA | Water | 8260B | |
| 440-200580-B-1 MS | Matrix Spike | Total/NA | Water | 8260B | |
| 440-200580-B-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 8260B | |

## HPLC/IC

### Analysis Batch: 451048

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200466-1 | VER-01I-B-BL | Total/NA | Water | 7199 | |
| MB 440-451048/6 | Method Blank | Total/NA | Water | 7199 | |
| LCS 440-451048/5 | Lab Control Sample | Total/NA | Water | 7199 | |
| MRL 440-451048/4 | Lab Control Sample | Total/NA | Water | 7199 | |
| 440-200593-J-16 MS | Matrix Spike | Total/NA | Water | 7199 | |
| 440-200593-J-16 MSD | Matrix Spike Duplicate | Total/NA | Water | 7199 | |

### Analysis Batch: 451306

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200466-1 | VER-01I-B-BL | Total/NA | Water | 300.1B | |
| MB 440-451306/5 | Method Blank | Total/NA | Water | 300.1B | |
| LCS 440-451306/4 | Lab Control Sample | Total/NA | Water | 300.1B | |
| MRL 440-451306/3 | Lab Control Sample | Total/NA | Water | 300.1B | |
| 440-200423-A-3 MS | Matrix Spike | Total/NA | Water | 300.1B | |
| 440-200423-A-3 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.1B | |

### Analysis Batch: 451317

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200466-3 | Ver-01I-B-12 | Total/NA | Water | 7199 | |
| MB 440-451317/6 | Method Blank | Total/NA | Water | 7199 | |
| LCS 440-451317/5 | Lab Control Sample | Total/NA | Water | 7199 | |
| MRL 440-451317/4 | Lab Control Sample | Total/NA | Water | 7199 | |
| 440-200466-3 MS | Ver-01I-B-12 | Total/NA | Water | 7199 | |
| 440-200466-3 MSD | Ver-01I-B-12 | Total/NA | Water | 7199 | |

### Analysis Batch: 451351

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200466-1 | VER-01I-B-BL | Total/NA | Water | 314.0 LL | |
| 440-200466-3 | Ver-01I-B-12 | Total/NA | Water | 314.0 LL | |
| MB 440-451351/6 | Method Blank | Total/NA | Water | 314.0 LL | |
| INF 440-451351/7 | Lab Control Sample | | Water | 314.0 LL | |
| LCS 440-451351/5 | Lab Control Sample | Total/NA | Water | 314.0 LL | |
| MRL 440-451351/4 | Lab Control Sample | Total/NA | Water | 314.0 LL | |
| 440-200117-F-1 MS | Matrix Spike | Total/NA | Water | 314.0 LL | |
| 440-200117-F-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 314.0 LL | |

## HPLC/IC (Continued)

### Analysis Batch: 451611

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200466-3 | Ver-01I-B-12 | Total/NA | Water | 300.1B | |
| MB 440-451611/5 | Method Blank | Total/NA | Water | 300.1B | |
| LCS 440-451611/4 | Lab Control Sample | Total/NA | Water | 300.1B | |
| MRL 440-451611/3 | Lab Control Sample | Total/NA | Water | 300.1B | |
| 440-200494-A-1 MS | Matrix Spike | Total/NA | Water | 300.1B | |
| 440-200494-A-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.1B | |

### Analysis Batch: 451612

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200466-1 | VER-01I-B-BL | Total/NA | Water | 300.1B | |
| 440-200466-3 | Ver-01I-B-12 | Total/NA | Water | 300.1B | |
| MB 440-451612/5 | Method Blank | Total/NA | Water | 300.1B | |
| LCS 440-451612/4 | Lab Control Sample | Total/NA | Water | 300.1B | |
| MRL 440-451612/3 | Lab Control Sample | Total/NA | Water | 300.1B | |
| 440-200614-A-1 MS | Matrix Spike | Total/NA | Water | 300.1B | |
| 440-200614-A-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.1B | |

## Metals

### Prep Batch: 451930

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200466-1 | VER-01I-B-BL | Total Recoverable | Water | 3005A | |
| 440-200466-3 | Ver-01I-B-12 | Total Recoverable | Water | 3005A | |
| MB 440-451930/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 440-451930/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 440-200466-1 MS | VER-01I-B-BL | Total Recoverable | Water | 3005A | |
| 440-200466-1 MSD | VER-01I-B-BL | Total Recoverable | Water | 3005A | |

### Analysis Batch: 452067

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200466-1 | VER-01I-B-BL | Total Recoverable | Water | 6010B | 451930 |
| 440-200466-3 | Ver-01I-B-12 | Total Recoverable | Water | 6010B | 451930 |
| MB 440-451930/1-A | Method Blank | Total Recoverable | Water | 6010B | 451930 |
| LCS 440-451930/2-A | Lab Control Sample | Total Recoverable | Water | 6010B | 451930 |
| 440-200466-1 MS | VER-01I-B-BL | Total Recoverable | Water | 6010B | 451930 |
| 440-200466-1 MSD | VER-01I-B-BL | Total Recoverable | Water | 6010B | 451930 |

# Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-200466-1

## Client Sample ID: VER-01I-B-BL
**Date Collected: 01/11/18 03:30**
**Date Received: 01/11/18 18:45**

## Lab Sample ID: 440-200466-1
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 10 | 451774 | 01/15/18 20:02 | OH1 | TAL IRV |
| Total/NA | Analysis | 300.1B | | 10000 | 451306 | 01/13/18 09:55 | YZ | TAL IRV |
| Total/NA | Analysis | 300.1B | | 100 | 451612 | 01/14/18 12:25 | YZ | TAL IRV |
| Total/NA | Analysis | 314.0 LL | | 50000 | 451351 | 01/12/18 16:31 | PS | TAL IRV |
| Total/NA | Analysis | 7199 | | 500 | 451048 | 01/11/18 21:02 | RW | TAL IRV |
| Total Recoverable | Prep | 3005A | | | 451930 | 01/16/18 09:54 | JL | TAL IRV |
| Total Recoverable | Analysis | 6010B | | 5 | 452067 | 01/16/18 17:53 | B1H | TAL IRV |

## Client Sample ID: Trip Blank
**Date Collected: 01/11/18 03:30**
**Date Received: 01/11/18 18:45**

## Lab Sample ID: 440-200466-2
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 451774 | 01/15/18 20:28 | OH1 | TAL IRV |

## Client Sample ID: Ver-01I-B-12
**Date Collected: 01/11/18 15:30**
**Date Received: 01/11/18 18:45**

## Lab Sample ID: 440-200466-3
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 10 | 451774 | 01/15/18 20:55 | OH1 | TAL IRV |
| Total/NA | Analysis | 300.1B | | 100 | 451612 | 01/14/18 13:02 | YZ | TAL IRV |
| Total/NA | Analysis | 300.1B | | 10000 | 451611 | 01/14/18 13:38 | YZ | TAL IRV |
| Total/NA | Analysis | 314.0 LL | | 100000 | 451351 | 01/13/18 06:23 | PS | TAL IRV |
| Total/NA | Analysis | 7199 | | 1000 | 451317 | 01/12/18 07:35 | MN | TAL IRV |
| Total Recoverable | Prep | 3005A | | | 451930 | 01/16/18 09:54 | JL | TAL IRV |
| Total Recoverable | Analysis | 6010B | | 5 | 452067 | 01/16/18 18:03 | B1H | TAL IRV |

**Laboratory References:**
TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

# Accreditation/Certification Summary

Client: Tetra Tech, Inc. TestAmerica Job ID: 440-200466-1
Project/Site: NERT VER Treatability Study

## Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|---|---|---|---|---|
| Alaska | State Program | 10 | CA01531 | 06-30-18 |
| Arizona | State Program | 9 | AZ0671 | 10-14-18 |
| California | LA Cty Sanitation Districts | 9 | 10256 | 06-30-18 |
| California | State Program | 9 | CA ELAP 2706 | 06-30-18 |
| Guam | State Program | 9 | Cert. No. 17-003R | 01-23-18 * |
| Hawaii | State Program | 9 | N/A | 01-29-18 * |
| Kansas | NELAP | 7 | E-10420 | 07-31-18 |
| Nevada | State Program | 9 | CA015312018-1 | 07-31-18 |
| New Mexico | State Program | 6 | N/A | 01-29-18 * |
| Northern Mariana Islands | State Program | 9 | MP0002 | 01-29-17 * |
| Oregon | NELAP | 10 | 4028 | 01-29-18 * |
| USDA | Federal | | P330-15-00184 | 07-08-18 |
| Washington | State Program | 10 | C900 | 09-03-18 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Method Summary

Client: Tetra Tech, Inc. TestAmerica Job ID: 440-200466-1
Project/Site: NERT VER Treatability Study

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL IRV |
| 300.1B | Disinfection By-Products, (IC) | EPA | TAL IRV |
| 314.0 LL | Perchlorate (IC) | EPA | TAL IRV |
| 7199 | Chromium, Hexavalent (IC) | SW846 | TAL IRV |
| 6010B | Metals (ICP) | SW846 | TAL IRV |

**Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

# Sample Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-200466-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 440-200466-1 | VER-01I-B-BL | Water | 01/11/18 03:30 | 01/11/18 18:45 |
| 440-200466-2 | Trip Blank | Water | 01/11/18 03:30 | 01/11/18 18:45 |
| 440-200466-3 | Ver-01I-B-12 | Water | 01/11/18 15:30 | 01/11/18 18:45 |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: GCMS09 Analysis Batch Number: 446291

Lab Sample ID: STD05 440-446291/6 IC Client Sample ID:

Date Analyzed: 12/12/17 16:47 Lab File ID: JFL12006.D GC Column: DB-VRX A ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,2,3-Trichloropropane | 11.66 | Unspecified | | |

Lab Sample ID: STD1 440-446291/7 IC Client Sample ID:

Date Analyzed: 12/12/17 17:13 Lab File ID: JFL12007.D GC Column: DB-VRX A ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Vinyl acetate | 6.25 | Unspecified | | |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 445955

Lab Sample ID: STD1 440-445955/3 IC Client Sample ID:

Date Analyzed: 12/11/17 05:47 Lab File ID: 440-0097300-003.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.81 | Baseline Smoothing | zakhrabovy | 12/11/17 06:34 |

Lab Sample ID: STD2 440-445955/4 IC Client Sample ID:

Date Analyzed: 12/11/17 06:24 Lab File ID: 440-0097300-004.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 07:02 |

Lab Sample ID: STD3 440-445955/5 IC Client Sample ID:

Date Analyzed: 12/11/17 07:00 Lab File ID: 440-0097300-005.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 07:39 |

Lab Sample ID: STD4 440-445955/6 IC Client Sample ID:

Date Analyzed: 12/11/17 07:36 Lab File ID: 440-0097300-006.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 08:20 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 445955

Lab Sample ID: STD5 440-445955/7 IC Client Sample ID:

Date Analyzed: 12/11/17 08:12 Lab File ID: 440-0097300-007.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 08:53 |

Lab Sample ID: ICV 440-445955/8 Client Sample ID:

Date Analyzed: 12/11/17 09:01 Lab File ID: 440-0097300-008.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.77 | Baseline Smoothing | zakhrabovy | 12/12/17 03:14 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-8  Analysis Batch Number: 445956

Lab Sample ID: STD1 440-445956/3 IC  Client Sample ID:

Date Analyzed: 12/11/17 05:47  Lab File ID: 440-0097300-003.d  GC Column: AS14  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.52 | Baseline Smoothing | zakhrabovy | 12/11/17 06:34 |

Lab Sample ID: STD2 440-445956/4 IC  Client Sample ID:

Date Analyzed: 12/11/17 06:24  Lab File ID: 440-0097300-004.d  GC Column: AS14  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.51 | Baseline Smoothing | zakhrabovy | 12/11/17 07:02 |

Lab Sample ID: STD3 440-445956/5 IC  Client Sample ID:

Date Analyzed: 12/11/17 07:00  Lab File ID: 440-0097300-005.d  GC Column: AS14  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.51 | Baseline Smoothing | zakhrabovy | 12/11/17 07:39 |

Lab Sample ID: STD4 440-445956/6 IC  Client Sample ID:

Date Analyzed: 12/11/17 07:36  Lab File ID: 440-0097300-006.d  GC Column: AS14  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.52 | Baseline Smoothing | zakhrabovy | 12/11/17 08:20 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 445956

Lab Sample ID: STD5 440-445956/7 IC Client Sample ID:

Date Analyzed: 12/11/17 08:12 Lab File ID: 440-0097300-007.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.52 | Baseline Smoothing | zakhrabovy | 12/11/17 08:53 |

Lab Sample ID: ICV 440-445956/8 Client Sample ID:

Date Analyzed: 12/11/17 09:01 Lab File ID: 440-0097300-008.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.50 | Baseline Smoothing | zakhrabovy | 12/12/17 03:14 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 451306

Lab Sample ID: CCV 440-451306/1 Client Sample ID:

Date Analyzed: 01/12/18 05:42 Lab File ID: 440-0098558-001.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.82 | Baseline Smoothing | zakhrabovy | 01/12/18 06:22 |

Lab Sample ID: CCV 440-451306/13 Client Sample ID:

Date Analyzed: 01/12/18 13:58 Lab File ID: 440-0098558-013.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.72 | Baseline Smoothing | zakhrabovy | 01/13/18 05:44 |

Lab Sample ID: CCV 440-451306/25 Client Sample ID:

Date Analyzed: 01/12/18 21:13 Lab File ID: 440-0098558-025.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.78 | Baseline Smoothing | nguyennt | 01/12/18 23:03 |

Lab Sample ID: CCV 440-451306/37 Client Sample ID:

Date Analyzed: 01/13/18 04:28 Lab File ID: 440-0098558-037.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.83 | Baseline Smoothing | zakhrabovy | 01/13/18 05:47 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 451306

Lab Sample ID: CCV 440-451306/48 Client Sample ID:

Date Analyzed: 01/13/18 11:07 Lab File ID: 440-0098558-048.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.70 | Baseline Smoothing | zakhrabovy | 01/14/18 07:28 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-8  Analysis Batch Number: 451611

Lab Sample ID: CCV 440-451611/1  Client Sample ID:

Date Analyzed: 01/14/18 07:25  Lab File ID: 440-0098639-001.d  GC Column: AS9-HC  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 01/14/18 08:25 |

Lab Sample ID: MRL 440-451611/3  Client Sample ID:

Date Analyzed: 01/14/18 08:38  Lab File ID: 440-0098639-003.d  GC Column: AS9-HC  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorate | 19.50 | Baseline Smoothing | zakhrabovy | 01/14/18 09:24 |

Lab Sample ID: CCV 440-451611/13  Client Sample ID:

Date Analyzed: 01/14/18 14:50  Lab File ID: 440-0098639-013.d  GC Column: AS9-HC  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.68 | Baseline Smoothing | zakhrabovy | 01/15/18 03:52 |

Lab Sample ID: CCV 440-451611/37  Client Sample ID:

Date Analyzed: 01/15/18 05:20  Lab File ID: 440-0098639-037.d  GC Column: AS9-HC  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.79 | Baseline Smoothing | zakhrabovy | 01/15/18 06:03 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 451611

Lab Sample ID: 440-200494-A-1 MS Client Sample ID:

Date Analyzed: 01/15/18 10:30 Lab File ID: 440-0098639-045.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Dichloroacetic acid(Surr) | 14.67 | Baseline Smoothing | zakhrabovy | 01/15/18 11:18 |

Lab Sample ID: CCV 440-451611/48 Client Sample ID:

Date Analyzed: 01/15/18 12:22 Lab File ID: 440-0098639-048.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.67 | Baseline Smoothing | zakhrabovy | 01/16/18 03:27 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 451612

Lab Sample ID: CCV 440-451612/1 Client Sample ID:

Date Analyzed: 01/14/18 07:25 Lab File ID: 440-0098639-001.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.53 | Baseline Smoothing | zakhrabovy | 01/14/18 08:25 |

Lab Sample ID: MRL 440-451612/3 Client Sample ID:

Date Analyzed: 01/14/18 08:38 Lab File ID: 440-0098639-003.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.48 | Baseline Smoothing | zakhrabovy | 01/14/18 09:24 |

Lab Sample ID: LCS 440-451612/4 Client Sample ID:

Date Analyzed: 01/14/18 09:24 Lab File ID: 440-0098639-004.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.45 | Baseline Smoothing | zakhrabovy | 01/15/18 03:49 |

Lab Sample ID: 440-200614-A-1 MS Client Sample ID:

Date Analyzed: 01/14/18 11:13 Lab File ID: 440-0098639-007.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.39 | Baseline Smoothing | zakhrabovy | 01/15/18 03:50 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 451612

Lab Sample ID: 440-200614-A-1 MSD Client Sample ID:

Date Analyzed: 01/14/18 11:49 Lab File ID: 440-0098639-008.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.38 | Baseline Smoothing | zakhrabovy | 01/15/18 03:51 |
| Dichloroacetic acid(Surr) | 14.54 | Baseline Smoothing | zakhrabovy | 01/15/18 03:51 |

Lab Sample ID: CCV 440-451612/13 Client Sample ID:

Date Analyzed: 01/14/18 14:50 Lab File ID: 440-0098639-013.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.48 | Baseline Smoothing | zakhrabovy | 01/15/18 03:52 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-25 Analysis Batch Number: 451351

Lab Sample ID: CCV 440-451351/26 Client Sample ID:

Date Analyzed: 01/12/18 17:44 Lab File ID: 440-0098571-026_26_ECD_1. GC Column: AS16 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 12.38 | Incomplete Integration | hoangch | 01/12/18 18:08 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-16 Analysis Batch Number: 432478

Lab Sample ID: STD2 440-432478/4 IC Client Sample ID:

Date Analyzed: 10/02/17 13:01 Lab File ID: Info 2_TAIIRV0066_Hex Chr GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 7.53 | Incomplete Integration | nickloffn | 10/02/17 13:25 |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **ME HCl_00393** | 12/12/18 | Avantor Performance Materials, INc., Lot 0000183197 | | | (Purchased Reagent) | | Stock Chemical | 100 % |
| **ME HNO3_00412** | 01/12/19 | Macron Fine Chemicals, Lot 0000185595 | | | (Purchased Reagent) | | Stock Chemical | 1 % |
| **ME ICP 2X RL_00052** | 01/17/18 | 01/16/18 | 2%HNO3/2%HCl, Lot 211065110 | 100 mL | ME ICP STD3_01845 | 2 mL | Chromium | 0.01 ug/mL |
| .ME ICP STD3_01845 | 01/17/18 | 01/16/18 | 1%HNO3/2%HCL, Lot 211065110 | 100 mL | Custom mix A_00001 | 1 mL | Chromium | 0.5 ug/mL |
| ..Custom mix A_00001 | 10/26/20 | INORGANIC VENTURES, Lot M2-MEB662656 | | | (Purchased Reagent) | | Chromium | 50 mg/L |
| **ME ICP ICV2_01763** | 01/17/18 | 01/16/18 | 1%HNO3/2%HCl, Lot N/A | 50 mL | ME ICP SPKE A_00029 | 0.5 mL | Chromium | 1 mg/L |
| .ME ICP SPKE A_00029 | 03/30/18 | ACCUSTANDARD, Lot 216035030 | | | (Purchased Reagent) | | Chromium | 100 ug/mL |
| **ME ICP IFA_01789** | 01/17/18 | 01/16/18 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Al | 600 mg/L |
| | | | | | | | Ca | 600 mg/L |
| | | | | | | | Fe | 600 mg/L |
| | | | | | | | Mg | 600 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | o2si, Lot 10064997-1 | | | (Purchased Reagent) | | Al | 6000 mg/L |
| | | | | | | | Ca | 6000 mg/L |
| | | | | | | | Fe | 6000 mg/L |
| | | | | | | | Mg | 6000 mg/L |
| **ME ICP IFB_01808** | 01/17/18 | 01/16/18 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Al | 600.5 mg/L |
| | | | | | | | Ca | 602.5 mg/L |
| | | | | | | | Fe | 600.5 mg/L |
| | | | | | | | Mg | 602.5 mg/L |
| | | | | | ME ICP2 ICV1A_00051 | 0.25 mL | Ag | 0.25 mg/L |
| | | | | | | | Al | 600.5 mg/L |
| | | | | | | | As | 0.5 mg/L |
| | | | | | | | B | 0.5 mg/L |
| | | | | | | | Ba | 0.5 mg/L |
| | | | | | | | Be | 0.5 mg/L |
| | | | | | | | Ca | 602.5 mg/L |
| | | | | | | | Cd | 0.5 mg/L |
| | | | | | | | Chromium | 0.5 mg/L |
| | | | | | | | Co | 0.5 mg/L |
| | | | | | | | Cu | 0.5 mg/L |
| | | | | | | | Fe | 600.5 mg/L |
| | | | | | | | K | 10 mg/L |
| | | | | | | | Li | 0.5 mg/L |
| | | | | | | | Mg | 602.5 mg/L |
| | | | | | | | Mn | 0.5 mg/L |
| | | | | | | | Na | 10 mg/L |
| | | | | | | | Ni | 0.5 mg/L |
| | | | | | | | P | 0.5 mg/L |
| | | | | | | | Pb | 0.5 mg/L |
| | | | | | | | Se | 0.5 mg/L |
| | | | | | | | Sr | 0.5 mg/L |
| | | | | | | | Tl | 0.5 mg/L |
| | | | | | | | V | 0.5 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Zn | 0.5 mg/L |
| | | | | | ME ICP2 ICV1B_00045 | 0.25 mL | Mo | 0.5 mg/L |
| | | | | | | | Sb | 0.5 mg/L |
| | | | | | | | Si | 2.5 mg/L |
| | | | | | | | Sn | 0.5 mg/L |
| | | | | | | | Ti | 0.5 mg/L |
| | | | | | | | W | 0.5 mg/L |
| | | | | | | | Zr | 0.5 mg/L |
| | | | | | ME K_00007 | 0.25 mL | K | 10 mg/L |
| | | | | | ME Na_00010 | 0.25 mL | Na | 10 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | o2si, Lot 10064997-1 | | | (Purchased Reagent) | | Al | 6000 mg/L |
| | | | | | | | Ca | 6000 mg/L |
| | | | | | | | Fe | 6000 mg/L |
| | | | | | | | Mg | 6000 mg/L |
| .ME ICP2 ICV1A_00051 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662245 | | | (Purchased Reagent) | | Ag | 50 mg/L |
| | | | | | | | Al | 100 mg/L |
| | | | | | | | As | 100 mg/L |
| | | | | | | | B | 100 mg/L |
| | | | | | | | Ba | 100 mg/L |
| | | | | | | | Be | 100 mg/L |
| | | | | | | | Ca | 500 mg/L |
| | | | | | | | Cd | 100 mg/L |
| | | | | | | | Chromium | 100 mg/L |
| | | | | | | | Co | 100 mg/L |
| | | | | | | | Cu | 100 mg/L |
| | | | | | | | Fe | 100 mg/L |
| | | | | | | | K | 1000 mg/L |
| | | | | | | | Li | 100 mg/L |
| | | | | | | | Mg | 500 mg/L |
| | | | | | | | Mn | 100 mg/L |
| | | | | | | | Na | 1000 mg/L |
| | | | | | | | Ni | 100 mg/L |
| | | | | | | | P | 100 mg/L |
| | | | | | | | Pb | 100 mg/L |
| | | | | | | | Se | 100 mg/L |
| | | | | | | | Sr | 100 mg/L |
| | | | | | | | Tl | 100 mg/L |
| | | | | | | | V | 100 mg/L |
| | | | | | | | Zn | 100 mg/L |
| .ME ICP2 ICV1B_00045 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662246 | | | (Purchased Reagent) | | Mo | 100 mg/L |
| | | | | | | | Sb | 100 mg/L |
| | | | | | | | Si | 500 mg/L |
| | | | | | | | Sn | 100 mg/L |
| | | | | | | | Ti | 100 mg/L |
| | | | | | | | W | 100 mg/L |
| | | | | | | | Zr | 100 mg/L |
| .ME K_00007 | 08/17/18 | O2SI, Lot 1103100 | | | (Purchased Reagent) | | K | 1000 mg/L |
| .ME Na_00010 | 08/17/18 | O2SI, Lot 1103103 | | | (Purchased Reagent) | | Na | 1000 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **ME ICP STD3_01844** | 01/17/18 | 01/16/18 | 1%HNO3/2%HCL, Lot 211065110 | 100 mL | ME ICP2 ICV1A_00051 | 1 mL | Chromium | 1 ug/mL |
| .ME ICP2 ICV1A_00051 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662245 | | | (Purchased Reagent) | | Chromium | 100 mg/L |
| | | | | | | | Ag | 50 mg/L |
| | | | | | | | Al | 100 mg/L |
| | | | | | | | As | 100 mg/L |
| | | | | | | | B | 100 mg/L |
| | | | | | | | Ba | 100 mg/L |
| | | | | | | | Be | 100 mg/L |
| | | | | | | | Ca | 500 mg/L |
| | | | | | | | Cd | 100 mg/L |
| | | | | | | | Chromium | 100 mg/L |
| | | | | | | | Co | 100 mg/L |
| | | | | | | | Cu | 100 mg/L |
| | | | | | | | Fe | 100 mg/L |
| | | | | | | | K | 1000 mg/L |
| | | | | | | | Li | 100 mg/L |
| | | | | | | | Mg | 500 mg/L |
| | | | | | | | Mn | 100 mg/L |
| | | | | | | | Na | 1000 mg/L |
| | | | | | | | Ni | 100 mg/L |
| | | | | | | | P | 100 mg/L |
| | | | | | | | Pb | 100 mg/L |
| | | | | | | | Se | 100 mg/L |
| | | | | | | | Sr | 100 mg/L |
| | | | | | | | Tl | 100 mg/L |
| | | | | | | | V | 100 mg/L |
| | | | | | | | Zn | 100 mg/L |
| **ME ICP2 ICV1B_00045** | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662246 | | | (Purchased Reagent) | | Mo | 100 mg/L |
| | | | | | | | Sb | 100 mg/L |
| | | | | | | | Si | 500 mg/L |
| | | | | | | | SiO2 | 1071.15 mg/L |
| | | | | | | | Sn | 100 mg/L |
| | | | | | | | Ti | 100 mg/L |
| | | | | | | | W | 100 mg/L |
| | | | | | | | Zr | 100 mg/L |
| **VMW8260TUNE1_00412** | | | | | | | 1,2-Dichloroethene, Total | |
| | | | | | | | 1,3-Dichloropropene, Total | |
| | | | | | | | Tentatively Identified Compound | |
| | | | | | | | Total Volatile Organic Compounds | |
| | | | | | | | Trihalomethanes, Total | |
| | | | | | | | Xylenes, Total | |
| | | | | | VMA8260BFB1_00040 | 10 uL | BFB | 25 ug/mL |
| .VMA8260BFB1_00040 | 06/08/18 | Absolute Standards, Lot 112514 | | | (Purchased Reagent) | | BFB | 2500 ug/mL |
| **VMW8260TUNE1_00415** | | | | | | | 1,2-Dichloroethene, Total | |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,3-Dichloropropene, Total | |
| | | | | | | | Tentatively Identified Compound | |
| | | | | | | | Total Volatile Organic Compounds | |
| | | | | | | | Trihalomethanes, Total | |
| | | | | | | | Xylenes, Total | |
| | | | | | VMA8260BFB1_00040 | 10 uL | BFB | 25 ug/mL |
| .VMA8260BFB1_00040 | 06/08/18 | Absolute Standards, Lot 112514 | | | (Purchased Reagent) | | BFB | 2500 ug/mL |
| **VMWNU8260002_00489** | 12/12/17 | 12/05/17 | Methanol, Lot 4506063 | 1 mL | VMWNU8260200_00173 | 10 uL | 2-Chloroethyl vinyl ether | 2 ug/mL |
| | | | | | | | Bromomethane | 2 ug/mL |
| | | | | | | | Butadiene | 2 ug/mL |
| | | | | | | | Chloroethane | 2 ug/mL |
| | | | | | | | Chloromethane | 2 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2 ug/mL |
| | | | | | | | Vinyl chloride | 2 ug/mL |
| | | | | | | | 2-Butanone (MEK) | 2 ug/mL |
| | | | | | | | 2-Hexanone | 2 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 2 ug/mL |
| | | | | | | | Acetone | 2 ug/mL |
| | | | | | | | 1,1,1,2-Tetrachloroethane | 2 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Acrylonitrile | 20 ug/mL |
| | | | | | | | Benzene | 2 ug/mL |
| | | | | | | | Bromobenzene | 2 ug/mL |
| | | | | | | | Bromochloromethane | 2 ug/mL |
| | | | | | | | Bromodichloromethane | 2 ug/mL |
| | | | | | | | Bromoform | 2 ug/mL |
| | | | | | | | Carbon disulfide | 2 ug/mL |
| | | | | | | | Carbon tetrachloride | 2 ug/mL |
| | | | | | | | Chlorobenzene | 2 ug/mL |
| | | | | | | | Chloroform | 2 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2 ug/mL |
| | | | | | | | Cyclohexane | 2 ug/mL |
| | | | | | | | Dibromochloromethane | 2 ug/mL |
| | | | | | | | Dibromomethane | 2 ug/mL |
| | | | | | | | Ethyl ether | 2 ug/mL |
| | | | | | | | Ethyl methacrylate | 2 ug/mL |
| | | | | | | | Ethylbenzene | 2 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2 ug/mL |
| | | | | | | | Hexane | 2 ug/mL |
| | | | | | | | Iodomethane | 2 ug/mL |
| | | | | | | | Isobutyl alcohol | 50 ug/mL |
| | | | | | | | Isopropylbenzene | 2 ug/mL |
| | | | | | | | m,p-Xylene | 2 ug/mL |
| | | | | | | | Methyl acetate | 10 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2 ug/mL |
| | | | | | | | Methylcyclohexane | 2 ug/mL |
| | | | | | | | Methylene Chloride | 2 ug/mL |
| | | | | | | | n-Butylbenzene | 2 ug/mL |
| | | | | | | | n-Heptane | 2 ug/mL |
| | | | | | | | N-Propylbenzene | 2 ug/mL |
| | | | | | | | Naphthalene | 2 ug/mL |
| | | | | | | | o-Xylene | 2 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2 ug/mL |
| | | | | | | | sec-Butylbenzene | 2 ug/mL |
| | | | | | | | Styrene | 2 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 20 ug/mL |
| | | | | | | | tert-Butylbenzene | 2 ug/mL |
| | | | | | | | Tetrachloroethene | 2 ug/mL |
| | | | | | | | Tetrahydrofuran | 4 ug/mL |
| | | | | | | | Toluene | 2 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2 ug/mL |
| | | | | | | | Trichloroethene | 2 ug/mL |
| | | | | | | | Vinyl acetate | 2 ug/mL |
| | | | | | | | Ethanol | 100 ug/mL |
| | | | | | | | Acetonitrile | 20 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2 ug/mL |
| | | | | | | | Propionitrile | 20 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2 ug/mL |
| | | | | | | | Acrolein | 2 ug/mL |
| .VMWNU8260200_00173 | 12/12/17 | 12/05/17 | Methanol, Lot 4506063 | 1 mL | VMA1582602CV1_00028 | 80 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |
| | | | | | VMA158260GAS1_00207 | 80 uL | Bromomethane | 200 ug/mL |
| | | | | | | | Butadiene | 200 ug/mL |
| | | | | | | | Chloroethane | 200 ug/mL |
| | | | | | | | Chloromethane | 200 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 200 ug/mL |
| | | | | | | | Dichlorofluoromethane | 200 ug/mL |
| | | | | | | | Trichlorofluoromethane | 200 ug/mL |
| | | | | | | | Vinyl chloride | 200 ug/mL |
| | | | | | VMA158260KET1_00042 | 16 uL | 2-Butanone (MEK) | 200 ug/mL |
| | | | | | | | 2-Hexanone | 200 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 200 ug/mL |
| | | | | | | | Acetone | 200 ug/mL |
| | | | | | VMA158260MEG1_00042 | 80 uL | 1,1,1,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 200 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 200 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 200 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 200 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 2-Chlorotoluene | 200 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 200 ug/mL |
| | | | | | | | 4-Chlorotoluene | 200 ug/mL |
| | | | | | | | Acrylonitrile | 2000 ug/mL |
| | | | | | | | Benzene | 200 ug/mL |
| | | | | | | | Bromobenzene | 200 ug/mL |
| | | | | | | | Bromochloromethane | 200 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Bromodichloromethane | 200 ug/mL |
| | | | | | | | Bromoform | 200 ug/mL |
| | | | | | | | Carbon disulfide | 200 ug/mL |
| | | | | | | | Carbon tetrachloride | 200 ug/mL |
| | | | | | | | Chlorobenzene | 200 ug/mL |
| | | | | | | | Chloroform | 200 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | Cyclohexane | 200 ug/mL |
| | | | | | | | Dibromochloromethane | 200 ug/mL |
| | | | | | | | Dibromomethane | 200 ug/mL |
| | | | | | | | Ethyl ether | 200 ug/mL |
| | | | | | | | Ethyl methacrylate | 200 ug/mL |
| | | | | | | | Ethylbenzene | 200 ug/mL |
| | | | | | | | Hexachlorobutadiene | 200 ug/mL |
| | | | | | | | Hexane | 200 ug/mL |
| | | | | | | | Iodomethane | 200 ug/mL |
| | | | | | | | Isobutyl alcohol | 5000 ug/mL |
| | | | | | | | Isopropylbenzene | 200 ug/mL |
| | | | | | | | m,p-Xylene | 200 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 200 ug/mL |
| | | | | | | | Methylcyclohexane | 200 ug/mL |
| | | | | | | | Methylene Chloride | 200 ug/mL |
| | | | | | | | n-Butylbenzene | 200 ug/mL |
| | | | | | | | n-Heptane | 200 ug/mL |
| | | | | | | | N-Propylbenzene | 200 ug/mL |
| | | | | | | | Naphthalene | 200 ug/mL |
| | | | | | | | o-Xylene | 200 ug/mL |
| | | | | | | | p-Isopropyltoluene | 200 ug/mL |
| | | | | | | | sec-Butylbenzene | 200 ug/mL |
| | | | | | | | Styrene | 200 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 2000 ug/mL |
| | | | | | | | tert-Butylbenzene | 200 ug/mL |
| | | | | | | | Tetrachloroethene | 200 ug/mL |
| | | | | | | | Tetrahydrofuran | 400 ug/mL |
| | | | | | | | Toluene | 200 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 200 ug/mL |
| | | | | | | | Trichloroethene | 200 ug/mL |
| | | | | | VMA158260VA1_00045 | 40 uL | Vinyl acetate | 200 ug/mL |
| | | | | | VMA178260ETH1_00008 | 100 uL | Ethanol | 10000 ug/mL |
| | | | | | VMA178260POL1_00008 | 80 uL | Acetonitrile | 2000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 200 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 200 ug/mL |
| | | | | | | | Propionitrile | 2000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | VMANU8260ACR1_00101 | 10 uL | Acrolein | 200 ug/mL |
| ..VMA1582602CV1_00028 | 06/04/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| ..VMA158260GAS1_00207 | 06/05/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| ..VMA158260KET1_00042 | 06/04/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| ..VMA158260MEG1_00042 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| ..VMA158260VA1_00045 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| ..VMA178260ETH1_00008 | 06/04/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| ..VMA178260POL1_00008 | 06/04/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| ..VMANU8260ACR1_00101 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260200_00173** | 12/12/17 | 12/05/17 | Methanol, Lot 4506063 | 1 mL | VMA1582602CV1_00028 | 80 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |
| | | | | | VMA158260GAS1_00207 | 80 uL | Bromomethane | 200 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Butadiene | 200 ug/mL |
| | | | | | | | Chloroethane | 200 ug/mL |
| | | | | | | | Chloromethane | 200 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 200 ug/mL |
| | | | | | | | Dichlorofluoromethane | 200 ug/mL |
| | | | | | | | Trichlorofluoromethane | 200 ug/mL |
| | | | | | | | Vinyl chloride | 200 ug/mL |
| | | | | | VMA158260KET1_00042 | 16 uL | 2-Butanone (MEK) | 200 ug/mL |
| | | | | | | | 2-Hexanone | 200 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 200 ug/mL |
| | | | | | | | Acetone | 200 ug/mL |
| | | | | | VMA158260MEG1_00042 | 80 uL | 1,1,1,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 200 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 200 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 200 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 200 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 2-Chlorotoluene | 200 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 200 ug/mL |
| | | | | | | | 4-Chlorotoluene | 200 ug/mL |
| | | | | | | | Acrylonitrile | 2000 ug/mL |
| | | | | | | | Benzene | 200 ug/mL |
| | | | | | | | Bromobenzene | 200 ug/mL |
| | | | | | | | Bromochloromethane | 200 ug/mL |
| | | | | | | | Bromodichloromethane | 200 ug/mL |
| | | | | | | | Bromoform | 200 ug/mL |
| | | | | | | | Carbon disulfide | 200 ug/mL |
| | | | | | | | Carbon tetrachloride | 200 ug/mL |
| | | | | | | | Chlorobenzene | 200 ug/mL |
| | | | | | | | Chloroform | 200 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | cis-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | Cyclohexane | 200 ug/mL |
| | | | | | | | Dibromochloromethane | 200 ug/mL |
| | | | | | | | Dibromomethane | 200 ug/mL |
| | | | | | | | Ethyl ether | 200 ug/mL |
| | | | | | | | Ethyl methacrylate | 200 ug/mL |
| | | | | | | | Ethylbenzene | 200 ug/mL |
| | | | | | | | Hexachlorobutadiene | 200 ug/mL |
| | | | | | | | Hexane | 200 ug/mL |
| | | | | | | | Iodomethane | 200 ug/mL |
| | | | | | | | Isobutyl alcohol | 5000 ug/mL |
| | | | | | | | Isopropylbenzene | 200 ug/mL |
| | | | | | | | m,p-Xylene | 200 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 200 ug/mL |
| | | | | | | | Methylcyclohexane | 200 ug/mL |
| | | | | | | | Methylene Chloride | 200 ug/mL |
| | | | | | | | n-Butylbenzene | 200 ug/mL |
| | | | | | | | n-Heptane | 200 ug/mL |
| | | | | | | | N-Propylbenzene | 200 ug/mL |
| | | | | | | | Naphthalene | 200 ug/mL |
| | | | | | | | o-Xylene | 200 ug/mL |
| | | | | | | | p-Isopropyltoluene | 200 ug/mL |
| | | | | | | | sec-Butylbenzene | 200 ug/mL |
| | | | | | | | Styrene | 200 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 2000 ug/mL |
| | | | | | | | tert-Butylbenzene | 200 ug/mL |
| | | | | | | | Tetrachloroethene | 200 ug/mL |
| | | | | | | | Tetrahydrofuran | 400 ug/mL |
| | | | | | | | Toluene | 200 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 200 ug/mL |
| | | | | | | | Trichloroethene | 200 ug/mL |
| | | | | | VMA158260VA1_00045 | 40 uL | Vinyl acetate | 200 ug/mL |
| | | | | | VMA178260ETH1_00008 | 100 uL | Ethanol | 10000 ug/mL |
| | | | | | VMA178260POL1_00008 | 80 uL | Acetonitrile | 2000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 200 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 200 ug/mL |
| | | | | | | | Propionitrile | 2000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 200 ug/mL |
| | | | | | VMANU8260ACR1_00101 | 10 uL | Acrolein | 200 ug/mL |
| .VMA1582602CV1_00028 | 06/04/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| .VMA158260GAS1_00207 | 06/05/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00042 | 06/04/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00042 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA158260VA1_00045 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| .VMA178260ETH1_00008 | 06/04/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| .VMA178260POL1_00008 | 06/04/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| .VMANU8260ACR1_00101 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260CCV1_00850** | 12/12/17 | 12/05/17 | Methanol, Lot 4506063 | 1 mL | VMA1582602CV1_00028 | 20 uL | 2-Chloroethyl vinyl ether | 50 ug/mL |
| | | | | | VMA158260GAS1_00207 | 20 uL | Bromomethane | 50 ug/mL |
| | | | | | | | Butadiene | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 50 ug/mL |
| | | | | | | | Dichlorofluoromethane | 50 ug/mL |
| | | | | | | | Trichlorofluoromethane | 50 ug/mL |
| | | | | | | | Vinyl chloride | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | VMA158260KET1_00042 | 4 uL | 2-Butanone (MEK) | 50 ug/mL |
| | | | | | | | 2-Hexanone | 50 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ug/mL |
| | | | | | | | Acetone | 50 ug/mL |
| | | | | | VMA158260MEG1_00042 | 20 uL | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | Acrylonitrile | 500 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromochloromethane | 50 ug/mL |
| | | | | | | | Bromodichloromethane | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon disulfide | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Cyclohexane | 50 ug/mL |
| | | | | | | | Dibromochloromethane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Ethyl ether | 50 ug/mL |
| | | | | | | | Ethyl methacrylate | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Hexane | 50 ug/mL |
| | | | | | | | Iodomethane | 50 ug/mL |
| | | | | | | | Isobutyl alcohol | 1250 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m,p-Xylene | 50 ug/mL |
| | | | | | | | Methyl acetate | 250 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ug/mL |
| | | | | | | | Methylcyclohexane | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | n-Heptane | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | p-Isopropyltoluene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Tetrahydrofuran | 100 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | VMA158260VA1_00045 | 8 uL | Vinyl acetate | 40 ug/mL |
| | | | | | VMA178260ETH1_00008 | 20 uL | Ethanol | 2000 ug/mL |
| | | | | | VMA178260POL1_00008 | 20 uL | Acetonitrile | 500 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 50 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ug/mL |
| | | | | | | | Propionitrile | 500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ug/mL |
| | | | | | VMANU8260ACR1_00101 | 2.5 uL | Acrolein | 50 ug/mL |
| .VMA1582602CV1_00028 | 06/04/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| .VMA158260GAS1_00207 | 06/05/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00042 | 06/04/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .VMA158260MEG1_00042 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA158260VA1_00045 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| .VMA178260ETH1_00008 | 06/04/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| .VMA178260POL1_00008 | 06/04/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| .VMANU8260ACR1_00101 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260CCV1_00876** | 01/16/18 | 01/09/18 | Methanol, Lot 4555167 | 1 mL | VMA158260GAS1_00211 | 20 uL | Bromomethane | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 50 ug/mL |
| | | | | | | | Trichlorofluoromethane | 50 ug/mL |
| | | | | | | | Vinyl chloride | 50 ug/mL |
| | | | | | VMA158260KET1_00046 | 4 uL | 2-Butanone (MEK) | 50 ug/mL |
| | | | | | | | 2-Hexanone | 50 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ug/mL |
| | | | | | | | Acetone | 50 ug/mL |
| | | | | | VMA158260MEG1_00043 | 20 uL | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromochloromethane | 50 ug/mL |
| | | | | | | | Bromodichloromethane | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Dibromochloromethane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m,p-Xylene | 50 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | p-Isopropyltoluene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | VMA178260POL1_00009 | 20 uL | Ethyl-t-butyl ether (ETBE) | 50 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ug/mL |
| .VMA158260GAS1_00211 | 07/09/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00046 | 06/26/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00043 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL1_00009 | 06/26/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNU8260IS_00172** | 12/28/17 | 11/28/17 | Methanol, Lot 4506064 | 1 mL | VMANU8260ISD1_00185 | 20 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00201 | 25 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00185 | 05/09/18 | | Restek, Lot A0128916 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00201 | 05/09/18 | | Restek, Lot A0128685 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00132** | 12/21/17 | 11/21/17 | Methanol, Lot 4506056 | 40 mL | VMANU8260ISD1_00184 | 800 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00189 | 1000 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00184 | 05/21/18 | | Restek, Lot A0128916 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00189 | 05/08/18 | | Restek, Lot A0123820 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00132** | 12/21/17 | 11/21/17 | Methanol, Lot 4506056 | 40 mL | VMANU8260SUR2_00036 | 800 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR2_00036 | 05/08/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNU8260ISS_00136** | 02/09/18 | 01/09/18 | Methanol, Lot 4555167 | 40 mL | VMANU8260ISD1_00190 | 800 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00203 | 1000 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00190 | 07/09/18 | | Restek, Lot A0128916 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00203 | 07/09/18 | | Restek, Lot A0128685 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00136** | 02/09/18 | 01/09/18 | Methanol, Lot 4555167 | 40 mL | VMANU8260SUR2_00036 | 800 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR2_00036 | 05/08/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNU8260LCS2_00168** | 12/13/17 | 12/06/17 | Methanol, Lot 4506063 | 10 mL | VMA158260GAS2_00222 | 200 uL | Bromomethane | 50 ppm |
| | | | | | | | Chloroethane | 50 ppm |
| | | | | | | | Chloromethane | 50 ppm |
| | | | | | | | Dichlorodifluoromethane | 50 ppm |
| | | | | | | | Trichlorofluoromethane | 50 ppm |
| | | | | | | | Vinyl chloride | 50 ppm |
| | | | | | VMA158260KET2_00041 | 40 uL | 2-Butanone (MEK) | 50 ppm |
| | | | | | | | 2-Hexanone | 50 ppm |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ppm |
| | | | | | | | Acetone | 50 ppm |
| | | | | | VMA158260MEG2_00052 | 200 uL | 1,1,1,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,1-Trichloroethane | 50 ppm |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,2-Trichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethene | 50 ppm |
| | | | | | | | 1,1-Dichloropropene | 50 ppm |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,3-Trichloropropane | 50 ppm |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ppm |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ppm |
| | | | | | | | 1,2-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,2-Dichloroethane | 50 ppm |
| | | | | | | | 1,2-Dichloropropane | 50 ppm |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,3-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,3-Dichloropropane | 50 ppm |
| | | | | | | | 1,4-Dichlorobenzene | 50 ppm |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 2,2-Dichloropropane | 50 ppm |
| | | | | | | | 2-Chlorotoluene | 50 ppm |
| | | | | | | | 4-Chlorotoluene | 50 ppm |
| | | | | | | | Benzene | 50 ppm |
| | | | | | | | Bromobenzene | 50 ppm |
| | | | | | | | Bromochloromethane | 50 ppm |
| | | | | | | | Bromodichloromethane | 50 ppm |
| | | | | | | | Bromoform | 50 ppm |
| | | | | | | | Carbon tetrachloride | 50 ppm |
| | | | | | | | Chlorobenzene | 50 ppm |
| | | | | | | | Chloroform | 50 ppm |
| | | | | | | | cis-1,2-Dichloroethene | 50 ppm |
| | | | | | | | cis-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Dibromochloromethane | 50 ppm |
| | | | | | | | Dibromomethane | 50 ppm |
| | | | | | | | Ethylbenzene | 50 ppm |
| | | | | | | | Hexachlorobutadiene | 50 ppm |
| | | | | | | | Isopropylbenzene | 50 ppm |
| | | | | | | | m,p-Xylene | 50 ppm |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ppm |
| | | | | | | | Methylene Chloride | 50 ppm |
| | | | | | | | n-Butylbenzene | 50 ppm |
| | | | | | | | N-Propylbenzene | 50 ppm |
| | | | | | | | Naphthalene | 50 ppm |
| | | | | | | | o-Xylene | 50 ppm |
| | | | | | | | p-Isopropyltoluene | 50 ppm |
| | | | | | | | sec-Butylbenzene | 50 ppm |
| | | | | | | | Styrene | 50 ppm |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ppm |
| | | | | | | | tert-Butylbenzene | 50 ppm |
| | | | | | | | Tetrachloroethene | 50 ppm |
| | | | | | | | Toluene | 50 ppm |
| | | | | | | | trans-1,2-Dichloroethene | 50 ppm |
| | | | | | | | trans-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Trichloroethene | 50 ppm |
| | | | | | VMA178260POL2_00010 | 200 uL | Ethyl-t-butyl ether (ETBE) | 50 ppm |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ppm |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ppm |
| .VMA158260GAS2_00222 | 06/06/18 | | Restek, Lot A0128832 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET2_00041 | 05/29/18 | | Restek, Lot A0123880 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .VMA158260MEG2_00052 | 05/29/18 | | Restek, Lot A0120604 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL2_00010 | 05/29/18 | Restek, Lot A0126826 | | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNU8260LCS2_00173** | 01/17/18 | 01/10/18 | Methanol, Lot 4555167 | 10 mL | VMA158260GAS2_00230 | 200 uL | Bromomethane | 50 ppm |
| | | | | | | | Chloroethane | 50 ppm |
| | | | | | | | Chloromethane | 50 ppm |
| | | | | | | | Dichlorodifluoromethane | 50 ppm |
| | | | | | | | Trichlorofluoromethane | 50 ppm |
| | | | | | | | Vinyl chloride | 50 ppm |
| | | | | | VMA158260KET2_00042 | 40 uL | 2-Butanone (MEK) | 50 ppm |
| | | | | | | | 2-Hexanone | 50 ppm |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ppm |
| | | | | | | | Acetone | 50 ppm |
| | | | | | VMA158260MEG2_00053 | 200 uL | 1,1,1,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,1-Trichloroethane | 50 ppm |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,2-Trichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethene | 50 ppm |
| | | | | | | | 1,1-Dichloropropene | 50 ppm |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,3-Trichloropropane | 50 ppm |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ppm |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ppm |
| | | | | | | | 1,2-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,2-Dichloroethane | 50 ppm |
| | | | | | | | 1,2-Dichloropropane | 50 ppm |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,3-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,3-Dichloropropane | 50 ppm |
| | | | | | | | 1,4-Dichlorobenzene | 50 ppm |
| | | | | | | | 2,2-Dichloropropane | 50 ppm |
| | | | | | | | 2-Chlorotoluene | 50 ppm |
| | | | | | | | 4-Chlorotoluene | 50 ppm |
| | | | | | | | Benzene | 50 ppm |
| | | | | | | | Bromobenzene | 50 ppm |
| | | | | | | | Bromochloromethane | 50 ppm |
| | | | | | | | Bromodichloromethane | 50 ppm |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Bromoform | 50 ppm |
| | | | | | | | Carbon tetrachloride | 50 ppm |
| | | | | | | | Chlorobenzene | 50 ppm |
| | | | | | | | Chloroform | 50 ppm |
| | | | | | | | cis-1,2-Dichloroethene | 50 ppm |
| | | | | | | | cis-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Dibromochloromethane | 50 ppm |
| | | | | | | | Dibromomethane | 50 ppm |
| | | | | | | | Ethylbenzene | 50 ppm |
| | | | | | | | Hexachlorobutadiene | 50 ppm |
| | | | | | | | Isopropylbenzene | 50 ppm |
| | | | | | | | m,p-Xylene | 50 ppm |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ppm |
| | | | | | | | Methylene Chloride | 50 ppm |
| | | | | | | | n-Butylbenzene | 50 ppm |
| | | | | | | | N-Propylbenzene | 50 ppm |
| | | | | | | | Naphthalene | 50 ppm |
| | | | | | | | o-Xylene | 50 ppm |
| | | | | | | | p-Isopropyltoluene | 50 ppm |
| | | | | | | | sec-Butylbenzene | 50 ppm |
| | | | | | | | Styrene | 50 ppm |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ppm |
| | | | | | | | tert-Butylbenzene | 50 ppm |
| | | | | | | | Tetrachloroethene | 50 ppm |
| | | | | | | | Toluene | 50 ppm |
| | | | | | | | trans-1,2-Dichloroethene | 50 ppm |
| | | | | | | | trans-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Trichloroethene | 50 ppm |
| | | | | | VMA178260POL2_00011 | 200 uL | Ethyl-t-butyl ether (ETBE) | 50 ppm |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ppm |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ppm |
| .VMA158260GAS2_00230 | 07/10/18 | | Restek, Lot A0128832 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET2_00042 | 06/27/18 | | Restek, Lot A0123880 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG2_00053 | 06/27/18 | | Restek, Lot A0120604 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .VMA178260POL2_00011 | 06/27/18 | | Restek, Lot A0126826 | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNUSURR200_00171** | 01/05/18 | 12/05/17 | Methanol, Lot 4506063 | 1 mL | VMANU8260SUR1_00064 | 80 uL | 1,2-Dichloroethane-d4 (Surr) | 200 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 200 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 200 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 200 ug/mL |
| .VMANU8260SUR1_00064 | 05/28/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNUSURR50_00171** | 01/05/18 | 12/05/17 | Methanol, Lot 4506063 | 1 mL | VMANU8260SUR1_00064 | 20 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR1_00064 | 05/28/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **WC3001ICV_00036** | 05/31/18 | 12/08/17 | Di Water, Lot 20171208 | 100 mL | WC2CHLORATE_00004 | 0.4 mL | Chlorate | 4.004 mg/L |
| | | | | | WC2CHLORITE_00019 | 0.4 mL | Chlorite | 4 mg/L |
| .WC2CHLORATE_00004 | 11/30/20 | | Ultra Scientific, Lot CP-5286 | | (Purchased Reagent) | | Chlorate | 1001 mg/L |
| .WC2CHLORITE_00019 | 05/31/18 | | Ultra Scientific, Lot CR-24923 | | (Purchased Reagent) | | Chlorite | 1000 mg/L |
| **WC3001LCS_00059** | 06/08/18 | 12/08/17 | Di Water, Lot 20171208 | 100 mL | WC1BROMATE_00008 | 0.1 mL | Bromate | 1 mg/L |
| | | | | | WC1CHLORATE_00009 | 0.4 mL | Chlorate | 4 mg/L |
| | | | | | WC1CHLORITE_00008 | 0.4 mL | Chlorite | 4 mg/L |
| | | | | | wcbromide_00014 | 0.1 mL | Bromide | 10 mg/L |
| .WC1BROMATE_00008 | 01/01/19 | | O2Si, Lot 131599-4 | | (Purchased Reagent) | | Bromate | 1000 mg/L |
| .WC1CHLORATE_00009 | 01/01/19 | | O2Si, Lot 142627-2 | | (Purchased Reagent) | | Chlorate | 1000 mg/L |
| .WC1CHLORITE_00008 | 11/27/19 | | O2Si, Lot 146667-16 | | (Purchased Reagent) | | Chlorite | 1000 mg/L |
| .wcbromide_00014 | 09/28/18 | | Hgh Purity Standards, Lot 1615819 | | (Purchased Reagent) | | Bromide | 10000 ug/mL |
| **WC314.INF10_00017** | 01/13/18 | 01/12/18 | DI water, Lot 20180112 | 50 mL | WCCLO41st-10_00013 | 0.05 mL | Perchlorate | 10 ppb |
| .WCCLO41st-10_00013 | 01/29/18 | 11/30/17 | Di Water, Lot 20171130 | 100 mL | WCCLO4-1st_00002 | 1 mL | Perchlorate | 10 mg/L |
| ..WCCLO4-1st_00002 | 01/30/18 | | SPEX CERTIPREP, Lot 3-149CLO4-2Y | | (Purchased Reagent) | | Perchlorate | 1000 mg/L |
| **WCCLO41st-10_00012** | 01/29/18 | 11/29/17 | Di Water, Lot 20171129 | 100 mL | WCCLO4-1st_00002 | 1 mL | Perchlorate | 10 mg/L |
| .WCCLO4-1st_00002 | 01/30/18 | | SPEX CERTIPREP, Lot 3-149CLO4-2Y | | (Purchased Reagent) | | Perchlorate | 1000 mg/L |
| **WCCLO4ICV10_00029** | 03/10/18 | 12/08/17 | Di Water, Lot 12/10/2017 | 100 mL | WCCLO4ICV_00016 | 1 mL | Perchlorate | 10.0002 mg/L |
| .WCCLO4ICV_00016 | 12/10/18 | 12/08/17 | Di Water, Lot 12/10/2017 | 250 mL | WCCLO4ICVSOLI_00002 | 0.3078 g | Perchlorate | 1000.02 mg/L |
| ..WCCLO4ICVSOLI_00002 | 06/01/22 | | SPECTRUM, Lot 2FH0070 | | (Purchased Reagent) | | Perchlorate | 0.81223 g/g |
| **WCCR6ICV5PPM_00051** | 11/02/17 | 10/02/17 | Di Water, Lot 20171002 | 50 mL | WCCR6ICV_00023 | 5 mL | Chromium, hexavalent | 4.99849 mg/L |
| .WCCR6ICV_00023 | 04/02/18 | 10/02/17 | Di Water, Lot 20170323 | 1000 mL | WCK2CR2O7_00003 | 0.1414 g | Chromium, hexavalent | 49.9849 mg/L |
| ..WCK2CR2O7_00003 | 03/22/22 | | FISHER, Lot 166724 | | (Purchased Reagent) | | Chromium, hexavalent | 0.3535 g/g |
| **WCCR6LCS50PPM_00038** | 05/21/18 | 11/21/17 | Di Water, Lot 20171121 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .WCCr6 K2Cr2O4_00009 | 04/30/19 | ERA, Lot 040416 | | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCCR6LCS5PPM_00098** | 10/21/17 | 09/21/17 | Di Water, Lot 201709021 | 50 mL | WCCR6LCS50PPM_00037 | 5 mL | Chromium, hexavalent | 5 mg/L |
| .WCCR6LCS50PPM_00037 | 12/03/17 | 06/05/17 | Di Water, Lot 20170605 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| ..WCCr6 K2Cr2O4_00009 | 04/30/19 | ERA, Lot 040416 | | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCCR6LCS5PPM_00103** | 01/26/18 | 12/26/17 | Di Water, Lot 20171226 | 50 mL | WCCR6LCS50PPM_00038 | 5 mL | Chromium, hexavalent | 5 mg/L |
| .WCCR6LCS50PPM_00038 | 05/21/18 | 11/21/17 | Di Water, Lot 20171121 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| ..WCCr6 K2Cr2O4_00009 | 04/30/19 | ERA, Lot 040416 | | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCDCA_00055** | 03/08/18 | 12/08/17 | Di Water, Lot 20171208 | 100 mL | WCKDCA_00003 | 0.065 g | Dichloroacetic acid(Surr) | 496.855 mg/L |
| .WCKDCA_00003 | 02/28/20 | Aldrich, Lot MKBR8264V | | | (Purchased Reagent) | | Dichloroacetic acid(Surr) | 0.764393 g/g |
| **WCDCA_00056** | 03/26/18 | 12/26/17 | Di Water, Lot 20171226 | 100 mL | WCKDCA_00003 | 0.065 g | Dichloroacetic acid(Surr) | 496.855 mg/L |
| .WCKDCA_00003 | 02/28/20 | Aldrich, Lot MKBR8264V | | | (Purchased Reagent) | | Dichloroacetic acid(Surr) | 0.764393 g/g |

# Method 8260B Low Level

## Volatile Organic Compounds (GC/MS) by Method 8260B Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-VRX A ID: 0.25(mm)

| Client Sample ID | Lab Sample ID | DBFM # | TOL # | BFB # |
|---|---|---|---|---|
| VER-01I-B-BL | 440-200466-1 | 106 | 105 | 110 |
| Trip Blank | 440-200466-2 | 103 | 107 | 111 |
| Ver-01I-B-12 | 440-200466-3 | 106 | 105 | 111 |
| | MB 440-451774/4 | 102 | 109 | 107 |
| | LCS 440-451774/5 | 103 | 102 | 101 |
| | 440-200580-B-1 MS | 102 | 100 | 104 |
| | 440-200580-B-1 MSD | 100 | 101 | 106 |

| | QC LIMITS |
|---|---|
| DBFM = Dibromofluoromethane (Surr) | 76-132 |
| TOL = Toluene-d8 (Surr) | 80-128 |
| BFB = 4-Bromofluorobenzene (Surr) | 80-120 |

# Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: JGA15029.D

Lab ID: LCS 440-451774/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Acetone | 25.0 | 28.9 | 116 | 10-150 | |
| Benzene | 25.0 | 26.2 | 105 | 68-130 | |
| Bromobenzene | 25.0 | 25.0 | 100 | 70-130 | |
| Bromochloromethane | 25.0 | 24.6 | 98 | 70-130 | |
| Bromodichloromethane | 25.0 | 25.7 | 103 | 70-132 | |
| Bromoform | 25.0 | 23.4 | 93 | 60-148 | |
| Bromomethane | 25.0 | 21.7 | 87 | 64-139 | |
| 2-Butanone (MEK) | 25.0 | 24.7 | 99 | 44-150 | |
| Carbon tetrachloride | 25.0 | 23.4 | 93 | 60-150 | |
| Chlorobenzene | 25.0 | 24.8 | 99 | 70-130 | |
| Chloroethane | 25.0 | 25.9 | 104 | 64-135 | |
| Chloroform | 25.0 | 25.3 | 101 | 70-130 | |
| Chloromethane | 25.0 | 27.7 | 111 | 47-140 | |
| 2-Chlorotoluene | 25.0 | 26.0 | 104 | 70-130 | |
| 4-Chlorotoluene | 25.0 | 26.2 | 105 | 70-130 | |
| cis-1,2-Dichloroethene | 25.0 | 24.2 | 97 | 70-133 | |
| cis-1,3-Dichloropropene | 25.0 | 24.9 | 100 | 70-133 | |
| Dibromochloromethane | 25.0 | 24.7 | 99 | 69-145 | |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 24.8 | 99 | 52-140 | |
| 1,2-Dibromoethane (EDB) | 25.0 | 24.6 | 98 | 70-130 | |
| Dibromomethane | 25.0 | 24.1 | 96 | 70-130 | |
| 1,2-Dichlorobenzene | 25.0 | 25.3 | 101 | 70-130 | |
| 1,3-Dichlorobenzene | 25.0 | 25.6 | 102 | 70-130 | |
| 1,4-Dichlorobenzene | 25.0 | 25.1 | 101 | 70-130 | |
| Dichlorodifluoromethane | 25.0 | 24.6 | 98 | 29-150 | |
| 1,1-Dichloroethane | 25.0 | 26.8 | 107 | 64-130 | |
| 1,2-Dichloroethane | 25.0 | 25.4 | 101 | 57-138 | |
| 1,1-Dichloroethene | 25.0 | 22.9 | 92 | 70-130 | |
| 1,2-Dichloropropane | 25.0 | 26.3 | 105 | 67-130 | |
| 1,3-Dichloropropane | 25.0 | 25.5 | 102 | 70-130 | |
| 2,2-Dichloropropane | 25.0 | 25.6 | 102 | 68-141 | |
| 1,1-Dichloropropene | 25.0 | 25.3 | 101 | 70-130 | |
| Ethylbenzene | 25.0 | 24.4 | 97 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 24.5 | 98 | 60-136 | |
| Hexachlorobutadiene | 25.0 | 23.2 | 93 | 10-150 | |
| 2-Hexanone | 25.0 | 32.1 | 128 | 10-150 | |
| Isopropylbenzene | 25.0 | 24.4 | 98 | 70-136 | |
| Isopropyl Ether (DIPE) | 25.0 | 30.7 | 123 | 58-139 | |
| Methylene Chloride | 25.0 | 24.9 | 100 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 32.7 | 131 | 59-149 | |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 23.1 | 92 | 63-131 | |
| m,p-Xylene | 25.0 | 24.8 | 99 | 70-130 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: JGA15029.D

Lab ID: LCS 440-451774/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Naphthalene | 25.0 | 24.7 | 99 | 60-140 | |
| n-Butylbenzene | 25.0 | 25.5 | 102 | 65-150 | |
| N-Propylbenzene | 25.0 | 26.4 | 105 | 67-139 | |
| o-Xylene | 25.0 | 25.2 | 101 | 70-130 | |
| p-Isopropyltoluene | 25.0 | 25.2 | 101 | 70-132 | |
| sec-Butylbenzene | 25.0 | 26.0 | 104 | 70-138 | |
| Styrene | 25.0 | 24.5 | 98 | 70-134 | |
| Tert-amyl-methyl ether (TAME) | 25.0 | 21.2 | 85 | 57-139 | |
| tert-Butyl alcohol (TBA) | 250 | 279 | 112 | 70-130 | |
| tert-Butylbenzene | 25.0 | 25.0 | 100 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 25.0 | 22.0 | 88 | 60-141 | |
| 1,1,2,2-Tetrachloroethane | 25.0 | 26.3 | 105 | 63-130 | |
| Tetrachloroethene | 25.0 | 23.7 | 95 | 70-130 | |
| Toluene | 25.0 | 25.2 | 101 | 70-130 | |
| trans-1,2-Dichloroethene | 25.0 | 24.4 | 98 | 70-130 | |
| trans-1,3-Dichloropropene | 25.0 | 24.4 | 98 | 70-132 | |
| 1,2,3-Trichlorobenzene | 25.0 | 25.4 | 102 | 60-140 | |
| 1,2,4-Trichlorobenzene | 25.0 | 24.4 | 97 | 60-140 | |
| 1,1,1-Trichloroethane | 25.0 | 23.3 | 93 | 70-130 | |
| 1,1,2-Trichloroethane | 25.0 | 26.2 | 105 | 70-130 | |
| Trichloroethene | 25.0 | 24.0 | 96 | 70-130 | |
| Trichlorofluoromethane | 25.0 | 22.5 | 90 | 60-150 | |
| 1,2,3-Trichloropropane | 25.0 | 25.9 | 103 | 63-130 | |
| 1,2,4-Trimethylbenzene | 25.0 | 25.2 | 101 | 70-135 | |
| 1,3,5-Trimethylbenzene | 25.0 | 25.7 | 103 | 70-136 | |
| Vinyl chloride | 25.0 | 24.1 | 96 | 59-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: JGA15031.D

Lab ID: 440-200580-B-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Acetone | 25.0 | ND | ND | 0 | 10-150 | F1 |
| Benzene | 25.0 | 1.0 | 27.1 | 104 | 66-130 | |
| Bromobenzene | 25.0 | ND | 24.8 | 99 | 70-130 | |
| Bromochloromethane | 25.0 | ND | 25.1 | 100 | 70-130 | |
| Bromodichloromethane | 25.0 | ND | 26.1 | 105 | 70-138 | |
| Bromoform | 25.0 | ND | 24.4 | 98 | 59-150 | |
| Bromomethane | 25.0 | ND | 21.3 | 85 | 62-131 | |
| 2-Butanone (MEK) | 25.0 | 12 | 39.0 | 108 | 48-140 | |
| Carbon tetrachloride | 25.0 | ND | 24.4 | 97 | 60-150 | |
| Chlorobenzene | 25.0 | ND | 24.7 | 99 | 70-130 | |
| Chloroethane | 25.0 | ND | 25.9 | 104 | 68-130 | |
| Chloroform | 25.0 | ND | 25.7 | 103 | 70-130 | |
| Chloromethane | 25.0 | ND | 27.2 | 109 | 39-144 | |
| 2-Chlorotoluene | 25.0 | ND | 25.6 | 103 | 70-130 | |
| 4-Chlorotoluene | 25.0 | ND | 27.0 | 108 | 70-130 | |
| cis-1,2-Dichloroethene | 25.0 | ND | 24.0 | 96 | 70-130 | |
| cis-1,3-Dichloropropene | 25.0 | ND | 25.1 | 100 | 70-133 | |
| Dibromochloromethane | 25.0 | ND | 24.7 | 99 | 70-148 | |
| 1,2-Dibromo-3-Chloropropane | 25.0 | ND | 29.5 | 118 | 48-140 | |
| 1,2-Dibromoethane (EDB) | 25.0 | ND | 25.2 | 101 | 70-131 | |
| Dibromomethane | 25.0 | ND | 24.7 | 99 | 70-130 | |
| 1,2-Dichlorobenzene | 25.0 | ND | 25.0 | 100 | 70-130 | |
| 1,3-Dichlorobenzene | 25.0 | ND | 25.2 | 101 | 70-130 | |
| 1,4-Dichlorobenzene | 25.0 | ND | 25.0 | 100 | 70-130 | |
| Dichlorodifluoromethane | 25.0 | ND | 24.2 | 97 | 25-142 | |
| 1,1-Dichloroethane | 25.0 | ND | 26.1 | 104 | 65-130 | |
| 1,2-Dichloroethane | 25.0 | 300 | 329 | 98 | 56-146 | E 4 |
| 1,1-Dichloroethene | 25.0 | ND | 23.7 | 95 | 70-130 | |
| 1,2-Dichloropropane | 25.0 | ND | 26.1 | 105 | 69-130 | |
| 1,3-Dichloropropane | 25.0 | ND | 24.9 | 100 | 70-130 | |
| 2,2-Dichloropropane | 25.0 | ND | 26.1 | 104 | 69-138 | |
| 1,1-Dichloropropene | 25.0 | ND | 25.7 | 103 | 64-130 | |
| Ethylbenzene | 25.0 | 6.3 | 30.6 | 97 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 25.0 | ND | 24.8 | 99 | 70-130 | |
| Hexachlorobutadiene | 25.0 | ND | 23.8 | 95 | 10-150 | |
| 2-Hexanone | 25.0 | 5.2 | 35.4 | 121 | 10-150 | |
| Isopropylbenzene | 25.0 | 5.8 | 30.2 | 98 | 70-132 | |
| Isopropyl Ether (DIPE) | 25.0 | 93 | 121 | 114 | 64-138 | |
| Methylene Chloride | 25.0 | 0.89 J | 24.4 | 94 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | ND | 48.0 | 192 | 52-150 | F1 |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | ND | 29.7 | 119 | 70-130 | |
| m,p-Xylene | 25.0 | 7.1 | 31.8 | 99 | 70-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: JGA15031.D

Lab ID: 440-200580-B-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Naphthalene | 25.0 | 0.69 J | 27.8 | 108 | 60-140 | |
| n-Butylbenzene | 25.0 | 3.8 | 28.6 | 99 | 61-149 | |
| N-Propylbenzene | 25.0 | 23 | 47.8 | 98 | 66-135 | |
| o-Xylene | 25.0 | 1.7 | 26.0 | 97 | 70-133 | |
| p-Isopropyltoluene | 25.0 | 0.35 J | 24.8 | 98 | 70-130 | |
| sec-Butylbenzene | 25.0 | 3.7 | 28.5 | 99 | 67-134 | |
| Styrene | 25.0 | ND | 24.2 | 97 | 29-150 | |
| Tert-amyl-methyl ether (TAME) | 25.0 | ND | 22.0 | 88 | 68-133 | |
| tert-Butyl alcohol (TBA) | 250 | 70 | 331 | 104 | 70-130 | |
| tert-Butylbenzene | 25.0 | 0.27 J | 24.8 | 98 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 25.0 | ND | 22.2 | 89 | 60-149 | |
| 1,1,2,2-Tetrachloroethane | 25.0 | ND | 25.8 | 103 | 63-130 | |
| Tetrachloroethene | 25.0 | ND | 24.4 | 97 | 70-137 | |
| Toluene | 25.0 | 3.9 | 28.3 | 98 | 70-130 | |
| trans-1,2-Dichloroethene | 25.0 | ND | 24.7 | 99 | 70-130 | |
| trans-1,3-Dichloropropene | 25.0 | ND | 24.9 | 100 | 70-138 | |
| 1,2,3-Trichlorobenzene | 25.0 | ND | 27.2 | 109 | 60-140 | |
| 1,2,4-Trichlorobenzene | 25.0 | ND | 26.4 | 105 | 60-140 | |
| 1,1,1-Trichloroethane | 25.0 | ND | 23.7 | 95 | 70-130 | |
| 1,1,2-Trichloroethane | 25.0 | 1.8 | 30.5 | 115 | 70-130 | |
| Trichloroethene | 25.0 | ND | 24.5 | 98 | 70-130 | |
| Trichlorofluoromethane | 25.0 | ND | 23.4 | 94 | 60-150 | |
| 1,2,3-Trichloropropane | 25.0 | ND | 26.9 | 108 | 60-130 | |
| 1,2,4-Trimethylbenzene | 25.0 | 7.8 | 32.8 | 100 | 70-130 | |
| 1,3,5-Trimethylbenzene | 25.0 | 0.30 J | 25.6 | 101 | 70-130 | |
| Vinyl chloride | 25.0 | ND | 24.1 | 96 | 50-137 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: JGA15032.D

Lab ID: 440-200580-B-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Acetone | 25.0 | ND | 0 | NC | 35 | 10-150 | F1 |
| Benzene | 25.0 | 26.8 | 103 | 1 | 20 | 66-130 | |
| Bromobenzene | 25.0 | 25.2 | 101 | 2 | 20 | 70-130 | |
| Bromochloromethane | 25.0 | 24.5 | 98 | 3 | 25 | 70-130 | |
| Bromodichloromethane | 25.0 | 24.6 | 99 | 6 | 20 | 70-138 | |
| Bromoform | 25.0 | 23.6 | 94 | 3 | 25 | 59-150 | |
| Bromomethane | 25.0 | 20.5 | 82 | 4 | 25 | 62-131 | |
| 2-Butanone (MEK) | 25.0 | 36.7 | 99 | 6 | 40 | 48-140 | |
| Carbon tetrachloride | 25.0 | 24.1 | 96 | 1 | 25 | 60-150 | |
| Chlorobenzene | 25.0 | 24.3 | 97 | 2 | 20 | 70-130 | |
| Chloroethane | 25.0 | 24.6 | 99 | 5 | 25 | 68-130 | |
| Chloroform | 25.0 | 25.0 | 100 | 3 | 20 | 70-130 | |
| Chloromethane | 25.0 | 25.9 | 103 | 5 | 25 | 39-144 | |
| 2-Chlorotoluene | 25.0 | 25.8 | 103 | 1 | 20 | 70-130 | |
| 4-Chlorotoluene | 25.0 | 27.1 | 108 | 0 | 20 | 70-130 | |
| cis-1,2-Dichloroethene | 25.0 | 23.9 | 95 | 0 | 20 | 70-130 | |
| cis-1,3-Dichloropropene | 25.0 | 24.5 | 98 | 2 | 20 | 70-133 | |
| Dibromochloromethane | 25.0 | 24.3 | 97 | 2 | 25 | 70-148 | |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 28.7 | 115 | 3 | 30 | 48-140 | |
| 1,2-Dibromoethane (EDB) | 25.0 | 24.4 | 98 | 3 | 25 | 70-131 | |
| Dibromomethane | 25.0 | 23.8 | 95 | 4 | 25 | 70-130 | |
| 1,2-Dichlorobenzene | 25.0 | 25.4 | 102 | 1 | 20 | 70-130 | |
| 1,3-Dichlorobenzene | 25.0 | 25.4 | 101 | 0 | 20 | 70-130 | |
| 1,4-Dichlorobenzene | 25.0 | 25.0 | 100 | 0 | 20 | 70-130 | |
| Dichlorodifluoromethane | 25.0 | 23.7 | 95 | 2 | 30 | 25-142 | |
| 1,1-Dichloroethane | 25.0 | 26.3 | 105 | 1 | 20 | 65-130 | |
| 1,2-Dichloroethane | 25.0 | 312 | 29 | 5 | 20 | 56-146 | E 4 |
| 1,1-Dichloroethene | 25.0 | 22.8 | 91 | 4 | 20 | 70-130 | |
| 1,2-Dichloropropane | 25.0 | 25.3 | 101 | 3 | 20 | 69-130 | |
| 1,3-Dichloropropane | 25.0 | 24.2 | 97 | 3 | 25 | 70-130 | |
| 2,2-Dichloropropane | 25.0 | 25.7 | 103 | 2 | 25 | 69-138 | |
| 1,1-Dichloropropene | 25.0 | 25.1 | 100 | 3 | 20 | 64-130 | |
| Ethylbenzene | 25.0 | 29.9 | 95 | 2 | 20 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 23.9 | 96 | 4 | 25 | 70-130 | |
| Hexachlorobutadiene | 25.0 | 24.9 | 100 | 4 | 20 | 10-150 | |
| 2-Hexanone | 25.0 | 31.0 | 103 | 13 | 35 | 10-150 | |
| Isopropylbenzene | 25.0 | 29.9 | 97 | 1 | 20 | 70-132 | |
| Isopropyl Ether (DIPE) | 25.0 | 112 | 78 | 8 | 25 | 64-138 | |
| Methylene Chloride | 25.0 | 23.7 | 91 | 3 | 20 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 43.0 | 172 | 11 | 35 | 52-150 | F1 |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 28.6 | 115 | 4 | 25 | 70-130 | |
| m,p-Xylene | 25.0 | 31.3 | 97 | 1 | 25 | 70-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: JGA15032.D

Lab ID: 440-200580-B-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Naphthalene | 25.0 | 27.2 | 106 | 2 | 30 | 60-140 | |
| n-Butylbenzene | 25.0 | 28.8 | 100 | 1 | 20 | 61-149 | |
| N-Propylbenzene | 25.0 | 47.0 | 95 | 2 | 20 | 66-135 | |
| o-Xylene | 25.0 | 26.1 | 97 | 0 | 20 | 70-133 | |
| p-Isopropyltoluene | 25.0 | 25.2 | 100 | 2 | 20 | 70-130 | |
| sec-Butylbenzene | 25.0 | 29.2 | 102 | 2 | 20 | 67-134 | |
| Styrene | 25.0 | 23.7 | 95 | 2 | 35 | 29-150 | |
| Tert-amyl-methyl ether (TAME) | 25.0 | 21.6 | 86 | 2 | 30 | 68-133 | |
| tert-Butyl alcohol (TBA) | 250 | 325 | 102 | 2 | 25 | 70-130 | |
| tert-Butylbenzene | 25.0 | 25.4 | 100 | 2 | 20 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 25.0 | 22.1 | 89 | 0 | 20 | 60-149 | |
| 1,1,2,2-Tetrachloroethane | 25.0 | 25.3 | 101 | 2 | 30 | 63-130 | |
| Tetrachloroethene | 25.0 | 24.1 | 96 | 1 | 20 | 70-137 | |
| Toluene | 25.0 | 27.4 | 94 | 3 | 20 | 70-130 | |
| trans-1,2-Dichloroethene | 25.0 | 24.5 | 98 | 1 | 20 | 70-130 | |
| trans-1,3-Dichloropropene | 25.0 | 24.1 | 96 | 3 | 25 | 70-138 | |
| 1,2,3-Trichlorobenzene | 25.0 | 27.0 | 108 | 1 | 20 | 60-140 | |
| 1,2,4-Trichlorobenzene | 25.0 | 26.5 | 106 | 0 | 20 | 60-140 | |
| 1,1,1-Trichloroethane | 25.0 | 24.0 | 96 | 1 | 20 | 70-130 | |
| 1,1,2-Trichloroethane | 25.0 | 27.3 | 102 | 11 | 25 | 70-130 | |
| Trichloroethene | 25.0 | 24.1 | 96 | 2 | 20 | 70-130 | |
| Trichlorofluoromethane | 25.0 | 22.4 | 90 | 4 | 25 | 60-150 | |
| 1,2,3-Trichloropropane | 25.0 | 26.9 | 107 | 0 | 30 | 60-130 | |
| 1,2,4-Trimethylbenzene | 25.0 | 33.0 | 101 | 1 | 25 | 70-130 | |
| 1,3,5-Trimethylbenzene | 25.0 | 25.9 | 102 | 1 | 20 | 70-130 | |
| Vinyl chloride | 25.0 | 22.7 | 91 | 6 | 30 | 50-137 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab File ID: JGA15028.D Lab Sample ID: MB 440-451774/4

Matrix: Water Heated Purge:(Y/N) Y

Instrument ID: GCMS09 Date Analyzed: 01/15/2018 17:31

GC Column: DB-VRX A ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 440-451774/5 | JGA15029.D | 01/15/2018 17:57 |
| | 440-200580-B-1 MS | JGA15031.D | 01/15/2018 19:10 |
| | 440-200580-B-1 MSD | JGA15032.D | 01/15/2018 19:36 |
| VER-01I-B-BL | 440-200466-1 | JGA15033.D | 01/15/2018 20:02 |
| Trip Blank | 440-200466-2 | JGA15034.D | 01/15/2018 20:28 |
| Ver-01I-B-12 | 440-200466-3 | JGA15035.D | 01/15/2018 20:55 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab File ID: JFL12001.D BFB Injection Date: 12/12/2017

Instrument ID: GCMS09 BFB Injection Time: 14:34

Analysis Batch No.: 446291

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 24.8 | |
| 75 | 30.0 - 60.0 % of mass 95 | 48.1 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 6.7 | |
| 173 | Less than 2.0 % of mass 174 | 0.0 | (0.0) 1 |
| 174 | 50.0 - 120.00 % of mass 95 | 97.4 | |
| 175 | 5.0 - 9.0 % of mass 174 | 7.2 | (7.4) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 93.9 | (96.3) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 6.2 | (6.6) 2 |

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | STD02 440-446291/4 | JFL12004.D | 12/12/2017 | 15:54 |
| | STD04 440-446291/5 | JFL12005.D | 12/12/2017 | 16:20 |
| | STD05 440-446291/6 | JFL12006.D | 12/12/2017 | 16:47 |
| | STD1 440-446291/7 | JFL12007.D | 12/12/2017 | 17:13 |
| | STD2 440-446291/8 | JFL12008.D | 12/12/2017 | 17:40 |
| | STD5 440-446291/9 | JFL12009.D | 12/12/2017 | 18:06 |
| | STD10 440-446291/10 | JFL12010.D | 12/12/2017 | 18:33 |
| | ICIS 440-446291/11 | JFL12011.D | 12/12/2017 | 18:59 |
| | STD50 440-446291/12 | JFL12012.D | 12/12/2017 | 19:26 |
| | STD100 440-446291/13 | JFL12013.D | 12/12/2017 | 19:52 |
| | STD200 440-446291/14 | JFL12014.D | 12/12/2017 | 20:18 |
| | STD300 440-446291/15 | JFL12015.D | 12/12/2017 | 20:45 |
| | ICV 440-446291/18 | JFL12018.D | 12/12/2017 | 22:04 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Lab File ID: JGA15025.D  BFB Injection Date: 01/15/2018

Instrument ID: GCMS09  BFB Injection Time: 16:10

Analysis Batch No.: 451774

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 29.3 | |
| 75 | 30.0 - 60.0 % of mass 95 | 48.7 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 7.4 | |
| 173 | Less than 2.0 % of mass 174 | 0.0 | (0.0) 1 |
| 174 | 50.0 - 120.00 % of mass 95 | 97.1 | |
| 175 | 5.0 - 9.0 % of mass 174 | 7.3 | (7.5) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 93.5 | (96.2) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 6.4 | (6.8) 2 |

1-Value is % mass 174  2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | CCVIS 440-451774/2 | JGA15026.D | 01/15/2018 | 16:38 |
| | MB 440-451774/4 | JGA15028.D | 01/15/2018 | 17:31 |
| | LCS 440-451774/5 | JGA15029.D | 01/15/2018 | 17:57 |
| | 440-200580-B-1 MS | JGA15031.D | 01/15/2018 | 19:10 |
| | 440-200580-B-1 MSD | JGA15032.D | 01/15/2018 | 19:36 |
| VER-01I-B-BL | 440-200466-1 | JGA15033.D | 01/15/2018 | 20:02 |
| Trip Blank | 440-200466-2 | JGA15034.D | 01/15/2018 | 20:28 |
| Ver-01I-B-12 | 440-200466-3 | JGA15035.D | 01/15/2018 | 20:55 |

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Sample No.: ICIS 440-446291/11 Date Analyzed: 12/12/2017 18:59

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm)

Lab File ID (Standard): JFL12011.D Heated Purge: (Y/N) Y

Calibration ID: 18184

| | | TBAd9 | | FB | | CBNZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 245172 | 5.06 | 776720 | 7.96 | 717670 | 10.73 |
| UPPER LIMIT | | 490344 | 5.36 | 1553440 | 8.26 | 1435340 | 11.03 |
| LOWER LIMIT | | 122586 | 4.76 | 388360 | 7.66 | 358835 | 10.43 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 440-446291/18 | | 253556 | 5.06 | 770373 | 7.96 | 704690 | 10.73 |
| CCVIS 440-451774/2 | | 197966 | 5.07 | 644320 | 7.95 | 578841 | 10.73 |

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Sample No.: ICIS 440-446291/11 Date Analyzed: 12/12/2017 18:59

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm)

Lab File ID (Standard): JFL12011.D Heated Purge: (Y/N) Y

Calibration ID: 18184

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 445307 | 13.19 | | | | |
| UPPER LIMIT | | 890614 | 13.49 | | | | |
| LOWER LIMIT | | 222654 | 12.89 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 440-446291/18 | | 435798 | 13.19 | | | | |
| CCVIS 440-451774/2 | | 345623 | 13.18 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Sample No.: CCVIS 440-451774/2  Date Analyzed: 01/15/2018 16:38

Instrument ID: GCMS09  GC Column: DB-VRX A  ID: 0.25(mm)

Lab File ID (Standard): JGA15026.D  Heated Purge: (Y/N) Y

Calibration ID: 18203

| | | TBAd9 | | FB | | CBNZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 197966 | 5.07 | 644320 | 7.95 | 578841 | 10.73 |
| UPPER LIMIT | | 395932 | 5.37 | 1288640 | 8.25 | 1157682 | 11.03 |
| LOWER LIMIT | | 98983 | 4.77 | 322160 | 7.65 | 289421 | 10.43 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 440-451774/4 | | 178673 | 5.07 | 616188 | 7.95 | 520705 | 10.73 |
| LCS 440-451774/5 | | 187896 | 5.07 | 625583 | 7.95 | 555009 | 10.73 |
| 440-200580-B-1 MS | | 235557 | 5.07 | 678513 | 7.95 | 622056 | 10.73 |
| 440-200580-B-1 MSD | | 220912 | 5.07 | 715779 | 7.95 | 656934 | 10.73 |
| 440-200466-1 | VER-01I-B-BL | 202204 | 5.07 | 678947 | 7.95 | 598701 | 10.73 |
| 440-200466-2 | Trip Blank | 180005 | 5.07 | 658464 | 7.95 | 565293 | 10.73 |
| 440-200466-3 | Ver-01I-B-12 | 175102 | 5.07 | 615085 | 7.95 | 533716 | 10.73 |

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5
Area Limit = 50%-200% of internal standard area
CBNZd5 = Chlorobenzene-d5
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Sample No.: CCVIS 440-451774/2 Date Analyzed: 01/15/2018 16:38

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm)

Lab File ID (Standard): JGA15026.D Heated Purge: (Y/N) Y

Calibration ID: 18203

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 345623 | 13.18 | | | | |
| UPPER LIMIT | | 691246 | 13.48 | | | | |
| LOWER LIMIT | | 172812 | 12.88 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 440-451774/4 | | 294740 | 13.18 | | | | |
| LCS 440-451774/5 | | 328311 | 13.18 | | | | |
| 440-200580-B-1 MS | | 374879 | 13.18 | | | | |
| 440-200580-B-1 MSD | | 385929 | 13.18 | | | | |
| 440-200466-1 | VER-01I-B-BL | 337932 | 13.18 | | | | |
| 440-200466-2 | Trip Blank | 311647 | 13.18 | | | | |
| 440-200466-3 | Ver-01I-B-12 | 293539 | 13.18 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: VER-01I-B-BL | Lab Sample ID: 440-200466-1

Matrix: Water | Lab File ID: JGA15033.D

Analysis Method: 8260B | Date Collected: 01/11/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/15/2018 20:02

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 451774 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 140 | J | 200 | 100 |
| 71-43-2 | Benzene | ND | | 5.0 | 2.5 |
| 108-86-1 | Bromobenzene | ND | | 5.0 | 2.5 |
| 74-97-5 | Bromochloromethane | ND | | 5.0 | 2.5 |
| 75-27-4 | Bromodichloromethane | ND | | 5.0 | 2.5 |
| 75-25-2 | Bromoform | ND | | 10 | 4.0 |
| 74-83-9 | Bromomethane | ND | | 5.0 | 2.5 |
| 78-93-3 | 2-Butanone (MEK) | 75 | | 50 | 25 |
| 56-23-5 | Carbon tetrachloride | ND | | 5.0 | 2.5 |
| 108-90-7 | Chlorobenzene | ND | | 5.0 | 2.5 |
| 75-00-3 | Chloroethane | ND | | 10 | 4.0 |
| 67-66-3 | Chloroform | 460 | | 5.0 | 2.5 |
| 74-87-3 | Chloromethane | ND | | 5.0 | 2.5 |
| 95-49-8 | 2-Chlorotoluene | ND | | 5.0 | 2.5 |
| 106-43-4 | 4-Chlorotoluene | ND | | 5.0 | 2.5 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 5.0 | 2.5 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 5.0 | 2.5 |
| 124-48-1 | Dibromochloromethane | ND | | 5.0 | 2.5 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 10 | 5.0 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 5.0 | 2.5 |
| 74-95-3 | Dibromomethane | ND | | 5.0 | 2.5 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 5.0 | 2.5 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 5.0 | 2.5 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 5.0 | 2.5 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 10 | 4.0 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 5.0 | 2.5 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 5.0 | 2.5 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 5.0 | 2.5 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 5.0 | 2.5 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 5.0 | 2.5 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 10 | 4.0 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 5.0 | 2.5 |
| 100-41-4 | Ethylbenzene | ND | | 5.0 | 2.5 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 5.0 | 2.5 |
| 87-68-3 | Hexachlorobutadiene | ND | | 5.0 | 2.5 |
| 591-78-6 | 2-Hexanone | ND | | 50 | 25 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: VER-01I-B-BL | Lab Sample ID: 440-200466-1

Matrix: Water | Lab File ID: JGA15033.D

Analysis Method: 8260B | Date Collected: 01/11/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/15/2018 20:02

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 451774 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 5.0 | 2.5 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 5.0 | 2.5 |
| 75-09-2 | Methylene Chloride | ND | | 20 | 8.8 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 50 | 25 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 5.0 | 2.5 |
| 179601-23-1 | m,p-Xylene | ND | | 10 | 5.0 |
| 91-20-3 | Naphthalene | ND | | 10 | 4.0 |
| 104-51-8 | n-Butylbenzene | ND | | 10 | 4.0 |
| 103-65-1 | N-Propylbenzene | ND | | 5.0 | 2.5 |
| 95-47-6 | o-Xylene | ND | | 5.0 | 2.5 |
| 99-87-6 | p-Isopropyltoluene | ND | | 5.0 | 2.5 |
| 135-98-8 | sec-Butylbenzene | ND | | 5.0 | 2.5 |
| 100-42-5 | Styrene | ND | | 5.0 | 2.5 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 5.0 | 2.5 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 100 | 50 |
| 98-06-6 | tert-Butylbenzene | ND | | 5.0 | 2.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 5.0 | 2.5 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 5.0 | 2.5 |
| 127-18-4 | Tetrachloroethene | ND | | 5.0 | 2.5 |
| 108-88-3 | Toluene | ND | | 5.0 | 2.5 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 5.0 | 2.5 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 5.0 | 2.5 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 10 | 4.0 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 10 | 4.0 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 5.0 | 2.5 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 5.0 | 2.5 |
| 79-01-6 | Trichloroethene | ND | | 5.0 | 2.5 |
| 75-69-4 | Trichlorofluoromethane | ND | | 5.0 | 2.5 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 10 | 4.0 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 5.0 | 2.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 5.0 | 2.5 |
| 75-01-4 | Vinyl chloride | ND | | 5.0 | 2.5 |
| 1330-20-7 | Xylenes, Total | ND | | 10 | 5.0 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Client Sample ID: VER-01I-B-BL Lab Sample ID: 440-200466-1

Matrix: Water Lab File ID: JGA15033.D

Analysis Method: 8260B Date Collected: 01/11/2018 03:30

Sample wt/vol: 10(mL) Date Analyzed: 01/15/2018 20:02

Soil Aliquot Vol: Dilution Factor: 10

Soil Extract Vol.: GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 451774 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 110 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 106 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 105 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: Trip Blank | Lab Sample ID: 440-200466-2

Matrix: Water | Lab File ID: JGA15034.D

Analysis Method: 8260B | Date Collected: 01/11/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/15/2018 20:28

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 451774 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | ND | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: Trip Blank | Lab Sample ID: 440-200466-2

Matrix: Water | Lab File ID: JGA15034.D

Analysis Method: 8260B | Date Collected: 01/11/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/15/2018 20:28

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 451774 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Client Sample ID: Trip Blank Lab Sample ID: 440-200466-2

Matrix: Water Lab File ID: JGA15034.D

Analysis Method: 8260B Date Collected: 01/11/2018 03:30

Sample wt/vol: 10(mL) Date Analyzed: 01/15/2018 20:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 451774 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 111 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 103 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 107 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: Ver-01I-B-12 | Lab Sample ID: 440-200466-3

Matrix: Water | Lab File ID: JGA15035.D

Analysis Method: 8260B | Date Collected: 01/11/2018 15:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/15/2018 20:55

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 451774 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 200 | 100 |
| 71-43-2 | Benzene | ND | | 5.0 | 2.5 |
| 108-86-1 | Bromobenzene | ND | | 5.0 | 2.5 |
| 74-97-5 | Bromochloromethane | ND | | 5.0 | 2.5 |
| 75-27-4 | Bromodichloromethane | ND | | 5.0 | 2.5 |
| 75-25-2 | Bromoform | ND | | 10 | 4.0 |
| 74-83-9 | Bromomethane | ND | | 5.0 | 2.5 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 50 | 25 |
| 56-23-5 | Carbon tetrachloride | ND | | 5.0 | 2.5 |
| 108-90-7 | Chlorobenzene | ND | | 5.0 | 2.5 |
| 75-00-3 | Chloroethane | ND | | 10 | 4.0 |
| 67-66-3 | Chloroform | 710 | | 5.0 | 2.5 |
| 74-87-3 | Chloromethane | ND | | 5.0 | 2.5 |
| 95-49-8 | 2-Chlorotoluene | ND | | 5.0 | 2.5 |
| 106-43-4 | 4-Chlorotoluene | ND | | 5.0 | 2.5 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 5.0 | 2.5 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 5.0 | 2.5 |
| 124-48-1 | Dibromochloromethane | ND | | 5.0 | 2.5 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 10 | 5.0 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 5.0 | 2.5 |
| 74-95-3 | Dibromomethane | ND | | 5.0 | 2.5 |
| 95-50-1 | 1,2-Dichlorobenzene | 4.9 | J | 5.0 | 2.5 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 5.0 | 2.5 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 5.0 | 2.5 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 10 | 4.0 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 5.0 | 2.5 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 5.0 | 2.5 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 5.0 | 2.5 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 5.0 | 2.5 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 5.0 | 2.5 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 10 | 4.0 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 5.0 | 2.5 |
| 100-41-4 | Ethylbenzene | ND | | 5.0 | 2.5 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 5.0 | 2.5 |
| 87-68-3 | Hexachlorobutadiene | ND | | 5.0 | 2.5 |
| 591-78-6 | 2-Hexanone | ND | | 50 | 25 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: Ver-01I-B-12 | Lab Sample ID: 440-200466-3

Matrix: Water | Lab File ID: JGA15035.D

Analysis Method: 8260B | Date Collected: 01/11/2018 15:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/15/2018 20:55

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 451774 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 5.0 | 2.5 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 5.0 | 2.5 |
| 75-09-2 | Methylene Chloride | ND | | 20 | 8.8 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 50 | 25 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 5.0 | 2.5 |
| 179601-23-1 | m,p-Xylene | ND | | 10 | 5.0 |
| 91-20-3 | Naphthalene | ND | | 10 | 4.0 |
| 104-51-8 | n-Butylbenzene | ND | | 10 | 4.0 |
| 103-65-1 | N-Propylbenzene | ND | | 5.0 | 2.5 |
| 95-47-6 | o-Xylene | ND | | 5.0 | 2.5 |
| 99-87-6 | p-Isopropyltoluene | ND | | 5.0 | 2.5 |
| 135-98-8 | sec-Butylbenzene | ND | | 5.0 | 2.5 |
| 100-42-5 | Styrene | ND | | 5.0 | 2.5 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 5.0 | 2.5 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 100 | 50 |
| 98-06-6 | tert-Butylbenzene | ND | | 5.0 | 2.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 5.0 | 2.5 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 5.0 | 2.5 |
| 127-18-4 | Tetrachloroethene | ND | | 5.0 | 2.5 |
| 108-88-3 | Toluene | ND | | 5.0 | 2.5 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 5.0 | 2.5 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 5.0 | 2.5 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 10 | 4.0 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 10 | 4.0 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 5.0 | 2.5 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 5.0 | 2.5 |
| 79-01-6 | Trichloroethene | ND | | 5.0 | 2.5 |
| 75-69-4 | Trichlorofluoromethane | ND | | 5.0 | 2.5 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 10 | 4.0 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 5.0 | 2.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 5.0 | 2.5 |
| 75-01-4 | Vinyl chloride | ND | | 5.0 | 2.5 |
| 1330-20-7 | Xylenes, Total | ND | | 10 | 5.0 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Client Sample ID: Ver-01I-B-12 Lab Sample ID: 440-200466-3

Matrix: Water Lab File ID: JGA15035.D

Analysis Method: 8260B Date Collected: 01/11/2018 15:30

Sample wt/vol: 10(mL) Date Analyzed: 01/15/2018 20:55

Soil Aliquot Vol: Dilution Factor: 10

Soil Extract Vol.: GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 451774 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 111 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 106 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 105 | | 80-128 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD02 440-446291/4 | JFL12004.D |
| Level 2 | STD04 440-446291/5 | JFL12005.D |
| Level 3 | STD05 440-446291/6 | JFL12006.D |
| Level 4 | STD1 440-446291/7 | JFL12007.D |
| Level 5 | STD2 440-446291/8 | JFL12008.D |
| Level 6 | STD5 440-446291/9 | JFL12009.D |
| Level 7 | STD10 440-446291/10 | JFL12010.D |
| Level 8 | ICIS 440-446291/11 | JFL12011.D |
| Level 9 | STD50 440-446291/12 | JFL12012.D |
| Level 10 | STD100 440-446291/13 | JFL12013.D |
| Level 11 | STD200 440-446291/14 | JFL12014.D |
| Level 12 | STD300 440-446291/15 | JFL12015.D |

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dichlorodifluoromethane | +++++<br>0.4424<br>0.4346 | +++++<br>0.4698<br>0.3953 | 0.4308<br>0.4751 | 0.4223<br>0.4418 | 0.4262<br>0.4378 | Ave | | 0.4376 | | | | 5.2 | | 15.0 | | | |
| Chloromethane | +++++<br>0.6826<br>0.6292 | +++++<br>0.7117<br>+++++ | 0.9020<br>0.7094 | 0.7416<br>0.6627 | 0.7417<br>0.6513 | Ave | | 0.7147 | | | 0.1000 | 11.2 | | 15.0 | | | |
| Vinyl chloride | +++++<br>0.5452<br>0.5029 | 0.5912<br>0.5733<br>+++++ | 0.5480<br>0.5560 | 0.5386<br>0.5349 | 0.5422<br>0.5213 | Ave | | 0.5454 | | | | 4.6 | | 30.0 | | | |
| 1,3-Butadiene | +++++<br>0.5457<br>0.5099 | +++++<br>0.5733<br>0.4521 | +++++<br>0.5780 | 0.5683<br>0.5299 | 0.5908<br>0.5364 | Ave | | 0.5427 | | | | 7.9 | | 15.0 | | | |
| Bromomethane | +++++<br>0.2896<br>0.2940 | +++++<br>0.3103<br>0.2754 | 0.3171<br>0.3055 | 0.3145<br>0.2884 | 0.3160<br>0.2926 | Ave | | 0.3003 | | | | 4.7 | | 15.0 | | | |
| Chloroethane | +++++<br>0.2284<br>0.2337 | +++++<br>0.2447<br>0.2217 | 0.2048<br>0.2386 | 0.2360<br>0.2280 | 0.2296<br>0.2337 | Ave | | 0.2299 | | | | 4.7 | | 15.0 | | | |
| Ethanol | +++++<br>0.1335<br>0.1508 | +++++<br>0.1485<br>0.1418 | +++++<br>0.1530 | +++++<br>0.1401 | 0.1404<br>0.1440 | Ave | | 0.1440 | | | | 4.5 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dichlorofluoromethane | +++++<br>0.5768<br>0.5933 | +++++<br>0.6177<br>0.5458 | 0.6574<br>0.6247 | 0.6138<br>0.5898 | 0.6315<br>0.5984 | Ave | | 0.6049 | | | | 5.2 | | 15.0 | | | |
| Acrolein | +++++<br>0.0330<br>0.0391 | +++++<br>0.0364<br>0.0362 | +++++<br>0.0378 | +++++<br>0.0393 | +++++<br>0.0396 | Ave | | 0.0374 | | | | 6.3 | | 15.0 | | | |
| Acetonitrile | +++++<br>0.0386<br>0.0364 | +++++<br>0.0414<br>0.0332 | +++++<br>0.0396 | 0.0473<br>0.0378 | 0.0450<br>0.0376 | Ave | | 0.0397 | | | | 10.9 | | 15.0 | | | |
| Trichlorofluoromethane | +++++<br>0.5821<br>0.6136 | +++++<br>0.6228<br>0.5727 | 0.6000<br>0.6202 | 0.5803<br>0.6004 | 0.5938<br>0.6145 | Ave | | 0.6000 | | | | 2.9 | | 15.0 | | | |
| Acetone | +++++<br>0.0866<br>0.0807 | +++++<br>0.0792<br>0.0746 | +++++<br>0.0754 | +++++<br>0.0841 | +++++<br>0.0814 | Ave | | 0.0803 | | | | 5.4 | | 15.0 | | | |
| Diethyl ether | +++++<br>0.1949<br>0.2209 | +++++<br>0.2163<br>0.2050 | +++++<br>0.2202 | 0.1974<br>0.2106 | 0.2035<br>0.2159 | Ave | | 0.2094 | | | | 4.6 | | 15.0 | | | |
| 1,1-Dichloroethene | +++++<br>0.2485<br>0.2772 | +++++<br>0.2753<br>0.2700 | 0.2796<br>0.2710 | 0.2711<br>0.2597 | 0.2761<br>0.2679 | Ave | | 0.2696 | | | | 3.5 | | 30.0 | | | |
| tert-Butyl alcohol (TBA) | +++++<br>1.2119<br>1.3745 | +++++<br>1.2807<br>1.2712 | +++++<br>1.2770 | 1.2052<br>1.2122 | 1.2307<br>1.3126 | Ave | | 1.2640 | | | | 4.4 | | 15.0 | | | |
| Iodomethane | +++++<br>0.5781<br>0.6426 | +++++<br>0.6398<br>0.5964 | +++++<br>0.6407 | 0.6040<br>0.6074 | 0.6169<br>0.6412 | Ave | | 0.6186 | | | | 3.8 | | 15.0 | | | |
| Acrylonitrile | 0.0821<br>0.0931<br>0.0924 | 0.0924<br>0.1064<br>+++++ | 0.1003<br>0.1013 | 0.1002<br>0.1012 | 0.0990<br>0.1030 | Ave | | 0.0974 | | | | 7.0 | | 15.0 | | | |
| Methylene Chloride | +++++<br>0.2501<br>0.2824 | +++++<br>0.2871<br>0.2682 | 0.3120<br>0.2810 | 0.2938<br>0.2661 | 0.2814<br>0.2762 | Ave | | 0.2798 | | | | 6.0 | | 15.0 | | | |
| Methyl acetate | +++++<br>0.1907<br>0.1809 | +++++<br>0.2164<br>+++++ | 0.2105<br>0.2036 | 0.2051<br>0.2033 | 0.2135<br>0.2033 | Ave | | 0.2030 | | | | 5.5 | | 15.0 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | +++++<br>0.3511<br>0.3696 | +++++<br>0.3694<br>0.3487 | 0.3744<br>0.3671 | 0.3574<br>0.3578 | 0.3734<br>0.3713 | Ave | | 0.3640 | | | | 2.6 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Allyl chloride | +++++<br>0.4851<br>0.5195 | +++++<br>0.5418<br>0.4785 | +++++<br>0.5191 | 0.5770<br>0.5120 | 0.5711<br>0.5274 | Ave | | 0.5257 | | | | 6.4 | | 15.0 | | | |
| Carbon disulfide | +++++<br>0.8838<br>0.8921 | +++++<br>0.9537<br>0.8082 | 0.9206<br>0.9470 | 0.9172<br>0.8957 | 0.9126<br>0.9150 | Ave | | 0.9046 | | | | 4.5 | | 15.0 | | | |
| trans-1,2-Dichloroethene | +++++<br>0.2503<br>0.2645 | 0.2997<br>0.2656<br>0.2474 | 0.2979<br>0.2699 | 0.2857<br>0.2599 | 0.2829<br>0.2655 | Ave | | 0.2717 | | | | 6.5 | | 15.0 | | | |
| Methyl-t-Butyl Ether (MTBE) | +++++<br>0.6037<br>0.6652 | +++++<br>0.6886<br>0.6032 | 0.6827<br>0.6824 | 0.6838<br>0.6506 | 0.6695<br>0.6656 | Ave | | 0.6595 | | | | 4.8 | | 15.0 | | | |
| 1,1-Dichloroethane | +++++<br>0.4638<br>0.5068 | +++++<br>0.5192<br>0.4624 | 0.5029<br>0.5144 | 0.4747<br>0.4945 | 0.5111<br>0.5058 | Ave | | 0.4956 | | | 0.1000 | 4.2 | | 15.0 | | | |
| Propionitrile | +++++<br>0.0369<br>0.0404 | +++++<br>0.0408<br>0.0366 | +++++<br>0.0413 | 0.0349<br>0.0401 | 0.0387<br>0.0413 | Ave | | 0.0390 | | | | 6.0 | | 15.0 | | | |
| Vinyl acetate | +++++<br>0.5156<br>0.5761 | +++++<br>0.6023<br>0.5103 | +++++<br>0.5818 | +++++<br>0.5614 | 0.6371<br>0.5994 | Ave | | 0.5730 | | | | 7.6 | | 15.0 | | | |
| Hexane | +++++<br>0.4765<br>0.4930 | +++++<br>0.5064<br>0.4518 | +++++<br>0.4975 | 0.5005<br>0.4943 | 0.5114<br>0.5005 | Ave | | 0.4924 | | | | 3.7 | | 15.0 | | | |
| 2-Butanone (MEK) | +++++<br>0.0121<br>0.0283 | +++++<br>0.0207<br>0.0261 | +++++<br>0.0216 | +++++<br>0.0269 | +++++<br>0.0281 | Lin2 | -0.077 | 0.0276 | | | | | | | 0.9960 | | 0.9900 |
| Isopropyl Ether (DIPE) | +++++<br>0.9948<br>0.9619 | +++++<br>1.0887<br>+++++ | 1.1015<br>1.0890 | 1.0713<br>1.0323 | 1.0709<br>1.0308 | Ave | | 1.0490 | | | | 4.5 | | 15.0 | | | |
| cis-1,2-Dichloroethene | +++++<br>0.2686<br>0.2892 | 0.3187<br>0.2981<br>0.2744 | 0.3170<br>0.3003 | 0.3227<br>0.2841 | 0.3107<br>0.2923 | Ave | | 0.2978 | | | | 6.1 | | 15.0 | | | |
| Bromochloromethane | +++++<br>0.1325<br>0.1596 | +++++<br>0.1534<br>0.1521 | 0.1260<br>0.1566 | 0.1333<br>0.1492 | 0.1497<br>0.1564 | Ave | | 0.1469 | | | | 8.0 | | 15.0 | | | |
| Chloroform | +++++<br>0.4241<br>0.4596 | +++++<br>0.4773<br>0.4220 | 0.4416<br>0.4725 | 0.4490<br>0.4561 | 0.4571<br>0.4709 | Ave | | 0.4530 | | | | 4.2 | | 30.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Ethyl-t-butyl ether (ETBE) | +++++<br>0.8824<br>0.9211 | +++++<br>1.0178<br>0.8070 | 0.9258<br>1.0017 | 0.9322<br>0.9425 | 0.9361<br>0.9666 | Ave | | 0.9333 | | | | 6.4 | | 15.0 | | | |
| 2,2-Dichloropropane | +++++<br>0.3677<br>0.3694 | +++++<br>0.3831<br>0.3399 | 0.4130<br>0.3939 | 0.3828<br>0.3776 | 0.3891<br>0.3927 | Ave | | 0.3809 | | | | 5.1 | | 15.0 | | | |
| Isobutyl alcohol | +++++<br>0.6850<br>0.7265 | +++++<br>0.7039<br>0.6705 | 0.7447<br>0.7029 | 0.6815<br>0.6600 | 0.7227<br>0.7196 | Ave | | 0.7017 | | | | 3.9 | | 15.0 | | | |
| Tetrahydrofuran | +++++<br>0.0871<br>0.0853 | +++++<br>0.0944<br>0.0778 | +++++<br>0.0870 | +++++<br>0.0874 | 0.1033<br>0.0884 | Ave | | 0.0888 | | | | 8.3 | | 15.0 | | | |
| 1,2-Dichloroethane | +++++<br>0.3376<br>0.3822 | 0.3434<br>0.3828<br>0.3544 | 0.3659<br>0.3911 | 0.3713<br>0.3701 | 0.3703<br>0.3799 | Ave | | 0.3681 | | | | 4.6 | | 15.0 | | | |
| 1,1,1-Trichloroethane | +++++<br>0.4474<br>0.5027 | +++++<br>0.4872<br>0.4637 | 0.4943<br>0.4946 | 0.4806<br>0.4822 | 0.4805<br>0.5019 | Ave | | 0.4835 | | | | 3.6 | | 15.0 | | | |
| 1,1-Dichloropropene | +++++<br>0.3306<br>0.3388 | +++++<br>0.3450<br>0.3133 | 0.3718<br>0.3461 | 0.3387<br>0.3398 | 0.3412<br>0.3460 | Ave | | 0.3411 | | | | 4.3 | | 15.0 | | | |
| Cyclohexane | +++++<br>0.5773<br>0.6128 | +++++<br>0.6303<br>0.5564 | +++++<br>0.6267 | 0.6166<br>0.6034 | 0.6142<br>0.6240 | Ave | | 0.6068 | | | | 4.1 | | 15.0 | | | |
| Carbon tetrachloride | +++++<br>0.4347<br>0.5041 | +++++<br>0.4684<br>0.4673 | 0.4719<br>0.4835 | 0.4454<br>0.4723 | 0.4443<br>0.5023 | Ave | | 0.4694 | | | | 5.0 | | 15.0 | | | |
| Benzene | +++++<br>0.9075<br>0.8588 | +++++<br>0.9902<br>+++++ | 1.0716<br>0.9985 | 0.9460<br>0.9483 | 0.9692<br>0.9563 | Ave | | 0.9607 | | | | 6.2 | | 15.0 | | | |
| Tert-amyl-methyl ether (TAME) | +++++<br>0.6221<br>0.6988 | +++++<br>0.7727<br>0.6136 | 0.8146<br>0.7579 | 0.7186<br>0.7109 | 0.6698<br>0.7130 | Ave | | 0.7092 | | | | 8.9 | | 15.0 | | | |
| n-Heptane | +++++<br>0.5340<br>0.5258 | +++++<br>0.5585<br>0.4676 | +++++<br>0.5591 | 0.5611<br>0.5400 | 0.5564<br>0.5449 | Ave | | 0.5386 | | | | 5.5 | | 15.0 | | | |
| Dibromomethane | +++++<br>0.1478<br>0.1808 | +++++<br>0.1692<br>0.1709 | 0.1788<br>0.1734 | 0.1610<br>0.1671 | 0.1669<br>0.1741 | Ave | | 0.1690 | | | | 5.6 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| 1,2-Dichloropropane | +++++<br>0.2525<br>0.2981 | +++++<br>0.2843<br>0.2802 | 0.2795<br>0.2913 | 0.2712<br>0.2779 | 0.2807<br>0.2875 | Ave | | 0.2803 | | | | 4.4 | | 30.0 | | | |
| Trichloroethene | +++++<br>0.2982<br>0.3429 | +++++<br>0.3260<br>0.3199 | 0.3220<br>0.3359 | 0.3301<br>0.3294 | 0.3204<br>0.3390 | Ave | | 0.3264 | | | | 3.9 | | 15.0 | | | |
| Bromodichloromethane | +++++<br>0.3178<br>0.3747 | +++++<br>0.3511<br>0.3486 | 0.3147<br>0.3683 | 0.3215<br>0.3511 | 0.3279<br>0.3717 | Ave | | 0.3447 | | | | 6.7 | | 15.0 | | | |
| 2-Chloroethyl vinyl ether | +++++<br>0.1266<br>0.1410 | +++++<br>0.1423<br>0.1243 | +++++<br>0.1438 | +++++<br>0.1379 | 0.1319<br>0.1488 | Ave | | 0.1371 | | | | 6.3 | | 15.0 | | | |
| Methylcyclohexane | +++++<br>0.4326<br>0.4964 | +++++<br>0.4712<br>0.4568 | +++++<br>0.4880 | 0.4690<br>0.4771 | 0.4784<br>0.4915 | Ave | | 0.4735 | | | | 4.1 | | 15.0 | | | |
| cis-1,3-Dichloropropene | +++++<br>0.4147<br>0.4091 | +++++<br>0.4508<br>0.3494 | 0.4439<br>0.4534 | 0.4510<br>0.4285 | 0.4210<br>0.4488 | Ave | | 0.4270 | | | | 7.5 | | 15.0 | | | |
| 4-Methyl-2-pentanone (MIBK) | +++++<br>0.2766<br>0.3024 | +++++<br>0.3024<br>0.2557 | +++++<br>0.2930 | +++++<br>0.3263 | 0.3430<br>0.3379 | Ave | | 0.3047 | | | | 9.9 | | 15.0 | | | |
| trans-1,3-Dichloropropene | +++++<br>0.3646<br>0.3823 | +++++<br>0.4039<br>0.3268 | 0.4016<br>0.4114 | 0.3939<br>0.3880 | 0.3966<br>0.4139 | Ave | | 0.3883 | | | | 6.7 | | 15.0 | | | |
| 1,1,2-Trichloroethane | +++++<br>0.1843<br>0.1887 | +++++<br>0.1996<br>0.1661 | 0.1676<br>0.1992 | 0.2073<br>0.1888 | 0.2057<br>0.1991 | Ave | | 0.1906 | | | | 7.6 | | 15.0 | | | |
| Toluene | +++++<br>1.1615<br>+++++ | +++++<br>1.2406<br>+++++ | 1.3033<br>1.2087 | 1.2350<br>1.1406 | 1.2324<br>1.1585 | Ave | | 1.2101 | | | | 4.5 | | 30.0 | | | |
| Ethyl methacrylate | +++++<br>0.2923<br>0.3119 | +++++<br>0.3192<br>0.2699 | +++++<br>0.3183 | 0.3369<br>0.3130 | 0.3158<br>0.3291 | Ave | | 0.3118 | | | | 6.4 | | 15.0 | | | |
| 1,3-Dichloropropane | +++++<br>0.3620<br>0.3643 | +++++<br>0.3945<br>0.3135 | 0.3997<br>0.3886 | 0.3990<br>0.3734 | 0.3680<br>0.3844 | Ave | | 0.3747 | | | | 6.9 | | 15.0 | | | |
| 2-Hexanone | +++++<br>0.2028<br>0.2293 | +++++<br>0.2199<br>0.1963 | +++++<br>0.2117 | +++++<br>0.2377 | 0.2408<br>0.2522 | Ave | | 0.2239 | | | | 8.7 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dibromochloromethane | +++++<br>0.3181<br>0.3676 | +++++<br>0.3547<br>0.3214 | 0.3272<br>0.3592 | 0.3460<br>0.3547 | 0.3406<br>0.3831 | Ave | | 0.3472 | | | | 6.0 | | 15.0 | | | |
| 1,2-Dibromoethane (EDB) | +++++<br>0.2564<br>0.2650 | +++++<br>0.2754<br>0.2321 | 0.2609<br>0.2743 | 0.2609<br>0.2628 | 0.2656<br>0.2803 | Ave | | 0.2634 | | | | 5.1 | | 15.0 | | | |
| Tetrachloroethene | +++++<br>0.3073<br>0.2936 | +++++<br>0.3059<br>0.2581 | 0.3124<br>0.3114 | 0.3088<br>0.2995 | 0.3033<br>0.3223 | Ave | | 0.3023 | | | | 5.7 | | 15.0 | | | |
| 1,1,1,2-Tetrachloroethane | +++++<br>0.3637<br>0.3798 | +++++<br>0.3881<br>+++++ | 0.5456<br>0.3799 | 0.4578<br>0.3660 | 0.4191<br>0.3973 | Ave | | 0.4108 | | | | 14.2 | | 15.0 | | | |
| Chlorobenzene | +++++<br>0.8743<br>0.7919 | +++++<br>0.9340<br>+++++ | 0.9516<br>0.9200 | 0.9170<br>0.8777 | 0.8964<br>0.9214 | Ave | | 0.8983 | | | 0.3000 | 5.2 | | 15.0 | | | |
| Ethylbenzene | +++++<br>1.3973<br>+++++ | +++++<br>1.4636<br>+++++ | 1.5172<br>1.4294 | 1.4883<br>1.3646 | 1.4616<br>1.3878 | Ave | | 1.4387 | | | | 3.7 | | 30.0 | | | |
| m,p-Xylene | +++++<br>0.5503<br>0.5743 | +++++<br>0.5831<br>0.4988 | 0.5764<br>0.5719 | 0.5940<br>0.5588 | 0.5737<br>0.6057 | Ave | | 0.5687 | | | | 5.1 | | 15.0 | | | |
| Bromoform | +++++<br>0.2208<br>0.2904 | +++++<br>0.2488<br>0.2545 | 0.2052<br>0.2641 | 0.2287<br>0.2648 | 0.2232<br>0.2930 | Ave | | 0.2494 | | | 0.1000 | 11.9 | | 15.0 | | | |
| Styrene | +++++<br>0.8839<br>0.8530 | +++++<br>0.9468<br>+++++ | 0.9476<br>0.9637 | 0.9474<br>0.9389 | 0.9110<br>0.9994 | Ave | | 0.9324 | | | | 4.7 | | 15.0 | | | |
| 1,1,2,2-Tetrachloroethane | +++++<br>0.5367<br>0.5762 | +++++<br>0.5876<br>0.5356 | 0.5898<br>0.5769 | 0.5580<br>0.5522 | 0.5821<br>0.5745 | Ave | | 0.5670 | | | 0.3000 | 3.5 | | 15.0 | | | |
| o-Xylene | +++++<br>0.5543<br>0.5790 | 0.5998<br>0.5862<br>0.4852 | 0.5876<br>0.5794 | 0.5748<br>0.5677 | 0.5851<br>0.6243 | Ave | | 0.5749 | | | | 6.0 | | 15.0 | | | |
| 1,2,3-Trichloropropane | +++++<br>0.1710<br>0.1825 | +++++<br>0.1786<br>0.1739 | 0.1274<br>0.1737 | 0.1832<br>0.1665 | 0.1639<br>0.1758 | Ave | | 0.1697 | | | | 9.5 | | 15.0 | | | |
| trans-1,4-Dichloro-2-butene | +++++<br>0.1903<br>0.2254 | +++++<br>0.2112<br>0.2111 | +++++<br>0.2034 | +++++<br>0.2073 | 0.2013<br>0.2179 | Ave | | 0.2085 | | | | 5.1 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Isopropylbenzene | +++++<br>1.5375<br>+++++ | +++++<br>1.6255<br>+++++ | 1.6420<br>1.5627 | 1.6118<br>1.5355 | 1.5914<br>1.5632 | Ave | | 1.5837 | | | | 2.5 | | 15.0 | | | |
| Bromobenzene | +++++<br>0.7388<br>0.7817 | +++++<br>0.7897<br>0.7374 | 0.7246<br>0.7712 | 0.7870<br>0.7525 | 0.7645<br>0.7759 | Ave | | 0.7623 | | | | 3.0 | | 15.0 | | | |
| N-Propylbenzene | +++++<br>2.8692<br>+++++ | +++++<br>3.0115<br>+++++ | 3.2490<br>2.9190 | 2.9719<br>2.8076 | 2.9949<br>2.6420 | Ave | | 2.9331 | | | | 6.0 | | 15.0 | | | |
| 2-Chlorotoluene | +++++<br>1.7000<br>1.5094 | +++++<br>1.7740<br>+++++ | 1.8955<br>1.7366 | 1.8566<br>1.6880 | 1.7766<br>1.6949 | Ave | | 1.7368 | | | | 6.4 | | 15.0 | | | |
| 4-Chlorotoluene | +++++<br>1.7605<br>1.5365 | +++++<br>1.8741<br>+++++ | 1.8967<br>1.8349 | 1.8253<br>1.7591 | 1.9014<br>1.7730 | Ave | | 1.7957 | | | | 6.2 | | 15.0 | | | |
| 1,3,5-Trimethylbenzene | +++++<br>2.1956<br>+++++ | +++++<br>2.3190<br>+++++ | 2.3085<br>2.2645 | 2.2794<br>2.2021 | 2.2815<br>2.1780 | Ave | | 2.2536 | | | | 2.4 | | 15.0 | | | |
| tert-Butylbenzene | +++++<br>2.0494<br>+++++ | +++++<br>2.1675<br>+++++ | 2.2255<br>2.1384 | 2.1379<br>2.0991 | 2.1666<br>2.0788 | Ave | | 2.1329 | | | | 2.6 | | 15.0 | | | |
| 1,2,4-Trimethylbenzene | +++++<br>2.2374<br>+++++ | +++++<br>2.3872<br>+++++ | 2.4301<br>2.3620 | 2.3588<br>2.2697 | 2.3905<br>2.2125 | Ave | | 2.3310 | | | | 3.4 | | 15.0 | | | |
| sec-Butylbenzene | +++++<br>3.0404<br>+++++ | +++++<br>3.1810<br>+++++ | 3.2261<br>3.1194 | 3.1676<br>3.0037 | 3.1496<br>2.7351 | Ave | | 3.0779 | | | | 5.1 | | 15.0 | | | |
| 1,3-Dichlorobenzene | +++++<br>1.4894<br>1.3306 | +++++<br>1.5889<br>+++++ | 1.6197<br>1.5717 | 1.5871<br>1.5219 | 1.5761<br>1.5397 | Ave | | 1.5361 | | | | 5.6 | | 15.0 | | | |
| 1,4-Dichlorobenzene | +++++<br>1.5185<br>1.3064 | +++++<br>1.6207<br>+++++ | 1.7425<br>1.6074 | 1.6859<br>1.5494 | 1.6305<br>1.5321 | Ave | | 1.5770 | | | | 7.9 | | 15.0 | | | |
| p-Isopropyltoluene | +++++<br>2.7321<br>+++++ | +++++<br>2.8365<br>+++++ | 3.0149<br>2.8004 | 2.8729<br>2.7330 | 2.8525<br>2.5417 | Ave | | 2.7980 | | | | 4.9 | | 15.0 | | | |
| 1,2-Dichlorobenzene | +++++<br>1.4075<br>1.2304 | +++++<br>1.5095<br>+++++ | 1.4919<br>1.5202 | 1.4374<br>1.4368 | 1.4612<br>1.4287 | Ave | | 1.4360 | | | | 6.0 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| n-Butylbenzene | +++++<br>2.3837<br>+++++ | +++++<br>2.4978<br>+++++ | 2.7349<br>2.4288 | 2.4601<br>2.3233 | 2.4607<br>2.1499 | Ave | | 2.4299 | | | | 6.8 | | 15.0 | | | |
| 1,2-Dibromo-3-Chloropropane | +++++<br>0.1109<br>0.1183 | +++++<br>0.1173<br>0.1066 | +++++<br>0.1165 | 0.1123<br>0.1175 | 0.1053<br>0.1231 | Ave | | 0.1142 | | | | 5.1 | | 15.0 | | | |
| 1,2,4-Trichlorobenzene | +++++<br>0.9846<br>0.9670 | +++++<br>1.0619<br>0.8323 | 1.0818<br>1.0898 | 1.0213<br>1.0689 | 1.0426<br>1.0896 | Ave | | 1.0240 | | | | 7.8 | | 15.0 | | | |
| Naphthalene | +++++<br>2.0525<br>+++++ | +++++<br>2.2851<br>+++++ | 2.2495<br>2.2993 | 2.1874<br>2.2273 | 2.1937<br>2.1592 | Ave | | 2.2067 | | | | 3.6 | | 15.0 | | | |
| Hexachlorobutadiene | +++++<br>0.5921<br>0.5980 | +++++<br>0.6408<br>0.5458 | 0.5970<br>0.6415 | 0.6168<br>0.6260 | 0.6354<br>0.6465 | Ave | | 0.6140 | | | | 5.1 | | 15.0 | | | |
| 1,2,3-Trichlorobenzene | +++++<br>0.8581<br>0.8831 | +++++<br>0.9608<br>0.7759 | 0.9246<br>0.9979 | 0.9395<br>0.9395 | 0.8884<br>0.9764 | Ave | | 0.9144 | | | | 7.1 | | 15.0 | | | |
| Dibromofluoromethane (Surr) | 0.2632 | 0.2901 | 0.2853 | 0.2730 | 0.2874 | Ave | | 0.2798 | | | | 4.1 | | 15.0 | | | |
| 1,2-Dichloroethane-d4 (Surr) | 0.2881 | 0.3191 | 0.3148 | 0.2947 | 0.3050 | Ave | | 0.3043 | | | | 4.3 | | 15.0 | | | |
| Toluene-d8 (Surr) | 1.0668 | 1.1124 | 1.0695 | 1.0112 | 1.0320 | Ave | | 1.0584 | | | | 3.7 | | 15.0 | | | |
| 4-Bromofluorobenzene (Surr) | 0.7416 | 0.7762 | 0.7463 | 0.7094 | 0.7521 | Ave | | 0.7451 | | | | 3.2 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD02 440-446291/4 | JFL12004.D |
| Level 2 | STD04 440-446291/5 | JFL12005.D |
| Level 3 | STD05 440-446291/6 | JFL12006.D |
| Level 4 | STD1 440-446291/7 | JFL12007.D |
| Level 5 | STD2 440-446291/8 | JFL12008.D |
| Level 6 | STD5 440-446291/9 | JFL12009.D |
| Level 7 | STD10 440-446291/10 | JFL12010.D |
| Level 8 | ICIS 440-446291/11 | JFL12011.D |
| Level 9 | STD50 440-446291/12 | JFL12012.D |
| Level 10 | STD100 440-446291/13 | JFL12013.D |
| Level 11 | STD200 440-446291/14 | JFL12014.D |
| Level 12 | STD300 440-446291/15 | JFL12015.D |

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Dichlorodifluoromethane | FB | Ave | +++++<br>67931<br>2934367 | +++++<br>145828<br>4006582 | 6659<br>369016 | 13469<br>694172 | 26034<br>1408304 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloromethane | FB | Ave | +++++<br>104823<br>4248909 | +++++<br>220904<br>+++++ | 13941<br>551020 | 23653<br>1041177 | 45305<br>2095208 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Vinyl chloride | FB | Ave | +++++<br>83722<br>3395676 | 7623<br>177940<br>+++++ | 8470<br>431829 | 17179<br>840441 | 33115<br>1677167 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Butadiene | FB | Ave | +++++<br>83804<br>3442979 | +++++<br>177927<br>4582062 | +++++<br>448955 | 18127<br>832487 | 36086<br>1725590 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromomethane | FB | Ave | +++++<br>44467<br>1985288 | +++++<br>96304<br>2791153 | 4901<br>237284 | 10030<br>453131 | 19300<br>941288 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloroethane | FB | Ave | +++++<br>35072<br>1578341 | +++++<br>75964<br>2246850 | 3165<br>185336 | 7528<br>358235 | 14024<br>751976 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethanol | TBAd 9 | Ave | +++++<br>25667<br>1561034 | +++++<br>59726<br>2123648 | +++++<br>150076 | +++++<br>369167 | 13984<br>749322 | +++++<br>200<br>10000 | +++++<br>400<br>15000 | +++++<br>1000 | +++++<br>2500 | 100<br>5000 |
| Dichlorofluoromethane | FB | Ave | +++++<br>88580<br>4006355 | +++++<br>191712<br>5531570 | 10161<br>485206 | 19578<br>926593 | 38571<br>1925195 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Acrolein | FB | Ave | +++++<br>5065<br>264056 | +++++<br>11306<br>367117 | +++++<br>29385 | +++++<br>61747 | +++++<br>127386 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Acetonitrile | FB | Ave | +++++<br>59286<br>2457789 | +++++<br>128507<br>3363738 | +++++<br>307928 | 15074<br>593436 | 27457<br>1210737 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Trichlorofluoromethane | FB | Ave | +++++<br>89388<br>4143485 | +++++<br>193297<br>5803784 | 9274<br>481702 | 18508<br>943278 | 36271<br>1976975 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Acetone | FB | Ave | +++++<br>13292<br>544960 | +++++<br>24580<br>756074 | +++++<br>58567 | +++++<br>132210 | +++++<br>261838 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Diethyl ether | FB | Ave | +++++<br>29935<br>1491415 | +++++<br>67123<br>2077656 | +++++<br>171028 | 6297<br>330853 | 12427<br>694726 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloroethene | FB | Ave | +++++<br>38167<br>1871636 | +++++<br>85457<br>2736237 | 4322<br>210506 | 8648<br>407999 | 16863<br>861795 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| tert-Butyl alcohol (TBA) | TBAd9 | Ave | +++++<br>58229<br>2845522 | +++++<br>128765<br>3808698 | +++++<br>313093 | 12944<br>639019 | 24520<br>1365997 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Iodomethane | FB | Ave | +++++<br>88784<br>4339477 | +++++<br>198585<br>6044353 | +++++<br>497629 | 19264<br>954346 | 37678<br>2062782 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Acrylonitrile | FB | Ave | 5144<br>142994<br>6239393 | 11913<br>330253<br>+++++ | 15495<br>786454 | 31953<br>1590748 | 60444<br>3312854 | 2.00<br>50.0<br>2000 | 4.00<br>100<br>+++++ | 5.00<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Methylene Chloride | FB | Ave | +++++<br>38407<br>1907211 | +++++<br>89100<br>2718423 | 4822<br>218266 | 9370<br>418074 | 17185<br>888655 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methyl acetate | FB | Ave | +++++<br>146419<br>6106553 | +++++<br>335801<br>+++++ | 16268<br>790684 | 32715<br>1597214 | 65195<br>3270287 | +++++<br>25.0<br>1000 | +++++<br>50.0<br>+++++ | 2.50<br>125 | 5.00<br>250 | 10.0<br>500 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | FB | Ave | +++++<br>53921<br>2496096 | +++++<br>114649<br>3534041 | 5786<br>285127 | 11398<br>562073 | 22804<br>1194412 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Allyl chloride | FB | Ave | +++++<br>74494<br>3507920 | +++++<br>168154<br>4848911 | +++++<br>403215 | 18403<br>804393 | 34880<br>1696780 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Carbon disulfide | FB | Ave | +++++<br>135716<br>6023838 | +++++<br>296004<br>8190642 | 14229<br>735587 | 29254<br>1407308 | 55742<br>2943540 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| trans-1,2-Dichloroethene | FB | Ave | +++++<br>38444<br>1786260 | 3864<br>82438<br>2507027 | 4604<br>209639 | 9111<br>408284 | 17280<br>853990 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methyl-t-Butyl Ether (MTBE) | FB | Ave | +++++<br>92715<br>4491564 | +++++<br>213718<br>6112604 | 10552<br>530040 | 21810<br>1022238 | 40893<br>2141351 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloroethane | FB | Ave | +++++<br>71228<br>3422124 | +++++<br>161161<br>4686617 | 7773<br>399556 | 15139<br>776982 | 31218<br>1627321 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Propionitrile | FB | Ave | +++++<br>56713<br>2725653 | +++++<br>126776<br>3705202 | +++++<br>320779 | 11130<br>629522 | 23637<br>1329092 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Vinyl acetate | FB | Ave | +++++<br>63346<br>3890415 | +++++<br>149546<br>5171244 | +++++<br>361546 | +++++<br>882009 | 38916<br>1928431 | +++++<br>4.00<br>200 | +++++<br>8.00<br>300 | +++++<br>20.0 | +++++<br>50.0 | 2.00<br>100 |
| Hexane | FB | Ave | +++++<br>73170<br>3329007 | +++++<br>157184<br>4578757 | +++++<br>386410 | 15963<br>776578 | 31234<br>1610040 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Butanone (MEK) | FB | Lin2 | +++++<br>1864<br>191176 | +++++<br>6439<br>264310 | +++++<br>16812 | +++++<br>42318 | +++++<br>90328 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Isopropyl Ether (DIPE) | FB | Ave | +++++<br>152775<br>6495570 | +++++<br>337912<br>+++++ | 17025<br>845817 | 34168<br>1621872 | 65407<br>3316273 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| cis-1,2-Dichloroethene | FB | Ave | +++++<br>41251<br>1952551 | 4109<br>92509<br>2781078 | 4899<br>233254 | 10293<br>446376 | 18976<br>940349 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromochloromethane | FB | Ave | +++++<br>20353<br>1077914 | +++++<br>47627<br>1541095 | 1948<br>121600 | 4251<br>234475 | 9142<br>503001 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloroform | FB | Ave | +++++<br>65130<br>3103430 | +++++<br>148134<br>4276243 | 6825<br>367027 | 14321<br>716609 | 27921<br>1515000 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethyl-t-butyl ether (ETBE) | FB | Ave | +++++<br>135502<br>6219979 | +++++<br>315901<br>8178591 | 14309<br>778068 | 29731<br>1480834 | 57175<br>3109602 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 2,2-Dichloropropane | FB | Ave | +++++<br>56469<br>2494717 | +++++<br>118891<br>3444461 | 6384<br>305976 | 12209<br>593297 | 23764<br>1263285 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Isobutyl alcohol | TBAd9 | Ave | +++++<br>82284<br>3759782 | +++++<br>176918<br>5022760 | 10387<br>430857 | 18299<br>869809 | 35997<br>1872079 | +++++<br>125<br>5000 | +++++<br>250<br>7500 | 12.5<br>625 | 25.0<br>1250 | 50.0<br>2500 |
| Tetrahydrofuran | FB | Ave | +++++<br>26753<br>1152129 | +++++<br>58602<br>1576985 | +++++<br>135090 | +++++<br>274776 | 12623<br>568482 | +++++<br>10.0<br>400 | +++++<br>20.0<br>600 | +++++<br>50.0 | +++++<br>100 | 4.00<br>200 |
| 1,2-Dichloroethane | FB | Ave | +++++<br>51850<br>2580584 | 4428<br>118809<br>3591883 | 5655<br>303778 | 11844<br>581449 | 22615<br>1222158 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,1-Trichloroethane | FB | Ave | +++++<br>68708<br>3394764 | +++++<br>151224<br>4699363 | 7640<br>384201 | 15330<br>757533 | 29346<br>1614607 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloropropene | FB | Ave | +++++<br>50772<br>2287870 | +++++<br>107087<br>3175403 | 5746<br>268822 | 10803<br>533793 | 20838<br>1112981 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Cyclohexane | FB | Ave | +++++<br>88649<br>4137961 | +++++<br>195619<br>5638851 | +++++<br>486757 | 19665<br>948045 | 37514<br>2007464 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Carbon tetrachloride | FB | Ave | +++++<br>66758<br>3404104 | +++++<br>145392<br>4735341 | 7293<br>375527 | 14205<br>741975 | 27139<br>1616062 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Benzene | FB | Ave | +++++<br>139369<br>5799126 | +++++<br>307348<br>+++++ | 16563<br>775574 | 30171<br>1489969 | 59198<br>3076379 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Tert-amyl-methyl ether (TAME) | FB | Ave | +++++<br>95527<br>4718736 | +++++<br>239818<br>6218700 | 12590<br>588644 | 22919<br>1116865 | 40908<br>2293693 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Heptane | FB | Ave | +++++<br>81997<br>3550716 | +++++<br>173353<br>4739293 | +++++<br>434256 | 17895<br>848347 | 33983<br>1752942 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Dibromomethane | FB | Ave | +++++<br>22690<br>1221183 | +++++<br>52501<br>1732452 | 2764<br>134647 | 5135<br>262599 | 10195<br>560154 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2-Dichloropropane | FB | Ave | +++++<br>38775<br>2012769 | +++++<br>88241<br>2839226 | 4320<br>226235 | 8650<br>436544 | 17147<br>925081 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Trichloroethene | FB | Ave | +++++<br>45791<br>2315642 | +++++<br>101196<br>3241852 | 4977<br>260931 | 10527<br>517476 | 19569<br>1090565 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromodichloromethane | FB | Ave | +++++<br>48802<br>2530369 | +++++<br>108985<br>3532738 | 4864<br>286053 | 10254<br>551652 | 20025<br>1195899 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Chloroethyl vinyl ether | CBNZ d5 | Ave | +++++<br>16709<br>979788 | +++++<br>39314<br>1396105 | +++++<br>103187 | +++++<br>200983 | 7118<br>442610 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Methylcyclohexane | FB | Ave | +++++<br>66433<br>3351871 | +++++<br>146253<br>4629638 | +++++<br>379029 | 14960<br>749611 | 29222<br>1581211 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| cis-1,3-Dichloropropene | CBNZ d5 | Ave | +++++<br>54723<br>2842529 | +++++<br>124509<br>3922970 | 6082<br>325393 | 12510<br>624361 | 22724<br>1335096 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 4-Methyl-2-pentanone (MIBK) | CBNZ d5 | Ave | +++++<br>36496<br>2101030 | +++++<br>83526<br>2871041 | +++++<br>210310 | +++++<br>475511 | 18514<br>1005312 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| trans-1,3-Dichloropropene | CBNZ d5 | Ave | +++++<br>48107<br>2656511 | +++++<br>111543<br>3669869 | 5503<br>295273 | 10927<br>565360 | 21409<br>1231496 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2-Trichloroethane | CBNZ d5 | Ave | +++++<br>24317<br>1311244 | +++++<br>55113<br>1864502 | 2297<br>142948 | 5750<br>275140 | 11102<br>592448 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Toluene | CBNZ d5 | Ave | +++++<br>153273<br>+++++ | +++++<br>342626<br>+++++ | 17858<br>867418 | 34260<br>1662032 | 66521<br>3446490 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethyl methacrylate | CBNZ d5 | Ave | +++++<br>38566<br>2167227 | +++++<br>88162<br>3030427 | +++++<br>228460 | 9345<br>456089 | 17044<br>979220 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Dichloropropane | CBNZ d5 | Ave | +++++<br>47766<br>2531145 | +++++<br>108951<br>3520209 | 5477<br>278873 | 11068<br>544146 | 19861<br>1143718 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Hexanone | CBNZ d5 | Ave | +++++<br>26767<br>1593496 | +++++<br>60741<br>2203782 | +++++<br>151951 | +++++<br>346390 | 12998<br>750186 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Dibromochloromethane | CBNZ d5 | Ave | +++++<br>41978<br>2554286 | +++++<br>97959<br>3608153 | 4483<br>257760 | 9597<br>516800 | 18383<br>1139772 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 1,2-Dibromoethane (EDB) | CBNZ d5 | Ave | +++++<br>33828<br>1841145 | +++++<br>76056<br>2606251 | 3575<br>196851 | 7238<br>382923 | 14334<br>833837 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Tetrachloroethene | CBNZ d5 | Ave | +++++<br>40556<br>2039976 | +++++<br>84479<br>2897733 | 4280<br>223471 | 8567<br>436452 | 16369<br>958759 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,1,2-Tetrachloroethane | CBNZ d5 | Ave | +++++<br>47996<br>2638818 | +++++<br>107180<br>+++++ | 7476<br>272615 | 12699<br>533311 | 22622<br>1181847 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chlorobenzene | CBNZ d5 | Ave | +++++<br>115368<br>5502452 | +++++<br>257946<br>+++++ | 13039<br>660255 | 25438<br>1278971 | 48386<br>2741196 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethylbenzene | CBNZ d5 | Ave | +++++<br>184377<br>+++++ | +++++<br>404229<br>+++++ | 20790<br>1025862 | 41285<br>1988468 | 78888<br>4128608 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| m,p-Xylene | CBNZ d5 | Ave | +++++<br>72622<br>3990492 | +++++<br>161048<br>5600582 | 7898<br>410468 | 16478<br>814319 | 30965<br>1802057 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromoform | CBNZ d5 | Ave | +++++<br>29132<br>2017465 | +++++<br>68718<br>2857737 | 2812<br>189567 | 6344<br>385854 | 12046<br>871816 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Styrene | CBNZ d5 | Ave | +++++<br>116642<br>5926712 | +++++<br>261479<br>+++++ | 12985<br>691628 | 26280<br>1368079 | 49171<br>2973312 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2,2-Tetrachloroethane | DCBd 4 | Ave | +++++<br>42887<br>2459153 | +++++<br>99512<br>3315179 | 4856<br>256912 | 9411<br>505935 | 18871<br>1120389 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| o-Xylene | CBNZ d5 | Ave | +++++<br>73149<br>4023012 | 6713<br>161887<br>5447502 | 8051<br>415847 | 15946<br>827236 | 31580<br>1857444 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,3-Trichloropropane | DCBd 4 | Ave | +++++<br>13661<br>779082 | +++++<br>30244<br>1076653 | 1049<br>77333 | 3089<br>152543 | 5314<br>342949 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| trans-1,4-Dichloro-2-butene | DCBd 4 | Ave | +++++<br>15205<br>962055 | +++++<br>35767<br>1306704 | +++++<br>90563 | +++++<br>189936 | 6525<br>425053 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Isopropylbenzene | CBNZ d5 | Ave | +++++<br>202880<br>+++++ | +++++<br>448929<br>+++++ | 22499<br>1121520 | 44713<br>2237520 | 85898<br>4650597 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Bromobenzene | DCBd 4 | Ave | +++++<br>59036<br>3336368 | +++++<br>133751<br>4564592 | 5966<br>343407 | 13273<br>689354 | 24786<br>1513305 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| N-Propylbenzene | DCBd 4 | Ave | +++++<br>229264<br>+++++ | +++++<br>510030<br>+++++ | 26749<br>1299847 | 50121<br>2572168 | 97093<br>5152600 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Chlorotoluene | DCBd 4 | Ave | +++++<br>135839<br>6442380 | +++++<br>300451<br>+++++ | 15606<br>773304 | 31311<br>1546422 | 57596<br>3305631 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 4-Chlorotoluene | DCBd 4 | Ave | +++++<br>140674<br>6557855 | +++++<br>317391<br>+++++ | 15616<br>817085 | 30783<br>1611545 | 61641<br>3457785 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3,5-Trimethylbenzene | DCBd 4 | Ave | +++++<br>175439<br>+++++ | +++++<br>392740<br>+++++ | 19006<br>1008412 | 38441<br>2017425 | 73964<br>4247642 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| tert-Butylbenzene | DCBd 4 | Ave | +++++<br>163758<br>+++++ | +++++<br>367094<br>+++++ | 18323<br>952249 | 36055<br>1923057 | 70238<br>4054294 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,4-Trimethylbenzene | DCBd 4 | Ave | +++++<br>178778<br>+++++ | +++++<br>404304<br>+++++ | 20007<br>1051802 | 39780<br>2079340 | 77498<br>4314942 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| sec-Butylbenzene | DCBd 4 | Ave | +++++<br>242944<br>+++++ | +++++<br>538743<br>+++++ | 26561<br>1389097 | 53421<br>2751838 | 102109<br>5334176 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Dichlorobenzene | DCBd 4 | Ave | +++++<br>119013<br>5679119 | +++++<br>269089<br>+++++ | 13335<br>699881 | 26767<br>1394285 | 51096<br>3002798 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,4-Dichlorobenzene | DCBd 4 | Ave | +++++<br>121336<br>5575837 | +++++<br>274475<br>+++++ | 14346<br>715788 | 28433<br>1419433 | 52859<br>2988031 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| p-Isopropyltoluene | DCBd 4 | Ave | +++++<br>218309<br>+++++ | +++++<br>480384<br>+++++ | 24822<br>1247029 | 48451<br>2503840 | 92476<br>4957030 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2-Dichlorobenzene | DCBd 4 | Ave | +++++<br>112465<br>5251299 | +++++<br>255651<br>+++++ | 12283<br>676966 | 24242<br>1316267 | 47371<br>2786472 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Butylbenzene | DCBd 4 | Ave | +++++<br>190475<br>+++++ | +++++<br>423021<br>+++++ | 22517<br>1081562 | 41490<br>2128419 | 79774<br>4193001 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 1,2-Dibromo-3-Chloropropane | DCBd 4 | Ave | +++++<br>8862<br>504852 | +++++<br>19863<br>659824 | +++++<br>51884 | 1894<br>107644 | 3413<br>239994 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,4-Trichlorobenzene | DCBd 4 | Ave | +++++<br>78679<br>4127335 | +++++<br>179838<br>5152212 | 8907<br>485284 | 17224<br>979292 | 33800<br>2125027 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Naphthalene | DCBd 4 | Ave | +++++<br>164006<br>+++++ | +++++<br>387000<br>+++++ | 18520<br>1023892 | 36890<br>2040515 | 71119<br>4211055 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Hexachlorobutadiene | DCBd 4 | Ave | +++++<br>47309<br>2552477 | +++++<br>108523<br>3378775 | 4915<br>285657 | 10402<br>573541 | 20599<br>1260854 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,3-Trichlorobenzene | DCBd 4 | Ave | +++++<br>68568<br>3769019 | +++++<br>162719<br>4802712 | 7612<br>444378 | 15844<br>860675 | 28801<br>1904255 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Dibromofluoromethane (Surr) | FB | Ave | 40426 | 90036 | 221573 | 428933 | 924685 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| 1,2-Dichloroethane-d4 (Surr) | FB | Ave | 44244 | 99028 | 244516 | 463088 | 981160 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| Toluene-d8 (Surr) | CBNZ d5 | Ave | 140765 | 307237 | 767534 | 1473425 | 3070247 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| 4-Bromofluorobenzene (Surr) | DCBd 4 | Ave | 59261 | 131465 | 332336 | 649888 | 1466890 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |

Curve Type Legend:

| |
|---|
| Ave = Average ISTD |
| Lin2 = Linear 1/conc^2 ISTD |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: ICV 440-446291/18 Calibration Date: 12/12/2017 22:04

Instrument ID: GCMS09 Calib Start Date: 12/12/2017 15:54

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 12/12/2017 20:45

Lab File ID: JFL12018.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.4376 | 0.4884 | | 27.9 | 25.0 | 11.6 | 40.0 |
| Chloromethane | Ave | 0.7147 | 0.6834 | 0.1000 | 23.9 | 25.0 | -4.4 | 40.0 |
| Vinyl chloride | Ave | 0.5454 | 0.5364 | | 24.6 | 25.0 | -1.6 | 30.0 |
| 1,3-Butadiene | Ave | 0.5427 | 0.5230 | | 24.1 | 25.0 | -3.6 | 30.0 |
| Bromomethane | Ave | 0.3003 | 0.2951 | | 24.6 | 25.0 | -1.8 | 30.0 |
| Chloroethane | Ave | 0.2299 | 0.2340 | | 25.4 | 25.0 | 1.7 | 30.0 |
| Ethanol | Ave | 0.1440 | 0.1431 | | 994 | 1000 | -0.6 | 40.0 |
| Dichlorofluoromethane | Ave | 0.6049 | 0.6418 | | 26.5 | 25.0 | 6.1 | 40.0 |
| Acrolein | Ave | 0.0374 | 0.0314 | | 21.0 | 25.0 | -16.0 | 40.0 |
| Acetonitrile | Ave | 0.0397 | 0.0380 | | 240 | 250 | -4.2 | 40.0 |
| Trichlorofluoromethane | Ave | 0.6000 | 0.6101 | | 25.4 | 25.0 | 1.7 | 40.0 |
| Acetone | Ave | 0.0803 | 0.0865 | | 26.9 | 25.0 | 7.7 | 40.0 |
| Diethyl ether | Ave | 0.2094 | 0.2166 | | 25.9 | 25.0 | 3.5 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.2696 | 0.2571 | | 23.8 | 25.0 | -4.6 | 30.0 |
| tert-Butyl alcohol (TBA) | Ave | 1.264 | 1.269 | | 251 | 250 | 0.4 | 30.0 |
| Iodomethane | Ave | 0.6186 | 0.6131 | | 24.8 | 25.0 | -0.9 | 40.0 |
| Acrylonitrile | Ave | 0.0974 | 0.1001 | | 257 | 250 | 2.8 | 40.0 |
| Methylene Chloride | Ave | 0.2798 | 0.2716 | | 24.3 | 25.0 | -2.9 | 30.0 |
| Methyl acetate | Ave | 0.2030 | 0.1956 | | 120 | 125 | -3.7 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.3640 | 0.3408 | | 23.4 | 25.0 | -6.4 | 40.0 |
| Allyl chloride | Ave | 0.5257 | 0.5064 | | 24.1 | 25.0 | -3.7 | 40.0 |
| Carbon disulfide | Ave | 0.9046 | 0.8998 | | 24.9 | 25.0 | -0.5 | 40.0 |
| trans-1,2-Dichloroethene | Ave | 0.2717 | 0.2599 | | 23.9 | 25.0 | -4.4 | 30.0 |
| Methyl-t-Butyl Ether (MTBE) | Ave | 0.6595 | 0.6710 | | 25.4 | 25.0 | 1.7 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.4956 | 0.4992 | 0.1000 | 25.2 | 25.0 | 0.7 | 30.0 |
| Propionitrile | Ave | 0.0390 | 0.0404 | | 259 | 250 | 3.5 | 40.0 |
| Vinyl acetate | Ave | 0.5730 | 0.5911 | | 25.8 | 25.0 | 3.2 | 40.0 |
| Hexane | Ave | 0.4924 | 0.4902 | | 24.9 | 25.0 | -0.5 | 40.0 |
| 2-Butanone (MEK) | Lin2 | | 0.0251 | | 25.6 | 25.0 | 2.2 | 40.0 |
| Isopropyl Ether (DIPE) | Ave | 1.049 | 1.060 | | 25.3 | 25.0 | 1.1 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.2978 | 0.2908 | | 24.4 | 25.0 | -2.4 | 30.0 |
| Bromochloromethane | Ave | 0.1469 | 0.1514 | | 25.8 | 25.0 | 3.1 | 30.0 |
| Chloroform | Ave | 0.4530 | 0.4605 | | 25.4 | 25.0 | 1.6 | 30.0 |
| Ethyl-t-butyl ether (ETBE) | Ave | 0.9333 | 0.9669 | | 25.9 | 25.0 | 3.6 | 30.0 |
| 2,2-Dichloropropane | Ave | 0.3809 | 0.3611 | | 23.7 | 25.0 | -5.2 | 30.0 |
| Isobutyl alcohol | Ave | 0.7017 | 0.6686 | | 595 | 625 | -4.7 | 40.0 |
| Tetrahydrofuran | Ave | 0.0888 | 0.0836 | | 47.1 | 50.0 | -5.9 | 40.0 |
| 1,2-Dichloroethane | Ave | 0.3681 | 0.3704 | | 25.2 | 25.0 | 0.6 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.4835 | 0.4787 | | 24.7 | 25.0 | -1.0 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.3411 | 0.3425 | | 25.1 | 25.0 | 0.4 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Lab Sample ID: ICV 440-446291/18  Calibration Date: 12/12/2017 22:04

Instrument ID: GCMS09  Calib Start Date: 12/12/2017 15:54

GC Column: DB-VRX A  ID: 0.25(mm)  Calib End Date: 12/12/2017 20:45

Lab File ID: JFL12018.D  Conc. Units: ug/L  Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Cyclohexane | Ave | 0.6068 | 0.5957 | | 24.5 | 25.0 | -1.8 | 30.0 |
| Carbon tetrachloride | Ave | 0.4694 | 0.4636 | | 24.7 | 25.0 | -1.2 | 40.0 |
| Benzene | Ave | 0.9607 | 0.9647 | | 25.1 | 25.0 | 0.4 | 30.0 |
| Tert-amyl-methyl ether (TAME) | Ave | 0.7092 | 0.7275 | | 25.6 | 25.0 | 2.6 | 30.0 |
| n-Heptane | Ave | 0.5386 | 0.5246 | | 24.4 | 25.0 | -2.6 | 30.0 |
| Dibromomethane | Ave | 0.1690 | 0.1684 | | 24.9 | 25.0 | -0.3 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.2803 | 0.2798 | | 25.0 | 25.0 | -0.2 | 30.0 |
| Trichloroethene | Ave | 0.3264 | 0.3264 | | 25.0 | 25.0 | 0.0 | 30.0 |
| Bromodichloromethane | Ave | 0.3447 | 0.3612 | | 26.2 | 25.0 | 4.8 | 30.0 |
| 2-Chloroethyl vinyl ether | Ave | 0.1371 | 0.1417 | | 25.8 | 25.0 | 3.4 | 40.0 |
| Methylcyclohexane | Ave | 0.4735 | 0.4675 | | 24.7 | 25.0 | -1.3 | 30.0 |
| cis-1,3-Dichloropropene | Ave | 0.4270 | 0.4316 | | 25.3 | 25.0 | 1.1 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.3047 | 0.3237 | | 26.6 | 25.0 | 6.3 | 40.0 |
| trans-1,3-Dichloropropene | Ave | 0.3883 | 0.3905 | | 25.1 | 25.0 | 0.6 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.1906 | 0.2000 | | 26.2 | 25.0 | 4.9 | 30.0 |
| Toluene | Ave | 1.210 | 1.166 | | 24.1 | 25.0 | -3.7 | 30.0 |
| 1,3-Dichloropropane | Ave | 0.3747 | 0.3652 | | 24.4 | 25.0 | -2.5 | 30.0 |
| Ethyl methacrylate | Ave | 0.3118 | 0.3142 | | 25.2 | 25.0 | 0.8 | 40.0 |
| 2-Hexanone | Ave | 0.2239 | 0.2357 | | 26.3 | 25.0 | 5.3 | 40.0 |
| Dibromochloromethane | Ave | 0.3472 | 0.3574 | | 25.7 | 25.0 | 2.9 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2634 | 0.2708 | | 25.7 | 25.0 | 2.8 | 30.0 |
| Tetrachloroethene | Ave | 0.3023 | 0.2938 | | 24.3 | 25.0 | -2.8 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.4108 | 0.3857 | | 23.5 | 25.0 | -6.1 | 40.0 |
| Chlorobenzene | Ave | 0.8983 | 0.8949 | 0.3000 | 24.9 | 25.0 | -0.4 | 30.0 |
| Ethylbenzene | Ave | 1.439 | 1.381 | | 24.0 | 25.0 | -4.0 | 30.0 |
| m,p-Xylene | Ave | 0.5687 | 0.5564 | | 24.5 | 25.0 | -2.2 | 30.0 |
| Bromoform | Ave | 0.2494 | 0.2646 | 0.1000 | 26.5 | 25.0 | 6.1 | 40.0 |
| Styrene | Ave | 0.9324 | 0.9475 | | 25.4 | 25.0 | 1.6 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5670 | 0.5700 | 0.3000 | 25.1 | 25.0 | 0.5 | 30.0 |
| o-Xylene | Ave | 0.5749 | 0.5697 | | 24.8 | 25.0 | -0.9 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.1697 | 0.1759 | | 25.9 | 25.0 | 3.7 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.2085 | 0.2107 | | 25.3 | 25.0 | 1.1 | 40.0 |
| Isopropylbenzene | Ave | 1.584 | 1.540 | | 24.3 | 25.0 | -2.7 | 30.0 |
| Bromobenzene | Ave | 0.7623 | 0.7652 | | 25.1 | 25.0 | 0.4 | 30.0 |
| N-Propylbenzene | Ave | 2.933 | 2.874 | | 24.5 | 25.0 | -2.0 | 30.0 |
| 2-Chlorotoluene | Ave | 1.737 | 1.708 | | 24.6 | 25.0 | -1.7 | 30.0 |
| 4-Chlorotoluene | Ave | 1.796 | 1.801 | | 25.1 | 25.0 | 0.3 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.254 | 2.219 | | 24.6 | 25.0 | -1.5 | 30.0 |
| tert-Butylbenzene | Ave | 2.133 | 2.110 | | 24.7 | 25.0 | -1.1 | 30.0 |
| 1,2,4-Trimethylbenzene | Ave | 2.331 | 2.279 | | 24.4 | 25.0 | -2.2 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: ICV 440-446291/18 Calibration Date: 12/12/2017 22:04

Instrument ID: GCMS09 Calib Start Date: 12/12/2017 15:54

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 12/12/2017 20:45

Lab File ID: JFL12018.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | Ave | 3.078 | 3.021 | | 24.5 | 25.0 | -1.8 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.536 | 1.520 | | 24.7 | 25.0 | -1.0 | 30.0 |
| 1,4-Dichlorobenzene | Ave | 1.577 | 1.585 | | 25.1 | 25.0 | 0.5 | 30.0 |
| p-Isopropyltoluene | Ave | 2.798 | 2.730 | | 24.4 | 25.0 | -2.4 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.436 | 1.481 | | 25.8 | 25.0 | 3.2 | 30.0 |
| n-Butylbenzene | Ave | 2.430 | 2.293 | | 23.6 | 25.0 | -5.6 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Ave | 0.1142 | 0.1205 | | 26.4 | 25.0 | 5.5 | 40.0 |
| 1,2,4-Trichlorobenzene | Ave | 1.024 | 1.048 | | 25.6 | 25.0 | 2.3 | 40.0 |
| Naphthalene | Ave | 2.207 | 2.265 | | 25.7 | 25.0 | 2.7 | 40.0 |
| Hexachlorobutadiene | Ave | 0.6140 | 0.6131 | | 25.0 | 25.0 | -0.1 | 40.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.9144 | 0.9821 | | 26.8 | 25.0 | 7.4 | 40.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2798 | 0.2806 | | 25.1 | 25.0 | 0.3 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.3043 | 0.3075 | | 25.3 | 25.0 | 1.0 | |
| Toluene-d8 (Surr) | Ave | 1.058 | 1.053 | | 24.9 | 25.0 | -0.5 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.7451 | 0.7464 | | 25.0 | 25.0 | 0.2 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCVIS 440-451774/2 Calibration Date: 01/15/2018 16:38

Instrument ID: GCMS09 Calib Start Date: 12/12/2017 15:54

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 12/12/2017 20:45

Lab File ID: JGA15026.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.4376 | 0.3979 | | 22.7 | 25.0 | -9.1 | 40.0 |
| Chloromethane | Ave | 0.7147 | 0.7660 | 0.1000 | 26.8 | 25.0 | 7.2 | 40.0 |
| Vinyl chloride | Ave | 0.5454 | 0.5342 | | 24.5 | 25.0 | -2.0 | 20.0 |
| 1,3-Butadiene | Ave | 0.5427 | 0.6244 | | 28.8 | 25.0 | 15.1 | 30.0 |
| Bromomethane | Ave | 0.3003 | 0.2623 | | 21.8 | 25.0 | -12.7 | 30.0 |
| Chloroethane | Ave | 0.2299 | 0.2365 | | 25.7 | 25.0 | 2.9 | 30.0 |
| Ethanol | Ave | 0.1440 | 0.1894 | | 1320 | 1000 | 31.5 | 40.0 |
| Dichlorofluoromethane | Ave | 0.6049 | 0.5679 | | 23.5 | 25.0 | -6.1 | 40.0 |
| Acrolein | Ave | 0.0374 | 0.0258 | | 17.3 | 25.0 | -31.0 | 40.0 |
| Acetonitrile | Ave | 0.0397 | 0.0469 | | 296 | 250 | 18.3 | 40.0 |
| Trichlorofluoromethane | Ave | 0.6000 | 0.5419 | | 22.6 | 25.0 | -9.7 | 40.0 |
| Acetone | Ave | 0.0803 | 0.0942 | | 29.3 | 25.0 | 17.3 | 40.0 |
| Diethyl ether | Ave | 0.2094 | 0.2271 | | 27.1 | 25.0 | 8.4 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.2696 | 0.2532 | | 23.5 | 25.0 | -6.1 | 20.0 |
| tert-Butyl alcohol (TBA) | Ave | 1.264 | 1.428 | | 282 | 250 | 12.9 | 30.0 |
| Iodomethane | Ave | 0.6186 | 0.5679 | | 23.0 | 25.0 | -8.2 | 40.0 |
| Acrylonitrile | Ave | 0.0974 | 0.1213 | | 311 | 250 | 24.5 | 40.0 |
| Methylene Chloride | Ave | 0.2798 | 0.2906 | | 26.0 | 25.0 | 3.8 | 30.0 |
| Methyl acetate | Ave | 0.2030 | 0.2508 | | 154 | 125 | 23.5 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.3640 | 0.3436 | | 23.6 | 25.0 | -5.6 | 40.0 |
| Allyl chloride | Ave | 0.5257 | 0.6350 | | 30.2 | 25.0 | 20.8 | 40.0 |
| Carbon disulfide | Ave | 0.9046 | 0.8578 | | 23.7 | 25.0 | -5.2 | 40.0 |
| trans-1,2-Dichloroethene | Ave | 0.2717 | 0.2599 | | 23.9 | 25.0 | -4.4 | 30.0 |
| Methyl-t-Butyl Ether (MTBE) | Ave | 0.6595 | 0.6102 | | 23.1 | 25.0 | -7.5 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.4956 | 0.5297 | 0.1000 | 26.7 | 25.0 | 6.9 | 30.0 |
| Propionitrile | Ave | 0.0390 | 0.0466 | | 299 | 250 | 19.5 | 40.0 |
| Vinyl acetate | Ave | 0.5730 | 0.7131 | | 24.9 | 20.0 | 24.4 | 40.0 |
| Hexane | Ave | 0.4924 | 0.5428 | | 27.6 | 25.0 | 10.2 | 40.0 |
| 2-Butanone (MEK) | Lin2 | | 0.0236 | | 24.2 | 25.0 | -3.1 | 40.0 |
| Isopropyl Ether (DIPE) | Ave | 1.049 | 1.272 | | 30.3 | 25.0 | 21.2 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.2978 | 0.2859 | | 24.0 | 25.0 | -4.0 | 30.0 |
| Bromochloromethane | Ave | 0.1469 | 0.1438 | | 24.5 | 25.0 | -2.1 | 30.0 |
| Chloroform | Ave | 0.4530 | 0.4601 | | 25.4 | 25.0 | 1.6 | 20.0 |
| Ethyl-t-butyl ether (ETBE) | Ave | 0.9333 | 0.9192 | | 24.6 | 25.0 | -1.5 | 30.0 |
| 2,2-Dichloropropane | Ave | 0.3809 | 0.4092 | | 26.9 | 25.0 | 7.4 | 30.0 |
| Isobutyl alcohol | Ave | 0.7017 | 0.8426 | | 751 | 625 | 20.1 | 40.0 |
| Tetrahydrofuran | Ave | 0.0888 | 0.1075 | | 60.5 | 50.0 | 21.0 | 40.0 |
| 1,2-Dichloroethane | Ave | 0.3681 | 0.3771 | | 25.6 | 25.0 | 2.4 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.4835 | 0.4569 | | 23.6 | 25.0 | -5.5 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.3411 | 0.3238 | | 23.7 | 25.0 | -5.1 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCVIS 440-451774/2  Calibration Date: 01/15/2018 16:38

Instrument ID: GCMS09  Calib Start Date: 12/12/2017 15:54

GC Column: DB-VRX A  ID: 0.25(mm)  Calib End Date: 12/12/2017 20:45

Lab File ID: JGA15026.D  Conc. Units: ug/L  Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Cyclohexane | Ave | 0.6068 | 0.6699 | | 27.6 | 25.0 | 10.4 | 30.0 |
| Carbon tetrachloride | Ave | 0.4694 | 0.4428 | | 23.6 | 25.0 | -5.7 | 40.0 |
| Benzene | Ave | 0.9607 | 0.9726 | | 25.3 | 25.0 | 1.2 | 30.0 |
| Tert-amyl-methyl ether (TAME) | Ave | 0.7092 | 0.6070 | | 21.4 | 25.0 | -14.4 | 30.0 |
| n-Heptane | Ave | 0.5386 | 0.6575 | | 30.5 | 25.0 | 22.1 | 30.0 |
| Dibromomethane | Ave | 0.1690 | 0.1676 | | 24.8 | 25.0 | -0.8 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.2803 | 0.2926 | | 26.1 | 25.0 | 4.4 | 20.0 |
| Trichloroethene | Ave | 0.3264 | 0.3107 | | 23.8 | 25.0 | -4.8 | 30.0 |
| Bromodichloromethane | Ave | 0.3447 | 0.3447 | | 25.0 | 25.0 | -0.0 | 30.0 |
| 2-Chloroethyl vinyl ether | Ave | 0.1371 | 0.0678 | | 12.4 | 25.0 | -50.5* | 40.0 |
| Methylcyclohexane | Ave | 0.4735 | 0.4472 | | 23.6 | 25.0 | -5.6 | 30.0 |
| cis-1,3-Dichloropropene | Ave | 0.4270 | 0.4289 | | 25.1 | 25.0 | 0.4 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.3047 | 0.3858 | | 31.7 | 25.0 | 26.6 | 40.0 |
| trans-1,3-Dichloropropene | Ave | 0.3883 | 0.3912 | | 25.2 | 25.0 | 0.7 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.1906 | 0.1959 | | 25.7 | 25.0 | 2.7 | 30.0 |
| Toluene | Ave | 1.210 | 1.196 | | 24.7 | 25.0 | -1.1 | 20.0 |
| 1,3-Dichloropropane | Ave | 0.3747 | 0.3864 | | 25.8 | 25.0 | 3.1 | 30.0 |
| Ethyl methacrylate | Ave | 0.3118 | 0.3103 | | 24.9 | 25.0 | -0.5 | 40.0 |
| 2-Hexanone | Ave | 0.2239 | 0.2902 | | 32.4 | 25.0 | 29.6 | 40.0 |
| Dibromochloromethane | Ave | 0.3472 | 0.3432 | | 24.7 | 25.0 | -1.2 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2634 | 0.2586 | | 24.6 | 25.0 | -1.8 | 30.0 |
| Tetrachloroethene | Ave | 0.3023 | 0.2883 | | 23.8 | 25.0 | -4.6 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.4108 | 0.3552 | | 21.6 | 25.0 | -13.5 | 40.0 |
| Chlorobenzene | Ave | 0.8983 | 0.8796 | 0.3000 | 24.5 | 25.0 | -2.1 | 30.0 |
| Ethylbenzene | Ave | 1.439 | 1.416 | | 24.6 | 25.0 | -1.6 | 20.0 |
| m,p-Xylene | Ave | 0.5687 | 0.5662 | | 24.9 | 25.0 | -0.4 | 30.0 |
| Bromoform | Ave | 0.2494 | 0.2352 | 0.1000 | 23.6 | 25.0 | -5.7 | 40.0 |
| Styrene | Ave | 0.9324 | 0.9171 | | 24.6 | 25.0 | -1.6 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5670 | 0.6021 | 0.3000 | 26.5 | 25.0 | 6.2 | 30.0 |
| o-Xylene | Ave | 0.5749 | 0.5686 | | 24.7 | 25.0 | -1.1 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.1697 | 0.1739 | | 25.6 | 25.0 | 2.5 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.2085 | 0.2284 | | 27.4 | 25.0 | 9.6 | 40.0 |
| Isopropylbenzene | Ave | 1.584 | 1.571 | | 24.8 | 25.0 | -0.8 | 30.0 |
| Bromobenzene | Ave | 0.7623 | 0.7662 | | 25.1 | 25.0 | 0.5 | 30.0 |
| N-Propylbenzene | Ave | 2.933 | 3.063 | | 26.1 | 25.0 | 4.4 | 30.0 |
| 2-Chlorotoluene | Ave | 1.737 | 1.781 | | 25.6 | 25.0 | 2.5 | 30.0 |
| 4-Chlorotoluene | Ave | 1.796 | 1.871 | | 26.0 | 25.0 | 4.2 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.254 | 2.296 | | 25.5 | 25.0 | 1.9 | 30.0 |
| tert-Butylbenzene | Ave | 2.133 | 2.111 | | 24.7 | 25.0 | -1.0 | 30.0 |
| 1,2,4-Trimethylbenzene | Ave | 2.331 | 2.385 | | 25.6 | 25.0 | 2.3 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCVIS 440-451774/2 Calibration Date: 01/15/2018 16:38

Instrument ID: GCMS09 Calib Start Date: 12/12/2017 15:54

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 12/12/2017 20:45

Lab File ID: JGA15026.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | Ave | 3.078 | 3.181 | | 25.8 | 25.0 | 3.4 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.536 | 1.574 | | 25.6 | 25.0 | 2.5 | 30.0 |
| 1,4-Dichlorobenzene | Ave | 1.577 | 1.595 | | 25.3 | 25.0 | 1.1 | 30.0 |
| p-Isopropyltoluene | Ave | 2.798 | 2.835 | | 25.3 | 25.0 | 1.3 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.436 | 1.448 | | 25.2 | 25.0 | 0.9 | 30.0 |
| n-Butylbenzene | Ave | 2.430 | 2.507 | | 25.8 | 25.0 | 3.2 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Ave | 0.1142 | 0.1076 | | 23.6 | 25.0 | -5.8 | 40.0 |
| 1,2,4-Trichlorobenzene | Ave | 1.024 | 1.021 | | 24.9 | 25.0 | -0.3 | 40.0 |
| Naphthalene | Ave | 2.207 | 2.216 | | 25.1 | 25.0 | 0.4 | 40.0 |
| Hexachlorobutadiene | Ave | 0.6140 | 0.5677 | | 23.1 | 25.0 | -7.5 | 40.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.9144 | 0.9137 | | 25.0 | 25.0 | -0.0 | 40.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2798 | 0.2902 | | 25.9 | 25.0 | 3.7 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.3043 | 0.3229 | | 26.5 | 25.0 | 6.1 | |
| Toluene-d8 (Surr) | Ave | 1.058 | 1.097 | | 25.9 | 25.0 | 3.6 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.7451 | 0.7653 | | 25.7 | 25.0 | 2.7 | 20.0 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-451774/4

Matrix: Water | Lab File ID: JGA15028.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/15/2018 17:31

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 451774 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | ND | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-451774/4

Matrix: Water | Lab File ID: JGA15028.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/15/2018 17:31

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 451774 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 1.71 | J | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 440-451774/4

Matrix: Water  Lab File ID: JGA15028.D

Analysis Method: 8260B  Date Collected:

Sample wt/vol: 10(mL)  Date Analyzed: 01/15/2018 17:31

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX A  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 451774  Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 107 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 102 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 109 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-451774/5

Matrix: Water | Lab File ID: JGA15029.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/15/2018 17:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 451774 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 28.9 | | 20 | 10 |
| 71-43-2 | Benzene | 26.2 | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | 25.0 | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | 24.6 | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 25.7 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 23.4 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | 21.7 | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | 24.7 | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 23.4 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | 24.8 | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | 25.9 | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 25.3 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | 27.7 | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | 26.0 | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | 26.2 | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | 24.2 | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | 24.9 | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 24.7 | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 24.8 | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 24.6 | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | 24.1 | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 25.3 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 25.6 | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 25.1 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | 24.6 | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | 26.8 | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | 25.4 | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | 22.9 | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | 26.3 | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | 25.5 | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | 25.6 | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | 25.3 | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | 24.4 | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 24.5 | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | 23.2 | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | 32.1 | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-451774/5

Matrix: Water | Lab File ID: JGA15029.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/15/2018 17:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 451774 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 24.4 | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | 30.7 | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 24.9 | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 32.7 | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 23.1 | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | 24.8 | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | 24.7 | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | 25.5 | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | 26.4 | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | 25.2 | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | 25.2 | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | 26.0 | | 0.50 | 0.25 |
| 100-42-5 | Styrene | 24.5 | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 21.2 | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 279 | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | 25.0 | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 22.0 | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 26.3 | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 23.7 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | 25.2 | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | 24.4 | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | 24.4 | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 25.4 | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 24.4 | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | 23.3 | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | 26.2 | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 24.0 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | 22.5 | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | 25.9 | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 25.2 | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25.7 | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | 24.1 | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | 50.0 | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 440-451774/5

Matrix: Water Lab File ID: JGA15029.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 10(mL) Date Analyzed: 01/15/2018 17:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 451774 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 101 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 103 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 102 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-200580-B-1 MS

Matrix: Water | Lab File ID: JGA15031.D

Analysis Method: 8260B | Date Collected: 01/11/2018 13:15

Sample wt/vol: 10(mL) | Date Analyzed: 01/15/2018 19:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 451774 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | 27.1 | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | 24.8 | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | 25.1 | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 26.1 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 24.4 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | 21.3 | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | 39.0 | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 24.4 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | 24.7 | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | 25.9 | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 25.7 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | 27.2 | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | 25.6 | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | 27.0 | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | 24.0 | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25.1 | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 24.7 | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 29.5 | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 25.2 | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | 24.7 | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 25.0 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 25.2 | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 25.0 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | 24.2 | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | 26.1 | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | 329 | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | 23.7 | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | 26.1 | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | 24.9 | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | 26.1 | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | 25.7 | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | 30.6 | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 24.8 | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | 23.8 | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | 35.4 | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-200580-B-1 MS

Matrix: Water | Lab File ID: JGA15031.D

Analysis Method: 8260B | Date Collected: 01/11/2018 13:15

Sample wt/vol: 10(mL) | Date Analyzed: 01/15/2018 19:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 451774 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 30.2 | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | 121 | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 24.4 | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 48.0 | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 29.7 | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | 31.8 | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | 27.8 | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | 28.6 | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | 47.8 | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | 26.0 | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | 24.8 | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | 28.5 | | 0.50 | 0.25 |
| 100-42-5 | Styrene | 24.2 | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 22.0 | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 331 | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | 24.8 | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 22.2 | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 25.8 | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 24.4 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | 28.3 | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | 24.7 | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | 24.9 | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 27.2 | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 26.4 | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | 23.7 | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | 30.5 | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 24.5 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | 23.4 | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | 26.9 | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 32.8 | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25.6 | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | 24.1 | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | 57.8 | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Client Sample ID:  Lab Sample ID: 440-200580-B-1 MS

Matrix: Water  Lab File ID: JGA15031.D

Analysis Method: 8260B  Date Collected: 01/11/2018 13:15

Sample wt/vol: 10(mL)  Date Analyzed: 01/15/2018 19:10

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX A  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 451774  Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 104 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 102 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 100 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-200580-B-1 MSD

Matrix: Water | Lab File ID: JGA15032.D

Analysis Method: 8260B | Date Collected: 01/11/2018 13:15

Sample wt/vol: 10(mL) | Date Analyzed: 01/15/2018 19:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 451774 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | 26.8 | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | 25.2 | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | 24.5 | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 24.6 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 23.6 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | 20.5 | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | 36.7 | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 24.1 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | 24.3 | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | 24.6 | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 25.0 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | 25.9 | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | 25.8 | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | 27.1 | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | 23.9 | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | 24.5 | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 24.3 | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 28.7 | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 24.4 | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | 23.8 | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 25.4 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 25.4 | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 25.0 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | 23.7 | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | 26.3 | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | 312 | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | 22.8 | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | 25.3 | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | 24.2 | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | 25.7 | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | 25.1 | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | 29.9 | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 23.9 | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | 24.9 | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | 31.0 | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-200580-B-1 MSD

Matrix: Water | Lab File ID: JGA15032.D

Analysis Method: 8260B | Date Collected: 01/11/2018 13:15

Sample wt/vol: 10(mL) | Date Analyzed: 01/15/2018 19:36

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 451774 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 29.9 | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | 112 | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 23.7 | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 43.0 | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 28.6 | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | 31.3 | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | 27.2 | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | 28.8 | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | 47.0 | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | 26.1 | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | 25.2 | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | 29.2 | | 0.50 | 0.25 |
| 100-42-5 | Styrene | 23.7 | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 21.6 | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 325 | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | 25.4 | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 22.1 | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 25.3 | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 24.1 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | 27.4 | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | 24.5 | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | 24.1 | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 27.0 | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 26.5 | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | 24.0 | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | 27.3 | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 24.1 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | 22.4 | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | 26.9 | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 33.0 | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25.9 | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | 22.7 | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | 57.4 | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Client Sample ID:  Lab Sample ID: 440-200580-B-1 MSD

Matrix: Water  Lab File ID: JGA15032.D

Analysis Method: 8260B  Date Collected: 01/11/2018 13:15

Sample wt/vol: 10(mL)  Date Analyzed: 01/15/2018 19:36

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX A  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 451774  Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 106 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 101 | | 80-128 |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: GCMS09 Start Date: 12/12/2017 14:34

Analysis Batch Number: 446291 End Date: 12/12/2017 22:04

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-446291/1 | | 12/12/2017 14:34 | 1 | JFL12001.D | DB-VRX A 0.25(mm) |
| ZZZZZ | | 12/12/2017 15:01 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 12/12/2017 15:28 | 1 | | DB-VRX A 0.25(mm) |
| STD02 440-446291/4 IC | | 12/12/2017 15:54 | 1 | JFL12004.D | DB-VRX A 0.25(mm) |
| STD04 440-446291/5 IC | | 12/12/2017 16:20 | 1 | JFL12005.D | DB-VRX A 0.25(mm) |
| STD05 440-446291/6 IC | | 12/12/2017 16:47 | 1 | JFL12006.D | DB-VRX A 0.25(mm) |
| STD1 440-446291/7 IC | | 12/12/2017 17:13 | 1 | JFL12007.D | DB-VRX A 0.25(mm) |
| STD2 440-446291/8 IC | | 12/12/2017 17:40 | 1 | JFL12008.D | DB-VRX A 0.25(mm) |
| STD5 440-446291/9 IC | | 12/12/2017 18:06 | 1 | JFL12009.D | DB-VRX A 0.25(mm) |
| STD10 440-446291/10 IC | | 12/12/2017 18:33 | 1 | JFL12010.D | DB-VRX A 0.25(mm) |
| ICIS 440-446291/11 | | 12/12/2017 18:59 | 1 | JFL12011.D | DB-VRX A 0.25(mm) |
| STD50 440-446291/12 IC | | 12/12/2017 19:26 | 1 | JFL12012.D | DB-VRX A 0.25(mm) |
| STD100 440-446291/13 IC | | 12/12/2017 19:52 | 1 | JFL12013.D | DB-VRX A 0.25(mm) |
| STD200 440-446291/14 IC | | 12/12/2017 20:18 | 1 | JFL12014.D | DB-VRX A 0.25(mm) |
| STD300 440-446291/15 IC | | 12/12/2017 20:45 | 1 | JFL12015.D | DB-VRX A 0.25(mm) |
| ZZZZZ | | 12/12/2017 21:11 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 12/12/2017 21:37 | 1 | | DB-VRX A 0.25(mm) |
| ICV 440-446291/18 | | 12/12/2017 22:04 | 1 | JFL12018.D | DB-VRX A 0.25(mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: GCMS09 Start Date: 01/15/2018 16:10

Analysis Batch Number: 451774 End Date: 01/16/2018 01:44

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-451774/1 | | 01/15/2018 16:10 | 1 | JGA15025.D | DB-VRX A 0.25(mm) |
| CCVIS 440-451774/2 | | 01/15/2018 16:38 | 1 | JGA15026.D | DB-VRX A 0.25(mm) |
| CCV 440-451774/3 | | 01/15/2018 17:04 | 1 | | DB-VRX A 0.25(mm) |
| MB 440-451774/4 | | 01/15/2018 17:31 | 1 | JGA15028.D | DB-VRX A 0.25(mm) |
| LCS 440-451774/5 | | 01/15/2018 17:57 | 1 | JGA15029.D | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/15/2018 18:43 | 1 | | DB-VRX A 0.25(mm) |
| 440-200580-B-1 MS | | 01/15/2018 19:10 | 1 | JGA15031.D | DB-VRX A 0.25(mm) |
| 440-200580-B-1 MSD | | 01/15/2018 19:36 | 1 | JGA15032.D | DB-VRX A 0.25(mm) |
| 440-200466-1 | | 01/15/2018 20:02 | 10 | JGA15033.D | DB-VRX A 0.25(mm) |
| 440-200466-2 | | 01/15/2018 20:28 | 1 | JGA15034.D | DB-VRX A 0.25(mm) |
| 440-200466-3 | | 01/15/2018 20:55 | 10 | JGA15035.D | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/15/2018 21:22 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/15/2018 21:48 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/15/2018 22:14 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/15/2018 22:40 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/15/2018 23:07 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/15/2018 23:33 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/15/2018 23:59 | 200 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/16/2018 00:25 | 10 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/16/2018 00:52 | 200 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/16/2018 01:18 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/16/2018 01:44 | 20 | | DB-VRX A 0.25(mm) |

# GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Batch Number: 451774  Batch Start Date: 01/15/18 16:10  Batch Analyst: Hmuadmueng, Ornuma 1

Batch Method: 8260B  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | Initial pH | VMW8260TUNE1 00415 | VMWNU8260CCV1 00876 | VMWNU8260ISS 00136 |
|---|---|---|---|---|---|---|---|---|---|
| BFB 440-451774/1 | | 8260B | | 10 mL | 10 mL | | 2 uL | | |
| CCVIS 440-451774/2 | | 8260B | | 10 mL | 10 mL | | | 5 uL | 5 uL |
| MB 440-451774/4 | | 8260B | | 10 mL | 10 mL | | | | 5 uL |
| LCS 440-451774/5 | | 8260B | | 10 mL | 10 mL | | | | 5 uL |
| 440-200580-B-1 MS | | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-200580-B-1 MSD | | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-200466-A-1 | VER-01I-B-BL | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-200466-A-2 | Trip Blank | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-200466-A-3 | Ver-01I-B-12 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | VMWNU8260LCS2 00173 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BFB 440-451774/1 | | 8260B | | | | | | | |
| CCVIS 440-451774/2 | | 8260B | | | | | | | |
| MB 440-451774/4 | | 8260B | | | | | | | |
| LCS 440-451774/5 | | 8260B | | 5 uL | | | | | |
| 440-200580-B-1 MS | | 8260B | T | 5 uL | | | | | |
| 440-200580-B-1 MSD | | 8260B | T | 5 uL | | | | | |
| 440-200466-A-1 | VER-01I-B-BL | 8260B | T | | | | | | |
| 440-200466-A-2 | Trip Blank | 8260B | T | | | | | | |
| 440-200466-A-3 | Ver-01I-B-12 | 8260B | T | | | | | | |

| Batch Notes | |
|---|---|
| | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Batch Number: 451774  Batch Start Date: 01/15/18 16:10  Batch Analyst: Hmuadmueng, Ornuma 1

Batch Method: 8260B  Batch End Date:

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# 314.0_LL

## Perchlorate (IC)

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098571-005_5_ECD_1.d

Lab ID: LCS 440-451351/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 10.0 | 9.38 | 94 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098571-004_4_ECD_1.d

Lab ID: MRL 440-451351/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 1.00 | 1.00 | 100 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098571-011_11_ECD_1.d

Lab ID: 440-200117-F-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Perchlorate | 100 | 140 | 233 | 90 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098571-012_12_ECD_1.d

Lab ID: 440-200117-F-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Perchlorate | 100 | 233 | 90 | 0 | 20 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098571-007_7_ECD_1.d

Lab ID: INF 440-451351/7 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | INF CONCENTRATION (ug/L) | INF % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 10.0 | 9.82 | 98 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab File ID: 440-0098571-006_6_ECD_1.d Lab Sample ID: MB 440-451351/6

Matrix: Water Date Extracted:

Instrument ID: IC-25 Date Analyzed: 01/12/2018 11:12

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-451351/3 | 440-0098571-003_3_ECD_1.d | 01/12/2018 10:05 |
| | LCS 440-451351/5 | 440-0098571-005_5_ECD_1.d | 01/12/2018 10:53 |
| | 440-200117-F-1 MS | 440-0098571-011_11_ECD 1.d | 01/12/2018 13:06 |
| | 440-200117-F-1 MSD | 440-0098571-012_12_ECD 1.d | 01/12/2018 13:24 |
| | CCB 440-451351/15 | 440-0098571-015_15_ECD_1.d | 01/12/2018 14:19 |
| VER-01I-B-BL | 440-200466-1 | 440-0098571-022_22_ECD 1.d | 01/12/2018 16:31 |
| | CCB 440-451351/27 | 440-0098571-027_27_ECD_1.d | 01/12/2018 18:02 |
| | CCB 440-451351/62 | 440-0098571-062_62_ECD 1.d | 01/13/2018 04:52 |
| Ver-01I-B-12 | 440-200466-3 | 440-0098571-067_67_ECD 1.d | 01/13/2018 06:23 |
| | CCB 440-451351/69 | 440-0098571-069_69_ECD_1.d | 01/13/2018 07:00 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: VER-01I-B-BL | Lab Sample ID: 440-200466-1

Matrix: Water | Lab File ID: 440-0098571-022_22_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/11/2018 03:30

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/12/2018 16:31

Con. Extract Vol.: | Dilution Factor: 50000

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451351 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 930000 | | 50000 | 25000 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: Ver-01I-B-12 | Lab Sample ID: 440-200466-3

Matrix: Water | Lab File ID: 440-0098571-067_67_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/11/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/13/2018 06:23

Con. Extract Vol.: | Dilution Factor: 100000

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451351 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1200000 | | 100000 | 50000 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 447839

SDG No.:

Instrument ID: IC-25 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/20/2017 11:10 Calibration End Date: 12/20/2017 13:16 Calibration ID: 18248

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-447839/1 | 440-0097758-001_1_ECD_1.d |
| Level 2 | STD1 440-447839/2 | 440-0097758-002_2_ECD_1.d |
| Level 3 | STD2 440-447839/3 | 440-0097758-003_3_ECD_1.d |
| Level 4 | STD3 440-447839/4 | 440-0097758-004_4_ECD_1.d |
| Level 5 | STD4 440-447839/5 | 440-0097758-005_5_ECD_1.d |
| Level 6 | STD5 440-447839/6 | 440-0097758-006_6_ECD_1.d |
| Level 7 | STD6 440-447839/7 | 440-0097758-007_7_ECD_1.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | | 11.814 | 11.814 | 11.804 | 11.804 | 11.804 | 11.810 | | | | 0.000 - 0.000 | 11.808 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1  Analy Batch No.: 447839

SDG No.:

Instrument ID: IC-25  GC Column: AS7 A  ID: 4(mm)  Heated Purge: (Y/N) N

Calibration Start Date: 12/20/2017 11:10  Calibration End Date: 12/20/2017 13:16  Calibration ID: 18248

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-447839/1 | 440-0097758-001_1_ECD_1.d |
| Level 2 | STD1 440-447839/2 | 440-0097758-002_2_ECD_1.d |
| Level 3 | STD2 440-447839/3 | 440-0097758-003_3_ECD_1.d |
| Level 4 | STD3 440-447839/4 | 440-0097758-004_4_ECD_1.d |
| Level 5 | STD4 440-447839/5 | 440-0097758-005_5_ECD_1.d |
| Level 6 | STD5 440-447839/6 | 440-0097758-006_6_ECD_1.d |
| Level 7 | STD6 440-447839/7 | 440-0097758-007_7_ECD_1.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Perchlorate | 137199 | 193691<br>140806 | 172072<br>133109 | 150105 | Lin | 57064.1722 | 132466.839 | | | | | | | 0.9990 | | 0.9950 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 447839

SDG No.:

Instrument ID: IC-25 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/20/2017 11:10 Calibration End Date: 12/20/2017 13:16 Calibration ID: 18248

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-447839/1 | 440-0097758-001_1_ECD_1.d |
| Level 2 | STD1 440-447839/2 | 440-0097758-002_2_ECD_1.d |
| Level 3 | STD2 440-447839/3 | 440-0097758-003_3_ECD_1.d |
| Level 4 | STD3 440-447839/4 | 440-0097758-004_4_ECD_1.d |
| Level 5 | STD4 440-447839/5 | 440-0097758-005_5_ECD_1.d |
| Level 6 | STD5 440-447839/6 | 440-0097758-006_6_ECD_1.d |
| Level 7 | STD6 440-447839/7 | 440-0097758-007_7_ECD_1.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| Perchlorate | Lin | 2112096 | 193691<br>3327719 | 344144 | 600421 | 1371988 | 0.000000<br>15.0 | 1.00<br>25.0 | 2.00 | 4.00 | 10.0 |

Curve Type Legend:
Lin = Linear

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: ICV 440-447839/8 Calibration Date: 12/20/2017 13:40

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0097758-008_8_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 10.1 | 10.0 | 101 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: ICV 440-447839/8 Calibration Date: 12/20/2017 13:40

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0097758-008_8_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.81 | 11.22 | 12.41 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451351/2 Calibration Date: 01/12/2018 09:40

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098571-002_2_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 8.92 | 10.0 | 89 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451351/2 Calibration Date: 01/12/2018 09:40

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098571-002_2_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.38 | 11.77 | 13.00 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451351/14 Calibration Date: 01/12/2018 14:01

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098571-014_14_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 9.16 | 10.0 | 92 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451351/14 Calibration Date: 01/12/2018 14:01

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098571-014_14_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.36 | 11.75 | 12.98 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451351/26 Calibration Date: 01/12/2018 17:44

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098571-026_26_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 19.1 | 20.0 | 95 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451351/26 Calibration Date: 01/12/2018 17:44

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098571-026_26_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.38 | 11.76 | 13.00 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451351/61 Calibration Date: 01/13/2018 04:33

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098571-061_61_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 9.21 | 10.0 | 92 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451351/61 Calibration Date: 01/13/2018 04:33

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098571-061_61_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.42 | 11.80 | 13.04 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451351/68 Calibration Date: 01/13/2018 06:42

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098571-068_68_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 18.6 | 20.0 | 93 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451351/68 Calibration Date: 01/13/2018 06:42

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098571-068_68_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.41 | 11.79 | 13.04 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-451351/6

Matrix: Water | Lab File ID: 440-0098571-006_6_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/12/2018 11:12

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451351 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451351/3

Matrix: Water | Lab File ID: 440-0098571-003_3_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/12/2018 10:05

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451351 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451351/15

Matrix: Water | Lab File ID: 440-0098571-015_15_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/12/2018 14:19

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451351 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451351/27

Matrix: Water | Lab File ID: 440-0098571-027_27_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/12/2018 18:02

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451351 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451351/62

Matrix: Water | Lab File ID: 440-0098571-062_62_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/13/2018 04:52

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451351 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451351/69

Matrix: Water | Lab File ID: 440-0098571-069_69_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/13/2018 07:00

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451351 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-451351/5

Matrix: Water | Lab File ID: 440-0098571-005_5_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/12/2018 10:53

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451351 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 9.38 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-451351/4

Matrix: Water | Lab File ID: 440-0098571-004_4_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/12/2018 10:24

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451351 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1.00 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: INF 440-451351/7

Matrix: Water | Lab File ID: 440-0098571-007_7_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/12/2018 11:30

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451351 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 9.82 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-200117-F-1 MS

Matrix: Water | Lab File ID: 440-0098571-011_11_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/09/2018 08:00

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/12/2018 13:06

Con. Extract Vol.: | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451351 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 233 | | 10 | 5.0 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-200117-F-1 MSD

Matrix: Water | Lab File ID: 440-0098571-012_12_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/09/2018 08:00

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/12/2018 13:24

Con. Extract Vol.: | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451351 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 233 | | 10 | 5.0 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-25 Start Date: 12/20/2017 11:10

Analysis Batch Number: 447839 End Date: 12/20/2017 19:55

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| STD0 440-447839/1 IC | | 12/20/2017 11:10 | 1 | 440-0097758-001 1 ECD 1.d | AS7 A 4(mm) |
| STD1 440-447839/2 IC | | 12/20/2017 11:28 | 1 | 440-0097758-002 2 ECD 1.d | AS7 A 4(mm) |
| STD2 440-447839/3 IC | | 12/20/2017 12:02 | 1 | 440-0097758-003 3 ECD 1.d | AS7 A 4(mm) |
| STD3 440-447839/4 IC | | 12/20/2017 12:21 | 1 | 440-0097758-004 4 ECD 1.d | AS7 A 4(mm) |
| STD4 440-447839/5 IC | | 12/20/2017 12:39 | 1 | 440-0097758-005 5 ECD 1.d | AS7 A 4(mm) |
| STD5 440-447839/6 IC | | 12/20/2017 12:57 | 1 | 440-0097758-006 6 ECD 1.d | AS7 A 4(mm) |
| STD6 440-447839/7 IC | | 12/20/2017 13:16 | 1 | 440-0097758-007 7 ECD 1.d | AS7 A 4(mm) |
| ICV 440-447839/8 | | 12/20/2017 13:40 | 1 | 440-0097758-008 8 ECD 1.d | AS7 A 4(mm) |
| ICB 440-447839/9 | | 12/20/2017 13:58 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 14:16 | 1 | | AS7 A 4(mm) |
| CCV 440-447839/11 | | 12/20/2017 14:34 | 1 | | AS7 A 4(mm) |
| CCB 440-447839/12 | | 12/20/2017 14:58 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 15:17 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 15:35 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 15:53 | 1 | | AS7 A 4(mm) |
| INF 440-447839/16 | | 12/20/2017 16:12 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 16:38 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 16:55 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 17:14 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 17:46 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 18:04 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 18:23 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 18:41 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 18:59 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 19:18 | 1 | | AS7 A 4(mm) |
| CCV 440-447839/26 | | 12/20/2017 19:36 | 1 | | AS7 A 4(mm) |
| CCB 440-447839/27 | | 12/20/2017 19:55 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-25 Start Date: 01/12/2018 09:23

Analysis Batch Number: 451351 End Date: 01/13/2018 07:00

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/12/2018 09:23 | 1 | | AS16 4(mm) |
| CCV 440-451351/2 | | 01/12/2018 09:40 | 1 | 440-0098571-002 2 ECD 1.d | AS16 4(mm) |
| CCB 440-451351/3 | | 01/12/2018 10:05 | 1 | 440-0098571-003 3 ECD 1.d | AS16 4(mm) |
| MRL 440-451351/4 | | 01/12/2018 10:24 | 1 | 440-0098571-004 4 ECD 1.d | AS16 4(mm) |
| LCS 440-451351/5 | | 01/12/2018 10:53 | 1 | 440-0098571-005 5 ECD 1.d | AS16 4(mm) |
| MB 440-451351/6 | | 01/12/2018 11:12 | 1 | 440-0098571-006 6 ECD 1.d | AS16 4(mm) |
| INF 440-451351/7 | | 01/12/2018 11:30 | 1 | 440-0098571-007 7 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 11:56 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 12:14 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 12:48 | 10 | | AS16 4(mm) |
| 440-200117-F-1 MS | | 01/12/2018 13:06 | 10 | 440-0098571-011 11 ECD 1.d | AS16 4(mm) |
| 440-200117-F-1 MSD | | 01/12/2018 13:24 | 10 | 440-0098571-012 12 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 13:43 | 5 | | AS16 4(mm) |
| CCV 440-451351/14 | | 01/12/2018 14:01 | 1 | 440-0098571-014 14 ECD 1.d | AS16 4(mm) |
| CCB 440-451351/15 | | 01/12/2018 14:19 | 1 | 440-0098571-015 15 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 14:41 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 14:59 | 100 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 15:18 | 50000 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 15:36 | 50000 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 15:54 | 50000 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 16:13 | 1 | | AS16 4(mm) |
| 440-200466-1 | | 01/12/2018 16:31 | 50000 | 440-0098571-022 22 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 16:49 | 50000 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 17:08 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 17:26 | 1 | | AS16 4(mm) |
| CCV 440-451351/26 | | 01/12/2018 17:44 | 1 | 440-0098571-026 26 ECD 1.d | AS16 4(mm) |
| CCB 440-451351/27 | | 01/12/2018 18:02 | 1 | 440-0098571-027 27 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 18:28 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 18:46 | 10000 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 19:04 | 10000 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 19:23 | 10000 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 19:41 | 10000 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 19:59 | 10000 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 20:18 | 50000 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 20:36 | 50000 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 20:54 | 50000 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 21:13 | 50000 | | AS16 4(mm) |
| CCV 440-451351/38 | | 01/12/2018 21:31 | 1 | | AS16 4(mm) |
| CCB 440-451351/39 | | 01/12/2018 21:49 | 1 | | AS16 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-25 Start Date: 01/12/2018 09:23

Analysis Batch Number: 451351 End Date: 01/13/2018 07:00

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/12/2018 22:08 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 22:26 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 22:45 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 23:03 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 23:21 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 23:40 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/12/2018 23:58 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/13/2018 00:16 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/13/2018 00:35 | 5 | | AS16 4(mm) |
| CCV 440-451351/49 | | 01/13/2018 00:53 | 1 | | AS16 4(mm) |
| CCB 440-451351/50 | | 01/13/2018 01:11 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/13/2018 01:30 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/13/2018 01:48 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/13/2018 02:06 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/13/2018 02:25 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/13/2018 02:43 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/13/2018 03:02 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/13/2018 03:20 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/13/2018 03:38 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/13/2018 03:57 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/13/2018 04:15 | 5 | | AS16 4(mm) |
| CCV 440-451351/61 | | 01/13/2018 04:33 | 1 | 440-0098571-061 61 ECD 1.d | AS16 4(mm) |
| CCB 440-451351/62 | | 01/13/2018 04:52 | 1 | 440-0098571-062 62 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/13/2018 05:10 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/13/2018 05:28 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/13/2018 05:47 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/13/2018 06:05 | 5 | | AS16 4(mm) |
| 440-200466-3 | | 01/13/2018 06:23 | 100000 | 440-0098571-067 67 ECD 1.d | AS16 4(mm) |
| CCV 440-451351/68 | | 01/13/2018 06:42 | 1 | 440-0098571-068 68 ECD 1.d | AS16 4(mm) |
| CCB 440-451351/69 | | 01/13/2018 07:00 | 1 | 440-0098571-069 69 ECD 1.d | AS16 4(mm) |

# Method 7199

## Chromium, Hexavalent (IC) by Method 7199

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: LCS 440-451048/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 49.3 | 99 | 90-110 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: LCS 440-451317/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 49.7 | 99 | 90-110 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: MRL 440-451048/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 1.00 | 1.09 J | 109 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: MRL 440-451317/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 1.00 | 0.984 J | 98 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: 440-200466-3 MS Client ID: Ver-01I-B-12 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chromium, hexavalent | 1000 | 12000 | 13200 | 105 | 85-115 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: 440-200593-J-16 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | ND | 50.0 | 100 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: 440-200466-3 MSD Client ID: Ver-01I-B-12 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 1000 | 13100 | 90 | 1 | 20 | 85-115 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: 440-200593-J-16 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 50.0 | 100 | 0 | 20 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2 Lab Sample ID: MB 440-451048/6

Matrix: Water Date Extracted:

Instrument ID: IC-16 Date Analyzed: 01/11/2018 04:48

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-451048/3 | Info 2_TAIIRV0066_Hex Chrom_20180111-042539.d | 01/11/2018 04:14 |
| | LCS 440-451048/5 | Info 2_TAIIRV0066_Hex Chrom_20180111-044855.d | 01/11/2018 04:37 |
| | CCB 440-451048/9 | Info 2_TAIIRV0066_Hex Chrom_20180111-090700.d | 01/11/2018 08:55 |
| | CCB 440-451048/12 | Info 2_TAIIRV0066_Hex Chrom_20180111-184120.d | 01/11/2018 18:29 |
| VER-01I-B-BL | 440-200466-1 | Info 2_TAIIRV0066_Hex Chrom_20180111-211350.d | 01/11/2018 21:02 |
| | CCB 440-451048/24 | Info 2_TAIIRV0066_Hex Chrom_20180111-220021.d | 01/11/2018 21:48 |
| | 440-200593-J-16 MS | Info 2_TAIIRV0066_Hex Chrom_20180111-234523.d | 01/11/2018 23:33 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2 Lab Sample ID: MB 440-451048/6

Matrix: Water Date Extracted:

Instrument ID: IC-16 Date Analyzed: 01/11/2018 04:48

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | 440-200593-J-16 MSD | Info 2_TAIIRV0066_Hex Chrom_20180111-235701.d | 01/11/2018 23:45 |
| | CCB 440-451048/36 | Info 2_TAIIRV0066_Hex Chrom_20180112-011824.d | 01/12/2018 01:06 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2 Lab Sample ID: MB 440-451317/6

Matrix: Water Date Extracted:

Instrument ID: IC-16 Date Analyzed: 01/12/2018 06:58

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-451317/3 | Info 2_TAIIRV0066_Hex Chrom_20180112-063530.d | 01/12/2018 06:23 |
| | LCS 440-451317/5 | Info 2_TAIIRV0066_Hex Chrom_20180112-065845.d | 01/12/2018 06:47 |
| Ver-01I-B-12 | 440-200466-3 | Info 2_TAIIRV0066_Hex Chrom_20180112-074714.d | 01/12/2018 07:35 |
| Ver-01I-B-12 MS | 440-200466-3 MS | Info 2_TAIIRV0066_Hex Chrom_20180112-082850.d | 01/12/2018 08:17 |
| Ver-01I-B-12 MSD | 440-200466-3 MSD | Info 2_TAIIRV0066_Hex Chrom_20180112-084027.d | 01/12/2018 08:28 |
| | CCB 440-451317/14 | Info 2_TAIIRV0066_Hex Chrom_20180112-090800.d | 01/12/2018 08:56 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: VER-01I-B-BL | Lab Sample ID: 440-200466-1

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/11/2018 03:30

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/11/2018 21:02

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451048 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 8400 | | 1000 | 130 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: Ver-01I-B-12 | Lab Sample ID: 440-200466-3

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/11/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/12/2018 07:35

Con. Extract Vol.: | Dilution Factor: 1000

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451317 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 12000 | | 2000 | 250 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 432478

SDG No.:

Instrument ID: IC-16 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2017 12:38 Calibration End Date: 10/02/2017 13:59 Calibration ID: 17606

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-432478/3 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d |
| Level 2 | STD2 440-432478/4 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d |
| Level 3 | STD3 440-432478/5 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d |
| Level 4 | STD4 440-432478/6 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d |
| Level 5 | STD5 440-432478/7 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d |
| Level 6 | STD6 440-432478/8 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d |
| Level 7 | STD7 440-432478/9 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 7.528 | 7.528 | 7.528 | 7.528 | 7.523 | 7.523 | 7.523 | | | | 7.151 - 7.904 | 7.526 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 432478

SDG No.:

Instrument ID: IC-16 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2017 12:38 Calibration End Date: 10/02/2017 13:59 Calibration ID: 17606

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-432478/3 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d |
| Level 2 | STD2 440-432478/4 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d |
| Level 3 | STD3 440-432478/5 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d |
| Level 4 | STD4 440-432478/6 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d |
| Level 5 | STD5 440-432478/7 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d |
| Level 6 | STD6 440-432478/8 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d |
| Level 7 | STD7 440-432478/9 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Chromium, hexavalent | 48520<br>43927 | 45274<br>44791 | 45566<br>44690 | 43498 | Lin1 | 1102.44248 | 44469.5021 | | | | | | | 1.0000 | | 0.9990 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 432478

SDG No.:

Instrument ID: IC-16 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2017 12:38 Calibration End Date: 10/02/2017 13:59 Calibration ID: 17606

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-432478/3 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d |
| Level 2 | STD2 440-432478/4 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d |
| Level 3 | STD3 440-432478/5 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d |
| Level 4 | STD4 440-432478/6 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d |
| Level 5 | STD5 440-432478/7 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d |
| Level 6 | STD6 440-432478/8 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d |
| Level 7 | STD7 440-432478/9 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| Chromium, hexavalent | Lin1 | 14556<br>3359349 | 45274<br>4468974 | 455662 | 1087448 | 2196335 | 0.300<br>75.0 | 1.00<br>100 | 10.0 | 25.0 | 50.0 |

Curve Type Legend:
Lin1 = Linear 1/conc

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: ICV 440-432478/10 Calibration Date: 10/02/2017 14:26

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20171 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 50.1 | 50.0 | 100 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: ICV 440-432478/10 Calibration Date: 10/02/2017 14:26

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20171

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.52 | 7.15 | 7.90 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451048/2 Calibration Date: 01/11/2018 04:02

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 49.7 | 50.0 | 99 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451048/2 Calibration Date: 01/11/2018 04:02

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.17 | 6.84 | 7.56 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451048/8 Calibration Date: 01/11/2018 08:40

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 50.3 | 50.0 | 101 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451048/8 Calibration Date: 01/11/2018 08:40

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.17 | 6.84 | 7.56 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451048/11 Calibration Date: 01/11/2018 18:18

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 51.1 | 50.0 | 102 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451048/11 Calibration Date: 01/11/2018 18:18

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.17 | 6.84 | 7.56 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451048/23 Calibration Date: 01/11/2018 21:37

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 50.3 | 50.0 | 101 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451048/23 Calibration Date: 01/11/2018 21:37

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.00 | 6.84 | 7.56 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451048/35 Calibration Date: 01/12/2018 00:55

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 47.4 | 50.0 | 95 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451048/35 Calibration Date: 01/12/2018 00:55

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.10 | 6.84 | 7.56 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451317/2 Calibration Date: 01/12/2018 06:07

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 50.0 | 50.0 | 100 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451317/2 Calibration Date: 01/12/2018 06:07

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 6.73 | 6.39 | 7.06 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451317/13 Calibration Date: 01/12/2018 08:40

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 49.5 | 50.0 | 99 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451317/13 Calibration Date: 01/12/2018 08:40

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 6.67 | 6.39 | 7.06 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-451048/6

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/11/2018 04:48

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451048 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-451317/6

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/12/2018 06:58

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451317 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 440-451048/3

Matrix: Water Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 10(mL) Date Analyzed: 01/11/2018 04:14

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1000(uL) GC Column: AS7 A ID: 4(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 451048 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451048/9

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/11/2018 08:55

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451048 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451048/12

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/11/2018 18:29

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451048 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451048/24

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/11/2018 21:48

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451048 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451048/36

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/12/2018 01:06

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451048 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 440-451317/3

Matrix: Water Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 10(mL) Date Analyzed: 01/12/2018 06:23

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1000(uL) GC Column: AS7 A ID: 4(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 451317 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451317/14

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/12/2018 08:56

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451317 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-451048/5

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/11/2018 04:37

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451048 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 49.3 | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-451317/5

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/12/2018 06:47

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451317 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 49.7 | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-451048/4

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/11/2018 04:25

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451048 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 1.09 | J | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-451317/4

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/12/2018 06:35

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451317 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 0.984 | J | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: Ver-01I-B-12 MS | Lab Sample ID: 440-200466-3 MS

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/11/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/12/2018 08:17

Con. Extract Vol.: | Dilution Factor: 1000

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451317 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 13200 | | 2000 | 250 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-200593-J-16 MS

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/11/2018 09:20

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/11/2018 23:33

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451048 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 50.0 | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: Ver-01I-B-12 MSD | Lab Sample ID: 440-200466-3 MSD

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/11/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/12/2018 08:28

Con. Extract Vol.: | Dilution Factor: 1000

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451317 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 13100 | | 2000 | 250 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-200593-J-16 MSD

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/11/2018 09:20

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/11/2018 23:45

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451048 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 50.0 | | 2.0 | 0.25 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-16 Start Date: 10/02/2017 12:38

Analysis Batch Number: 432478 End Date: 10/03/2017 04:27

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| STD0 440-432478/2 IC | | 10/02/2017 12:38 | 1 | | AS7 A 4(mm) |
| STD1 440-432478/3 IC | | 10/02/2017 12:50 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d | AS7 A 4(mm) |
| STD2 440-432478/4 IC | | 10/02/2017 13:01 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d | AS7 A 4(mm) |
| STD3 440-432478/5 IC | | 10/02/2017 13:13 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d | AS7 A 4(mm) |
| STD4 440-432478/6 IC | | 10/02/2017 13:25 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d | AS7 A 4(mm) |
| STD5 440-432478/7 IC | | 10/02/2017 13:36 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d | AS7 A 4(mm) |
| STD6 440-432478/8 IC | | 10/02/2017 13:48 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d | AS7 A 4(mm) |
| STD7 440-432478/9 IC | | 10/02/2017 13:59 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d | AS7 A 4(mm) |
| ICV 440-432478/10 | | 10/02/2017 14:26 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-143755.d | AS7 A 4(mm) |
| ICB 440-432478/11 | | 10/02/2017 14:47 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 14:59 | 1 | | AS7 A 4(mm) |
| CCV 440-432478/1012 | | 10/02/2017 14:59 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 15:10 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/1013 | | 10/02/2017 15:10 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 15:22 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 15:34 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 20:53 | 1 | | AS7 A 4(mm) |
| CCV 440-432478/17 | | 10/02/2017 21:05 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/18 | | 10/02/2017 21:16 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:03 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:15 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:26 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:38 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:50 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-16 Start Date: 10/02/2017 12:38

Analysis Batch Number: 432478 End Date: 10/03/2017 04:27

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 10/02/2017 23:01 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:13 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:25 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:36 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:48 | 10 | | AS7 A 4(mm) |
| CCV 440-432478/29 | | 10/02/2017 23:59 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/30 | | 10/03/2017 00:11 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:23 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:34 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:46 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:58 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:09 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:21 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:32 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:44 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:56 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 02:07 | 1 | | AS7 A 4(mm) |
| CCV 440-432478/41 | | 10/03/2017 02:19 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/42 | | 10/03/2017 02:31 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 02:42 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 02:54 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 03:29 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 03:40 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 03:52 | 2 | | AS7 A 4(mm) |
| CCV 440-432478/51 | | 10/03/2017 04:15 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/52 | | 10/03/2017 04:27 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-16 Start Date: 01/11/2018 04:02

Analysis Batch Number: 451048 End Date: 01/12/2018 05:39

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-451048/2 | | 01/11/2018 04:02 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180111-041402.d | AS7 A 4(mm) |
| CCB 440-451048/3 | | 01/11/2018 04:14 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180111-042539.d | AS7 A 4(mm) |
| MRL 440-451048/4 | | 01/11/2018 04:25 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180111-043717.d | AS7 A 4(mm) |
| LCS 440-451048/5 | | 01/11/2018 04:37 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180111-044855.d | AS7 A 4(mm) |
| MB 440-451048/6 | | 01/11/2018 04:48 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180111-050032.d | AS7 A 4(mm) |
| ZZZZZ | | 01/11/2018 05:00 | 1 | | AS7 A 4(mm) |
| CCV 440-451048/8 | | 01/11/2018 08:40 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180111-085201.d | AS7 A 4(mm) |
| CCB 440-451048/9 | | 01/11/2018 08:55 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180111-090700.d | AS7 A 4(mm) |
| ZZZZZ | | 01/11/2018 18:06 | 1 | | AS7 A 4(mm) |
| CCV 440-451048/11 | | 01/11/2018 18:18 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180111-182942.d | AS7 A 4(mm) |
| CCB 440-451048/12 | | 01/11/2018 18:29 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180111-184120.d | AS7 A 4(mm) |
| ZZZZZ | | 01/11/2018 19:40 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/11/2018 19:52 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/11/2018 20:04 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/11/2018 20:50 | 500 | | AS7 A 4(mm) |
| 440-200466-1 | | 01/11/2018 21:02 | 500 | Info 2_TAIIRV0066_Hex Chrom_20180111-211350.d | AS7 A 4(mm) |
| CCV 440-451048/23 | | 01/11/2018 21:37 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180111-214843.d | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-16 Start Date: 01/11/2018 04:02

Analysis Batch Number: 451048 End Date: 01/12/2018 05:39

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCB 440-451048/24 | | 01/11/2018 21:48 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180111-220021.d | AS7 A 4(mm) |
| 440-200466-1 | | 01/11/2018 22:28 | 500 | Info 2_TAIIRV0066_Hex Chrom_20180111-223948.d | AS7 A 4(mm) |
| ZZZZZ | | 01/11/2018 23:10 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/11/2018 23:22 | 1 | | AS7 A 4(mm) |
| 440-200593-J-16 MS | | 01/11/2018 23:33 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180111-234523.d | AS7 A 4(mm) |
| 440-200593-J-16 MSD | | 01/11/2018 23:45 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180111-235701.d | AS7 A 4(mm) |
| ZZZZZ | | 01/11/2018 23:57 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 00:08 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 00:20 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 00:31 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 00:43 | 1 | | AS7 A 4(mm) |
| CCV 440-451048/35 | | 01/12/2018 00:55 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180112-010647.d | AS7 A 4(mm) |
| CCB 440-451048/36 | | 01/12/2018 01:06 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180112-011824.d | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 01:21 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 01:32 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 01:44 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 01:55 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 02:07 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 02:19 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 02:30 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 02:42 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 02:54 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 03:05 | 5 | | AS7 A 4(mm) |
| CCV 440-451048/47 | | 01/12/2018 03:17 | 1 | | AS7 A 4(mm) |
| CCB 440-451048/48 | | 01/12/2018 03:28 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 03:40 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 03:52 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 04:03 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 04:15 | 1 | | AS7 A 4(mm) |

7199

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-16 Start Date: 01/11/2018 04:02

Analysis Batch Number: 451048 End Date: 01/12/2018 05:39

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/12/2018 04:27 | 1 | | AS7 A 4(mm) |
| CCV 440-451048/54 | | 01/12/2018 04:38 | 1 | | AS7 A 4(mm) |
| CCB 440-451048/55 | | 01/12/2018 04:50 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 05:12 | 1 | | AS7 A 4(mm) |
| CCV 440-451048/57 | | 01/12/2018 05:27 | 1 | | AS7 A 4(mm) |
| CCB 440-451048/58 | | 01/12/2018 05:39 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-16 Start Date: 01/12/2018 06:07

Analysis Batch Number: 451317 End Date: 01/13/2018 03:40

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-451317/2 | | 01/12/2018 06:07 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180112-061859.d | AS7 A 4(mm) |
| CCB 440-451317/3 | | 01/12/2018 06:23 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180112-063530.d | AS7 A 4(mm) |
| MRL 440-451317/4 | | 01/12/2018 06:35 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180112-064707.d | AS7 A 4(mm) |
| LCS 440-451317/5 | | 01/12/2018 06:47 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180112-065845.d | AS7 A 4(mm) |
| MB 440-451317/6 | | 01/12/2018 06:58 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180112-071022.d | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 07:10 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 07:22 | 1 | | AS7 A 4(mm) |
| 440-200466-3 | | 01/12/2018 07:35 | 1000 | Info 2_TAIIRV0066_Hex Chrom_20180112-074714.d | AS7 A 4(mm) |
| 440-200466-3 | | 01/12/2018 07:47 | 1000 | Info 2_TAIIRV0066_Hex Chrom_20180112-075852.d | AS7 A 4(mm) |
| 440-200466-3 MS | | 01/12/2018 08:17 | 1000 | Info 2_TAIIRV0066_Hex Chrom_20180112-082850.d | AS7 A 4(mm) |
| 440-200466-3 MSD | | 01/12/2018 08:28 | 1000 | Info 2_TAIIRV0066_Hex Chrom_20180112-084027.d | AS7 A 4(mm) |
| CCV 440-451317/13 | | 01/12/2018 08:40 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180112-085205.d | AS7 A 4(mm) |
| CCB 440-451317/14 | | 01/12/2018 08:56 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180112-090800.d | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 20:04 | 1 | | AS7 A 4(mm) |
| CCV 440-451317/16 | | 01/12/2018 20:16 | 1 | | AS7 A 4(mm) |
| CCB 440-451317/17 | | 01/12/2018 20:28 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 20:52 | 500 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-16 Start Date: 01/12/2018 06:07

Analysis Batch Number: 451317 End Date: 01/13/2018 03:40

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/12/2018 21:04 | 500 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 21:55 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 22:07 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 22:19 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 22:30 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 22:42 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 22:53 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 23:05 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 23:17 | 1 | | AS7 A 4(mm) |
| CCV 440-451317/28 | | 01/12/2018 23:34 | 1 | | AS7 A 4(mm) |
| CCB 440-451317/29 | | 01/12/2018 23:45 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 00:10 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 00:22 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 00:33 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 00:45 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 00:57 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 01:08 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 01:20 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 01:32 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 01:43 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 01:55 | 1 | | AS7 A 4(mm) |
| CCV 440-451317/40 | | 01/13/2018 02:07 | 1 | | AS7 A 4(mm) |
| CCB 440-451317/41 | | 01/13/2018 02:18 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 02:30 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 02:41 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 02:53 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 03:05 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 03:16 | 1 | | AS7 A 4(mm) |
| CCV 440-451317/47 | | 01/13/2018 03:28 | 1 | | AS7 A 4(mm) |
| CCB 440-451317/48 | | 01/13/2018 03:40 | 1 | | AS7 A 4(mm) |

# Method 300.1

## Disinfection By-Products (IC) by Method 300.1

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): AS9-HC ID: 4 (mm)

| Client Sample ID | Lab Sample ID | DCAA # |
|---|---|---|
| VER-01I-B-BL | 440-200466-1 | 100 |
| VER-01I-B-BL | 440-200466-1 | 100 |
| Ver-01I-B-12 | 440-200466-3 | 99 |
| Ver-01I-B-12 | 440-200466-3 | 101 |
| | MB 440-451306/5 | 103 |
| | MB 440-451611/5 | 100 |
| | MB 440-451612/5 | 100 |
| | LCS 440-451306/4 | 100 |
| | LCS 440-451611/4 | 100 |
| | LCS 440-451612/4 | 100 |
| | MRL 440-451306/3 | 101 |
| | MRL 440-451611/3 | 100 |
| | MRL 440-451612/3 | 100 |
| | 440-200423-A-3 MS | 100 |
| | 440-200494-A-1 MS | 102 |
| | 440-200614-A-1 MS | 103 |
| | 440-200423-A-3 MSD | 101 |
| | 440-200494-A-1 MSD | 103 |
| | 440-200614-A-1 MSD | 99 |

| | QC LIMITS |
|---|---|
| DCAA = Dichloroacetic acid(Surr) | 90-115 |

# Column to be used to flag recovery values

FORM II 300.1B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098558-004.d

Lab ID: LCS 440-451306/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 100 | 109 | 109 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098639-004.d

Lab ID: LCS 440-451611/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 100 | 104 | 104 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098639-004.d

Lab ID: LCS 440-451612/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorite | 100 | 100 | 100 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098558-003.d

Lab ID: MRL 440-451306/3 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 20.0 | 22.6 | 113 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098639-003.d

Lab ID: MRL 440-451611/3 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 20.0 | 22.5 | 113 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098639-003.d

Lab ID: MRL 440-451612/3 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorite | 20.0 | 21.7 | 109 | 10-200 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098558-016.d

Lab ID: 440-200423-A-3 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorate | 200 | 170000 | 189000 | 12077 | 75-125 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098639-045.d

Lab ID: 440-200494-A-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorate | 200 | 120 | 318 | 97 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098639-007.d

Lab ID: 440-200614-A-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorite | 200 | ND | 203 | 102 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098558-017.d

Lab ID: 440-200423-A-3 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS | | # |
|---|---|---|---|---|---|---|---|
| | | | | | RPD | REC | |
| Chlorate | 200 | 178000 | 6462 | 6 | 25 | 75-125 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098639-046.d

Lab ID: 440-200494-A-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chlorate | 200 | 331 | 104 | 4 | 25 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098639-008.d

Lab ID: 440-200614-A-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chlorite | 200 | 208 | 104 | 2 | 25 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab File ID: 440-0098558-005.d Lab Sample ID: MB 440-451306/5

Matrix: Water Date Extracted:

Instrument ID: IC-8 Date Analyzed: 01/12/2018 08:34

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-451306/2 | 440-0098558-002.d | 01/12/2018 06:22 |
| | LCS 440-451306/4 | 440-0098558-004.d | 01/12/2018 07:58 |
| | CCB 440-451306/14 | 440-0098558-014.d | 01/12/2018 14:35 |
| | 440-200423-A-3 MS | 440-0098558-016.d | 01/12/2018 15:47 |
| | 440-200423-A-3 MSD | 440-0098558-017.d | 01/12/2018 16:23 |
| | CCB 440-451306/26 | 440-0098558-026.d | 01/12/2018 21:50 |
| | CCB 440-451306/38 | 440-0098558-038.d | 01/13/2018 05:05 |
| VER-01I-B-BL | 440-200466-1 | 440-0098558-046.d | 01/13/2018 09:55 |
| | CCB 440-451306/49 | 440-0098558-049.d | 01/13/2018 11:43 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab File ID: 440-0098639-005.d Lab Sample ID: MB 440-451611/5

Matrix: Water Date Extracted:

Instrument ID: IC-8 Date Analyzed: 01/14/2018 10:01

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-451611/2 | 440-0098639-002.d | 01/14/2018 08:01 |
| | LCS 440-451611/4 | 440-0098639-004.d | 01/14/2018 09:24 |
| Ver-01I-B-12 | 440-200466-3 | 440-0098639-011.d | 01/14/2018 13:38 |
| | CCB 440-451611/14 | 440-0098639-014.d | 01/14/2018 15:27 |
| | CCB 440-451611/38 | 440-0098639-038.d | 01/15/2018 05:57 |
| | 440-200494-A-1 MS | 440-0098639-045.d | 01/15/2018 10:30 |
| | 440-200494-A-1 MSD | 440-0098639-046.d | 01/15/2018 11:06 |
| | CCB 440-451611/49 | 440-0098639-049.d | 01/15/2018 12:58 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab File ID: 440-0098639-005.d Lab Sample ID: MB 440-451612/5

Matrix: Water Date Extracted:

Instrument ID: IC-8 Date Analyzed: 01/14/2018 10:01

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-451612/2 | 440-0098639-002.d | 01/14/2018 08:01 |
| | LCS 440-451612/4 | 440-0098639-004.d | 01/14/2018 09:24 |
| | 440-200614-A-1 MS | 440-0098639-007.d | 01/14/2018 11:13 |
| | 440-200614-A-1 MSD | 440-0098639-008.d | 01/14/2018 11:49 |
| VER-01I-B-BL | 440-200466-1 | 440-0098639-009.d | 01/14/2018 12:25 |
| Ver-01I-B-12 | 440-200466-3 | 440-0098639-010.d | 01/14/2018 13:02 |
| | CCB 440-451612/14 | 440-0098639-014.d | 01/14/2018 15:27 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: VER-01I-B-BL | Lab Sample ID: 440-200466-1

Matrix: Water | Lab File ID: 440-0098639-009.d

Analysis Method: 300.1B | Date Collected: 01/11/2018 03:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2018 12:25

Con. Extract Vol.: | Dilution Factor: 100

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451612 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 2000 | 1000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: VER-01I-B-BL | Lab Sample ID: 440-200466-1

Matrix: Water | Lab File ID: 440-0098558-046.d

Analysis Method: 300.1B | Date Collected: 01/11/2018 03:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/13/2018 09:55

Con. Extract Vol.: | Dilution Factor: 10000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451306 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 2400000 | | 200000 | 100000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: Ver-01I-B-12 | Lab Sample ID: 440-200466-3

Matrix: Water | Lab File ID: 440-0098639-010.d

Analysis Method: 300.1B | Date Collected: 01/11/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2018 13:02

Con. Extract Vol.: | Dilution Factor: 100

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451612 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 2000 | 1000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 99 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: Ver-01I-B-12 | Lab Sample ID: 440-200466-3

Matrix: Water | Lab File ID: 440-0098639-011.d

Analysis Method: 300.1B | Date Collected: 01/11/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2018 13:38

Con. Extract Vol.: | Dilution Factor: 10000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451611 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 3200000 | | 200000 | 100000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 445955

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18157

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445955/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445955/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445955/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445955/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445955/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445955/7 | 440-0097300-007.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromate | | 8.809 | 8.800 | 8.800 | 8.800 | 8.800 | | | | | 0.000 - 0.000 | 8.802 |
| Bromide | | 18.375 | 18.334 | 18.325 | 18.358 | 18.275 | | | | | 0.000 - 0.000 | 18.333 |
| Chlorate | | 20.175 | 20.134 | 20.117 | 20.158 | 20.075 | | | | | 0.000 - 0.000 | 20.132 |
| Dichloroacetic acid(Surr) | 14.975 | 14.967 | 14.975 | 14.967 | 14.983 | 14.975 | | | | | 13.919 - 16.015 | 14.974 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 445955

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18157

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445955/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445955/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445955/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445955/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445955/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445955/7 | 440-0097300-007.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Bromate | 85030 | 84777<br>83932 | 83142 | 85924 | Lin | 13316.2536 | 84031.2285 | | | | | | | 1.0000 | | 0.9950 |
| Bromide | 155080 | 170331<br>157285 | 156910 | 155772 | Lin | 6334.71702 | 156810.286 | | | | | | | 1.0000 | | 0.9950 |
| Chlorate | 137286 | 122469<br>136488 | 132031 | 134495 | Lin | -163510.51 | 137057.039 | | | | | | | 1.0000 | | 0.9950 |
| Dichloroacetic acid(Surr) | 82131<br>81437 | 81949<br>82824 | 82576 | 83010 | Ave | | 82321.1870 | | | | 0.7 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 445955

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18157

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445955/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445955/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445955/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445955/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445955/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445955/7 | 440-0097300-007.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Bromate | Lin | 8393172 | 423885 | 1039271 | 2148106 | 4251475 | 0.000000<br>100 | 5.00 | 12.5 | 25.0 | 50.0 |
| Bromide | Lin | 157284596 | 8516526 | 19613766 | 38942890 | 77540030 | 0.000000<br>1000 | 50.0 | 125 | 250 | 500 |
| Chlorate | Lin | 54595205 | 2449371 | 6601552 | 13449523 | 27457206 | 0.000000<br>400 | 20.0 | 50.0 | 100 | 200 |
| Dichloroacetic acid(Surr) | Ave | 81614796<br>82303494 | 81433893 | 82056259 | 82487538 | 80924785 | 994<br>994 | 994 | 994 | 994 | 994 |

Curve Type Legend:

Ave = Average
Lin = Linear

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 445956

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18158

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445956/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445956/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445956/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445956/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445956/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445956/7 | 440-0097300-007.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | 7.517 | 7.509 | 7.509 | 7.517 | 7.517 | | | | | 0.000 - 0.000 | 7.514 |
| Dichloroacetic acid(Surr) | 14.975 | 14.967 | 14.975 | 14.967 | 14.983 | 14.975 | | | | | 13.919 - 16.015 | 14.974 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 445956

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18158

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445956/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445956/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445956/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445956/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445956/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445956/7 | 440-0097300-007.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Chlorite | 159315 | 144620<br>163366 | 153703 | 157087 | Lin | -425656.25 | 163700.877 | | | | | | | 1.0000 | | 0.9950 |
| Dichloroacetic acid(Surr) | 82131<br>81437 | 81949<br>82824 | 82576 | 83010 | Ave | | 82321.1870 | | | | 0.7 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200466-1 Analy Batch No.: 445956

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18158

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445956/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445956/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445956/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445956/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445956/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445956/7 | 440-0097300-007.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Chlorite | Lin | 65346431 | 2892398 | 7685136 | 15708703 | 31863070 | 0.000000<br>400 | 20.0 | 50.0 | 100 | 200 |
| Dichloroacetic acid(Surr) | Ave | 81614796<br>82303494 | 81433893 | 82056259 | 82487538 | 80924785 | 994<br>994 | 994 | 994 | 994 | 994 |

Curve Type Legend:

Ave = Average
Lin = Linear

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Lab Sample ID: ICV 440-445955/8  Calibration Date: 12/11/2017 09:01

Instrument ID: IC-8  Calib Start Date: 12/11/2017 05:11

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0097300-008.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 83178 | | 29.6 | 30.1 | -1.5 | 15.0 |
| Bromide | Lin | | 155600 | | 298 | 300 | -0.8 | 15.0 |
| Chlorate | Lin | | 134468 | | 119 | 120 | -0.9 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82190 | | 992 | 994 | -0.2 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: ICV 440-445955/8 Calibration Date: 12/11/2017 09:01

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS14 ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0097300-008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.77 | 8.19 | 9.43 |
| Bromide | 18.03 | 16.57 | 19.06 |
| Chlorate | 19.86 | 18.64 | 20.60 |
| Dichloroacetic acid(Surr) | 14.99 | 13.80 | 15.87 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: ICV 440-445956/8 Calibration Date: 12/11/2017 09:01

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS14 ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0097300-008.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 155519 | | 117 | 120 | -2.8 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82190 | | 992 | 994 | -0.2 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: ICV 440-445956/8 Calibration Date: 12/11/2017 09:01

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS14 ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0097300-008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.50 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.99 | 13.80 | 15.87 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451306/1  Calibration Date: 01/12/2018 05:42

Instrument ID: IC-8  Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC  ID: 4.00(mm)  Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098558-001.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 85920 | | 25.4 | 25.0 | 1.6 | 15.0 |
| Bromide | Lin | | 161831 | | 258 | 250 | 3.2 | 15.0 |
| Chlorate | Lin | | 145509 | | 107 | 100 | 7.4 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82935 | | 1000 | 994 | 0.7 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451306/1 Calibration Date: 01/12/2018 05:42

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098558-001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.82 | 8.07 | 9.28 |
| Bromide | 18.34 | 16.55 | 19.05 |
| Chlorate | 19.93 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.72 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451306/13  Calibration Date: 01/12/2018 13:58

Instrument ID: IC-8  Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC  ID: 4.00(mm)  Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098558-013.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 84310 | | 50.0 | 50.0 | 0.0 | 15.0 |
| Bromide | Lin | | 156827 | | 500 | 500 | 0.0 | 15.0 |
| Chlorate | Lin | | 136138 | | 200 | 200 | -0.0 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82181 | | 992 | 994 | -0.2 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451306/13 Calibration Date: 01/12/2018 13:58

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098558-013.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.72 | 8.07 | 9.28 |
| Bromide | 17.58 | 16.55 | 19.05 |
| Chlorate | 19.27 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.78 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451306/25  Calibration Date: 01/12/2018 21:13

Instrument ID: IC-8  Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC  ID: 4.00(mm)  Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098558-025.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 83460 | | 24.7 | 25.0 | -1.3 | 15.0 |
| Bromide | Lin | | 158486 | | 253 | 250 | 1.1 | 15.0 |
| Chlorate | Lin | | 140623 | | 104 | 100 | 3.8 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83402 | | 1010 | 994 | 1.3 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451306/25 Calibration Date: 01/12/2018 21:13

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098558-025.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.78 | 8.07 | 9.28 |
| Bromide | 17.99 | 16.55 | 19.05 |
| Chlorate | 19.63 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.73 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451306/37 Calibration Date: 01/13/2018 04:28

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098558-037.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 84851 | | 50.3 | 50.0 | 0.7 | 15.0 |
| Bromide | Lin | | 157205 | | 501 | 500 | 0.2 | 15.0 |
| Chlorate | Lin | | 137111 | | 201 | 200 | 0.6 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83793 | | 1010 | 994 | 1.8 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451306/37 Calibration Date: 01/13/2018 04:28

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098558-037.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.83 | 8.07 | 9.28 |
| Bromide | 18.40 | 16.55 | 19.05 |
| Chlorate | 19.97 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.69 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451306/48 Calibration Date: 01/13/2018 11:07

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098558-048.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 86413 | | 25.6 | 25.0 | 2.2 | 15.0 |
| Bromide | Lin | | 158123 | | 252 | 250 | 0.8 | 15.0 |
| Chlorate | Lin | | 138523 | | 102 | 100 | 2.3 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 84091 | | 1020 | 994 | 2.1 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451306/48 Calibration Date: 01/13/2018 11:07

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098558-048.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.70 | 8.07 | 9.28 |
| Bromide | 17.58 | 16.55 | 19.05 |
| Chlorate | 19.25 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.72 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451611/1 Calibration Date: 01/14/2018 07:25

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-001.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 90226 | | 26.7 | 25.0 | 6.7 | 15.0 |
| Bromide | Lin | | 166369 | | 265 | 250 | 6.1 | 15.0 |
| Chlorate | Lin | | 144145 | | 106 | 100 | 6.4 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 84427 | | 1020 | 994 | 2.6 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451611/1 Calibration Date: 01/14/2018 07:25

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.80 | 8.07 | 9.28 |
| Bromide | 18.12 | 16.55 | 19.05 |
| Chlorate | 19.70 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.64 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451612/1 Calibration Date: 01/14/2018 07:25

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-001.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 165398 | | 104 | 100 | 3.6 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 84427 | | 1020 | 994 | 2.6 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451612/1 Calibration Date: 01/14/2018 07:25

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.53 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.64 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451611/13 Calibration Date: 01/14/2018 14:50

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-013.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 84330 | | 50.0 | 50.0 | 0.0 | 15.0 |
| Bromide | Lin | | 158346 | | 505 | 500 | 1.0 | 15.0 |
| Chlorate | Lin | | 139434 | | 205 | 200 | 2.3 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82702 | | 998 | 994 | 0.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451611/13 Calibration Date: 01/14/2018 14:50

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-013.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.68 | 8.07 | 9.28 |
| Bromide | 17.59 | 16.55 | 19.05 |
| Chlorate | 19.24 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.64 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451612/13 Calibration Date: 01/14/2018 14:50

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-013.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 155768 | | 193 | 200 | -3.5 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82702 | | 998 | 994 | 0.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451612/13 Calibration Date: 01/14/2018 14:50

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-013.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.48 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.64 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451611/37 Calibration Date: 01/15/2018 05:20

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-037.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 85924 | | 51.0 | 50.0 | 1.9 | 15.0 |
| Bromide | Lin | | 160231 | | 511 | 500 | 2.2 | 15.0 |
| Chlorate | Lin | | 140102 | | 206 | 200 | 2.8 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83358 | | 1010 | 994 | 1.3 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451611/37 Calibration Date: 01/15/2018 05:20

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-037.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.79 | 8.07 | 9.28 |
| Bromide | 18.33 | 16.55 | 19.05 |
| Chlorate | 19.87 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.59 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451611/48 Calibration Date: 01/15/2018 12:22

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-048.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 88277 | | 26.1 | 25.0 | 4.4 | 15.0 |
| Bromide | Lin | | 160675 | | 256 | 250 | 2.4 | 15.0 |
| Chlorate | Lin | | 146726 | | 108 | 100 | 8.2 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 81616 | | 985 | 994 | -0.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Lab Sample ID: CCV 440-451611/48 Calibration Date: 01/15/2018 12:22

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-048.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.67 | 8.07 | 9.28 |
| Bromide | 17.44 | 16.55 | 19.05 |
| Chlorate | 19.11 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.67 | 13.75 | 15.82 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-451306/5

Matrix: Water | Lab File ID: 440-0098558-005.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/12/2018 08:34

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451306 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 440-451611/5

Matrix: Water  Lab File ID: 440-0098639-005.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/14/2018 10:01

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 451611  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 440-451612/5

Matrix: Water  Lab File ID: 440-0098639-005.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/14/2018 10:01

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 451612  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451306/2

Matrix: Water | Lab File ID: 440-0098558-002.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/12/2018 06:22

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451306 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 99 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451306/14

Matrix: Water | Lab File ID: 440-0098558-014.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/12/2018 14:35

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451306 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-451306/26

Matrix: Water  Lab File ID: 440-0098558-026.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/12/2018 21:50

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 451306  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451306/38

Matrix: Water | Lab File ID: 440-0098558-038.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/13/2018 05:05

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451306 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451306/49

Matrix: Water | Lab File ID: 440-0098558-049.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/13/2018 11:43

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451306 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-451611/2

Matrix: Water  Lab File ID: 440-0098639-002.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/14/2018 08:01

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 451611  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-451611/14

Matrix: Water  Lab File ID: 440-0098639-014.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/14/2018 15:27

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 451611  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-451611/38

Matrix: Water  Lab File ID: 440-0098639-038.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/15/2018 05:57

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 451611  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451611/49

Matrix: Water | Lab File ID: 440-0098639-049.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/15/2018 12:58

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451611 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-451612/2

Matrix: Water  Lab File ID: 440-0098639-002.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/14/2018 08:01

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 451612  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-451612/14

Matrix: Water  Lab File ID: 440-0098639-014.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/14/2018 15:27

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 451612  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-451306/4

Matrix: Water | Lab File ID: 440-0098558-004.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/12/2018 07:58

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451306 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 109 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-451611/4

Matrix: Water | Lab File ID: 440-0098639-004.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2018 09:24

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451611 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 104 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-451612/4

Matrix: Water | Lab File ID: 440-0098639-004.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2018 09:24

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451612 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 100 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-451306/3

Matrix: Water | Lab File ID: 440-0098558-003.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/12/2018 07:15

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451306 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 22.6 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-451611/3

Matrix: Water | Lab File ID: 440-0098639-003.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2018 08:38

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451611 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 22.5 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-451612/3

Matrix: Water | Lab File ID: 440-0098639-003.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2018 08:38

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451612 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 21.7 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-200423-A-3 MS

Matrix: Water | Lab File ID: 440-0098558-016.d

Analysis Method: 300.1B | Date Collected: 01/10/2018 11:22

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/12/2018 15:47

Con. Extract Vol.: | Dilution Factor: 1000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451306 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 189000 | | 20000 | 10000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-200494-A-1 MS

Matrix: Water | Lab File ID: 440-0098639-045.d

Analysis Method: 300.1B | Date Collected: 01/10/2018 11:15

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/15/2018 10:30

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451611 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 318 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-200614-A-1 MS

Matrix: Water | Lab File ID: 440-0098639-007.d

Analysis Method: 300.1B | Date Collected: 01/11/2018 07:50

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2018 11:13

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451612 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 203 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-200423-A-3 MSD

Matrix: Water | Lab File ID: 440-0098558-017.d

Analysis Method: 300.1B | Date Collected: 01/10/2018 11:22

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/12/2018 16:23

Con. Extract Vol.: | Dilution Factor: 1000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451306 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 178000 | | 20000 | 10000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-200494-A-1 MSD

Matrix: Water | Lab File ID: 440-0098639-046.d

Analysis Method: 300.1B | Date Collected: 01/10/2018 11:15

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/15/2018 11:06

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451611 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 331 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Client Sample ID:  Lab Sample ID: 440-200614-A-1 MSD

Matrix: Water  Lab File ID: 440-0098639-008.d

Analysis Method: 300.1B  Date Collected: 01/11/2018 07:50

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/14/2018 11:49

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 451612  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 208 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 99 | | 90-115 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-8 Start Date: 12/11/2017 04:35

Analysis Batch Number: 445955 End Date: 12/12/2017 11:51

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 12/11/2017 04:35 | 1 | | AS14 4(mm) |
| STD0 440-445955/2 IC | | 12/11/2017 05:11 | 1 | 440-0097300-002.d | AS14 4(mm) |
| STD1 440-445955/3 IC | | 12/11/2017 05:47 | 1 | 440-0097300-003.d | AS14 4(mm) |
| STD2 440-445955/4 IC | | 12/11/2017 06:24 | 1 | 440-0097300-004.d | AS14 4(mm) |
| STD3 440-445955/5 IC | | 12/11/2017 07:00 | 1 | 440-0097300-005.d | AS14 4(mm) |
| STD4 440-445955/6 IC | | 12/11/2017 07:36 | 1 | 440-0097300-006.d | AS14 4(mm) |
| STD5 440-445955/7 IC | | 12/11/2017 08:12 | 1 | 440-0097300-007.d | AS14 4(mm) |
| ICV 440-445955/8 | | 12/11/2017 09:01 | 1 | 440-0097300-008.d | AS14 4(mm) |
| ICB 440-445955/9 | | 12/11/2017 09:37 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 10:14 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 10:50 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 11:26 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 12:39 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 13:15 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 13:51 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 15:40 | 1 | | AS14 4(mm) |
| CCV 440-445955/20 | | 12/11/2017 16:16 | 1 | | AS14 4(mm) |
| CCB 440-445955/21 | | 12/11/2017 16:52 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 18:05 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 18:41 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 19:17 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 22:55 | 10 | | AS14 4(mm) |
| CCV 440-445955/32 | | 12/11/2017 23:31 | 1 | | AS14 4(mm) |
| CCB 440-445955/33 | | 12/12/2017 00:07 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 01:20 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 01:56 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 02:32 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 03:08 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 03:45 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 04:33 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 05:09 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 05:45 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 06:21 | 1 | | AS14 4(mm) |
| CCV 440-445955/44 | | 12/12/2017 06:58 | 1 | | AS14 4(mm) |
| CCB 440-445955/45 | | 12/12/2017 07:34 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 08:14 | 2 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 08:49 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 09:26 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 10:02 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 10:38 | 5 | | AS14 4(mm) |
| CCV 440-445955/51 | | 12/12/2017 11:14 | 1 | | AS14 4(mm) |
| CCB 440-445955/52 | | 12/12/2017 11:51 | 1 | | AS14 4(mm) |

300.1B

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-8 Start Date: 12/11/2017 04:35

Analysis Batch Number: 445956 End Date: 12/12/2017 07:34

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 12/11/2017 04:35 | 1 | | AS14 4(mm) |
| STD0 440-445956/2 IC | | 12/11/2017 05:11 | 1 | 440-0097300-002.d | AS14 4(mm) |
| STD1 440-445956/3 IC | | 12/11/2017 05:47 | 1 | 440-0097300-003.d | AS14 4(mm) |
| STD2 440-445956/4 IC | | 12/11/2017 06:24 | 1 | 440-0097300-004.d | AS14 4(mm) |
| STD3 440-445956/5 IC | | 12/11/2017 07:00 | 1 | 440-0097300-005.d | AS14 4(mm) |
| STD4 440-445956/6 IC | | 12/11/2017 07:36 | 1 | 440-0097300-006.d | AS14 4(mm) |
| STD5 440-445956/7 IC | | 12/11/2017 08:12 | 1 | 440-0097300-007.d | AS14 4(mm) |
| ICV 440-445956/8 | | 12/11/2017 09:01 | 1 | 440-0097300-008.d | AS14 4(mm) |
| ICB 440-445956/9 | | 12/11/2017 09:37 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 10:14 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 10:50 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 11:26 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 12:02 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 12:39 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 13:15 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 13:51 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 14:27 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 15:04 | 5 | | AS14 4(mm) |
| CCV 440-445956/20 | | 12/11/2017 16:16 | 1 | | AS14 4(mm) |
| CCB 440-445956/21 | | 12/11/2017 16:52 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 17:29 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 18:05 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 18:41 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 19:17 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 19:54 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 20:30 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 21:06 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 21:42 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 22:19 | 5 | | AS14 4(mm) |
| CCV 440-445956/32 | | 12/11/2017 23:31 | 1 | | AS14 4(mm) |
| CCB 440-445956/33 | | 12/12/2017 00:07 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 00:44 | 1 | | AS14 4(mm) |
| CCV 440-445956/44 | | 12/12/2017 06:58 | 1 | | AS14 4(mm) |
| CCB 440-445956/45 | | 12/12/2017 07:34 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-8 Start Date: 01/12/2018 05:42

Analysis Batch Number: 451306 End Date: 01/13/2018 11:43

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-451306/1 | | 01/12/2018 05:42 | 1 | 440-0098558-001.d | AS9-HC 4(mm) |
| CCB 440-451306/2 | | 01/12/2018 06:22 | 1 | 440-0098558-002.d | AS9-HC 4(mm) |
| MRL 440-451306/3 | | 01/12/2018 07:15 | 1 | 440-0098558-003.d | AS9-HC 4(mm) |
| LCS 440-451306/4 | | 01/12/2018 07:58 | 1 | 440-0098558-004.d | AS9-HC 4(mm) |
| MB 440-451306/5 | | 01/12/2018 08:34 | 1 | 440-0098558-005.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/12/2018 09:15 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/12/2018 10:04 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/12/2018 10:44 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/12/2018 11:26 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/12/2018 12:10 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/12/2018 12:46 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/12/2018 13:22 | 1000 | | AS9-HC 4(mm) |
| CCV 440-451306/13 | | 01/12/2018 13:58 | 1 | 440-0098558-013.d | AS9-HC 4(mm) |
| CCB 440-451306/14 | | 01/12/2018 14:35 | 1 | 440-0098558-014.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/12/2018 15:11 | 1000 | | AS9-HC 4(mm) |
| 440-200423-A-3 MS | | 01/12/2018 15:47 | 1000 | 440-0098558-016.d | AS9-HC 4(mm) |
| 440-200423-A-3 MSD | | 01/12/2018 16:23 | 1000 | 440-0098558-017.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/12/2018 17:00 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/12/2018 17:36 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/12/2018 18:12 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/12/2018 18:48 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/12/2018 19:25 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/12/2018 20:01 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/12/2018 20:37 | 1 | | AS9-HC 4(mm) |
| CCV 440-451306/25 | | 01/12/2018 21:13 | 1 | 440-0098558-025.d | AS9-HC 4(mm) |
| CCB 440-451306/26 | | 01/12/2018 21:50 | 1 | 440-0098558-026.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/12/2018 22:26 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/12/2018 23:02 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/12/2018 23:38 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/13/2018 00:15 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/13/2018 00:51 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/13/2018 01:27 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/13/2018 02:03 | 100 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/13/2018 02:40 | 100 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/13/2018 03:16 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/13/2018 03:52 | 1000 | | AS9-HC 4(mm) |
| CCV 440-451306/37 | | 01/13/2018 04:28 | 1 | 440-0098558-037.d | AS9-HC 4(mm) |
| CCB 440-451306/38 | | 01/13/2018 05:05 | 1 | 440-0098558-038.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/13/2018 05:41 | 5000 | | AS9-HC 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-8 Start Date: 01/12/2018 05:42

Analysis Batch Number: 451306 End Date: 01/13/2018 11:43

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/13/2018 06:17 | 100 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/13/2018 06:53 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/13/2018 07:30 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/13/2018 08:06 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/13/2018 08:42 | 500 | | AS9-HC 4(mm) |
| | | 01/13/2018 09:18 | 1000 | | AS9-HC 4(mm) |
| 440-200466-1 | | 01/13/2018 09:55 | 10000 | 440-0098558-046.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/13/2018 10:31 | 1000 | | AS9-HC 4(mm) |
| CCV 440-451306/48 | | 01/13/2018 11:07 | 1 | 440-0098558-048.d | AS9-HC 4(mm) |
| CCB 440-451306/49 | | 01/13/2018 11:43 | 1 | 440-0098558-049.d | AS9-HC 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-8 Start Date: 01/14/2018 07:25

Analysis Batch Number: 451611 End Date: 01/15/2018 17:12

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-451611/1 | | 01/14/2018 07:25 | 1 | 440-0098639-001.d | AS9-HC 4(mm) |
| CCB 440-451611/2 | | 01/14/2018 08:01 | 1 | 440-0098639-002.d | AS9-HC 4(mm) |
| MRL 440-451611/3 | | 01/14/2018 08:38 | 1 | 440-0098639-003.d | AS9-HC 4(mm) |
| LCS 440-451611/4 | | 01/14/2018 09:24 | 1 | 440-0098639-004.d | AS9-HC 4(mm) |
| MB 440-451611/5 | | 01/14/2018 10:01 | 1 | 440-0098639-005.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 10:37 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 11:13 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 11:49 | 1 | | AS9-HC 4(mm) |
| 440-200466-3 | | 01/14/2018 13:38 | 10000 | 440-0098639-011.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 14:14 | 20 | | AS9-HC 4(mm) |
| CCV 440-451611/13 | | 01/14/2018 14:50 | 1 | 440-0098639-013.d | AS9-HC 4(mm) |
| CCB 440-451611/14 | | 01/14/2018 15:27 | 1 | 440-0098639-014.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 16:03 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 16:39 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 17:15 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 17:52 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 18:28 | 100 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 19:04 | 100 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 19:40 | 100 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 20:17 | 100 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 20:53 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 21:29 | 1000 | | AS9-HC 4(mm) |
| CCV 440-451611/25 | | 01/14/2018 22:05 | 1 | | AS9-HC 4(mm) |
| CCB 440-451611/26 | | 01/14/2018 22:42 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 23:18 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 23:54 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 00:30 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 01:07 | 100 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 01:43 | 100 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 02:55 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 03:32 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 04:08 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 04:44 | 10000 | | AS9-HC 4(mm) |
| CCV 440-451611/37 | | 01/15/2018 05:20 | 1 | 440-0098639-037.d | AS9-HC 4(mm) |
| CCB 440-451611/38 | | 01/15/2018 05:57 | 1 | 440-0098639-038.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 06:33 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 07:09 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 07:45 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 08:22 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 08:58 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 09:34 | 1 | | AS9-HC 4(mm) |

300.1B

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-8 Start Date: 01/14/2018 07:25

Analysis Batch Number: 451611 End Date: 01/15/2018 17:12

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| 440-200494-A-1 MS | | 01/15/2018 10:30 | 1 | 440-0098639-045.d | AS9-HC 4(mm) |
| 440-200494-A-1 MSD | | 01/15/2018 11:06 | 1 | 440-0098639-046.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 11:42 | 100 | | AS9-HC 4(mm) |
| CCV 440-451611/48 | | 01/15/2018 12:22 | 1 | 440-0098639-048.d | AS9-HC 4(mm) |
| CCB 440-451611/49 | | 01/15/2018 12:58 | 1 | 440-0098639-049.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 15:23 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 15:59 | 1 | | AS9-HC 4(mm) |
| CCV 440-451611/55 | | 01/15/2018 16:35 | 1 | | AS9-HC 4(mm) |
| CCB 440-451611/56 | | 01/15/2018 17:12 | 1 | | AS9-HC 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Instrument ID: IC-8 Start Date: 01/14/2018 07:25

Analysis Batch Number: 451612 End Date: 01/15/2018 17:12

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-451612/1 | | 01/14/2018 07:25 | 1 | 440-0098639-001.d | AS9-HC 4(mm) |
| CCB 440-451612/2 | | 01/14/2018 08:01 | 1 | 440-0098639-002.d | AS9-HC 4(mm) |
| MRL 440-451612/3 | | 01/14/2018 08:38 | 1 | 440-0098639-003.d | AS9-HC 4(mm) |
| LCS 440-451612/4 | | 01/14/2018 09:24 | 1 | 440-0098639-004.d | AS9-HC 4(mm) |
| MB 440-451612/5 | | 01/14/2018 10:01 | 1 | 440-0098639-005.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 10:37 | 1 | | AS9-HC 4(mm) |
| 440-200614-A-1 MS | | 01/14/2018 11:13 | 1 | 440-0098639-007.d | AS9-HC 4(mm) |
| 440-200614-A-1 MSD | | 01/14/2018 11:49 | 1 | 440-0098639-008.d | AS9-HC 4(mm) |
| 440-200466-1 | | 01/14/2018 12:25 | 100 | 440-0098639-009.d | AS9-HC 4(mm) |
| 440-200466-3 | | 01/14/2018 13:02 | 100 | 440-0098639-010.d | AS9-HC 4(mm) |
| CCV 440-451612/13 | | 01/14/2018 14:50 | 1 | 440-0098639-013.d | AS9-HC 4(mm) |
| CCB 440-451612/14 | | 01/14/2018 15:27 | 1 | 440-0098639-014.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 16:03 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 16:39 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 17:15 | 1 | | AS9-HC 4(mm) |
| CCV 440-451612/25 | | 01/14/2018 22:05 | 1 | | AS9-HC 4(mm) |
| CCB 440-451612/26 | | 01/14/2018 22:42 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 02:19 | 100 | | AS9-HC 4(mm) |
| CCV 440-451612/37 | | 01/15/2018 05:20 | 1 | | AS9-HC 4(mm) |
| CCB 440-451612/38 | | 01/15/2018 05:57 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 13:34 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 14:10 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 14:47 | 1000 | | AS9-HC 4(mm) |
| CCV 440-451612/55 | | 01/15/2018 16:35 | 1 | | AS9-HC 4(mm) |
| CCB 440-451612/56 | | 01/15/2018 17:12 | 1 | | AS9-HC 4(mm) |

# METALS

COVER PAGE
METALS

Lab Name: TestAmerica Irvine Job Number: 440-200466-1

SDG No.:

Project: NERT VER Treatability Study

| Client Sample ID | Lab Sample ID |
|---|---|
| VER-01I-B-BL | 440-200466-1 |
| Ver-01I-B-12 | 440-200466-3 |

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: VER-01I-B-BL
Lab Sample ID: 440-200466-1
Lab Name: TestAmerica Irvine
Job No.: 440-200466-1
SDG ID.:
Matrix: Water
Date Sampled: 01/11/2018 03:30
Reporting Basis: WET
Date Received: 01/11/2018 18:45

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 8.8 | 0.025 | 0.013 | mg/L | | | 5 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: Ver-01I-B-12 Lab Sample ID: 440-200466-3

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG ID.:

Matrix: Water Date Sampled: 01/11/2018 15:30

Reporting Basis: WET Date Received: 01/11/2018 18:45

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 15 | 0.025 | 0.013 | mg/L | | | 5 | 6010B |

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

ICV Source: ME ICP ICV2_01763  Concentration Units: mg/L

CCV Source: ME ICP STD3_01844

| Analyte | ICV 440-452067/5 01/16/2018 09:53 | | | | CCV 440-452067/14 01/16/2018 17:36 | | | | CCV 440-452067/26 01/16/2018 18:09 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Found | C | True | %R | Found | C | True | %R | Found | C | True | %R |
| **Chromium** | 1.03 | | 1.00 | 103 | 0.972 | | 1.00 | 97 | 0.966 | | 1.00 | 97 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Method: 6010B Instrument ID: ICP9

Lab Sample ID: CRI 440-452067/13 Concentration Units: mg/L

CRQL Check Standard Source: ME ICP 2X RL_00052

| Analyte | CRQL Check Standard | | | | |
|---|---|---|---|---|---|
| | True | Found | Qualifiers | %R(1) | Limits |
| Chromium | 0.0100 | 0.00970 | | 97 | 50-150 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Concentration Units: mg/L

| Analyte | RL | ICB 440-452067/7 01/16/2018 09:57 | | CCB 440-452067/15 01/16/2018 17:38 | | CCB 440-452067/27 01/16/2018 18:11 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Found | C | Found | C | Found | C | Found | C |
| **Chromium** | 0.0050 | ND | | ND | | ND | | | |

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 440-451930/1-A

Instrument Code: ICP9 Batch No.: 452067

| CAS No. | Analyte | Concentration | C | Q | Method |
|---|---|---|---|---|---|
| 7440-47-3 | Chromium | ND | | | 6010B |

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Lab Sample ID: ICSA 440-452067/8  Instrument ID: ICP9

Lab File ID: 180116-1H.csv  ICS Source: ME ICP IFA_01789

Concentration Units: mg/L

| Analyte | True Solution A | Found Solution A | Percent Recovery |
|---|---|---|---|
| **Chromium** | | **0.0002** | |
| *Aluminum* | *600* | *652* | *109* |
| *Antimony* | | *-0.0141* | |
| *Arsenic* | | *0.0190* | |
| *Barium* | | *0.0042* | |
| *Beryllium* | | *-0.0015* | |
| *Boron* | | *0.0234* | |
| *Cadmium* | | *0.0070* | |
| *Calcium* | *600* | *641* | *107* |
| *Cobalt* | | *0.0092* | |
| *Copper* | | *0.0026* | |
| *Iron* | *600* | *569* | *95* |
| *Lead* | | *-0.0075* | |
| *Lithium* | | *-0.0177* | |
| *Magnesium* | *600* | *610* | *102* |
| *Manganese* | | *-0.0006* | |
| *Molybdenum* | | *0.0030* | |
| *Nickel* | | *0.0024* | |
| *Phosphorus* | | *-0.0280* | |
| *Potassium* | | *0.0684* | |
| *Selenium* | | *0.0138* | |
| *Silicon* | | *-0.0411* | |
| *Silver* | | *-0.0023* | |
| *Sodium* | | *0.318* | |
| *Strontium* | | *-0.0173* | |
| *Thallium* | | *-0.0047* | |
| *Tin* | | *-0.0087* | |
| *Titanium* | | *0.0012* | |
| *Tungsten* | | *0.0087* | |
| *Vanadium* | | *-0.0026* | |
| *Zinc* | | *-0.0100* | |
| *Zirconium* | | *0.0020* | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Lab Sample ID: ICSAB 440-452067/9  Instrument ID: ICP9

Lab File ID: 180116-1H.csv  ICS Source: ME ICP IFB_01808

Concentration Units: mg/L

| Analyte | True Solution AB | Found Solution AB | Percent Recovery |
|---|---|---|---|
| **Chromium** | **0.500** | **0.516** | **103** |
| *Aluminum* | *601* | *639* | *106* |
| *Antimony* | *0.500* | *0.527* | *105* |
| *Arsenic* | *0.500* | *0.538* | *108* |
| *Barium* | *0.500* | *0.483* | *97* |
| *Beryllium* | *0.500* | *0.537* | *107* |
| *Boron* | *0.500* | *0.552* | *110* |
| *Cadmium* | *0.500* | *0.482* | *96* |
| *Calcium* | *603* | *642* | *107* |
| *Cobalt* | *0.500* | *0.478* | *96* |
| *Copper* | *0.500* | *0.560* | *112* |
| *Iron* | *601* | *558* | *93* |
| *Lead* | *0.500* | *0.473* | *95* |
| *Lithium* | *0.500* | *0.543* | *109* |
| *Magnesium* | *603* | *596* | *99* |
| *Manganese* | *0.500* | *0.497* | *99* |
| *Molybdenum* | *0.500* | *0.518* | *104* |
| *Nickel* | *0.500* | *0.475* | *95* |
| *Phosphorus* | *0.500* | *0.513* | *103* |
| *Potassium* | *10.0* | *11.1* | *111* |
| *Selenium* | *0.500* | *0.497* | *99* |
| *Silicon* | *2.50* | *2.61* | *105* |
| *Silver* | *0.250* | *0.279* | *111* |
| *Sodium* | *10.0* | *10.9* | *109* |
| *Strontium* | *0.500* | *0.503* | *101* |
| *Thallium* | *0.500* | *0.465* | *93* |
| *Tin* | *0.500* | *0.484* | *97* |
| *Titanium* | *0.500* | *0.533* | *107* |
| *Tungsten* | *0.500* | *0.515* | *103* |
| *Vanadium* | *0.500* | *0.518* | *104* |
| *Zinc* | *0.500* | *0.448* | *90* |
| *Zirconium* | *0.500* | *0.518* | *104* |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: VER-01I-B-BL MS
Lab ID: 440-200466-1 MS
Lab Name: TestAmerica Irvine
Job No.: 440-200466-1
SDG No.:
Matrix: Water
Concentration Units: mg/L
% Solids:

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 10.5 | | 8.8 | | 1.00 | 173 | 75-125 | 4 | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: VER-01I-B-BL MSD
Lab ID: 440-200466-1 MSD
Lab Name: TestAmerica Irvine
Job No.: 440-200466-1
SDG No.:
Matrix: Water
Concentration Units: mg/L
% Solids:

| Analyte | (SDR) C | | Spike Added (SA) | %R | Control Limit %R | RPD | RPD Limit | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 10.3 | | 1.00 | 153 | 75-125 | 2 | 20 | 4 | 6010B |

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: VER-01I-B-BL PDS | Lab ID: 440-200466-1 PDS

Lab Name: TestAmerica Irvine | Job No.: 440-200466-1

SDG No.:

Matrix: Water | Concentration Units: mg/L

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 10.6 | | 8.8 | | 1.00 | 184 | 80-120 | W | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 440-451930/2-A

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

Sample Matrix: Water  LCS Source: ME ICP2 ICV1A_00051

| Analyte | Water(mg/L) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | True | Found | C | %R | Limits | | Q | Method |
| Chromium | 1.00 | 0.989 | | 99 | 80 | 120 | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 440-200466-1

SDG No:

Lab Name: TestAmerica Irvine Job No: 440-200466-1

Matrix: Water Concentration Units: mg/L

| Analyte | Initial Sample Result (I) | C | Serial Dilution Result (S) | C | % Difference | Q | Method |
|---|---|---|---|---|---|---|---|
| Chromium | 8.8 | | 9.07 | | 3.2 | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine  Job Number: 440-200466-1

SDG Number:

Matrix: Water  Instrument ID: ICP9

Method: 6010B  MDL Date: 06/15/2017 17:45

Prep Method: 3005A

| Analyte | Wavelength/ Mass | RL (mg/L) | MDL (mg/L) |
|---|---|---|---|
| Chromium | 205.552 | 0.005 | 0.0025 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine  Job Number: 440-200466-1

SDG Number:

Matrix: Water  Instrument ID: ICP9

Method: 6010B  XMDL Date: 06/15/2017 17:46

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Chromium | 205.552 | 0.005 | 0.0025 |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-200466-1

SDG No.:

ICP-AES Instrument ID: ICP9 Date: 01/16/2018

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 396.152 | | -0.000113 | 0.000335 | 0.000181 | 0.000104 | -0.000033 | 0.000059 | 0.000156 | 0.027697 | 0.000141 | 0.000151 | 0.0001 | 0.000149 | 0.001271 |
| Antimony | 206.834 | -0.00004 | -0.000006 | 0.00011 | 0.011494 | 0.000046 | 0 | -0.000008 | -0.000015 | -0.016976 | 0.000031 | 0.000285 | 0.000246 | 0.000194 | -0.000311 |
| Arsenic | 188.980 | -0.000001 | 0.000004 | 0.00001 | -0.011892 | -0.000057 | 0.000006 | 0.000003 | -0.000097 | -0.000247 | -0.000118 | -0.000045 | -0.0003 | -0.000181 | 0.000746 |
| Barium | 233.527 | 0 | 0 | -0.000008 | 0.000005 | 0.000003 | 0.000002 | 0.000002 | 0.000003 | -0.0002 | -0.000001 | -0.000013 | -0.000001 | -0.000166 | 0.000131 |
| Beryllium | 234.861 | 0 | 0 | 0.000005 | -0.000003 | -0.000001 | 0.00015 | 0 | -0.000065 | -0.000283 | -0.000005 | 0 | 0.000001 | -0.000001 | -0.000002 |
| Boron | 249.678 | 0 | 0 | 0.000864 | 0.000331 | -0.000038 | -0.00009 | -0.000003 | -0.000106 | -0.000041 | -0.000044 | -0.000044 | -0.000026 | -0.000044 | -0.010089 |
| Cadmium | 214.439 | -0.000001 | 0 | -0.000005 | -0.000016 | -0.000003 | 0.00001 | 0 | -0.000001 | -0.000015 | -0.000002 | -0.000003 | 0 | -0.000004 | -0.000105 |
| Calcium | 422.673 | -0.00001 | | 0.000994 | 0.000535 | -0.000109 | -0.00006 | 0.000043 | 0.00015 | -0.000274 | 0.00001 | 0.000023 | -0.000301 | 0.000679 | -0.000279 |
| Chromium | 205.560 | 0.000002 | 0.000001 | -0.000004 | | 0.000103 | 0.000001 | 0.000001 | 0.000002 | -0.000689 | -0.000347 | -0.000006 | 0.000025 | -0.000003 | 0.000429 |
| Cobalt | 228.615 | -0.000074 | -0.000001 | | 0.000295 | 0.000012 | 0.000079 | 0.000001 | 0.000008 | 0.000035 | 0.000122 | 0.000003 | 0.00196 | 0.000006 | 0.000203 |
| Copper | 324.754 | 0.000001 | -0.000036 | 0.000007 | -0.000005 | | 0.000017 | 0.000003 | 0.000004 | 0.00028 | -0.000017 | 0.000003 | -0.000201 | -0.000162 | 0.000005 |
| Iron | 238.204 | -0.000001 | 0.000002 | -0.000563 | -0.000085 | -0.000005 | | 0.000038 | 0.000026 | -0.000037 | -0.00012 | -0.00005 | -0.000012 | -0.000018 | -0.000026 |
| Lead | 220.353 | -0.000075 | 0 | 0.00001 | -0.00002 | 0.000012 | 0.00003 | 0.00003 | 0.000163 | -0.001276 | 0.000103 | 0.000085 | -0.000369 | -0.000017 | -0.001029 |
| Lithium | 670.783 | -0.000008 | 0.000091 | -0.000403 | -0.000358 | -0.000417 | 0.000007 | -0.000043 | -0.000191 | -0.000044 | 0.000649 | -0.000155 | 0.000322 | -0.000365 | -0.000287 |
| Magnesium | 279.078 | -0.000008 | 0.000004 | -0.000345 | -0.000396 | -0.00006 | -0.000154 | | 0.000619 | -0.000486 | -0.000082 | -0.000084 | -0.000074 | 0.000166 | -0.000444 |
| Manganese | 259.372 | 0 | 0.000001 | 0.000014 | -0.000012 | 0.000001 | 0.0014 | 0.0014 | | 0.00506 | 0.000001 | 0.000001 | 0.000019 | 0.000008 | 0.000003 |
| Molybdenum | 204.598 | 0.00002 | -0.000002 | -0.000026 | 0.000026 | -0.000025 | 0.000001 | -0.000003 | -0.000008 | | -0.000008 | 0.000011 | -0.000055 | -0.000071 | -0.000042 |
| Nickel | 231.604 | -0.000054 | -0.000002 | -0.000729 | -0.000004 | -0.000007 | 0.000068 | 0.000003 | -0.000086 | -0.000043 | | 0.000055 | 0.000025 | -0.000031 | -0.000076 |
| Phosphorus | 213.618 | 0.00001 | -0.000003 | 0.000107 | -0.000002 | -0.049125 | -0.000015 | 0.000002 | -0.000009 | -0.022058 | 0.000016 | -0.000101 | 0.000039 | 0.000032 | -0.000338 |
| Potassium | 766.491 | 0 | 0 | -0.002978 | -0.00312 | -0.002577 | 0 | 0.000377 | -0.003299 | -0.003487 | -0.001449 | -0.002276 | -0.001505 | -0.002888 | -0.003948 |
| Selenium | 196.026 | -0.000002 | 0.000001 | -0.000473 | -0.00005 | -0.000118 | -0.00027 | 0.000003 | 0.000473 | -0.000001 | -0.000076 | 0.00001 | -0.000029 | -0.000143 | 0.008371 |
| Silicon | 251.611 | 0.000025 | 0.000032 | 0.000226 | 0.000128 | 0.000078 | -0.000059 | 0.000052 | 0.000244 | 0.011459 | 0.00022 | 0.000666 | 0.003874 | 0.000343 | 0.066637 |
| Silver | 328.068 | 0 | -0.000002 | 0.000013 | -0.000014 | 0.000008 | -0.000006 | -0.000001 | 0.000077 | 0.000057 | 0.000007 | -0.000002 | -0.000079 | 0.000092 | 0.000005 |
| Sodium | 589.592 | 0.000011 | 0.000027 | -0.000151 | 0.000095 | -0.000181 | -0.000033 | 0.000018 | 0.000103 | 0.001732 | -0.000426 | -0.000326 | -0.000135 | -0.000514 | 0.002616 |
| Strontium | 421.552 | 0 | 0.000032 | 0 | -0.000002 | -0.000001 | 0.000001 | 0 | 0.000001 | 0 | -0.000003 | 0.000004 | 0.000002 | 0.000002 | 0.000015 |
| Thallium | 190.794 | 0.000008 | 0.000006 | 0.00333 | 0.000217 | 0.000096 | 0.000009 | 0.000005 | 0.001473 | 0.000248 | -0.000006 | 0.000051 | -0.013168 | -0.022591 | 0.000561 |
| Tin | 189.925 | -0.000002 | 0.000001 | 0.000038 | 0.000046 | 0.000048 | 0.000002 | 0.000006 | 0.000043 | 0.000032 | 0.000087 | | 0.000059 | 0.000459 | 0.000154 |
| Titanium | 336.122 | 0 | -0.000009 | -0.000016 | -0.000021 | 0.000001 | 0 | 0.000001 | 0.000001 | -0.000126 | -0.000041 | 0 | | -0.000256 | 0.000448 |
| Tungsten | 207.912 | 0.000002 | -0.000007 | -0.00009 | -0.000027 | -0.000032 | 0.000002 | -0.000002 | -0.000039 | 0.00016 | -0.000017 | 0.000023 | -0.000013 | -0.000051 | |
| Vanadium | 292.401 | 0 | 0.000004 | 0.000002 | 0.000275 | 0.000012 | 0.000033 | 0.000002 | 0.000011 | -0.009648 | 0.000021 | 0.000013 | 0.000804 | | 0.000223 |

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-200466-1

SDG No.:

ICP-AES Instrument ID: ICP9 Date: 01/16/2018

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Zinc | 202.548 | 0.000003 | 0.000003 | -0.000028 | -0.001505 | 0.007594 | -0.0000366 | 0.000008 | 0.000073 | 0.000042 | -0.000032 | 0.000032 | 0.000063 | 0.000033 | 0.0003 |
| Zirconium | 343.823 | 0 | 0.000002 | -0.000094 | -0.000006 | 0 | 0.000011 | 0 | -0.000024 | 0.000007 | -0.000004 | 0.000016 | 0 | -0.000003 | 0.000114 |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-200466-1

SDG No.:

ICP-AES Instrument ID: ICP9 Date: 01/16/2018

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 396.152 | 0.000144 | 0.008724 | | | | | | | | | | | | |
| Antimony | 206.834 | 0.00016 | -0.000045 | | | | | | | | | | | | |
| Arsenic | 188.980 | -0.00006 | -0.000056 | | | | | | | | | | | | |
| Barium | 233.527 | 0.000001 | 0.000002 | | | | | | | | | | | | |
| Beryllium | 234.861 | 0.000001 | 0.000008 | | | | | | | | | | | | |
| Boron | 249.678 | -0.000001 | 0.000463 | | | | | | | | | | | | |
| Cadmium | 214.439 | -0.000002 | -0.000004 | | | | | | | | | | | | |
| Calcium | 422.673 | -0.00032 | -0.00005 | | | | | | | | | | | | |
| Chromium | 205.560 | -0.000026 | 0.000017 | | | | | | | | | | | | |
| Cobalt | 228.615 | -0.000005 | 0.000009 | | | | | | | | | | | | |
| Copper | 324.754 | -0.000013 | 0.000007 | | | | | | | | | | | | |
| Iron | 238.204 | -0.00003 | 0.000223 | | | | | | | | | | | | |
| Lead | 220.353 | -0.000019 | -0.00027 | | | | | | | | | | | | |
| Lithium | 670.783 | -0.000044 | -0.000041 | | | | | | | | | | | | |
| Magnesium | 279.078 | -0.000127 | -0.000031 | | | | | | | | | | | | |
| Manganese | 259.372 | 0.000002 | 0.000041 | | | | | | | | | | | | |
| Molybdenum | 204.598 | -0.00003 | 0.000023 | | | | | | | | | | | | |
| Nickel | 231.604 | -0.000011 | -0.000035 | | | | | | | | | | | | |
| Phosphorus | 213.618 | 0.00003 | 0.000123 | | | | | | | | | | | | |
| Potassium | 766.491 | -0.003593 | -0.003514 | | | | | | | | | | | | |
| Selenium | 196.026 | -0.000005 | -0.000021 | | | | | | | | | | | | |
| Silicon | 251.611 | 0.002002 | 0.0079 | | | | | | | | | | | | |
| Silver | 328.068 | 0.000017 | 0.003635 | | | | | | | | | | | | |
| Sodium | 589.592 | -0.00036 | -0.000181 | | | | | | | | | | | | |
| Strontium | 421.552 | -0.000002 | -0.000021 | | | | | | | | | | | | |
| Thallium | 190.794 | 0.000009 | -0.000081 | | | | | | | | | | | | |
| Tin | 189.925 | 0.000176 | 0.000611 | | | | | | | | | | | | |
| Titanium | 336.122 | 0.000008 | 0.000128 | | | | | | | | | | | | |
| Tungsten | 207.912 | 0.009684 | 0.000018 | | | | | | | | | | | | |
| Vanadium | 292.401 | 0.000017 | -0.000005 | | | | | | | | | | | | |

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-200466-1

SDG No.:

ICP-AES Instrument ID: ICP9 Date: 01/16/2018

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | 0 | 0 | | | | | | | | | | | | |
| Zinc | 202.548 | | 0.000211 | | | | | | | | | | | | |
| Zirconium | 343.823 | 0.000006 | | | | | | | | | | | | | |

X-IN

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Irvine Job No: 440-200466-1

SDG No.:

Instrument ID: ICP9 Date: 06/15/2017 18:17

| Analyte | Integ. Time (Sec.) | Concentration (mg/L) | Method |
|---|---|---|---|
| Chromium | | 30 | 6010B |

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Irvine Job No.: 440-200466-1

SDG No.:

Prep Method: 3005A

| Lab Sample ID | Preparation Date | Prep Batch | Initial Weight | Initial Volume (mL) | Final Volume (mL) |
|---|---|---|---|---|---|
| MB 440-451930/1-A | 01/16/2018 09:54 | 451930 | | 25 | 25 |
| LCS 440-451930/2-A | 01/16/2018 09:54 | 451930 | | 25 | 25 |
| 440-200466-1 | 01/16/2018 09:54 | 451930 | | 25 | 25 |
| 440-200466-1 MS | 01/16/2018 09:54 | 451930 | | 25 | 25 |
| 440-200466-1 MSD | 01/16/2018 09:54 | 451930 | | 25 | 25 |
| 440-200466-3 | 01/16/2018 09:54 | 451930 | | 25 | 25 |

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Instrument ID: ICP9  Analysis Method: 6010B

Start Date: 01/16/2018 09:45  End Date: 01/16/2018 18:39

| Lab Sample Id | D/F | Type | Time | Analytes |
|---|---|---|---|---|
| | | | | Cr |
| ICIS 440-452067/1 | 1 | | 09:45 | X |
| STD1 440-452067/2 IC | | | 09:47 | X |
| STD2 440-452067/3 IC | | | 09:49 | X |
| STD3 440-452067/4 IC | | | 09:51 | X |
| ICV 440-452067/5 | 1 | | 09:53 | X |
| ZZZZZZ | | | 09:55 | |
| ICB 440-452067/7 | 1 | | 09:57 | X |
| ICSA 440-452067/8 | 1 | | 10:02 | X |
| ICSAB 440-452067/9 | 1 | | 10:04 | X |
| ZZZZZZ | | | 10:11 | |
| RINSE 440-452067/11 | | | 10:13 | |
| CRI 440-452067/13 | 1 | | 10:19 | X |
| ZZZZZZ | | | 10:22 | |
| CCV 440-452067/14 | 1 | | 17:36 | X |
| CCB 440-452067/15 | 1 | | 17:38 | X |
| MB 440-451930/1-A | 1 | R | 17:48 | X |
| LCS 440-451930/2-A | 1 | R | 17:50 | X |
| 440-200466-1 | 5 | R | 17:53 | X |
| 440-200466-1 MS | 5 | R | 17:55 | X |
| 440-200466-1 MSD | 5 | R | 17:57 | X |
| 440-200466-1 PDS | 5 | R | 17:59 | X |
| 440-200466-1 SD | 25 | R | 18:01 | X |
| 440-200466-3 | 5 | R | 18:03 | X |
| ZZZZZZ | | | 18:05 | |
| ZZZZZZ | | | 18:07 | |
| CCV 440-452067/26 | 1 | | 18:09 | X |
| CCB 440-452067/27 | 1 | | 18:11 | X |
| ZZZZZZ | | | 18:16 | |
| CCV 440-452067/29 | | | 18:37 | |
| CCB 440-452067/30 | | | 18:39 | |

Prep Types:
R = Total Recoverable

FORM XIII-IN

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Batch Number: 451930  Batch Start Date: 01/16/18 09:54  Batch Analyst: Lopez-Canseco, Jessica

Batch Method: 3005A  Batch End Date: 01/16/18 16:31

| Lab Sample ID | Client Sample ID | Method Chain | Basis | Initial pH | InitialAmount | FinalAmount | ME HCl 00393 | ME HNO3 00412 | ME ICP2 ICV1A 00051 |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-451930/1 | | 3005A, 6010B | | | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| LCS 440-451930/2 | | 3005A, 6010B | | | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-200466-G-1 | VER-01I-B-BL | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| 440-200466-G-1 MS | VER-01I-B-BL | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-200466-G-1 MSD | VER-01I-B-BL | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-200466-G-1 PDS | VER-01I-B-BL | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-200466-G-3 | Ver-01I-B-12 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | ME ICP2 ICV1B 00045 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-451930/1 | | 3005A, 6010B | | | | | | | |
| LCS 440-451930/2 | | 3005A, 6010B | | 250 uL | | | | | |
| 440-200466-G-1 | VER-01I-B-BL | 3005A, 6010B | R | | | | | | |
| 440-200466-G-1 MS | VER-01I-B-BL | 3005A, 6010B | R | 250 uL | | | | | |
| 440-200466-G-1 MSD | VER-01I-B-BL | 3005A, 6010B | R | 250 uL | | | | | |
| 440-200466-G-1 PDS | VER-01I-B-BL | 3005A, 6010B | R | 250 uL | | | | | |
| 440-200466-G-3 | Ver-01I-B-12 | 3005A, 6010B | R | | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200466-1

SDG No.:

Batch Number: 451930  Batch Start Date: 01/16/18 09:54  Batch Analyst: Lopez-Canseco, Jessica

Batch Method: 3005A  Batch End Date: 01/16/18 16:31

| Batch Notes | |
|---|---|
| Temperature - Corrected - End | 95 Degrees C |
| Temperature - Corrected - Start | 95 Degrees C |
| Digestion End Time | 01/16/2018 13:15 |
| Digestion Start Time | 01/16/2018 11:30 |
| Digestion Unit ID | 7 |
| Hydrochloric Acid ID | 0000183197 |
| Nitric Acid ID | 0000185595 |
| Pipette/Syringe/Dispenser ID | #201 |
| Thermometer ID | P-115 Loc A5 CF= 0.00 |
| Digestion Tube/Cup ID | 1707186 |
| Temperature - Uncorrected - End | 95 Degrees C |
| Temperature - Uncorrected - Start | 95 Degrees C |

| Basis | Basis Description |
|---|---|
| R | Total Recoverable |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Shipping and Receiving Documents

**TestAmerica Irvine**
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information | Sampler: Jeff Richeson | Lab PM: Mata, Patty | Carrier Tracking No(s): | COC No: |
|---|---|---|---|---|
| Client Contact: Carl Lenker | Phone: (805) 660-1774 | E-Mail: patty.mata@testamericainc.com | | Page: Page 1 of 2 |
| Company: Tetra Tech, Inc. | | | | Job #: |
| Address: 17885 Von Karman Ave, Ste 500 | Due Date Requested: | | | |
| City: Irvine | TAT Requested (days): | | | |
| State, Zip: CA, 92614 | | | | |
| Phone: 949-809-5000(Tel) | PO #: | | | |
| Email: Carl.Lenker@tetratech.com | WO #: | | | |
| Project Name: NERT VER Treatability Study | Project #: M16 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

| | |
|---|---|
| A - HCL | M - Hexane |
| B - NaOH | N - None |
| C - Zn Acetate | O - AsNaO2 |
| D - Nitric Acid | P - Na2O4S |
| E - NaHSO4 | Q - Na2SO3 |
| F - MeOH | R - Na2S2O3 |
| G - Amchlor | S - H2SO4 |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice | U - Acetone |
| J - DI Water | V - MCAA |
| K - EDTA | W - pH 4-5 |
| L - EDA | Z - other (specify) |

Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 7199_ORGFM - Chromium, hexavalent | 314.0_LL - Perchlorate | E300.1 Chlorate and Chlorite | SW846 VOCs 8260B | Total Chromium 6010B | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | N | N | L | A | D | | |
| VER-01I-B-BL | 1/11/18 | 0330 | G | W | Y | | X | X | X | X | X | 7 | |
| Trip Blank | 1/11/18 | 0330 | G | W | | | | | | X | | 3 | |

440-200466 Chain of Custody

**Possible Hazard Identification**
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: 6.0/5.8 IR84

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|
| | | | |

| | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| Relinquished by: MRR | 1/11/18 | Tetra Tech | TAM | 1-11-18 1210 | TALVS |
| Relinquished by: TAM | 1-11-18 1300 | TALVS | SWA | | |
| Relinquished by: SWA 526525 1782 | Date/Time: | Company | Received by: | Date/Time: 1/11/18 1845 | Company TA-IRV |

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: TALVS 16.7

1-11-18

**TestAmerica Irvine**
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information | Sampler: Jeff Richeson | Lab PM: Mata, Patty | Carrier Tracking No(s): | COC No: |
|---|---|---|---|---|
| Client Contact: Carl Lenker | Phone: (805) 660-1774 | E-Mail: patty.mata@testamericainc.com | | Page: 2 of 2 |
| Company: Tetra Tech, Inc. | | | | Job #: |
| Address: 17885 Von Karman Ave, Ste 500 | Due Date Requested: | | | |
| City: Irvine | TAT Requested (days): | | | |
| State, Zip: CA, 92614 | | | | |
| Phone: 949-809-5000(Tel) | PO #: | | | |
| Email: Carl.Lenker@tetratech.com | WO #: | | | |
| Project Name: NERT VER Treatability Study | Project #: M16 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

| | |
|---|---|
| A - HCL | M - Hexane |
| B - NaOH | N - None |
| C - Zn Acetate | O - AsNaO2 |
| D - Nitric Acid | P - Na2O4S |
| E - NaHSO4 | Q - Na2SO3 |
| F - MeOH | R - Na2S2O3 |
| G - Amchlor | S - H2SO4 |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice | U - Acetone |
| J - DI Water | V - MCAA |
| K - EDTA | W - pH 4-5 |
| L - EDA | Z - other (specify) |

Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 7199_ORGFM - Chromium, hexavalent | 314.0_LL - Perchlorate | E300.1 Chlorate and Chlorite | SW846 VOCs $2608 | Total Chromium 6010B | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | N | N | L | A | D | | |
| VER-01I-B-12 | 1/11/18 | 1530 | G | W | Y | | X | X | X | X | X | 7 | |

**Possible Hazard Identification**
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| | 1/11/18 1530 | Tetra Tech | | 1-11-18 1530 | TALVS |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| | 1-11-18 1630 | TALVS | | 1/12/18 0825 | TALVS |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: CNA: 520 5125 1771 | Cooler Temperature(s) °C and Other Remarks: TALVS 18.5 1.3/1.1 IR#1 |
|---|---|---|

# Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 440-200466-1

**Login Number: 200466**
**List Number: 1**
**Creator: Soderblom, Tim**

**List Source: TestAmerica Irvine**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | N/A | Not present |
| Sample custody seals, if present, are intact. | N/A | Not Present |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

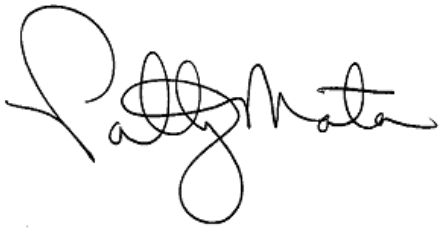
# ANALYTICAL REPORT

Job Number: 440-200815-1

Job Description: NERT VER Treatability Study

For:
Tetra Tech, Inc.
17885 Von Karman Ave, Ste 500
Irvine, CA 92614

Attention: Jeff Richeson



Approved for release.
Patty Mata
Senior Project Manager
1/23/2018 12:43 PM

Patty Mata, Senior Project Manager
17461 Derian Ave, Irvine, CA, 92614-5817
patty.mata@testamericainc.com
01/23/2018

# Table of Contents


Cover Title Page . . . . . 1

Data Summaries . . . . . 6

Definitions . . . . . 6

Case Narrative . . . . . 7

Detection Summary . . . . . 8

Client Sample Results . . . . . 9

Default Detection Limits . . . . . 17

Surrogate Summary . . . . . 19

QC Sample Results . . . . . 20

QC Association . . . . . 32

Chronicle . . . . . 34

Certification Summary . . . . . 35

Method Summary . . . . . 36

Sample Summary . . . . . 37

Manual Integration Summary . . . . . 38

Reagent Traceability . . . . . 48

Organic Sample Data . . . . . 78

GC/MS VOA . . . . . 78

Method 8260B Low Level . . . . . 78

Method 8260B Low Level QC Summary . . . . . 79

Method 8260B Low Level Sample Data . . . . . 93

Standards Data . . . . . 105

Method 8260B Low Level ICAL Data . . . . . 105

Method 8260B Low Level CCAL Data . . . . . 121

Raw QC Data . . . . . 129

Method 8260B Low Level Blank Data . . . . . 129

# Table of Contents


Method 8260B Low Level LCS/LCSD Data . . . . . 132

Method 8260B Low Level MS/MSD Data . . . . . 135

Method 8260B Low Level Run Logs . . . . . 141

Method 8260B Low Level Prep Data . . . . . 144

HPLC/IC . . . . . 147

314.0_LL . . . . . 147

314.0_LL QC Summary . . . . . 148

314.0_LL Sample Data . . . . . 154

Standards Data . . . . . 156

314.0_LL ICAL Data . . . . . 156

314.0_LL CCAL Data . . . . . 159

Raw QC Data . . . . . 171

314.0_LL Blank Data . . . . . 171

314.0_LL LCS/LCSD Data . . . . . 177

314.0_LL MS/MSD Data . . . . . 180

314.0_LL Run Logs . . . . . 182

Method 7199 . . . . . 186

Method 7199 QC Summary . . . . . 187

Method 7199 Sample Data . . . . . 197

Standards Data . . . . . 199

Method 7199 ICAL Data . . . . . 199

Method 7199 CCAL Data . . . . . 202

Raw QC Data . . . . . 214

Method 7199 Blank Data . . . . . 214

Method 7199 LCS/LCSD Data . . . . . 221

Method 7199 MS/MSD Data . . . . . 225

# Table of Contents


Method 7199 Run Logs . . . . . 229

Method 300.1 . . . . . 234

Method 300.1 QC Summary . . . . . 235

Method 300.1 Sample Data . . . . . 246

Standards Data . . . . . 250

Method 300.1 ICAL Data . . . . . 250

Method 300.1 CCAL Data . . . . . 256

Raw QC Data . . . . . 278

Method 300.1 Blank Data . . . . . 278

Method 300.1 LCS/LCSD Data . . . . . 289

Method 300.1 MS/MSD Data . . . . . 293

Method 300.1 Run Logs . . . . . 297

Inorganic Sample Data . . . . . 302

Metals Data . . . . . 302

Met Cover Page . . . . . 303

Met Sample Data . . . . . 304

Met QC Data . . . . . 306

Met ICV/CCV . . . . . 306

Met CRQL . . . . . 308

Met Blanks . . . . . 309

Met ICSA/ICSAB . . . . . 312

Met MS/MSD/PDS . . . . . 316

Met LCS/LCSD . . . . . 319

Met Serial Dilution . . . . . 320

Met MDL . . . . . 321

Met IECF . . . . . 323

# Table of Contents


Met Linear Ranges . . . . . 327

Met Preparation Log . . . . . 328

Met Analysis Run Log . . . . . 329

Met Prep Data . . . . . 332

Shipping and Receiving Documents . . . . . 334

Client Chain of Custody . . . . . 335

Sample Receipt Checklist . . . . . 337

## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| E | Result exceeded calibration range. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| PQL | Practical Quantitation Limit |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

**Job Narrative**
**440-200815-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 1/12/2018 7:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.4º C and 4.6º C. The following samples were received on 1/13/2018 at 9:20 AM but were included in this report with samples received at an earlier date/time per client request: VER-01I-B-36 (440-200815-3) and TB-011218 (440-200815-4).

**GC/MS VOA**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**HPLC/IC**
Method(s) 300.1B: The following samples were diluted for the chlorite analyte due to the nature of the sample matrix: VER-01I-B-24 (440-200815-1) and VER-01I-B-36 (440-200815-3). Elevated reporting limits (RLs) are provided.

Method(s) 300.1B: The following samples were diluted due to the nature of the sample matrix: VER-01I-B-36 (440-200815-3[MS]) and VER-01I-B-36 (440-200815-3[MSD]). Because of these dilutions, the matrix spike concentration in each sample was reduced to a level where the recovery calculation does not provide useful information.

Method(s) 300.1B: Due to the high concentration of chlorate, the matrix spike (MS) for analytical batch 440-451611 could not be evaluated for accuracy. However, the estimated result for the matrix spike (MS) was reported per client's request.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**Metals**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**VOA Prep**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-200815-1

## Client Sample ID: VER-01I-B-24 — Lab Sample ID: 440-200815-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloroform | 680 | | 10 | 5.0 | ug/L | 20 | | 8260B | Total/NA |
| Chlorate | 3100000 | | 200000 | 100000 | ug/L | 10000 | | 300.1B | Total/NA |
| Perchlorate | 1200000 | | 100000 | 50000 | ug/L | 100000 | | 314.0 LL | Total/NA |
| Chromium, hexavalent | 12000 | | 1000 | 130 | ug/L | 500 | | 7199 | Total/NA |
| Chromium | 15 | | 0.025 | 0.013 | mg/L | 5 | | 6010B | Total Recoverable |

## Client Sample ID: Trip Blank-01122018 — Lab Sample ID: 440-200815-2

No Detections.

## Client Sample ID: VER-01I-B-36 — Lab Sample ID: 440-200815-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloroform | 730 | | 10 | 5.0 | ug/L | 20 | | 8260B | Total/NA |
| 1,2-Dichlorobenzene | 5.6 | J | 10 | 5.0 | ug/L | 20 | | 8260B | Total/NA |
| Chlorate | 3800000 | | 200000 | 100000 | ug/L | 10000 | | 300.1B | Total/NA |
| Perchlorate | 1200000 | | 100000 | 50000 | ug/L | 100000 | | 314.0 LL | Total/NA |
| Chromium, hexavalent | 13000 | | 1000 | 130 | ug/L | 500 | | 7199 | Total/NA |
| Chromium | 14 | | 0.025 | 0.013 | mg/L | 5 | | 6010B | Total Recoverable |

## Client Sample ID: TB-011218 — Lab Sample ID: 440-200815-4

No Detections.

This Detection Summary does not include radiochemical test results.

**Client Sample ID: VER-01I-B-24** **Lab Sample ID: 440-200815-1**
**Date Collected: 01/12/18 03:30** **Matrix: Water**
**Date Received: 01/12/18 19:25**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 400 | 200 | ug/L | | | 01/16/18 21:53 | 20 |
| Benzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Bromobenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Bromochloromethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Bromodichloromethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Bromoform | ND | | 20 | 8.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Bromomethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 2-Butanone (MEK) | ND | | 100 | 50 | ug/L | | | 01/16/18 21:53 | 20 |
| Carbon tetrachloride | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Chlorobenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Chloroethane | ND | | 20 | 8.0 | ug/L | | | 01/16/18 21:53 | 20 |
| **Chloroform** | **680** | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Chloromethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 2-Chlorotoluene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 4-Chlorotoluene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| cis-1,2-Dichloroethene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| cis-1,3-Dichloropropene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Dibromochloromethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 1,2-Dibromo-3-Chloropropane | ND | | 20 | 10 | ug/L | | | 01/16/18 21:53 | 20 |
| 1,2-Dibromoethane (EDB) | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Dibromomethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 1,2-Dichlorobenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 1,3-Dichlorobenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 1,4-Dichlorobenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Dichlorodifluoromethane | ND | | 20 | 8.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 1,1-Dichloroethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 1,2-Dichloroethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 1,1-Dichloroethene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 1,2-Dichloropropane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 1,3-Dichloropropane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 2,2-Dichloropropane | ND | | 20 | 8.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 1,1-Dichloropropene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Ethylbenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Ethyl-t-butyl ether (ETBE) | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Hexachlorobutadiene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 2-Hexanone | ND | | 100 | 50 | ug/L | | | 01/16/18 21:53 | 20 |
| Isopropylbenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Isopropyl Ether (DIPE) | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Methylene Chloride | ND | | 40 | 18 | ug/L | | | 01/16/18 21:53 | 20 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 100 | 50 | ug/L | | | 01/16/18 21:53 | 20 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| m,p-Xylene | ND | | 20 | 10 | ug/L | | | 01/16/18 21:53 | 20 |
| Naphthalene | ND | | 20 | 8.0 | ug/L | | | 01/16/18 21:53 | 20 |
| n-Butylbenzene | ND | | 20 | 8.0 | ug/L | | | 01/16/18 21:53 | 20 |
| N-Propylbenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| o-Xylene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| p-Isopropyltoluene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| sec-Butylbenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Styrene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |

**Client Sample ID: VER-01I-B-24** **Lab Sample ID: 440-200815-1**
**Date Collected: 01/12/18 03:30** **Matrix: Water**
**Date Received: 01/12/18 19:25**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Tert-amyl-methyl ether (TAME) | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| tert-Butyl alcohol (TBA) | ND | | 200 | 100 | ug/L | | | 01/16/18 21:53 | 20 |
| tert-Butylbenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 1,1,1,2-Tetrachloroethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 1,1,2,2-Tetrachloroethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Tetrachloroethene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Toluene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| trans-1,2-Dichloroethene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| trans-1,3-Dichloropropene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 1,2,3-Trichlorobenzene | ND | | 20 | 8.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 1,2,4-Trichlorobenzene | ND | | 20 | 8.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 1,1,1-Trichloroethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 1,1,2-Trichloroethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Trichloroethene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Trichlorofluoromethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 1,2,3-Trichloropropane | ND | | 20 | 8.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 1,2,4-Trimethylbenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| 1,3,5-Trimethylbenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Vinyl chloride | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:53 | 20 |
| Xylenes, Total | ND | | 20 | 10 | ug/L | | | 01/16/18 21:53 | 20 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *111* | | *80 - 120* | | *01/16/18 21:53* | *20* |
| *Dibromofluoromethane (Surr)* | *104* | | *76 - 132* | | *01/16/18 21:53* | *20* |
| *Toluene-d8 (Surr)* | *108* | | *80 - 128* | | *01/16/18 21:53* | *20* |

## Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 2000 | 1000 | ug/L | | | 01/15/18 02:19 | 100 |
| **Chlorate** | **3100000** | | 200000 | 100000 | ug/L | | | 01/15/18 02:55 | 10000 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *103* | | *90 - 115* | | *01/15/18 02:55* | *10000* |
| *Dichloroacetic acid(Surr)* | *102* | | *90 - 115* | | *01/15/18 02:19* | *100* |

## Method: 314.0 LL - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perchlorate** | **1200000** | | 100000 | 50000 | ug/L | | | 01/16/18 16:35 | 100000 |

## Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium, hexavalent** | **12000** | | 1000 | 130 | ug/L | | | 01/12/18 20:52 | 500 |

## Method: 6010B - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **15** | | 0.025 | 0.013 | mg/L | | 01/18/18 09:57 | 01/18/18 19:53 | 5 |

## Client Sample ID: Trip Blank-01122018 Lab Sample ID: 440-200815-2

**Date Collected: 01/12/18 03:30** **Matrix: Water**
**Date Received: 01/12/18 19:25**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 01/16/18 22:20 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 22:20 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 22:20 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 22:20 | 1 |
| Chloroform | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 01/16/18 22:20 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 22:20 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 22:20 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 22:20 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 01/16/18 22:20 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 22:20 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 01/16/18 22:20 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 22:20 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 22:20 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |

## Client Sample ID: Trip Blank-01122018 — Lab Sample ID: 440-200815-2

**Date Collected: 01/12/18 03:30** — **Matrix: Water**
**Date Received: 01/12/18 19:25**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 01/16/18 22:20 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 22:20 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 22:20 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 22:20 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:20 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 01/16/18 22:20 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *108* | | *80 - 120* | | *01/16/18 22:20* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *76 - 132* | | *01/16/18 22:20* | *1* |
| *Toluene-d8 (Surr)* | *108* | | *80 - 128* | | *01/16/18 22:20* | *1* |

## Client Sample ID: VER-01I-B-36 — Lab Sample ID: 440-200815-3

**Date Collected: 01/12/18 15:30** — **Matrix: Water**
**Date Received: 01/12/18 19:25**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 400 | 200 | ug/L | | | 01/16/18 19:42 | 20 |
| Benzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Bromobenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Bromochloromethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Bromodichloromethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Bromoform | ND | | 20 | 8.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Bromomethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| 2-Butanone (MEK) | ND | | 100 | 50 | ug/L | | | 01/16/18 19:42 | 20 |
| Carbon tetrachloride | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Chlorobenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Chloroethane | ND | | 20 | 8.0 | ug/L | | | 01/16/18 19:42 | 20 |
| **Chloroform** | **730** | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Chloromethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| 2-Chlorotoluene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| 4-Chlorotoluene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| cis-1,2-Dichloroethene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| cis-1,3-Dichloropropene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Dibromochloromethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |

## Client Sample ID: VER-01I-B-36 Lab Sample ID: 440-200815-3

**Date Collected: 01/12/18 15:30** **Matrix: Water**
**Date Received: 01/12/18 19:25**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromo-3-Chloropropane | ND | | 20 | 10 | ug/L | | | 01/16/18 19:42 | 20 |
| 1,2-Dibromoethane (EDB) | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Dibromomethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| **1,2-Dichlorobenzene** | **5.6** | **J** | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| 1,3-Dichlorobenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| 1,4-Dichlorobenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Dichlorodifluoromethane | ND | | 20 | 8.0 | ug/L | | | 01/16/18 19:42 | 20 |
| 1,1-Dichloroethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| 1,2-Dichloroethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| 1,1-Dichloroethene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| 1,2-Dichloropropane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| 1,3-Dichloropropane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| 2,2-Dichloropropane | ND | | 20 | 8.0 | ug/L | | | 01/16/18 19:42 | 20 |
| 1,1-Dichloropropene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Ethylbenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Ethyl-t-butyl ether (ETBE) | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Hexachlorobutadiene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| 2-Hexanone | ND | | 100 | 50 | ug/L | | | 01/16/18 19:42 | 20 |
| Isopropylbenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Isopropyl Ether (DIPE) | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Methylene Chloride | ND | | 40 | 18 | ug/L | | | 01/16/18 19:42 | 20 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 100 | 50 | ug/L | | | 01/16/18 19:42 | 20 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| m,p-Xylene | ND | | 20 | 10 | ug/L | | | 01/16/18 19:42 | 20 |
| Naphthalene | ND | | 20 | 8.0 | ug/L | | | 01/16/18 19:42 | 20 |
| n-Butylbenzene | ND | | 20 | 8.0 | ug/L | | | 01/16/18 19:42 | 20 |
| N-Propylbenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| o-Xylene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| p-Isopropyltoluene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| sec-Butylbenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Styrene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Tert-amyl-methyl ether (TAME) | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| tert-Butyl alcohol (TBA) | ND | | 200 | 100 | ug/L | | | 01/16/18 19:42 | 20 |
| tert-Butylbenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| 1,1,1,2-Tetrachloroethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| 1,1,2,2-Tetrachloroethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Tetrachloroethene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Toluene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| trans-1,2-Dichloroethene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| trans-1,3-Dichloropropene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| 1,2,3-Trichlorobenzene | ND | | 20 | 8.0 | ug/L | | | 01/16/18 19:42 | 20 |
| 1,2,4-Trichlorobenzene | ND | | 20 | 8.0 | ug/L | | | 01/16/18 19:42 | 20 |
| 1,1,1-Trichloroethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| 1,1,2-Trichloroethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Trichloroethene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Trichlorofluoromethane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| 1,2,3-Trichloropropane | ND | | 20 | 8.0 | ug/L | | | 01/16/18 19:42 | 20 |
| 1,2,4-Trimethylbenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| 1,3,5-Trimethylbenzene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |

## Client Sample ID: VER-01I-B-36 — Lab Sample ID: 440-200815-3

**Date Collected: 01/12/18 15:30** **Matrix: Water**
**Date Received: 01/12/18 19:25**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl chloride | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:42 | 20 |
| Xylenes, Total | ND | | 20 | 10 | ug/L | | | 01/16/18 19:42 | 20 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *108* | | *80 - 120* | | *01/16/18 19:42* | *20* |
| *Dibromofluoromethane (Surr)* | *101* | | *76 - 132* | | *01/16/18 19:42* | *20* |
| *Toluene-d8 (Surr)* | *109* | | *80 - 128* | | *01/16/18 19:42* | *20* |

### Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 20000 | 10000 | ug/L | | | 01/15/18 13:34 | 1000 |
| **Chlorate** | **3800000** | | 200000 | 100000 | ug/L | | | 01/15/18 03:32 | 10000 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* | | *01/15/18 03:32* | *10000* |
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* | | *01/15/18 13:34* | *1000* |

### Method: 314.0 LL - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perchlorate** | **1200000** | | 100000 | 50000 | ug/L | | | 01/16/18 16:53 | 100000 |

### Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium, hexavalent** | **13000** | | 1000 | 130 | ug/L | | | 01/13/18 10:02 | 500 |

### Method: 6010B - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **14** | | 0.025 | 0.013 | mg/L | | 01/18/18 09:57 | 01/19/18 10:50 | 5 |

## Client Sample ID: TB-011218 — Lab Sample ID: 440-200815-4

**Date Collected: 01/12/18 15:00** **Matrix: Water**
**Date Received: 01/12/18 19:25**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 01/16/18 22:46 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 22:46 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 22:46 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 22:46 | 1 |
| Chloroform | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |

**Client Sample ID: TB-011218** **Lab Sample ID: 440-200815-4**
**Date Collected: 01/12/18 15:00** **Matrix: Water**
**Date Received: 01/12/18 19:25**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 01/16/18 22:46 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 22:46 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 22:46 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 22:46 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 01/16/18 22:46 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 22:46 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 01/16/18 22:46 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 22:46 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 22:46 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 01/16/18 22:46 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 22:46 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 22:46 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 22:46 | 1 |

**Client Sample ID: TB-011218** **Lab Sample ID: 440-200815-4**
**Date Collected: 01/12/18 15:00** **Matrix: Water**
**Date Received: 01/12/18 19:25**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 22:46 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 01/16/18 22:46 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *111* | | *80 - 120* | | *01/16/18 22:46* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *76 - 132* | | *01/16/18 22:46* | *1* |
| *Toluene-d8 (Surr)* | *109* | | *80 - 128* | | *01/16/18 22:46* | *1* |

# Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-200815-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,1-Trichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,2,2-Tetrachloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,2-Trichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2,3-Trichlorobenzene | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,3-Trichloropropane | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,4-Trichlorobenzene | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,4-Trimethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dibromo-3-Chloropropane | 1.0 | 0.50 | ug/L | 8260B |
| 1,2-Dibromoethane (EDB) | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichloropropane | 0.50 | 0.25 | ug/L | 8260B |
| 1,3,5-Trimethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,3-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,3-Dichloropropane | 0.50 | 0.25 | ug/L | 8260B |
| 1,4-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 2,2-Dichloropropane | 1.0 | 0.40 | ug/L | 8260B |
| 2-Butanone (MEK) | 5.0 | 2.5 | ug/L | 8260B |
| 2-Chlorotoluene | 0.50 | 0.25 | ug/L | 8260B |
| 2-Hexanone | 5.0 | 2.5 | ug/L | 8260B |
| 4-Chlorotoluene | 0.50 | 0.25 | ug/L | 8260B |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | 2.5 | ug/L | 8260B |
| Acetone | 20 | 10 | ug/L | 8260B |
| Benzene | 0.50 | 0.25 | ug/L | 8260B |
| Bromobenzene | 0.50 | 0.25 | ug/L | 8260B |
| Bromochloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Bromodichloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Bromoform | 1.0 | 0.40 | ug/L | 8260B |
| Bromomethane | 0.50 | 0.25 | ug/L | 8260B |
| Carbon tetrachloride | 0.50 | 0.25 | ug/L | 8260B |
| Chlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| Chloroethane | 1.0 | 0.40 | ug/L | 8260B |
| Chloroform | 0.50 | 0.25 | ug/L | 8260B |
| Chloromethane | 0.50 | 0.25 | ug/L | 8260B |
| cis-1,2-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| cis-1,3-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| Dibromochloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Dibromomethane | 0.50 | 0.25 | ug/L | 8260B |
| Dichlorodifluoromethane | 1.0 | 0.40 | ug/L | 8260B |
| Ethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Ethyl-t-butyl ether (ETBE) | 0.50 | 0.25 | ug/L | 8260B |
| Hexachlorobutadiene | 0.50 | 0.25 | ug/L | 8260B |
| Isopropyl Ether (DIPE) | 0.50 | 0.25 | ug/L | 8260B |
| Isopropylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| m,p-Xylene | 1.0 | 0.50 | ug/L | 8260B |
| Methylene Chloride | 2.0 | 0.88 | ug/L | 8260B |
| Methyl-t-Butyl Ether (MTBE) | 0.50 | 0.25 | ug/L | 8260B |
| Naphthalene | 1.0 | 0.40 | ug/L | 8260B |

# Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-200815-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| n-Butylbenzene | 1.0 | 0.40 | ug/L | 8260B |
| N-Propylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| o-Xylene | 0.50 | 0.25 | ug/L | 8260B |
| p-Isopropyltoluene | 0.50 | 0.25 | ug/L | 8260B |
| sec-Butylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Styrene | 0.50 | 0.25 | ug/L | 8260B |
| Tert-amyl-methyl ether (TAME) | 0.50 | 0.25 | ug/L | 8260B |
| tert-Butyl alcohol (TBA) | 10 | 5.0 | ug/L | 8260B |
| tert-Butylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Tetrachloroethene | 0.50 | 0.25 | ug/L | 8260B |
| Toluene | 0.50 | 0.25 | ug/L | 8260B |
| trans-1,2-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| trans-1,3-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| Trichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| Trichlorofluoromethane | 0.50 | 0.25 | ug/L | 8260B |
| Vinyl chloride | 0.50 | 0.25 | ug/L | 8260B |
| Xylenes, Total | 1.0 | 0.50 | ug/L | 8260B |

## Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chlorate | 20 | 10 | ug/L | 300.1B |
| Chlorite | 20 | 10 | ug/L | 300.1B |

## Method: 314.0 LL - Perchlorate (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Perchlorate | 1.0 | 0.50 | ug/L | 314.0 LL |

## Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chromium, hexavalent | 2.0 | 0.25 | ug/L | 7199 |

## Method: 6010B - Metals (ICP) - Total Recoverable

### Prep: 3005A

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chromium | 0.0050 | 0.0025 | mg/L | 6010B |

# Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-200815-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Matrix: Water** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | |
|---|---|---|---|---|
| | | BFB | DBFM | TOL |
| Lab Sample ID | Client Sample ID | (80-120) | (76-132) | (80-128) |
| 440-200815-1 | VER-01I-B-24 | 111 | 104 | 108 |
| 440-200815-2 | Trip Blank-01122018 | 108 | 100 | 108 |
| 440-200815-3 | VER-01I-B-36 | 108 | 101 | 109 |
| 440-200815-3 MS | VER-01I-B-36 | 104 | 100 | 104 |
| 440-200815-3 MSD | VER-01I-B-36 | 103 | 100 | 102 |
| 440-200815-4 | TB-011218 | 111 | 100 | 109 |
| LCS 440-452030/5 | Lab Control Sample | 102 | 100 | 105 |
| MB 440-452030/4 | Method Blank | 109 | 99 | 108 |

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

## Method: 300.1B - Disinfection By-Products, (IC)

**Matrix: Water** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) |
|---|---|---|
| | | DCAA |
| Lab Sample ID | Client Sample ID | (90-115) |
| 440-200815-1 | VER-01I-B-24 | 103 |
| 440-200815-1 | VER-01I-B-24 | 102 |
| 440-200815-3 | VER-01I-B-36 | 101 |
| 440-200815-3 | VER-01I-B-36 | 101 |
| 440-200815-3 MS | VER-01I-B-36 | 101 |
| 440-200815-3 MS | VER-01I-B-36 | 102 |
| 440-200815-3 MSD | VER-01I-B-36 | 101 |
| 440-200815-3 MSD | VER-01I-B-36 | 100 |
| LCS 440-451611/4 | Lab Control Sample | 100 |
| LCS 440-451612/4 | Lab Control Sample | 100 |
| MB 440-451611/5 | Method Blank | 100 |
| MB 440-451612/5 | Method Blank | 100 |
| MRL 440-451611/3 | Lab Control Sample | 100 |
| MRL 440-451612/3 | Lab Control Sample | 100 |

**Surrogate Legend**

DCAA = Dichloroacetic acid(Surr)

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 440-452030/4**
**Matrix: Water**
**Analysis Batch: 452030**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 01/16/18 18:48 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 18:48 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 18:48 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 18:48 | 1 |
| Chloroform | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 01/16/18 18:48 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 18:48 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 18:48 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 18:48 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 01/16/18 18:48 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 18:48 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 01/16/18 18:48 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 18:48 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 18:48 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 440-452030/4**
**Matrix: Water**
**Analysis Batch: 452030**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 01/16/18 18:48 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 18:48 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 18:48 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 18:48 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 18:48 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 01/16/18 18:48 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *109* | | *80 - 120* | | *01/16/18 18:48* | *1* |
| *Dibromofluoromethane (Surr)* | *99* | | *76 - 132* | | *01/16/18 18:48* | *1* |
| *Toluene-d8 (Surr)* | *108* | | *80 - 128* | | *01/16/18 18:48* | *1* |

**Lab Sample ID: LCS 440-452030/5**
**Matrix: Water**
**Analysis Batch: 452030**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acetone | 25.0 | 27.5 | | ug/L | | 110 | 10 - 150 |
| Benzene | 25.0 | 25.3 | | ug/L | | 101 | 68 - 130 |
| Bromobenzene | 25.0 | 24.5 | | ug/L | | 98 | 70 - 130 |
| Bromochloromethane | 25.0 | 24.1 | | ug/L | | 96 | 70 - 130 |
| Bromodichloromethane | 25.0 | 24.9 | | ug/L | | 100 | 70 - 132 |
| Bromoform | 25.0 | 23.3 | | ug/L | | 93 | 60 - 148 |
| Bromomethane | 25.0 | 20.7 | | ug/L | | 83 | 64 - 139 |
| 2-Butanone (MEK) | 25.0 | 24.0 | | ug/L | | 96 | 44 - 150 |
| Carbon tetrachloride | 25.0 | 23.2 | | ug/L | | 93 | 60 - 150 |
| Chlorobenzene | 25.0 | 25.0 | | ug/L | | 100 | 70 - 130 |
| Chloroethane | 25.0 | 25.1 | | ug/L | | 101 | 64 - 135 |
| Chloroform | 25.0 | 24.6 | | ug/L | | 98 | 70 - 130 |
| Chloromethane | 25.0 | 26.6 | | ug/L | | 107 | 47 - 140 |
| 2-Chlorotoluene | 25.0 | 25.8 | | ug/L | | 103 | 70 - 130 |
| 4-Chlorotoluene | 25.0 | 26.3 | | ug/L | | 105 | 70 - 130 |
| cis-1,2-Dichloroethene | 25.0 | 23.7 | | ug/L | | 95 | 70 - 133 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 440-452030/5**
**Matrix: Water**
**Analysis Batch: 452030**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| cis-1,3-Dichloropropene | 25.0 | 25.4 | | ug/L | | 102 | 70 - 133 |
| Dibromochloromethane | 25.0 | 24.9 | | ug/L | | 99 | 69 - 145 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 22.9 | | ug/L | | 91 | 52 - 140 |
| 1,2-Dibromoethane (EDB) | 25.0 | 24.7 | | ug/L | | 99 | 70 - 130 |
| Dibromomethane | 25.0 | 23.0 | | ug/L | | 92 | 70 - 130 |
| 1,2-Dichlorobenzene | 25.0 | 25.0 | | ug/L | | 100 | 70 - 130 |
| 1,3-Dichlorobenzene | 25.0 | 24.9 | | ug/L | | 100 | 70 - 130 |
| 1,4-Dichlorobenzene | 25.0 | 24.6 | | ug/L | | 98 | 70 - 130 |
| Dichlorodifluoromethane | 25.0 | 23.2 | | ug/L | | 93 | 29 - 150 |
| 1,1-Dichloroethane | 25.0 | 26.0 | | ug/L | | 104 | 64 - 130 |
| 1,2-Dichloroethane | 25.0 | 24.7 | | ug/L | | 99 | 57 - 138 |
| 1,1-Dichloroethene | 25.0 | 22.6 | | ug/L | | 90 | 70 - 130 |
| 1,2-Dichloropropane | 25.0 | 25.4 | | ug/L | | 101 | 67 - 130 |
| 1,3-Dichloropropane | 25.0 | 25.6 | | ug/L | | 102 | 70 - 130 |
| 2,2-Dichloropropane | 25.0 | 25.8 | | ug/L | | 103 | 68 - 141 |
| 1,1-Dichloropropene | 25.0 | 24.9 | | ug/L | | 99 | 70 - 130 |
| Ethylbenzene | 25.0 | 25.1 | | ug/L | | 100 | 70 - 130 |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 25.5 | | ug/L | | 102 | 60 - 136 |
| Hexachlorobutadiene | 25.0 | 23.5 | | ug/L | | 94 | 10 - 150 |
| 2-Hexanone | 25.0 | 30.9 | | ug/L | | 124 | 10 - 150 |
| Isopropylbenzene | 25.0 | 25.4 | | ug/L | | 102 | 70 - 136 |
| Isopropyl Ether (DIPE) | 25.0 | 30.2 | | ug/L | | 121 | 58 - 139 |
| Methylene Chloride | 25.0 | 23.4 | | ug/L | | 94 | 52 - 130 |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 31.8 | | ug/L | | 127 | 59 - 149 |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 22.7 | | ug/L | | 91 | 63 - 131 |
| m,p-Xylene | 25.0 | 25.4 | | ug/L | | 101 | 70 - 130 |
| Naphthalene | 25.0 | 24.4 | | ug/L | | 97 | 60 - 140 |
| n-Butylbenzene | 25.0 | 25.9 | | ug/L | | 104 | 65 - 150 |
| N-Propylbenzene | 25.0 | 26.6 | | ug/L | | 107 | 67 - 139 |
| o-Xylene | 25.0 | 25.5 | | ug/L | | 102 | 70 - 130 |
| p-Isopropyltoluene | 25.0 | 25.0 | | ug/L | | 100 | 70 - 132 |
| sec-Butylbenzene | 25.0 | 26.1 | | ug/L | | 104 | 70 - 138 |
| Styrene | 25.0 | 24.8 | | ug/L | | 99 | 70 - 134 |
| Tert-amyl-methyl ether (TAME) | 25.0 | 22.5 | | ug/L | | 90 | 57 - 139 |
| tert-Butyl alcohol (TBA) | 250 | 278 | | ug/L | | 111 | 70 - 130 |
| tert-Butylbenzene | 25.0 | 24.8 | | ug/L | | 99 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 22.4 | | ug/L | | 90 | 60 - 141 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 25.5 | | ug/L | | 102 | 63 - 130 |
| Tetrachloroethene | 25.0 | 24.3 | | ug/L | | 97 | 70 - 130 |
| Toluene | 25.0 | 25.6 | | ug/L | | 102 | 70 - 130 |
| trans-1,2-Dichloroethene | 25.0 | 23.6 | | ug/L | | 95 | 70 - 130 |
| trans-1,3-Dichloropropene | 25.0 | 24.7 | | ug/L | | 99 | 70 - 132 |
| 1,2,3-Trichlorobenzene | 25.0 | 24.9 | | ug/L | | 100 | 60 - 140 |
| 1,2,4-Trichlorobenzene | 25.0 | 24.3 | | ug/L | | 97 | 60 - 140 |
| 1,1,1-Trichloroethane | 25.0 | 23.0 | | ug/L | | 92 | 70 - 130 |
| 1,1,2-Trichloroethane | 25.0 | 26.6 | | ug/L | | 106 | 70 - 130 |
| Trichloroethene | 25.0 | 23.4 | | ug/L | | 94 | 70 - 130 |
| Trichlorofluoromethane | 25.0 | 22.0 | | ug/L | | 88 | 60 - 150 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 440-452030/5**
**Matrix: Water**
**Analysis Batch: 452030**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,2,3-Trichloropropane | 25.0 | 25.1 | | ug/L | | 100 | 63 - 130 |
| 1,2,4-Trimethylbenzene | 25.0 | 25.4 | | ug/L | | 101 | 70 - 135 |
| 1,3,5-Trimethylbenzene | 25.0 | 25.8 | | ug/L | | 103 | 70 - 136 |
| Vinyl chloride | 25.0 | 23.5 | | ug/L | | 94 | 59 - 133 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *102* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *100* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *105* | | *80 - 128* |

**Lab Sample ID: 440-200815-3 MS**
**Matrix: Water**
**Analysis Batch: 452030**

**Client Sample ID: VER-01I-B-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 500 | 531 | | ug/L | | 106 | 10 - 150 |
| Benzene | ND | | 500 | 508 | | ug/L | | 102 | 66 - 130 |
| Bromobenzene | ND | | 500 | 509 | | ug/L | | 102 | 70 - 130 |
| Bromochloromethane | ND | | 500 | 486 | | ug/L | | 97 | 70 - 130 |
| Bromodichloromethane | ND | | 500 | 498 | | ug/L | | 100 | 70 - 138 |
| Bromoform | ND | | 500 | 462 | | ug/L | | 92 | 59 - 150 |
| Bromomethane | ND | | 500 | 410 | | ug/L | | 82 | 62 - 131 |
| 2-Butanone (MEK) | ND | | 500 | 459 | | ug/L | | 92 | 48 - 140 |
| Carbon tetrachloride | ND | | 500 | 461 | | ug/L | | 92 | 60 - 150 |
| Chlorobenzene | ND | | 500 | 494 | | ug/L | | 99 | 70 - 130 |
| Chloroethane | ND | | 500 | 506 | | ug/L | | 101 | 68 - 130 |
| Chloroform | 730 | | 500 | 1230 | | ug/L | | 100 | 70 - 130 |
| Chloromethane | ND | | 500 | 533 | | ug/L | | 107 | 39 - 144 |
| 2-Chlorotoluene | ND | | 500 | 525 | | ug/L | | 105 | 70 - 130 |
| 4-Chlorotoluene | ND | | 500 | 539 | | ug/L | | 108 | 70 - 130 |
| cis-1,2-Dichloroethene | ND | | 500 | 479 | | ug/L | | 96 | 70 - 130 |
| cis-1,3-Dichloropropene | ND | | 500 | 505 | | ug/L | | 101 | 70 - 133 |
| Dibromochloromethane | ND | | 500 | 491 | | ug/L | | 98 | 70 - 148 |
| 1,2-Dibromo-3-Chloropropane | ND | | 500 | 468 | | ug/L | | 94 | 48 - 140 |
| 1,2-Dibromoethane (EDB) | ND | | 500 | 489 | | ug/L | | 98 | 70 - 131 |
| Dibromomethane | ND | | 500 | 467 | | ug/L | | 93 | 70 - 130 |
| 1,2-Dichlorobenzene | 5.6 | J | 500 | 508 | | ug/L | | 101 | 70 - 130 |
| 1,3-Dichlorobenzene | ND | | 500 | 507 | | ug/L | | 101 | 70 - 130 |
| 1,4-Dichlorobenzene | ND | | 500 | 514 | | ug/L | | 103 | 70 - 130 |
| Dichlorodifluoromethane | ND | | 500 | 444 | | ug/L | | 89 | 25 - 142 |
| 1,1-Dichloroethane | ND | | 500 | 535 | | ug/L | | 107 | 65 - 130 |
| 1,2-Dichloroethane | ND | | 500 | 501 | | ug/L | | 100 | 56 - 146 |
| 1,1-Dichloroethene | ND | | 500 | 451 | | ug/L | | 90 | 70 - 130 |
| 1,2-Dichloropropane | ND | | 500 | 524 | | ug/L | | 105 | 69 - 130 |
| 1,3-Dichloropropane | ND | | 500 | 506 | | ug/L | | 101 | 70 - 130 |
| 2,2-Dichloropropane | ND | | 500 | 514 | | ug/L | | 103 | 69 - 138 |
| 1,1-Dichloropropene | ND | | 500 | 497 | | ug/L | | 99 | 64 - 130 |
| Ethylbenzene | ND | | 500 | 495 | | ug/L | | 99 | 70 - 130 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-200815-3 MS**
**Matrix: Water**
**Analysis Batch: 452030**

**Client Sample ID: VER-01I-B-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Ethyl-t-butyl ether (ETBE) | ND | | 500 | 509 | | ug/L | | 102 | 70 - 130 |
| Hexachlorobutadiene | ND | | 500 | 474 | | ug/L | | 95 | 10 - 150 |
| 2-Hexanone | ND | | 500 | 615 | | ug/L | | 123 | 10 - 150 |
| Isopropylbenzene | ND | | 500 | 491 | | ug/L | | 98 | 70 - 132 |
| Isopropyl Ether (DIPE) | ND | | 500 | 609 | | ug/L | | 122 | 64 - 138 |
| Methylene Chloride | ND | | 500 | 470 | | ug/L | | 94 | 52 - 130 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 500 | 636 | | ug/L | | 127 | 52 - 150 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 500 | 460 | | ug/L | | 92 | 70 - 130 |
| m,p-Xylene | ND | | 500 | 500 | | ug/L | | 100 | 70 - 133 |
| Naphthalene | ND | | 500 | 484 | | ug/L | | 97 | 60 - 140 |
| n-Butylbenzene | ND | | 500 | 517 | | ug/L | | 103 | 61 - 149 |
| N-Propylbenzene | ND | | 500 | 539 | | ug/L | | 108 | 66 - 135 |
| o-Xylene | ND | | 500 | 487 | | ug/L | | 97 | 70 - 133 |
| p-Isopropyltoluene | ND | | 500 | 501 | | ug/L | | 100 | 70 - 130 |
| sec-Butylbenzene | ND | | 500 | 524 | | ug/L | | 105 | 67 - 134 |
| Styrene | ND | | 500 | 477 | | ug/L | | 95 | 29 - 150 |
| Tert-amyl-methyl ether (TAME) | ND | | 500 | 448 | | ug/L | | 90 | 68 - 133 |
| tert-Butyl alcohol (TBA) | ND | | 5000 | 5620 | | ug/L | | 112 | 70 - 130 |
| tert-Butylbenzene | ND | | 500 | 502 | | ug/L | | 100 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | ND | | 500 | 440 | | ug/L | | 88 | 60 - 149 |
| 1,1,2,2-Tetrachloroethane | ND | | 500 | 513 | | ug/L | | 103 | 63 - 130 |
| Tetrachloroethene | ND | | 500 | 486 | | ug/L | | 97 | 70 - 137 |
| Toluene | ND | | 500 | 502 | | ug/L | | 100 | 70 - 130 |
| trans-1,2-Dichloroethene | ND | | 500 | 475 | | ug/L | | 95 | 70 - 130 |
| trans-1,3-Dichloropropene | ND | | 500 | 488 | | ug/L | | 98 | 70 - 138 |
| 1,2,3-Trichlorobenzene | ND | | 500 | 503 | | ug/L | | 101 | 60 - 140 |
| 1,2,4-Trichlorobenzene | ND | | 500 | 489 | | ug/L | | 98 | 60 - 140 |
| 1,1,1-Trichloroethane | ND | | 500 | 461 | | ug/L | | 92 | 70 - 130 |
| 1,1,2-Trichloroethane | ND | | 500 | 527 | | ug/L | | 105 | 70 - 130 |
| Trichloroethene | ND | | 500 | 474 | | ug/L | | 95 | 70 - 130 |
| Trichlorofluoromethane | ND | | 500 | 433 | | ug/L | | 87 | 60 - 150 |
| 1,2,3-Trichloropropane | ND | | 500 | 515 | | ug/L | | 103 | 60 - 130 |
| 1,2,4-Trimethylbenzene | ND | | 500 | 515 | | ug/L | | 103 | 70 - 130 |
| 1,3,5-Trimethylbenzene | ND | | 500 | 518 | | ug/L | | 104 | 70 - 130 |
| Vinyl chloride | ND | | 500 | 462 | | ug/L | | 92 | 50 - 137 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *104* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *100* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *104* | | *80 - 128* |

**Lab Sample ID: 440-200815-3 MSD**
**Matrix: Water**
**Analysis Batch: 452030**

**Client Sample ID: VER-01I-B-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 500 | 546 | | ug/L | | 109 | 10 - 150 | 3 | 35 |
| Benzene | ND | | 500 | 506 | | ug/L | | 101 | 66 - 130 | 0 | 20 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-200815-3 MSD**
**Matrix: Water**
**Analysis Batch: 452030**

**Client Sample ID: VER-01I-B-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromobenzene | ND | | 500 | 510 | | ug/L | | 102 | 70 - 130 | 0 | 20 |
| Bromochloromethane | ND | | 500 | 486 | | ug/L | | 97 | 70 - 130 | 0 | 25 |
| Bromodichloromethane | ND | | 500 | 503 | | ug/L | | 101 | 70 - 138 | 1 | 20 |
| Bromoform | ND | | 500 | 462 | | ug/L | | 92 | 59 - 150 | 0 | 25 |
| Bromomethane | ND | | 500 | 416 | | ug/L | | 83 | 62 - 131 | 1 | 25 |
| 2-Butanone (MEK) | ND | | 500 | 478 | | ug/L | | 96 | 48 - 140 | 4 | 40 |
| Carbon tetrachloride | ND | | 500 | 462 | | ug/L | | 92 | 60 - 150 | 0 | 25 |
| Chlorobenzene | ND | | 500 | 491 | | ug/L | | 98 | 70 - 130 | 0 | 20 |
| Chloroethane | ND | | 500 | 505 | | ug/L | | 101 | 68 - 130 | 0 | 25 |
| Chloroform | 730 | | 500 | 1230 | | ug/L | | 99 | 70 - 130 | 0 | 20 |
| Chloromethane | ND | | 500 | 527 | | ug/L | | 105 | 39 - 144 | 1 | 25 |
| 2-Chlorotoluene | ND | | 500 | 526 | | ug/L | | 105 | 70 - 130 | 0 | 20 |
| 4-Chlorotoluene | ND | | 500 | 529 | | ug/L | | 106 | 70 - 130 | 2 | 20 |
| cis-1,2-Dichloroethene | ND | | 500 | 472 | | ug/L | | 94 | 70 - 130 | 2 | 20 |
| cis-1,3-Dichloropropene | ND | | 500 | 504 | | ug/L | | 101 | 70 - 133 | 0 | 20 |
| Dibromochloromethane | ND | | 500 | 490 | | ug/L | | 98 | 70 - 148 | 0 | 25 |
| 1,2-Dibromo-3-Chloropropane | ND | | 500 | 486 | | ug/L | | 97 | 48 - 140 | 4 | 30 |
| 1,2-Dibromoethane (EDB) | ND | | 500 | 483 | | ug/L | | 97 | 70 - 131 | 1 | 25 |
| Dibromomethane | ND | | 500 | 482 | | ug/L | | 96 | 70 - 130 | 3 | 25 |
| 1,2-Dichlorobenzene | 5.6 | J | 500 | 515 | | ug/L | | 102 | 70 - 130 | 1 | 20 |
| 1,3-Dichlorobenzene | ND | | 500 | 516 | | ug/L | | 103 | 70 - 130 | 2 | 20 |
| 1,4-Dichlorobenzene | ND | | 500 | 511 | | ug/L | | 102 | 70 - 130 | 1 | 20 |
| Dichlorodifluoromethane | ND | | 500 | 455 | | ug/L | | 91 | 25 - 142 | 2 | 30 |
| 1,1-Dichloroethane | ND | | 500 | 527 | | ug/L | | 105 | 65 - 130 | 2 | 20 |
| 1,2-Dichloroethane | ND | | 500 | 505 | | ug/L | | 101 | 56 - 146 | 1 | 20 |
| 1,1-Dichloroethene | ND | | 500 | 444 | | ug/L | | 89 | 70 - 130 | 2 | 20 |
| 1,2-Dichloropropane | ND | | 500 | 525 | | ug/L | | 105 | 69 - 130 | 0 | 20 |
| 1,3-Dichloropropane | ND | | 500 | 500 | | ug/L | | 100 | 70 - 130 | 1 | 25 |
| 2,2-Dichloropropane | ND | | 500 | 516 | | ug/L | | 103 | 69 - 138 | 1 | 25 |
| 1,1-Dichloropropene | ND | | 500 | 497 | | ug/L | | 99 | 64 - 130 | 0 | 20 |
| Ethylbenzene | ND | | 500 | 488 | | ug/L | | 98 | 70 - 130 | 2 | 20 |
| Ethyl-t-butyl ether (ETBE) | ND | | 500 | 519 | | ug/L | | 104 | 70 - 130 | 2 | 25 |
| Hexachlorobutadiene | ND | | 500 | 472 | | ug/L | | 94 | 10 - 150 | 0 | 20 |
| 2-Hexanone | ND | | 500 | 640 | | ug/L | | 128 | 10 - 150 | 4 | 35 |
| Isopropylbenzene | ND | | 500 | 493 | | ug/L | | 99 | 70 - 132 | 0 | 20 |
| Isopropyl Ether (DIPE) | ND | | 500 | 613 | | ug/L | | 123 | 64 - 138 | 1 | 25 |
| Methylene Chloride | ND | | 500 | 468 | | ug/L | | 94 | 52 - 130 | 1 | 20 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 500 | 643 | | ug/L | | 129 | 52 - 150 | 1 | 35 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 500 | 475 | | ug/L | | 95 | 70 - 130 | 3 | 25 |
| m,p-Xylene | ND | | 500 | 488 | | ug/L | | 98 | 70 - 133 | 2 | 25 |
| Naphthalene | ND | | 500 | 509 | | ug/L | | 102 | 60 - 140 | 5 | 30 |
| n-Butylbenzene | ND | | 500 | 516 | | ug/L | | 103 | 61 - 149 | 0 | 20 |
| N-Propylbenzene | ND | | 500 | 540 | | ug/L | | 108 | 66 - 135 | 0 | 20 |
| o-Xylene | ND | | 500 | 495 | | ug/L | | 99 | 70 - 133 | 2 | 20 |
| p-Isopropyltoluene | ND | | 500 | 505 | | ug/L | | 101 | 70 - 130 | 1 | 20 |
| sec-Butylbenzene | ND | | 500 | 518 | | ug/L | | 104 | 67 - 134 | 1 | 20 |
| Styrene | ND | | 500 | 474 | | ug/L | | 95 | 29 - 150 | 1 | 35 |
| Tert-amyl-methyl ether (TAME) | ND | | 500 | 458 | | ug/L | | 92 | 68 - 133 | 2 | 30 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-200815-3 MSD**
**Matrix: Water**
**Analysis Batch: 452030**

**Client Sample ID: VER-01I-B-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| tert-Butyl alcohol (TBA) | ND | | 5000 | 5620 | | ug/L | | 112 | 70 - 130 | 0 | 25 |
| tert-Butylbenzene | ND | | 500 | 501 | | ug/L | | 100 | 70 - 130 | 0 | 20 |
| 1,1,1,2-Tetrachloroethane | ND | | 500 | 439 | | ug/L | | 88 | 60 - 149 | 0 | 20 |
| 1,1,2,2-Tetrachloroethane | ND | | 500 | 527 | | ug/L | | 105 | 63 - 130 | 3 | 30 |
| Tetrachloroethene | ND | | 500 | 475 | | ug/L | | 95 | 70 - 137 | 2 | 20 |
| Toluene | ND | | 500 | 497 | | ug/L | | 99 | 70 - 130 | 1 | 20 |
| trans-1,2-Dichloroethene | ND | | 500 | 485 | | ug/L | | 97 | 70 - 130 | 2 | 20 |
| trans-1,3-Dichloropropene | ND | | 500 | 495 | | ug/L | | 99 | 70 - 138 | 2 | 25 |
| 1,2,3-Trichlorobenzene | ND | | 500 | 516 | | ug/L | | 103 | 60 - 140 | 3 | 20 |
| 1,2,4-Trichlorobenzene | ND | | 500 | 492 | | ug/L | | 98 | 60 - 140 | 1 | 20 |
| 1,1,1-Trichloroethane | ND | | 500 | 468 | | ug/L | | 94 | 70 - 130 | 1 | 20 |
| 1,1,2-Trichloroethane | ND | | 500 | 525 | | ug/L | | 105 | 70 - 130 | 0 | 25 |
| Trichloroethene | ND | | 500 | 476 | | ug/L | | 95 | 70 - 130 | 0 | 20 |
| Trichlorofluoromethane | ND | | 500 | 439 | | ug/L | | 88 | 60 - 150 | 1 | 25 |
| 1,2,3-Trichloropropane | ND | | 500 | 533 | | ug/L | | 107 | 60 - 130 | 3 | 30 |
| 1,2,4-Trimethylbenzene | ND | | 500 | 512 | | ug/L | | 102 | 70 - 130 | 1 | 25 |
| 1,3,5-Trimethylbenzene | ND | | 500 | 513 | | ug/L | | 103 | 70 - 130 | 1 | 20 |
| Vinyl chloride | ND | | 500 | 458 | | ug/L | | 92 | 50 - 137 | 1 | 30 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *103* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *100* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *102* | | *80 - 128* |

## Method: 300.1B - Disinfection By-Products, (IC)

**Lab Sample ID: MB 440-451611/5**
**Matrix: Water**
**Analysis Batch: 451611**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorate | ND | | 20 | 10 | ug/L | | | 01/14/18 10:01 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* | | *01/14/18 10:01* | *1* |

**Lab Sample ID: LCS 440-451611/4**
**Matrix: Water**
**Analysis Batch: 451611**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 100 | 104 | | ug/L | | 104 | 75 - 125 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

**Lab Sample ID: MRL 440-451611/3**
**Matrix: Water**
**Analysis Batch: 451611**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 20.0 | 22.5 | | ug/L | | 113 | 50 - 150 | | |

| *Surrogate* | *MRL %Recovery* | *MRL Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

**Lab Sample ID: 440-200815-3 MS**
**Matrix: Water**
**Analysis Batch: 451611**

**Client Sample ID: VER-01I-B-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 3800000 | | 200 | 4070000 | E 4 | ug/L | | 152903 | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

**Lab Sample ID: 440-200815-3 MSD**
**Matrix: Water**
**Analysis Batch: 451611**

**Client Sample ID: VER-01I-B-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 3800000 | | 200 | 3500000 | 4 | ug/L | | -12953 | 75 - 125 | 15 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

**Lab Sample ID: MB 440-451612/5**
**Matrix: Water**
**Analysis Batch: 451612**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 20 | 10 | ug/L | | | 01/14/18 10:01 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* | | *01/14/18 10:01* | *1* |

**Lab Sample ID: LCS 440-451612/4**
**Matrix: Water**
**Analysis Batch: 451612**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | | 100 | 100 | | ug/L | | 100 | 85 - 115 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

**Lab Sample ID: MRL 440-451612/3**
**Matrix: Water**
**Analysis Batch: 451612**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | | 20.0 | 21.7 | | ug/L | | 109 | 10 - 200 | | |

| *Surrogate* | *MRL %Recovery* | *MRL Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

**Lab Sample ID: 440-200815-3 MS**
**Matrix: Water**
**Analysis Batch: 451612**

**Client Sample ID: VER-01I-B-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 200 | ND | | ug/L | | NC | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *102* | | *90 - 115* |

**Lab Sample ID: 440-200815-3 MSD**
**Matrix: Water**
**Analysis Batch: 451612**

**Client Sample ID: VER-01I-B-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 200 | ND | | ug/L | | NC | 75 - 125 | NC | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

## Method: 314.0 LL - Perchlorate (IC)

**Lab Sample ID: MB 440-451680/7**
**Matrix: Water**
**Analysis Batch: 451680**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 1.0 | 0.50 | ug/L | | | 01/15/18 11:07 | 1 |

**Lab Sample ID: LCS 440-451680/6**
**Matrix: Water**
**Analysis Batch: 451680**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | | | 10.0 | 9.06 | | ug/L | | 91 | 85 - 115 | | |

**Lab Sample ID: 440-200815-3 MS**
**Matrix: Water**
**Analysis Batch: 451680**

**Client Sample ID: VER-01I-B-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 1200000 | | 500 | 1230000 | 4 | ug/L | | 4190 | 80 - 120 | | |

## Method: 314.0 LL - Perchlorate (IC) (Continued)

**Lab Sample ID: 440-200815-3 MSD** — **Client Sample ID: VER-01I-B-36**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 451680**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 1200000 | | 500 | 1210000 | 4 | ug/L | | -1566 | 80 - 120 | 2 | 20 |

**Lab Sample ID: INF 440-451680/8** — **Client Sample ID: Lab Control Sample**
**Matrix: Water**
**Analysis Batch: 451680**

| Analyte | Spike Added | INF Result | INF Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 9.90 | | ug/L | | 99 | 80 - 120 |

## Method: 7199 - Chromium, Hexavalent (IC)

**Lab Sample ID: MB 440-451317/6** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 451317**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 2.0 | 0.25 | ug/L | | | 01/12/18 06:58 | 1 |

**Lab Sample ID: LCS 440-451317/5** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 451317**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 49.7 | | ug/L | | 99 | 90 - 110 |

**Lab Sample ID: MRL 440-451317/4** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 451317**

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 1.00 | 0.984 | J | ug/L | | 98 | 50 - 150 |

**Lab Sample ID: 440-200715-J-9 MS** — **Client Sample ID: Matrix Spike**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 451317**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 2.3 | | 50.0 | 51.9 | | ug/L | | 99 | 85 - 115 |

**Lab Sample ID: 440-200715-J-9 MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 451317**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 2.3 | | 50.0 | 52.0 | | ug/L | | 100 | 85 - 115 | 0 | 20 |

## Method: 7199 - Chromium, Hexavalent (IC) (Continued)

**Lab Sample ID: MB 440-451533/6**
**Matrix: Water**
**Analysis Batch: 451533**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 2.0 | 0.25 | ug/L | | | 01/13/18 08:29 | 1 |

**Lab Sample ID: LCS 440-451533/5**
**Matrix: Water**
**Analysis Batch: 451533**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 49.9 | | ug/L | | 100 | 90 - 110 |

**Lab Sample ID: MRL 440-451533/4**
**Matrix: Water**
**Analysis Batch: 451533**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 1.00 | 0.986 | J | ug/L | | 99 | 50 - 150 |

**Lab Sample ID: 440-200815-3 MS**
**Matrix: Water**
**Analysis Batch: 451533**

**Client Sample ID: VER-01I-B-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 13000 | | 1500 | 13800 | 4 | ug/L | | 84 | 85 - 115 |

**Lab Sample ID: 440-200815-3 MSD**
**Matrix: Water**
**Analysis Batch: 451533**

**Client Sample ID: VER-01I-B-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 13000 | | 1500 | 13800 | 4 | ug/L | | 86 | 85 - 115 | 0 | 20 |

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 440-452435/1-A**
**Matrix: Water**
**Analysis Batch: 452696**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 452435**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | ND | | 0.0050 | 0.0025 | mg/L | | 01/18/18 09:57 | 01/19/18 10:46 | 1 |

**Lab Sample ID: LCS 440-452435/2-A**
**Matrix: Water**
**Analysis Batch: 452696**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 452435**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium | 1.00 | 1.09 | | mg/L | | 109 | 80 - 120 |

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: 440-200815-3 MS**
**Matrix: Water**
**Analysis Batch: 452696**

**Client Sample ID: VER-01I-B-36**
**Prep Type: Total Recoverable**
**Prep Batch: 452435**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 14 | | 1.00 | 15.2 | 4 | mg/L | | 146 | 75 - 125 | | |

**Lab Sample ID: 440-200815-3 MSD**
**Matrix: Water**
**Analysis Batch: 452696**

**Client Sample ID: VER-01I-B-36**
**Prep Type: Total Recoverable**
**Prep Batch: 452435**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 14 | | 1.00 | 15.1 | 4 | mg/L | | 135 | 75 - 125 | 1 | 20 |

# QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-200815-1

## GC/MS VOA

### Analysis Batch: 452030

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200815-1 | VER-01I-B-24 | Total/NA | Water | 8260B | |
| 440-200815-2 | Trip Blank-01122018 | Total/NA | Water | 8260B | |
| 440-200815-3 | VER-01I-B-36 | Total/NA | Water | 8260B | |
| 440-200815-4 | TB-011218 | Total/NA | Water | 8260B | |
| MB 440-452030/4 | Method Blank | Total/NA | Water | 8260B | |
| LCS 440-452030/5 | Lab Control Sample | Total/NA | Water | 8260B | |
| 440-200815-3 MS | VER-01I-B-36 | Total/NA | Water | 8260B | |
| 440-200815-3 MSD | VER-01I-B-36 | Total/NA | Water | 8260B | |

## HPLC/IC

### Analysis Batch: 451317

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200815-1 | VER-01I-B-24 | Total/NA | Water | 7199 | |
| MB 440-451317/6 | Method Blank | Total/NA | Water | 7199 | |
| LCS 440-451317/5 | Lab Control Sample | Total/NA | Water | 7199 | |
| MRL 440-451317/4 | Lab Control Sample | Total/NA | Water | 7199 | |
| 440-200715-J-9 MS | Matrix Spike | Total/NA | Water | 7199 | |
| 440-200715-J-9 MSD | Matrix Spike Duplicate | Total/NA | Water | 7199 | |

### Analysis Batch: 451533

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200815-3 | VER-01I-B-36 | Total/NA | Water | 7199 | |
| MB 440-451533/6 | Method Blank | Total/NA | Water | 7199 | |
| LCS 440-451533/5 | Lab Control Sample | Total/NA | Water | 7199 | |
| MRL 440-451533/4 | Lab Control Sample | Total/NA | Water | 7199 | |
| 440-200815-3 MS | VER-01I-B-36 | Total/NA | Water | 7199 | |
| 440-200815-3 MSD | VER-01I-B-36 | Total/NA | Water | 7199 | |

### Analysis Batch: 451611

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200815-1 | VER-01I-B-24 | Total/NA | Water | 300.1B | |
| 440-200815-3 | VER-01I-B-36 | Total/NA | Water | 300.1B | |
| MB 440-451611/5 | Method Blank | Total/NA | Water | 300.1B | |
| LCS 440-451611/4 | Lab Control Sample | Total/NA | Water | 300.1B | |
| MRL 440-451611/3 | Lab Control Sample | Total/NA | Water | 300.1B | |
| 440-200815-3 MS | VER-01I-B-36 | Total/NA | Water | 300.1B | |
| 440-200815-3 MSD | VER-01I-B-36 | Total/NA | Water | 300.1B | |

### Analysis Batch: 451612

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200815-1 | VER-01I-B-24 | Total/NA | Water | 300.1B | |
| 440-200815-3 | VER-01I-B-36 | Total/NA | Water | 300.1B | |
| MB 440-451612/5 | Method Blank | Total/NA | Water | 300.1B | |
| LCS 440-451612/4 | Lab Control Sample | Total/NA | Water | 300.1B | |
| MRL 440-451612/3 | Lab Control Sample | Total/NA | Water | 300.1B | |
| 440-200815-3 MS | VER-01I-B-36 | Total/NA | Water | 300.1B | |
| 440-200815-3 MSD | VER-01I-B-36 | Total/NA | Water | 300.1B | |

## HPLC/IC (Continued)

### Analysis Batch: 451680

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200815-1 | VER-01I-B-24 | Total/NA | Water | 314.0 LL | |
| 440-200815-3 | VER-01I-B-36 | Total/NA | Water | 314.0 LL | |
| MB 440-451680/7 | Method Blank | Total/NA | Water | 314.0 LL | |
| INF 440-451680/8 | Lab Control Sample | | Water | 314.0 LL | |
| LCS 440-451680/6 | Lab Control Sample | Total/NA | Water | 314.0 LL | |
| 440-200815-3 MS | VER-01I-B-36 | Total/NA | Water | 314.0 LL | |
| 440-200815-3 MSD | VER-01I-B-36 | Total/NA | Water | 314.0 LL | |

## Metals

### Prep Batch: 452435

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200815-1 | VER-01I-B-24 | Total Recoverable | Water | 3005A | |
| 440-200815-3 | VER-01I-B-36 | Total Recoverable | Water | 3005A | |
| MB 440-452435/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 440-452435/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 440-200815-3 MS | VER-01I-B-36 | Total Recoverable | Water | 3005A | |
| 440-200815-3 MSD | VER-01I-B-36 | Total Recoverable | Water | 3005A | |

### Analysis Batch: 452609

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200815-1 | VER-01I-B-24 | Total Recoverable | Water | 6010B | 452435 |

### Analysis Batch: 452696

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200815-3 | VER-01I-B-36 | Total Recoverable | Water | 6010B | 452435 |
| MB 440-452435/1-A | Method Blank | Total Recoverable | Water | 6010B | 452435 |
| LCS 440-452435/2-A | Lab Control Sample | Total Recoverable | Water | 6010B | 452435 |
| 440-200815-3 MS | VER-01I-B-36 | Total Recoverable | Water | 6010B | 452435 |
| 440-200815-3 MSD | VER-01I-B-36 | Total Recoverable | Water | 6010B | 452435 |

# Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-200815-1

## Client Sample ID: VER-01I-B-24
**Date Collected: 01/12/18 03:30**
**Date Received: 01/12/18 19:25**

## Lab Sample ID: 440-200815-1
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 20 | 452030 | 01/16/18 21:53 | OH1 | TAL IRV |
| Total/NA | Analysis | 300.1B | | 100 | 451612 | 01/15/18 02:19 | YZ | TAL IRV |
| Total/NA | Analysis | 300.1B | | 10000 | 451611 | 01/15/18 02:55 | YZ | TAL IRV |
| Total/NA | Analysis | 314.0 LL | | 100000 | 451680 | 01/16/18 16:35 | NN | TAL IRV |
| Total/NA | Analysis | 7199 | | 500 | 451317 | 01/12/18 20:52 | MN | TAL IRV |
| Total Recoverable | Prep | 3005A | | | 452435 | 01/18/18 09:57 | JL | TAL IRV |
| Total Recoverable | Analysis | 6010B | | 5 | 452609 | 01/18/18 19:53 | VS | TAL IRV |

## Client Sample ID: Trip Blank-01122018
**Date Collected: 01/12/18 03:30**
**Date Received: 01/12/18 19:25**

## Lab Sample ID: 440-200815-2
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 452030 | 01/16/18 22:20 | OH1 | TAL IRV |

## Client Sample ID: VER-01I-B-36
**Date Collected: 01/12/18 15:30**
**Date Received: 01/12/18 19:25**

## Lab Sample ID: 440-200815-3
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 20 | 452030 | 01/16/18 19:42 | OH1 | TAL IRV |
| Total/NA | Analysis | 300.1B | | 10000 | 451611 | 01/15/18 03:32 | YZ | TAL IRV |
| Total/NA | Analysis | 300.1B | | 1000 | 451612 | 01/15/18 13:34 | YZ | TAL IRV |
| Total/NA | Analysis | 314.0 LL | | 100000 | 451680 | 01/16/18 16:53 | NN | TAL IRV |
| Total/NA | Analysis | 7199 | | 500 | 451533 | 01/13/18 10:02 | MN | TAL IRV |
| Total Recoverable | Prep | 3005A | | | 452435 | 01/18/18 09:57 | JL | TAL IRV |
| Total Recoverable | Analysis | 6010B | | 5 | 452696 | 01/19/18 10:50 | K1E | TAL IRV |

## Client Sample ID: TB-011218
**Date Collected: 01/12/18 15:00**
**Date Received: 01/12/18 19:25**

## Lab Sample ID: 440-200815-4
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 452030 | 01/16/18 22:46 | OH1 | TAL IRV |

**Laboratory References:**

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

# Accreditation/Certification Summary

Client: Tetra Tech, Inc. TestAmerica Job ID: 440-200815-1
Project/Site: NERT VER Treatability Study

## Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|---|---|---|---|---|
| Alaska | State Program | 10 | CA01531 | 06-30-18 |
| Arizona | State Program | 9 | AZ0671 | 10-14-18 |
| California | LA Cty Sanitation Districts | 9 | 10256 | 06-30-18 |
| California | State Program | 9 | CA ELAP 2706 | 06-30-18 |
| Guam | State Program | 9 | Cert. No. 17-003R | 01-23-18 * |
| Hawaii | State Program | 9 | N/A | 01-29-18 * |
| Kansas | NELAP | 7 | E-10420 | 07-31-18 |
| Nevada | State Program | 9 | CA015312018-1 | 07-31-18 |
| New Mexico | State Program | 6 | N/A | 01-29-18 * |
| Northern Mariana Islands | State Program | 9 | MP0002 | 01-29-17 * |
| Oregon | NELAP | 10 | 4028 | 01-29-18 * |
| USDA | Federal | | P330-15-00184 | 07-08-18 |
| Washington | State Program | 10 | C900 | 09-03-18 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Method Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-200815-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL IRV |
| 300.1B | Disinfection By-Products, (IC) | EPA | TAL IRV |
| 314.0 LL | Perchlorate (IC) | EPA | TAL IRV |
| 7199 | Chromium, Hexavalent (IC) | SW846 | TAL IRV |
| 6010B | Metals (ICP) | SW846 | TAL IRV |

**Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

# Sample Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-200815-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 440-200815-1 | VER-01I-B-24 | Water | 01/12/18 03:30 | 01/12/18 19:25 |
| 440-200815-2 | Trip Blank-01122018 | Water | 01/12/18 03:30 | 01/12/18 19:25 |
| 440-200815-3 | VER-01I-B-36 | Water | 01/12/18 15:30 | 01/12/18 19:25 |
| 440-200815-4 | TB-011218 | Water | 01/12/18 15:00 | 01/12/18 19:25 |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: GCMS09 Analysis Batch Number: 446291

Lab Sample ID: STD05 440-446291/6 IC Client Sample ID:

Date Analyzed: 12/12/17 16:47 Lab File ID: JFL12006.D GC Column: DB-VRX A ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,2,3-Trichloropropane | 11.66 | Unspecified | | |

Lab Sample ID: STD1 440-446291/7 IC Client Sample ID:

Date Analyzed: 12/12/17 17:13 Lab File ID: JFL12007.D GC Column: DB-VRX A ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Vinyl acetate | 6.25 | Unspecified | | |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-8  Analysis Batch Number: 445955

Lab Sample ID: STD1 440-445955/3 IC  Client Sample ID:

Date Analyzed: 12/11/17 05:47  Lab File ID: 440-0097300-003.d  GC Column: AS14  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.81 | Baseline Smoothing | zakhrabovy | 12/11/17 06:34 |

Lab Sample ID: STD2 440-445955/4 IC  Client Sample ID:

Date Analyzed: 12/11/17 06:24  Lab File ID: 440-0097300-004.d  GC Column: AS14  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 07:02 |

Lab Sample ID: STD3 440-445955/5 IC  Client Sample ID:

Date Analyzed: 12/11/17 07:00  Lab File ID: 440-0097300-005.d  GC Column: AS14  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 07:39 |

Lab Sample ID: STD4 440-445955/6 IC  Client Sample ID:

Date Analyzed: 12/11/17 07:36  Lab File ID: 440-0097300-006.d  GC Column: AS14  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 08:20 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 445955

Lab Sample ID: STD5 440-445955/7 IC Client Sample ID:

Date Analyzed: 12/11/17 08:12 Lab File ID: 440-0097300-007.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 08:53 |

Lab Sample ID: ICV 440-445955/8 Client Sample ID:

Date Analyzed: 12/11/17 09:01 Lab File ID: 440-0097300-008.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.77 | Baseline Smoothing | zakhrabovy | 12/12/17 03:14 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 445956

Lab Sample ID: STD1 440-445956/3 IC Client Sample ID:

Date Analyzed: 12/11/17 05:47 Lab File ID: 440-0097300-003.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.52 | Baseline Smoothing | zakhrabovy | 12/11/17 06:34 |

Lab Sample ID: STD2 440-445956/4 IC Client Sample ID:

Date Analyzed: 12/11/17 06:24 Lab File ID: 440-0097300-004.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.51 | Baseline Smoothing | zakhrabovy | 12/11/17 07:02 |

Lab Sample ID: STD3 440-445956/5 IC Client Sample ID:

Date Analyzed: 12/11/17 07:00 Lab File ID: 440-0097300-005.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.51 | Baseline Smoothing | zakhrabovy | 12/11/17 07:39 |

Lab Sample ID: STD4 440-445956/6 IC Client Sample ID:

Date Analyzed: 12/11/17 07:36 Lab File ID: 440-0097300-006.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.52 | Baseline Smoothing | zakhrabovy | 12/11/17 08:20 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 445956

Lab Sample ID: STD5 440-445956/7 IC Client Sample ID:

Date Analyzed: 12/11/17 08:12 Lab File ID: 440-0097300-007.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.52 | Baseline Smoothing | zakhrabovy | 12/11/17 08:53 |

Lab Sample ID: ICV 440-445956/8 Client Sample ID:

Date Analyzed: 12/11/17 09:01 Lab File ID: 440-0097300-008.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.50 | Baseline Smoothing | zakhrabovy | 12/12/17 03:14 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 451611

Lab Sample ID: CCV 440-451611/1 Client Sample ID:

Date Analyzed: 01/14/18 07:25 Lab File ID: 440-0098639-001.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 01/14/18 08:25 |

Lab Sample ID: MRL 440-451611/3 Client Sample ID:

Date Analyzed: 01/14/18 08:38 Lab File ID: 440-0098639-003.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorate | 19.50 | Baseline Smoothing | zakhrabovy | 01/14/18 09:24 |

Lab Sample ID: CCV 440-451611/13 Client Sample ID:

Date Analyzed: 01/14/18 14:50 Lab File ID: 440-0098639-013.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.68 | Baseline Smoothing | zakhrabovy | 01/15/18 03:52 |

Lab Sample ID: CCV 440-451611/25 Client Sample ID:

Date Analyzed: 01/14/18 22:05 Lab File ID: 440-0098639-025.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.69 | Baseline Smoothing | zakhrabovy | 01/15/18 03:55 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 451611

Lab Sample ID: CCV 440-451611/37 Client Sample ID:

Date Analyzed: 01/15/18 05:20 Lab File ID: 440-0098639-037.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.79 | Baseline Smoothing | zakhrabovy | 01/15/18 06:03 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 451612

Lab Sample ID: CCV 440-451612/1 Client Sample ID:

Date Analyzed: 01/14/18 07:25 Lab File ID: 440-0098639-001.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.53 | Baseline Smoothing | zakhrabovy | 01/14/18 08:25 |

Lab Sample ID: MRL 440-451612/3 Client Sample ID:

Date Analyzed: 01/14/18 08:38 Lab File ID: 440-0098639-003.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.48 | Baseline Smoothing | zakhrabovy | 01/14/18 09:24 |

Lab Sample ID: LCS 440-451612/4 Client Sample ID:

Date Analyzed: 01/14/18 09:24 Lab File ID: 440-0098639-004.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.45 | Baseline Smoothing | zakhrabovy | 01/15/18 03:49 |

Lab Sample ID: CCV 440-451612/13 Client Sample ID:

Date Analyzed: 01/14/18 14:50 Lab File ID: 440-0098639-013.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.48 | Baseline Smoothing | zakhrabovy | 01/15/18 03:52 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 451612

Lab Sample ID: CCV 440-451612/25 Client Sample ID:

Date Analyzed: 01/14/18 22:05 Lab File ID: 440-0098639-025.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.47 | Baseline Smoothing | zakhrabovy | 01/15/18 03:55 |

Lab Sample ID: CCV 440-451612/37 Client Sample ID:

Date Analyzed: 01/15/18 05:20 Lab File ID: 440-0098639-037.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.50 | Baseline Smoothing | zakhrabovy | 01/15/18 06:03 |

Lab Sample ID: CCV 440-451612/55 Client Sample ID:

Date Analyzed: 01/15/18 16:35 Lab File ID: 440-0098639-055.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.48 | Baseline Smoothing | zakhrabovy | 01/16/18 03:30 |

Lab Sample ID: CCB 440-451612/56 Client Sample ID:

Date Analyzed: 01/15/18 17:12 Lab File ID: 440-0098639-056.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Dichloroacetic acid(Surr) | 14.67 | Baseline Smoothing | zakhrabovy | 01/16/18 03:31 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-16 Analysis Batch Number: 432478

Lab Sample ID: STD2 440-432478/4 IC Client Sample ID:

Date Analyzed: 10/02/17 13:01 Lab File ID: Info 2_TAIIRV0066_Hex Chr GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 7.53 | Incomplete Integration | nickloffn | 10/02/17 13:25 |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **ME HCl_00393** | 12/12/18 | Avantor Performance Materials, INc., Lot 0000183197 | | | (Purchased Reagent) | | Stock Chemical | 100 % |
| **ME HNO3_00412** | 01/12/19 | Macron Fine Chemicals, Lot 0000185595 | | | (Purchased Reagent) | | Stock Chemical | 1 % |
| **ME ICP 2X RL_00054** | 01/19/18 | 01/18/18 | 2%HNO3/2%HCl, Lot 211065110 | 100 mL | ME ICP STD3_01849 | 2 mL | Chromium | 0.01 ug/mL |
| .ME ICP STD3_01849 | 01/19/18 | 01/18/18 | 1%HNO3/2%HCL, Lot 211065110 | 100 mL | Custom mix A_00001 | 1 mL | Chromium | 0.5 ug/mL |
| ..Custom mix A_00001 | 10/26/20 | INORGANIC VENTURES, Lot M2-MEB662656 | | | (Purchased Reagent) | | Chromium | 50 mg/L |
| **ME ICP 2X RL_00055** | 01/20/18 | 01/19/18 | 2%HNO3/2%HCl, Lot 211065110 | 100 mL | ME ICP STD3_01850 | 2 mL | Chromium | 0.01 ug/mL |
| .ME ICP STD3_01850 | 01/20/18 | 01/19/18 | 1%HNO3/2%HCL, Lot 211065110 | 100 mL | Custom mix A_00001 | 1 mL | Chromium | 0.5 ug/mL |
| ..Custom mix A_00001 | 10/26/20 | INORGANIC VENTURES, Lot M2-MEB662656 | | | (Purchased Reagent) | | Chromium | 50 mg/L |
| **ME ICP ICV2_01765** | 01/19/18 | 01/18/18 | 1%HNO3/2%HCl, Lot N/A | 50 mL | ME ICP SPKE A_00029 | 0.5 mL | Chromium | 1 mg/L |
| .ME ICP SPKE A_00029 | 03/30/18 | ACCUSTANDARD, Lot 216035030 | | | (Purchased Reagent) | | Chromium | 100 ug/mL |
| **ME ICP ICV2_01766** | 01/20/18 | 01/19/18 | 1%HNO3/2%HCl, Lot N/A | 50 mL | ME ICP SPKE A_00029 | 0.5 mL | Chromium | 1 mg/L |
| .ME ICP SPKE A_00029 | 03/30/18 | ACCUSTANDARD, Lot 216035030 | | | (Purchased Reagent) | | Chromium | 100 ug/mL |
| **ME ICP IFA_01791** | 01/19/18 | 01/18/18 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Al | 600 mg/L |
| | | | | | | | Ca | 600 mg/L |
| | | | | | | | Fe | 600 mg/L |
| | | | | | | | Mg | 600 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | o2si, Lot 10064997-1 | | | (Purchased Reagent) | | Al | 6000 mg/L |
| | | | | | | | Ca | 6000 mg/L |
| | | | | | | | Fe | 6000 mg/L |
| | | | | | | | Mg | 6000 mg/L |
| **ME ICP IFA_01792** | 01/20/18 | 01/19/18 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Al | 600 mg/L |
| | | | | | | | Ca | 600 mg/L |
| | | | | | | | Fe | 600 mg/L |
| | | | | | | | Mg | 600 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | o2si, Lot 10064997-1 | | | (Purchased Reagent) | | Al | 6000 mg/L |
| | | | | | | | Ca | 6000 mg/L |
| | | | | | | | Fe | 6000 mg/L |
| | | | | | | | Mg | 6000 mg/L |
| **ME ICP IFB_01810** | 01/19/18 | 01/18/18 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Al | 600.5 mg/L |
| | | | | | | | Ca | 602.5 mg/L |
| | | | | | | | Fe | 600.5 mg/L |
| | | | | | | | Mg | 602.5 mg/L |
| | | | | | ME ICP2 ICV1A_00051 | 0.25 mL | Ag | 0.25 mg/L |
| | | | | | | | Al | 600.5 mg/L |
| | | | | | | | As | 0.5 mg/L |
| | | | | | | | B | 0.5 mg/L |
| | | | | | | | Ba | 0.5 mg/L |
| | | | | | | | Be | 0.5 mg/L |
| | | | | | | | Ca | 602.5 mg/L |
| | | | | | | | Cd | 0.5 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Chromium | 0.5 mg/L |
| | | | | | | | Co | 0.5 mg/L |
| | | | | | | | Cu | 0.5 mg/L |
| | | | | | | | Fe | 600.5 mg/L |
| | | | | | | | K | 10 mg/L |
| | | | | | | | Li | 0.5 mg/L |
| | | | | | | | Mg | 602.5 mg/L |
| | | | | | | | Mn | 0.5 mg/L |
| | | | | | | | Na | 10 mg/L |
| | | | | | | | Ni | 0.5 mg/L |
| | | | | | | | P | 0.5 mg/L |
| | | | | | | | Pb | 0.5 mg/L |
| | | | | | | | Se | 0.5 mg/L |
| | | | | | | | Sr | 0.5 mg/L |
| | | | | | | | Tl | 0.5 mg/L |
| | | | | | | | V | 0.5 mg/L |
| | | | | | | | Zn | 0.5 mg/L |
| | | | | | ME ICP2 ICV1B_00045 | 0.25 mL | Mo | 0.5 mg/L |
| | | | | | | | Sb | 0.5 mg/L |
| | | | | | | | Si | 2.5 mg/L |
| | | | | | | | Sn | 0.5 mg/L |
| | | | | | | | Ti | 0.5 mg/L |
| | | | | | | | W | 0.5 mg/L |
| | | | | | | | Zr | 0.5 mg/L |
| | | | | | ME K_00007 | 0.25 mL | K | 10 mg/L |
| | | | | | ME Na_00010 | 0.25 mL | Na | 10 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | | o2si, Lot 10064997-1 | | (Purchased Reagent) | | Al | 6000 mg/L |
| | | | | | | | Ca | 6000 mg/L |
| | | | | | | | Fe | 6000 mg/L |
| | | | | | | | Mg | 6000 mg/L |
| .ME ICP2 ICV1A_00051 | 10/18/18 | | INORGANIC VENTURES, Lot M2-MEB662245 | | (Purchased Reagent) | | Ag | 50 mg/L |
| | | | | | | | Al | 100 mg/L |
| | | | | | | | As | 100 mg/L |
| | | | | | | | B | 100 mg/L |
| | | | | | | | Ba | 100 mg/L |
| | | | | | | | Be | 100 mg/L |
| | | | | | | | Ca | 500 mg/L |
| | | | | | | | Cd | 100 mg/L |
| | | | | | | | Chromium | 100 mg/L |
| | | | | | | | Co | 100 mg/L |
| | | | | | | | Cu | 100 mg/L |
| | | | | | | | Fe | 100 mg/L |
| | | | | | | | K | 1000 mg/L |
| | | | | | | | Li | 100 mg/L |
| | | | | | | | Mg | 500 mg/L |
| | | | | | | | Mn | 100 mg/L |
| | | | | | | | Na | 1000 mg/L |
| | | | | | | | Ni | 100 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | P | 100 mg/L |
| | | | | | | | Pb | 100 mg/L |
| | | | | | | | Se | 100 mg/L |
| | | | | | | | Sr | 100 mg/L |
| | | | | | | | Tl | 100 mg/L |
| | | | | | | | V | 100 mg/L |
| | | | | | | | Zn | 100 mg/L |
| .ME ICP2 ICV1B_00045 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662246 | | | (Purchased Reagent) | | Mo | 100 mg/L |
| | | | | | | | Sb | 100 mg/L |
| | | | | | | | Si | 500 mg/L |
| | | | | | | | Sn | 100 mg/L |
| | | | | | | | Ti | 100 mg/L |
| | | | | | | | W | 100 mg/L |
| | | | | | | | Zr | 100 mg/L |
| .ME K_00007 | 08/17/18 | O2SI, Lot 1103100 | | | (Purchased Reagent) | | K | 1000 mg/L |
| .ME Na_00010 | 08/17/18 | O2SI, Lot 1103103 | | | (Purchased Reagent) | | Na | 1000 mg/L |
| **ME ICP IFB_01811** | 01/20/18 | 01/19/18 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Al | 600.5 mg/L |
| | | | | | | | Ca | 602.5 mg/L |
| | | | | | | | Fe | 600.5 mg/L |
| | | | | | | | Mg | 602.5 mg/L |
| | | | | | ME ICP2 ICV1A_00051 | 0.25 mL | Ag | 0.25 mg/L |
| | | | | | | | Al | 600.5 mg/L |
| | | | | | | | As | 0.5 mg/L |
| | | | | | | | B | 0.5 mg/L |
| | | | | | | | Ba | 0.5 mg/L |
| | | | | | | | Be | 0.5 mg/L |
| | | | | | | | Ca | 602.5 mg/L |
| | | | | | | | Cd | 0.5 mg/L |
| | | | | | | | Chromium | 0.5 mg/L |
| | | | | | | | Co | 0.5 mg/L |
| | | | | | | | Cu | 0.5 mg/L |
| | | | | | | | Fe | 600.5 mg/L |
| | | | | | | | K | 10 mg/L |
| | | | | | | | Li | 0.5 mg/L |
| | | | | | | | Mg | 602.5 mg/L |
| | | | | | | | Mn | 0.5 mg/L |
| | | | | | | | Na | 10 mg/L |
| | | | | | | | Ni | 0.5 mg/L |
| | | | | | | | P | 0.5 mg/L |
| | | | | | | | Pb | 0.5 mg/L |
| | | | | | | | Se | 0.5 mg/L |
| | | | | | | | Sr | 0.5 mg/L |
| | | | | | | | Tl | 0.5 mg/L |
| | | | | | | | V | 0.5 mg/L |
| | | | | | | | Zn | 0.5 mg/L |
| | | | | | ME ICP2 ICV1B_00045 | 0.25 mL | Mo | 0.5 mg/L |
| | | | | | | | Sb | 0.5 mg/L |

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Si | 2.5 mg/L |
| | | | | | | | Sn | 0.5 mg/L |
| | | | | | | | Ti | 0.5 mg/L |
| | | | | | | | W | 0.5 mg/L |
| | | | | | | | Zr | 0.5 mg/L |
| | | | | | ME K_00007 | 0.25 mL | K | 10 mg/L |
| | | | | | ME Na_00010 | 0.25 mL | Na | 10 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | o2si, Lot 10064997-1 | | | (Purchased Reagent) | | Al | 6000 mg/L |
| | | | | | | | Ca | 6000 mg/L |
| | | | | | | | Fe | 6000 mg/L |
| | | | | | | | Mg | 6000 mg/L |
| .ME ICP2 ICV1A_00051 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662245 | | | (Purchased Reagent) | | Ag | 50 mg/L |
| | | | | | | | Al | 100 mg/L |
| | | | | | | | As | 100 mg/L |
| | | | | | | | B | 100 mg/L |
| | | | | | | | Ba | 100 mg/L |
| | | | | | | | Be | 100 mg/L |
| | | | | | | | Ca | 500 mg/L |
| | | | | | | | Cd | 100 mg/L |
| | | | | | | | Chromium | 100 mg/L |
| | | | | | | | Co | 100 mg/L |
| | | | | | | | Cu | 100 mg/L |
| | | | | | | | Fe | 100 mg/L |
| | | | | | | | K | 1000 mg/L |
| | | | | | | | Li | 100 mg/L |
| | | | | | | | Mg | 500 mg/L |
| | | | | | | | Mn | 100 mg/L |
| | | | | | | | Na | 1000 mg/L |
| | | | | | | | Ni | 100 mg/L |
| | | | | | | | P | 100 mg/L |
| | | | | | | | Pb | 100 mg/L |
| | | | | | | | Se | 100 mg/L |
| | | | | | | | Sr | 100 mg/L |
| | | | | | | | Tl | 100 mg/L |
| | | | | | | | V | 100 mg/L |
| | | | | | | | Zn | 100 mg/L |
| .ME ICP2 ICV1B_00045 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662246 | | | (Purchased Reagent) | | Mo | 100 mg/L |
| | | | | | | | Sb | 100 mg/L |
| | | | | | | | Si | 500 mg/L |
| | | | | | | | Sn | 100 mg/L |
| | | | | | | | Ti | 100 mg/L |
| | | | | | | | W | 100 mg/L |
| | | | | | | | Zr | 100 mg/L |
| .ME K_00007 | 08/17/18 | O2SI, Lot 1103100 | | | (Purchased Reagent) | | K | 1000 mg/L |
| .ME Na_00010 | 08/17/18 | O2SI, Lot 1103103 | | | (Purchased Reagent) | | Na | 1000 mg/L |
| **ME ICP STD3_01848** | 01/19/18 | 01/18/18 | 1%HNO3/2%HCL, Lot 211065110 | 100 mL | ME ICP2 ICV1A_00051 | 1 mL | Chromium | 1 ug/mL |
| .ME ICP2 ICV1A_00051 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662245 | | | (Purchased Reagent) | | Chromium | 100 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **ME ICP STD3_01851** | 01/20/18 | 01/19/18 | 1%HNO3/2%HCL, Lot 211065110 | 100 mL | ME ICP2 ICV1A_00051 | 1 mL | Chromium | 1 ug/mL |
| .ME ICP2 ICV1A_00051 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662245 | | | (Purchased Reagent) | | Chromium | 100 mg/L |
| | | | | | | | Ag | 50 mg/L |
| | | | | | | | Al | 100 mg/L |
| | | | | | | | As | 100 mg/L |
| | | | | | | | B | 100 mg/L |
| | | | | | | | Ba | 100 mg/L |
| | | | | | | | Be | 100 mg/L |
| | | | | | | | Ca | 500 mg/L |
| | | | | | | | Cd | 100 mg/L |
| | | | | | | | Chromium | 100 mg/L |
| | | | | | | | Co | 100 mg/L |
| | | | | | | | Cu | 100 mg/L |
| | | | | | | | Fe | 100 mg/L |
| | | | | | | | K | 1000 mg/L |
| | | | | | | | Li | 100 mg/L |
| | | | | | | | Mg | 500 mg/L |
| | | | | | | | Mn | 100 mg/L |
| | | | | | | | Na | 1000 mg/L |
| | | | | | | | Ni | 100 mg/L |
| | | | | | | | P | 100 mg/L |
| | | | | | | | Pb | 100 mg/L |
| | | | | | | | Se | 100 mg/L |
| | | | | | | | Sr | 100 mg/L |
| | | | | | | | Tl | 100 mg/L |
| | | | | | | | V | 100 mg/L |
| | | | | | | | Zn | 100 mg/L |
| **ME ICP2 ICV1B_00045** | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662246 | | | (Purchased Reagent) | | Mo | 100 mg/L |
| | | | | | | | Sb | 100 mg/L |
| | | | | | | | Si | 500 mg/L |
| | | | | | | | SiO2 | 1071.15 mg/L |
| | | | | | | | Sn | 100 mg/L |
| | | | | | | | Ti | 100 mg/L |
| | | | | | | | W | 100 mg/L |
| | | | | | | | Zr | 100 mg/L |
| **VMW8260TUNE1_00412** | | | | | | | 1,2-Dichloroethene, Total | |
| | | | | | | | 1,3-Dichloropropene, Total | |
| | | | | | | | Tentatively Identified Compound | |
| | | | | | | | Total Volatile Organic Compounds | |
| | | | | | | | Trihalomethanes, Total | |
| | | | | | | | Xylenes, Total | |
| | | | | | VMA8260BFB1_00040 | 10 uL | BFB | 25 ug/mL |
| .VMA8260BFB1_00040 | 06/08/18 | Absolute Standards, Lot 112514 | | | (Purchased Reagent) | | BFB | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **VMW8260TUNE1_00415** | | | | | | | 1,2-Dichloroethene, Total | |
| | | | | | | | 1,3-Dichloropropene, Total | |
| | | | | | | | Tentatively Identified Compound | |
| | | | | | | | Total Volatile Organic Compounds | |
| | | | | | | | Trihalomethanes, Total | |
| | | | | | | | Xylenes, Total | |
| | | | | | VMA8260BFB1_00040 | 10 uL | BFB | 25 ug/mL |
| .VMA8260BFB1_00040 | 06/08/18 | Absolute Standards, Lot 112514 | | | (Purchased Reagent) | | BFB | 2500 ug/mL |
| **VMWNU8260002_00489** | 12/12/17 | 12/05/17 | Methanol, Lot 4506063 | 1 mL | VMWNU8260200_00173 | 10 uL | 2-Chloroethyl vinyl ether | 2 ug/mL |
| | | | | | | | Bromomethane | 2 ug/mL |
| | | | | | | | Butadiene | 2 ug/mL |
| | | | | | | | Chloroethane | 2 ug/mL |
| | | | | | | | Chloromethane | 2 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2 ug/mL |
| | | | | | | | Vinyl chloride | 2 ug/mL |
| | | | | | | | 2-Butanone (MEK) | 2 ug/mL |
| | | | | | | | 2-Hexanone | 2 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 2 ug/mL |
| | | | | | | | Acetone | 2 ug/mL |
| | | | | | | | 1,1,1,2-Tetrachloroethane | 2 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 4-Chlorotoluene | 2 ug/mL |
| | | | | | | | Acrylonitrile | 20 ug/mL |
| | | | | | | | Benzene | 2 ug/mL |
| | | | | | | | Bromobenzene | 2 ug/mL |
| | | | | | | | Bromochloromethane | 2 ug/mL |
| | | | | | | | Bromodichloromethane | 2 ug/mL |
| | | | | | | | Bromoform | 2 ug/mL |
| | | | | | | | Carbon disulfide | 2 ug/mL |
| | | | | | | | Carbon tetrachloride | 2 ug/mL |
| | | | | | | | Chlorobenzene | 2 ug/mL |
| | | | | | | | Chloroform | 2 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2 ug/mL |
| | | | | | | | Cyclohexane | 2 ug/mL |
| | | | | | | | Dibromochloromethane | 2 ug/mL |
| | | | | | | | Dibromomethane | 2 ug/mL |
| | | | | | | | Ethyl ether | 2 ug/mL |
| | | | | | | | Ethyl methacrylate | 2 ug/mL |
| | | | | | | | Ethylbenzene | 2 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2 ug/mL |
| | | | | | | | Hexane | 2 ug/mL |
| | | | | | | | Iodomethane | 2 ug/mL |
| | | | | | | | Isobutyl alcohol | 50 ug/mL |
| | | | | | | | Isopropylbenzene | 2 ug/mL |
| | | | | | | | m,p-Xylene | 2 ug/mL |
| | | | | | | | Methyl acetate | 10 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2 ug/mL |
| | | | | | | | Methylcyclohexane | 2 ug/mL |
| | | | | | | | Methylene Chloride | 2 ug/mL |
| | | | | | | | n-Butylbenzene | 2 ug/mL |
| | | | | | | | n-Heptane | 2 ug/mL |
| | | | | | | | N-Propylbenzene | 2 ug/mL |
| | | | | | | | Naphthalene | 2 ug/mL |
| | | | | | | | o-Xylene | 2 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2 ug/mL |
| | | | | | | | sec-Butylbenzene | 2 ug/mL |
| | | | | | | | Styrene | 2 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 20 ug/mL |
| | | | | | | | tert-Butylbenzene | 2 ug/mL |
| | | | | | | | Tetrachloroethene | 2 ug/mL |
| | | | | | | | Tetrahydrofuran | 4 ug/mL |
| | | | | | | | Toluene | 2 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2 ug/mL |
| | | | | | | | Trichloroethene | 2 ug/mL |
| | | | | | | | Vinyl acetate | 2 ug/mL |
| | | | | | | | Ethanol | 100 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Acetonitrile | 20 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2 ug/mL |
| | | | | | | | Propionitrile | 20 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2 ug/mL |
| | | | | | | | Acrolein | 2 ug/mL |
| .VMWNU8260200_00173 | 12/12/17 | 12/05/17 | Methanol, Lot 4506063 | 1 mL | VMA1582602CV1_00028 | 80 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |
| | | | | | VMA158260GAS1_00207 | 80 uL | Bromomethane | 200 ug/mL |
| | | | | | | | Butadiene | 200 ug/mL |
| | | | | | | | Chloroethane | 200 ug/mL |
| | | | | | | | Chloromethane | 200 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 200 ug/mL |
| | | | | | | | Dichlorofluoromethane | 200 ug/mL |
| | | | | | | | Trichlorofluoromethane | 200 ug/mL |
| | | | | | | | Vinyl chloride | 200 ug/mL |
| | | | | | VMA158260KET1_00042 | 16 uL | 2-Butanone (MEK) | 200 ug/mL |
| | | | | | | | 2-Hexanone | 200 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 200 ug/mL |
| | | | | | | | Acetone | 200 ug/mL |
| | | | | | VMA158260MEG1_00042 | 80 uL | 1,1,1,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 200 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 200 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 200 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 200 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 2-Chlorotoluene | 200 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 200 ug/mL |
| | | | | | | | 4-Chlorotoluene | 200 ug/mL |
| | | | | | | | Acrylonitrile | 2000 ug/mL |
| | | | | | | | Benzene | 200 ug/mL |
| | | | | | | | Bromobenzene | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Bromochloromethane | 200 ug/mL |
| | | | | | | | Bromodichloromethane | 200 ug/mL |
| | | | | | | | Bromoform | 200 ug/mL |
| | | | | | | | Carbon disulfide | 200 ug/mL |
| | | | | | | | Carbon tetrachloride | 200 ug/mL |
| | | | | | | | Chlorobenzene | 200 ug/mL |
| | | | | | | | Chloroform | 200 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | Cyclohexane | 200 ug/mL |
| | | | | | | | Dibromochloromethane | 200 ug/mL |
| | | | | | | | Dibromomethane | 200 ug/mL |
| | | | | | | | Ethyl ether | 200 ug/mL |
| | | | | | | | Ethyl methacrylate | 200 ug/mL |
| | | | | | | | Ethylbenzene | 200 ug/mL |
| | | | | | | | Hexachlorobutadiene | 200 ug/mL |
| | | | | | | | Hexane | 200 ug/mL |
| | | | | | | | Iodomethane | 200 ug/mL |
| | | | | | | | Isobutyl alcohol | 5000 ug/mL |
| | | | | | | | Isopropylbenzene | 200 ug/mL |
| | | | | | | | m,p-Xylene | 200 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 200 ug/mL |
| | | | | | | | Methylcyclohexane | 200 ug/mL |
| | | | | | | | Methylene Chloride | 200 ug/mL |
| | | | | | | | n-Butylbenzene | 200 ug/mL |
| | | | | | | | n-Heptane | 200 ug/mL |
| | | | | | | | N-Propylbenzene | 200 ug/mL |
| | | | | | | | Naphthalene | 200 ug/mL |
| | | | | | | | o-Xylene | 200 ug/mL |
| | | | | | | | p-Isopropyltoluene | 200 ug/mL |
| | | | | | | | sec-Butylbenzene | 200 ug/mL |
| | | | | | | | Styrene | 200 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 2000 ug/mL |
| | | | | | | | tert-Butylbenzene | 200 ug/mL |
| | | | | | | | Tetrachloroethene | 200 ug/mL |
| | | | | | | | Tetrahydrofuran | 400 ug/mL |
| | | | | | | | Toluene | 200 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 200 ug/mL |
| | | | | | | | Trichloroethene | 200 ug/mL |
| | | | | | VMA158260VA1_00045 | 40 uL | Vinyl acetate | 200 ug/mL |
| | | | | | VMA178260ETH1_00008 | 100 uL | Ethanol | 10000 ug/mL |
| | | | | | VMA178260POL1_00008 | 80 uL | Acetonitrile | 2000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 200 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 200 ug/mL |
| | | | | | | | Propionitrile | 2000 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 200 ug/mL |
| | | | | | VMANU8260ACR1_00101 | 10 uL | Acrolein | 200 ug/mL |
| ..VMA1582602CV1_00028 | 06/04/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| ..VMA158260GAS1_00207 | 06/05/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| ..VMA158260KET1_00042 | 06/04/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| ..VMA158260MEG1_00042 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| ..VMA158260VA1_00045 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| ..VMA178260ETH1_00008 | 06/04/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| ..VMA178260POL1_00008 | 06/04/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| ..VMANU8260ACR1_00101 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260200_00173** | 12/12/17 | 12/05/17 | Methanol, Lot 4506063 | 1 mL | VMA1582602CV1_00028 | 80 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | VMA158260GAS1_00207 | 80 uL | Bromomethane | 200 ug/mL |
| | | | | | | | Butadiene | 200 ug/mL |
| | | | | | | | Chloroethane | 200 ug/mL |
| | | | | | | | Chloromethane | 200 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 200 ug/mL |
| | | | | | | | Dichlorofluoromethane | 200 ug/mL |
| | | | | | | | Trichlorofluoromethane | 200 ug/mL |
| | | | | | | | Vinyl chloride | 200 ug/mL |
| | | | | | VMA158260KET1_00042 | 16 uL | 2-Butanone (MEK) | 200 ug/mL |
| | | | | | | | 2-Hexanone | 200 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 200 ug/mL |
| | | | | | | | Acetone | 200 ug/mL |
| | | | | | VMA158260MEG1_00042 | 80 uL | 1,1,1,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 200 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 200 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 200 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 200 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 2-Chlorotoluene | 200 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 200 ug/mL |
| | | | | | | | 4-Chlorotoluene | 200 ug/mL |
| | | | | | | | Acrylonitrile | 2000 ug/mL |
| | | | | | | | Benzene | 200 ug/mL |
| | | | | | | | Bromobenzene | 200 ug/mL |
| | | | | | | | Bromochloromethane | 200 ug/mL |
| | | | | | | | Bromodichloromethane | 200 ug/mL |
| | | | | | | | Bromoform | 200 ug/mL |
| | | | | | | | Carbon disulfide | 200 ug/mL |
| | | | | | | | Carbon tetrachloride | 200 ug/mL |
| | | | | | | | Chlorobenzene | 200 ug/mL |
| | | | | | | | Chloroform | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | cis-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | Cyclohexane | 200 ug/mL |
| | | | | | | | Dibromochloromethane | 200 ug/mL |
| | | | | | | | Dibromomethane | 200 ug/mL |
| | | | | | | | Ethyl ether | 200 ug/mL |
| | | | | | | | Ethyl methacrylate | 200 ug/mL |
| | | | | | | | Ethylbenzene | 200 ug/mL |
| | | | | | | | Hexachlorobutadiene | 200 ug/mL |
| | | | | | | | Hexane | 200 ug/mL |
| | | | | | | | Iodomethane | 200 ug/mL |
| | | | | | | | Isobutyl alcohol | 5000 ug/mL |
| | | | | | | | Isopropylbenzene | 200 ug/mL |
| | | | | | | | m,p-Xylene | 200 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 200 ug/mL |
| | | | | | | | Methylcyclohexane | 200 ug/mL |
| | | | | | | | Methylene Chloride | 200 ug/mL |
| | | | | | | | n-Butylbenzene | 200 ug/mL |
| | | | | | | | n-Heptane | 200 ug/mL |
| | | | | | | | N-Propylbenzene | 200 ug/mL |
| | | | | | | | Naphthalene | 200 ug/mL |
| | | | | | | | o-Xylene | 200 ug/mL |
| | | | | | | | p-Isopropyltoluene | 200 ug/mL |
| | | | | | | | sec-Butylbenzene | 200 ug/mL |
| | | | | | | | Styrene | 200 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 2000 ug/mL |
| | | | | | | | tert-Butylbenzene | 200 ug/mL |
| | | | | | | | Tetrachloroethene | 200 ug/mL |
| | | | | | | | Tetrahydrofuran | 400 ug/mL |
| | | | | | | | Toluene | 200 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 200 ug/mL |
| | | | | | | | Trichloroethene | 200 ug/mL |
| | | | | | VMA158260VA1_00045 | 40 uL | Vinyl acetate | 200 ug/mL |
| | | | | | VMA178260ETH1_00008 | 100 uL | Ethanol | 10000 ug/mL |
| | | | | | VMA178260POL1_00008 | 80 uL | Acetonitrile | 2000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 200 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 200 ug/mL |
| | | | | | | | Propionitrile | 2000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 200 ug/mL |
| | | | | | VMANU8260ACR1_00101 | 10 uL | Acrolein | 200 ug/mL |
| .VMA1582602CV1_00028 | 06/04/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| .VMA158260GAS1_00207 | 06/05/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00042 | 06/04/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00042 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA158260VA1_00045 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| .VMA178260ETH1_00008 | 06/04/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| .VMA178260POL1_00008 | 06/04/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| .VMANU8260ACR1_00101 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260CCV1_00850** | 12/12/17 | 12/05/17 | Methanol, Lot 4506063 | 1 mL | VMA1582602CV1_00028 | 20 uL | 2-Chloroethyl vinyl ether | 50 ug/mL |
| | | | | | VMA158260GAS1_00207 | 20 uL | Bromomethane | 50 ug/mL |
| | | | | | | | Butadiene | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 50 ug/mL |
| | | | | | | | Dichlorofluoromethane | 50 ug/mL |
| | | | | | | | Trichlorofluoromethane | 50 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Vinyl chloride | 50 ug/mL |
| | | | | | VMA158260KET1_00042 | 4 uL | 2-Butanone (MEK) | 50 ug/mL |
| | | | | | | | 2-Hexanone | 50 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ug/mL |
| | | | | | | | Acetone | 50 ug/mL |
| | | | | | VMA158260MEG1_00042 | 20 uL | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | Acrylonitrile | 500 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromochloromethane | 50 ug/mL |
| | | | | | | | Bromodichloromethane | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon disulfide | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Cyclohexane | 50 ug/mL |
| | | | | | | | Dibromochloromethane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Ethyl ether | 50 ug/mL |
| | | | | | | | Ethyl methacrylate | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Hexane | 50 ug/mL |
| | | | | | | | Iodomethane | 50 ug/mL |
| | | | | | | | Isobutyl alcohol | 1250 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m,p-Xylene | 50 ug/mL |
| | | | | | | | Methyl acetate | 250 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ug/mL |
| | | | | | | | Methylcyclohexane | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | n-Heptane | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | p-Isopropyltoluene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Tetrahydrofuran | 100 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | VMA158260VA1_00045 | 8 uL | Vinyl acetate | 40 ug/mL |
| | | | | | VMA178260ETH1_00008 | 20 uL | Ethanol | 2000 ug/mL |
| | | | | | VMA178260POL1_00008 | 20 uL | Acetonitrile | 500 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 50 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ug/mL |
| | | | | | | | Propionitrile | 500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ug/mL |
| | | | | | VMANU8260ACR1_00101 | 2.5 uL | Acrolein | 50 ug/mL |
| .VMA1582602CV1_00028 | 06/04/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| .VMA158260GAS1_00207 | 06/05/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00042 | 06/04/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00042 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA158260VA1_00045 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| .VMA178260ETH1_00008 | 06/04/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| .VMA178260POL1_00008 | 06/04/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| .VMANU8260ACR1_00101 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260CCV1_00883** | 01/23/18 | 01/16/18 | Methanol, Lot 4506057 | 1 mL | VMA158260GAS1_00213 | 20 uL | Bromomethane | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 50 ug/mL |
| | | | | | | | Trichlorofluoromethane | 50 ug/mL |
| | | | | | | | Vinyl chloride | 50 ug/mL |
| | | | | | VMA158260KET1_00046 | 4 uL | 2-Butanone (MEK) | 50 ug/mL |
| | | | | | | | 2-Hexanone | 50 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ug/mL |
| | | | | | | | Acetone | 50 ug/mL |
| | | | | | VMA158260MEG1_00043 | 20 uL | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromochloromethane | 50 ug/mL |
| | | | | | | | Bromodichloromethane | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Dibromochloromethane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m,p-Xylene | 50 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | p-Isopropyltoluene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | VMA178260POL1_00009 | 20 uL | Ethyl-t-butyl ether (ETBE) | 50 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ug/mL |
| .VMA158260GAS1_00213 | 07/16/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00046 | 06/26/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00043 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL1_00009 | 06/26/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNU8260IS_00172** | 12/28/17 | 11/28/17 | Methanol, Lot 4506064 | 1 mL | VMANU8260ISD1_00185 | 20 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00201 | 25 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00185 | 05/09/18 | | Restek, Lot A0128916 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00201 | 05/09/18 | | Restek, Lot A0128685 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00132** | 12/21/17 | 11/21/17 | Methanol, Lot 4506056 | 40 mL | VMANU8260ISD1_00184 | 800 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00189 | 1000 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00184 | 05/21/18 | | Restek, Lot A0128916 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00189 | 05/08/18 | | Restek, Lot A0123820 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00132** | 12/21/17 | 11/21/17 | Methanol, Lot 4506056 | 40 mL | VMANU8260SUR2_00036 | 800 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR2_00036 | 05/08/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNU8260ISS_00133** | 01/01/18 | 12/01/17 | Methanol, Lot 4506056 | 40 mL | VMANU8260SUR2_00036 | 800 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR2_00036 | 05/08/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNU8260ISS_00136** | 02/09/18 | 01/09/18 | Methanol, Lot 4555167 | 40 mL | VMANU8260ISD1_00190 | 800 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00203 | 1000 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00190 | 07/09/18 | | Restek, Lot A0128916 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00203 | 07/09/18 | | Restek, Lot A0128685 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00136** | 02/09/18 | 01/09/18 | Methanol, Lot 4555167 | 40 mL | VMANU8260SUR2_00036 | 800 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR2_00036 | 05/08/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNU8260LCS2_00168** | 12/13/17 | 12/06/17 | Methanol, Lot 4506063 | 10 mL | VMA158260GAS2_00222 | 200 uL | Bromomethane | 50 ppm |
| | | | | | | | Chloroethane | 50 ppm |
| | | | | | | | Chloromethane | 50 ppm |
| | | | | | | | Dichlorodifluoromethane | 50 ppm |
| | | | | | | | Trichlorofluoromethane | 50 ppm |
| | | | | | | | Vinyl chloride | 50 ppm |
| | | | | | VMA158260KET2_00041 | 40 uL | 2-Butanone (MEK) | 50 ppm |
| | | | | | | | 2-Hexanone | 50 ppm |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ppm |
| | | | | | | | Acetone | 50 ppm |
| | | | | | VMA158260MEG2_00052 | 200 uL | 1,1,1,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,1-Trichloroethane | 50 ppm |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,2-Trichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethene | 50 ppm |
| | | | | | | | 1,1-Dichloropropene | 50 ppm |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,3-Trichloropropane | 50 ppm |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ppm |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ppm |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ppm |
| | | | | | | | 1,2-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,2-Dichloroethane | 50 ppm |
| | | | | | | | 1,2-Dichloropropane | 50 ppm |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,3-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,3-Dichloropropane | 50 ppm |
| | | | | | | | 1,4-Dichlorobenzene | 50 ppm |
| | | | | | | | 2,2-Dichloropropane | 50 ppm |
| | | | | | | | 2-Chlorotoluene | 50 ppm |
| | | | | | | | 4-Chlorotoluene | 50 ppm |
| | | | | | | | Benzene | 50 ppm |
| | | | | | | | Bromobenzene | 50 ppm |
| | | | | | | | Bromochloromethane | 50 ppm |
| | | | | | | | Bromodichloromethane | 50 ppm |
| | | | | | | | Bromoform | 50 ppm |
| | | | | | | | Carbon tetrachloride | 50 ppm |
| | | | | | | | Chlorobenzene | 50 ppm |
| | | | | | | | Chloroform | 50 ppm |
| | | | | | | | cis-1,2-Dichloroethene | 50 ppm |
| | | | | | | | cis-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Dibromochloromethane | 50 ppm |
| | | | | | | | Dibromomethane | 50 ppm |
| | | | | | | | Ethylbenzene | 50 ppm |
| | | | | | | | Hexachlorobutadiene | 50 ppm |
| | | | | | | | Isopropylbenzene | 50 ppm |
| | | | | | | | m,p-Xylene | 50 ppm |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ppm |
| | | | | | | | Methylene Chloride | 50 ppm |
| | | | | | | | n-Butylbenzene | 50 ppm |
| | | | | | | | N-Propylbenzene | 50 ppm |
| | | | | | | | Naphthalene | 50 ppm |
| | | | | | | | o-Xylene | 50 ppm |
| | | | | | | | p-Isopropyltoluene | 50 ppm |
| | | | | | | | sec-Butylbenzene | 50 ppm |
| | | | | | | | Styrene | 50 ppm |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ppm |
| | | | | | | | tert-Butylbenzene | 50 ppm |
| | | | | | | | Tetrachloroethene | 50 ppm |
| | | | | | | | Toluene | 50 ppm |
| | | | | | | | trans-1,2-Dichloroethene | 50 ppm |
| | | | | | | | trans-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Trichloroethene | 50 ppm |
| | | | | | VMA178260POL2_00010 | 200 uL | Ethyl-t-butyl ether (ETBE) | 50 ppm |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ppm |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ppm |
| .VMA158260GAS2_00222 | 06/06/18 | | Restek, Lot A0128832 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET2_00041 | 05/29/18 | | Restek, Lot A0123880 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG2_00052 | 05/29/18 | | Restek, Lot A0120604 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL2_00010 | 05/29/18 | | Restek, Lot A0126826 | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNU8260LCS2_00173** | 01/17/18 | 01/10/18 | Methanol, Lot 4555167 | 10 mL | VMA158260GAS2_00230 | 200 uL | Bromomethane | 50 ppm |
| | | | | | | | Chloroethane | 50 ppm |
| | | | | | | | Chloromethane | 50 ppm |
| | | | | | | | Dichlorodifluoromethane | 50 ppm |
| | | | | | | | Trichlorofluoromethane | 50 ppm |
| | | | | | | | Vinyl chloride | 50 ppm |
| | | | | | VMA158260KET2_00042 | 40 uL | 2-Butanone (MEK) | 50 ppm |
| | | | | | | | 2-Hexanone | 50 ppm |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ppm |
| | | | | | | | Acetone | 50 ppm |
| | | | | | VMA158260MEG2_00053 | 200 uL | 1,1,1,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,1-Trichloroethane | 50 ppm |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,2-Trichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethene | 50 ppm |
| | | | | | | | 1,1-Dichloropropene | 50 ppm |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,3-Trichloropropane | 50 ppm |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ppm |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ppm |
| | | | | | | | 1,2-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,2-Dichloroethane | 50 ppm |
| | | | | | | | 1,2-Dichloropropane | 50 ppm |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,3-Dichlorobenzene | 50 ppm |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,3-Dichloropropane | 50 ppm |
| | | | | | | | 1,4-Dichlorobenzene | 50 ppm |
| | | | | | | | 2,2-Dichloropropane | 50 ppm |
| | | | | | | | 2-Chlorotoluene | 50 ppm |
| | | | | | | | 4-Chlorotoluene | 50 ppm |
| | | | | | | | Benzene | 50 ppm |
| | | | | | | | Bromobenzene | 50 ppm |
| | | | | | | | Bromochloromethane | 50 ppm |
| | | | | | | | Bromodichloromethane | 50 ppm |
| | | | | | | | Bromoform | 50 ppm |
| | | | | | | | Carbon tetrachloride | 50 ppm |
| | | | | | | | Chlorobenzene | 50 ppm |
| | | | | | | | Chloroform | 50 ppm |
| | | | | | | | cis-1,2-Dichloroethene | 50 ppm |
| | | | | | | | cis-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Dibromochloromethane | 50 ppm |
| | | | | | | | Dibromomethane | 50 ppm |
| | | | | | | | Ethylbenzene | 50 ppm |
| | | | | | | | Hexachlorobutadiene | 50 ppm |
| | | | | | | | Isopropylbenzene | 50 ppm |
| | | | | | | | m,p-Xylene | 50 ppm |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ppm |
| | | | | | | | Methylene Chloride | 50 ppm |
| | | | | | | | n-Butylbenzene | 50 ppm |
| | | | | | | | N-Propylbenzene | 50 ppm |
| | | | | | | | Naphthalene | 50 ppm |
| | | | | | | | o-Xylene | 50 ppm |
| | | | | | | | p-Isopropyltoluene | 50 ppm |
| | | | | | | | sec-Butylbenzene | 50 ppm |
| | | | | | | | Styrene | 50 ppm |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ppm |
| | | | | | | | tert-Butylbenzene | 50 ppm |
| | | | | | | | Tetrachloroethene | 50 ppm |
| | | | | | | | Toluene | 50 ppm |
| | | | | | | | trans-1,2-Dichloroethene | 50 ppm |
| | | | | | | | trans-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Trichloroethene | 50 ppm |
| | | | | | VMA178260POL2_00011 | 200 uL | Ethyl-t-butyl ether (ETBE) | 50 ppm |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ppm |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ppm |
| .VMA158260GAS2_00230 | 07/10/18 | | Restek, Lot A0128832 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET2_00042 | 06/27/18 | | Restek, Lot A0123880 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG2_00053 | 06/27/18 | | Restek, Lot A0120604 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL2_00011 | 06/27/18 | Restek, Lot A0126826 | | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNUSURR200_00171** | 01/05/18 | 12/05/17 | Methanol, Lot 4506063 | 1 mL | VMANU8260SUR1_00064 | 80 uL | 1,2-Dichloroethane-d4 (Surr) | 200 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 200 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 200 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 200 ug/mL |
| .VMANU8260SUR1_00064 | 05/28/18 | Restek, Lot A0124069 | | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNUSURR50_00171** | 01/05/18 | 12/05/17 | Methanol, Lot 4506063 | 1 mL | VMANU8260SUR1_00064 | 20 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR1_00064 | 05/28/18 | Restek, Lot A0124069 | | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **WC3001ICV_00036** | 05/31/18 | 12/08/17 | Di Water, Lot 20171208 | 100 mL | WC2CHLORATE_00004 | 0.4 mL | Chlorate | 4.004 mg/L |
| | | | | | WC2CHLORITE_00019 | 0.4 mL | Chlorite | 4 mg/L |
| .WC2CHLORATE_00004 | 11/30/20 | Ultra Scientific, Lot CP-5286 | | | (Purchased Reagent) | | Chlorate | 1001 mg/L |
| .WC2CHLORITE_00019 | 05/31/18 | Ultra Scientific, Lot CR-24923 | | | (Purchased Reagent) | | Chlorite | 1000 mg/L |
| **WC3001LCS_00059** | 06/08/18 | 12/08/17 | Di Water, Lot 20171208 | 100 mL | WC1BROMATE_00008 | 0.1 mL | Bromate | 1 mg/L |
| | | | | | WC1CHLORATE_00009 | 0.4 mL | Chlorate | 4 mg/L |
| | | | | | WC1CHLORITE_00008 | 0.4 mL | Chlorite | 4 mg/L |
| | | | | | wcbromide_00014 | 0.1 mL | Bromide | 10 mg/L |
| .WC1BROMATE_00008 | 01/01/19 | O2Si, Lot 131599-4 | | | (Purchased Reagent) | | Bromate | 1000 mg/L |
| .WC1CHLORATE_00009 | 01/01/19 | O2Si, Lot 142627-2 | | | (Purchased Reagent) | | Chlorate | 1000 mg/L |
| .WC1CHLORITE_00008 | 11/27/19 | O2Si, Lot 146667-16 | | | (Purchased Reagent) | | Chlorite | 1000 mg/L |
| .wcbromide_00014 | 09/28/18 | Hgh Purity Standards, Lot 1615819 | | | (Purchased Reagent) | | Bromide | 10000 ug/mL |
| **WC314.INF10_00018** | 01/16/18 | 01/15/18 | DI water, Lot 20180115 | 50 mL | WCCLO41st-10_00013 | 0.05 mL | Perchlorate | 10 ppb |
| .WCCLO41st-10_00013 | 01/29/18 | 11/30/17 | Di Water, Lot 20171130 | 100 mL | WCCLO4-1st_00002 | 1 mL | Perchlorate | 10 mg/L |
| ..WCCLO4-1st_00002 | 01/30/18 | SPEX CERTIPREP, Lot 3-149CLO4-2Y | | | (Purchased Reagent) | | Perchlorate | 1000 mg/L |
| | | | | | | | Perchlorate | 1000 mg/L |
| **WCCLO41st-10_00012** | 01/29/18 | 11/29/17 | Di Water, Lot 20171129 | 100 mL | WCCLO4-1st_00002 | 1 mL | Perchlorate | 10 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .WCCLO4-1st_00002 | 01/30/18 | SPEX CERTIPREP, Lot 3-149CLO4-2Y | | | (Purchased Reagent) | | Perchlorate | 1000 mg/L |
| **WCCLO4ICV10_00029** | 03/10/18 | 12/08/17 | Di Water, Lot 12/10/2017 | 100 mL | WCCLO4ICV_00016 | 1 mL | Perchlorate | 10.0002 mg/L |
| .WCCLO4ICV_00016 | 12/10/18 | 12/08/17 | Di Water, Lot 12/10/2017 | 250 mL | WCCLO4ICVSOLI_00002 | 0.3078 g | Perchlorate | 1000.02 mg/L |
| ..WCCLO4ICVSOLI_00002 | 06/01/22 | SPECTRUM, Lot 2FH0070 | | | (Purchased Reagent) | | Perchlorate | 0.81223 g/g |
| **WCCR6ICV5PPM_00051** | 11/02/17 | 10/02/17 | Di Water, Lot 20171002 | 50 mL | WCCR6ICV_00023 | 5 mL | Chromium, hexavalent | 4.99849 mg/L |
| .WCCR6ICV_00023 | 04/02/18 | 10/02/17 | Di Water, Lot 20170323 | 1000 mL | WCK2CR2O7_00003 | 0.1414 g | Chromium, hexavalent | 49.9849 mg/L |
| ..WCK2CR2O7_00003 | 03/22/22 | FISHER, Lot 166724 | | | (Purchased Reagent) | | Chromium, hexavalent | 0.3535 g/g |
| **WCCR6LCS50PPM_00038** | 05/21/18 | 11/21/17 | Di Water, Lot 20171121 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| .WCCr6 K2Cr2O4_00009 | 04/30/19 | ERA, Lot 040416 | | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCCR6LCS5PPM_00098** | 10/21/17 | 09/21/17 | Di Water, Lot 201709021 | 50 mL | WCCR6LCS50PPM_00037 | 5 mL | Chromium, hexavalent | 5 mg/L |
| .WCCR6LCS50PPM_00037 | 12/03/17 | 06/05/17 | Di Water, Lot 20170605 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| ..WCCr6 K2Cr2O4_00009 | 04/30/19 | ERA, Lot 040416 | | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCCR6LCS5PPM_00103** | 01/26/18 | 12/26/17 | Di Water, Lot 20171226 | 50 mL | WCCR6LCS50PPM_00038 | 5 mL | Chromium, hexavalent | 5 mg/L |
| .WCCR6LCS50PPM_00038 | 05/21/18 | 11/21/17 | Di Water, Lot 20171121 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| ..WCCr6 K2Cr2O4_00009 | 04/30/19 | ERA, Lot 040416 | | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCDCA_00055** | 03/08/18 | 12/08/17 | Di Water, Lot 20171208 | 100 mL | WCKDCA_00003 | 0.065 g | Dichloroacetic acid(Surr) | 496.855 mg/L |
| .WCKDCA_00003 | 02/28/20 | Aldrich, Lot MKBR8264V | | | (Purchased Reagent) | | Dichloroacetic acid(Surr) | 0.764393 g/g |
| **WCDCA_00056** | 03/26/18 | 12/26/17 | Di Water, Lot 20171226 | 100 mL | WCKDCA_00003 | 0.065 g | Dichloroacetic acid(Surr) | 496.855 mg/L |
| .WCKDCA_00003 | 02/28/20 | Aldrich, Lot MKBR8264V | | | (Purchased Reagent) | | Dichloroacetic acid(Surr) | 0.764393 g/g |

# Method 8260B Low Level

## Volatile Organic Compounds (GC/MS) by Method 8260B Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-VRX A ID: 0.25(mm)

| Client Sample ID | Lab Sample ID | DBFM # | TOL # | BFB # |
|---|---|---|---|---|
| VER-01I-B-24 | 440-200815-1 | 104 | 108 | 111 |
| Trip Blank-01122018 | 440-200815-2 | 100 | 108 | 108 |
| VER-01I-B-36 | 440-200815-3 | 101 | 109 | 108 |
| TB-011218 | 440-200815-4 | 100 | 109 | 111 |
| | MB 440-452030/4 | 99 | 108 | 109 |
| | LCS 440-452030/5 | 100 | 105 | 102 |
| VER-01I-B-36 MS | 440-200815-3 MS | 100 | 104 | 104 |
| VER-01I-B-36 MSD | 440-200815-3 MSD | 100 | 102 | 103 |

| | QC LIMITS |
|---|---|
| DBFM = Dibromofluoromethane (Surr) | 76-132 |
| TOL = Toluene-d8 (Surr) | 80-128 |
| BFB = 4-Bromofluorobenzene (Surr) | 80-120 |

# Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: JGA16030.D

Lab ID: LCS 440-452030/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Acetone | 25.0 | 27.5 | 110 | 10-150 | |
| Benzene | 25.0 | 25.3 | 101 | 68-130 | |
| Bromobenzene | 25.0 | 24.5 | 98 | 70-130 | |
| Bromochloromethane | 25.0 | 24.1 | 96 | 70-130 | |
| Bromodichloromethane | 25.0 | 24.9 | 100 | 70-132 | |
| Bromoform | 25.0 | 23.3 | 93 | 60-148 | |
| Bromomethane | 25.0 | 20.7 | 83 | 64-139 | |
| 2-Butanone (MEK) | 25.0 | 24.0 | 96 | 44-150 | |
| Carbon tetrachloride | 25.0 | 23.2 | 93 | 60-150 | |
| Chlorobenzene | 25.0 | 25.0 | 100 | 70-130 | |
| Chloroethane | 25.0 | 25.1 | 101 | 64-135 | |
| Chloroform | 25.0 | 24.6 | 98 | 70-130 | |
| Chloromethane | 25.0 | 26.6 | 107 | 47-140 | |
| 2-Chlorotoluene | 25.0 | 25.8 | 103 | 70-130 | |
| 4-Chlorotoluene | 25.0 | 26.3 | 105 | 70-130 | |
| cis-1,2-Dichloroethene | 25.0 | 23.7 | 95 | 70-133 | |
| cis-1,3-Dichloropropene | 25.0 | 25.4 | 102 | 70-133 | |
| Dibromochloromethane | 25.0 | 24.9 | 99 | 69-145 | |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 22.9 | 91 | 52-140 | |
| 1,2-Dibromoethane (EDB) | 25.0 | 24.7 | 99 | 70-130 | |
| Dibromomethane | 25.0 | 23.0 | 92 | 70-130 | |
| 1,2-Dichlorobenzene | 25.0 | 25.0 | 100 | 70-130 | |
| 1,3-Dichlorobenzene | 25.0 | 24.9 | 100 | 70-130 | |
| 1,4-Dichlorobenzene | 25.0 | 24.6 | 98 | 70-130 | |
| Dichlorodifluoromethane | 25.0 | 23.2 | 93 | 29-150 | |
| 1,1-Dichloroethane | 25.0 | 26.0 | 104 | 64-130 | |
| 1,2-Dichloroethane | 25.0 | 24.7 | 99 | 57-138 | |
| 1,1-Dichloroethene | 25.0 | 22.6 | 90 | 70-130 | |
| 1,2-Dichloropropane | 25.0 | 25.4 | 101 | 67-130 | |
| 1,3-Dichloropropane | 25.0 | 25.6 | 102 | 70-130 | |
| 2,2-Dichloropropane | 25.0 | 25.8 | 103 | 68-141 | |
| 1,1-Dichloropropene | 25.0 | 24.9 | 99 | 70-130 | |
| Ethylbenzene | 25.0 | 25.1 | 100 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 25.5 | 102 | 60-136 | |
| Hexachlorobutadiene | 25.0 | 23.5 | 94 | 10-150 | |
| 2-Hexanone | 25.0 | 30.9 | 124 | 10-150 | |
| Isopropylbenzene | 25.0 | 25.4 | 102 | 70-136 | |
| Isopropyl Ether (DIPE) | 25.0 | 30.2 | 121 | 58-139 | |
| Methylene Chloride | 25.0 | 23.4 | 94 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 31.8 | 127 | 59-149 | |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 22.7 | 91 | 63-131 | |
| m,p-Xylene | 25.0 | 25.4 | 101 | 70-130 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: JGA16030.D

Lab ID: LCS 440-452030/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Naphthalene | 25.0 | 24.4 | 97 | 60-140 | |
| n-Butylbenzene | 25.0 | 25.9 | 104 | 65-150 | |
| N-Propylbenzene | 25.0 | 26.6 | 107 | 67-139 | |
| o-Xylene | 25.0 | 25.5 | 102 | 70-130 | |
| p-Isopropyltoluene | 25.0 | 25.0 | 100 | 70-132 | |
| sec-Butylbenzene | 25.0 | 26.1 | 104 | 70-138 | |
| Styrene | 25.0 | 24.8 | 99 | 70-134 | |
| Tert-amyl-methyl ether (TAME) | 25.0 | 22.5 | 90 | 57-139 | |
| tert-Butyl alcohol (TBA) | 250 | 278 | 111 | 70-130 | |
| tert-Butylbenzene | 25.0 | 24.8 | 99 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 25.0 | 22.4 | 90 | 60-141 | |
| 1,1,2,2-Tetrachloroethane | 25.0 | 25.5 | 102 | 63-130 | |
| Tetrachloroethene | 25.0 | 24.3 | 97 | 70-130 | |
| Toluene | 25.0 | 25.6 | 102 | 70-130 | |
| trans-1,2-Dichloroethene | 25.0 | 23.6 | 95 | 70-130 | |
| trans-1,3-Dichloropropene | 25.0 | 24.7 | 99 | 70-132 | |
| 1,2,3-Trichlorobenzene | 25.0 | 24.9 | 100 | 60-140 | |
| 1,2,4-Trichlorobenzene | 25.0 | 24.3 | 97 | 60-140 | |
| 1,1,1-Trichloroethane | 25.0 | 23.0 | 92 | 70-130 | |
| 1,1,2-Trichloroethane | 25.0 | 26.6 | 106 | 70-130 | |
| Trichloroethene | 25.0 | 23.4 | 94 | 70-130 | |
| Trichlorofluoromethane | 25.0 | 22.0 | 88 | 60-150 | |
| 1,2,3-Trichloropropane | 25.0 | 25.1 | 100 | 63-130 | |
| 1,2,4-Trimethylbenzene | 25.0 | 25.4 | 101 | 70-135 | |
| 1,3,5-Trimethylbenzene | 25.0 | 25.8 | 103 | 70-136 | |
| Vinyl chloride | 25.0 | 23.5 | 94 | 59-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: JGA16032.D

Lab ID: 440-200815-3 MS Client ID: VER-01I-B-36 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Acetone | 500 | ND | 531 | 106 | 10-150 | |
| Benzene | 500 | ND | 508 | 102 | 66-130 | |
| Bromobenzene | 500 | ND | 509 | 102 | 70-130 | |
| Bromochloromethane | 500 | ND | 486 | 97 | 70-130 | |
| Bromodichloromethane | 500 | ND | 498 | 100 | 70-138 | |
| Bromoform | 500 | ND | 462 | 92 | 59-150 | |
| Bromomethane | 500 | ND | 410 | 82 | 62-131 | |
| 2-Butanone (MEK) | 500 | ND | 459 | 92 | 48-140 | |
| Carbon tetrachloride | 500 | ND | 461 | 92 | 60-150 | |
| Chlorobenzene | 500 | ND | 494 | 99 | 70-130 | |
| Chloroethane | 500 | ND | 506 | 101 | 68-130 | |
| Chloroform | 500 | 730 | 1230 | 100 | 70-130 | |
| Chloromethane | 500 | ND | 533 | 107 | 39-144 | |
| 2-Chlorotoluene | 500 | ND | 525 | 105 | 70-130 | |
| 4-Chlorotoluene | 500 | ND | 539 | 108 | 70-130 | |
| cis-1,2-Dichloroethene | 500 | ND | 479 | 96 | 70-130 | |
| cis-1,3-Dichloropropene | 500 | ND | 505 | 101 | 70-133 | |
| Dibromochloromethane | 500 | ND | 491 | 98 | 70-148 | |
| 1,2-Dibromo-3-Chloropropane | 500 | ND | 468 | 94 | 48-140 | |
| 1,2-Dibromoethane (EDB) | 500 | ND | 489 | 98 | 70-131 | |
| Dibromomethane | 500 | ND | 467 | 93 | 70-130 | |
| 1,2-Dichlorobenzene | 500 | 5.6 J | 508 | 101 | 70-130 | |
| 1,3-Dichlorobenzene | 500 | ND | 507 | 101 | 70-130 | |
| 1,4-Dichlorobenzene | 500 | ND | 514 | 103 | 70-130 | |
| Dichlorodifluoromethane | 500 | ND | 444 | 89 | 25-142 | |
| 1,1-Dichloroethane | 500 | ND | 535 | 107 | 65-130 | |
| 1,2-Dichloroethane | 500 | ND | 501 | 100 | 56-146 | |
| 1,1-Dichloroethene | 500 | ND | 451 | 90 | 70-130 | |
| 1,2-Dichloropropane | 500 | ND | 524 | 105 | 69-130 | |
| 1,3-Dichloropropane | 500 | ND | 506 | 101 | 70-130 | |
| 2,2-Dichloropropane | 500 | ND | 514 | 103 | 69-138 | |
| 1,1-Dichloropropene | 500 | ND | 497 | 99 | 64-130 | |
| Ethylbenzene | 500 | ND | 495 | 99 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 500 | ND | 509 | 102 | 70-130 | |
| Hexachlorobutadiene | 500 | ND | 474 | 95 | 10-150 | |
| 2-Hexanone | 500 | ND | 615 | 123 | 10-150 | |
| Isopropylbenzene | 500 | ND | 491 | 98 | 70-132 | |
| Isopropyl Ether (DIPE) | 500 | ND | 609 | 122 | 64-138 | |
| Methylene Chloride | 500 | ND | 470 | 94 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 500 | ND | 636 | 127 | 52-150 | |
| Methyl-t-Butyl Ether (MTBE) | 500 | ND | 460 | 92 | 70-130 | |
| m,p-Xylene | 500 | ND | 500 | 100 | 70-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: JGA16032.D

Lab ID: 440-200815-3 MS Client ID: VER-01I-B-36 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Naphthalene | 500 | ND | 484 | 97 | 60-140 | |
| n-Butylbenzene | 500 | ND | 517 | 103 | 61-149 | |
| N-Propylbenzene | 500 | ND | 539 | 108 | 66-135 | |
| o-Xylene | 500 | ND | 487 | 97 | 70-133 | |
| p-Isopropyltoluene | 500 | ND | 501 | 100 | 70-130 | |
| sec-Butylbenzene | 500 | ND | 524 | 105 | 67-134 | |
| Styrene | 500 | ND | 477 | 95 | 29-150 | |
| Tert-amyl-methyl ether (TAME) | 500 | ND | 448 | 90 | 68-133 | |
| tert-Butyl alcohol (TBA) | 5000 | ND | 5620 | 112 | 70-130 | |
| tert-Butylbenzene | 500 | ND | 502 | 100 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 500 | ND | 440 | 88 | 60-149 | |
| 1,1,2,2-Tetrachloroethane | 500 | ND | 513 | 103 | 63-130 | |
| Tetrachloroethene | 500 | ND | 486 | 97 | 70-137 | |
| Toluene | 500 | ND | 502 | 100 | 70-130 | |
| trans-1,2-Dichloroethene | 500 | ND | 475 | 95 | 70-130 | |
| trans-1,3-Dichloropropene | 500 | ND | 488 | 98 | 70-138 | |
| 1,2,3-Trichlorobenzene | 500 | ND | 503 | 101 | 60-140 | |
| 1,2,4-Trichlorobenzene | 500 | ND | 489 | 98 | 60-140 | |
| 1,1,1-Trichloroethane | 500 | ND | 461 | 92 | 70-130 | |
| 1,1,2-Trichloroethane | 500 | ND | 527 | 105 | 70-130 | |
| Trichloroethene | 500 | ND | 474 | 95 | 70-130 | |
| Trichlorofluoromethane | 500 | ND | 433 | 87 | 60-150 | |
| 1,2,3-Trichloropropane | 500 | ND | 515 | 103 | 60-130 | |
| 1,2,4-Trimethylbenzene | 500 | ND | 515 | 103 | 70-130 | |
| 1,3,5-Trimethylbenzene | 500 | ND | 518 | 104 | 70-130 | |
| Vinyl chloride | 500 | ND | 462 | 92 | 50-137 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: JGA16033.D

Lab ID: 440-200815-3 MSD Client ID: VER-01I-B-36 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Acetone | 500 | 546 | 109 | 3 | 35 | 10-150 | |
| Benzene | 500 | 506 | 101 | 0 | 20 | 66-130 | |
| Bromobenzene | 500 | 510 | 102 | 0 | 20 | 70-130 | |
| Bromochloromethane | 500 | 486 | 97 | 0 | 25 | 70-130 | |
| Bromodichloromethane | 500 | 503 | 101 | 1 | 20 | 70-138 | |
| Bromoform | 500 | 462 | 92 | 0 | 25 | 59-150 | |
| Bromomethane | 500 | 416 | 83 | 1 | 25 | 62-131 | |
| 2-Butanone (MEK) | 500 | 478 | 96 | 4 | 40 | 48-140 | |
| Carbon tetrachloride | 500 | 462 | 92 | 0 | 25 | 60-150 | |
| Chlorobenzene | 500 | 491 | 98 | 0 | 20 | 70-130 | |
| Chloroethane | 500 | 505 | 101 | 0 | 25 | 68-130 | |
| Chloroform | 500 | 1230 | 99 | 0 | 20 | 70-130 | |
| Chloromethane | 500 | 527 | 105 | 1 | 25 | 39-144 | |
| 2-Chlorotoluene | 500 | 526 | 105 | 0 | 20 | 70-130 | |
| 4-Chlorotoluene | 500 | 529 | 106 | 2 | 20 | 70-130 | |
| cis-1,2-Dichloroethene | 500 | 472 | 94 | 2 | 20 | 70-130 | |
| cis-1,3-Dichloropropene | 500 | 504 | 101 | 0 | 20 | 70-133 | |
| Dibromochloromethane | 500 | 490 | 98 | 0 | 25 | 70-148 | |
| 1,2-Dibromo-3-Chloropropane | 500 | 486 | 97 | 4 | 30 | 48-140 | |
| 1,2-Dibromoethane (EDB) | 500 | 483 | 97 | 1 | 25 | 70-131 | |
| Dibromomethane | 500 | 482 | 96 | 3 | 25 | 70-130 | |
| 1,2-Dichlorobenzene | 500 | 515 | 102 | 1 | 20 | 70-130 | |
| 1,3-Dichlorobenzene | 500 | 516 | 103 | 2 | 20 | 70-130 | |
| 1,4-Dichlorobenzene | 500 | 511 | 102 | 1 | 20 | 70-130 | |
| Dichlorodifluoromethane | 500 | 455 | 91 | 2 | 30 | 25-142 | |
| 1,1-Dichloroethane | 500 | 527 | 105 | 2 | 20 | 65-130 | |
| 1,2-Dichloroethane | 500 | 505 | 101 | 1 | 20 | 56-146 | |
| 1,1-Dichloroethene | 500 | 444 | 89 | 2 | 20 | 70-130 | |
| 1,2-Dichloropropane | 500 | 525 | 105 | 0 | 20 | 69-130 | |
| 1,3-Dichloropropane | 500 | 500 | 100 | 1 | 25 | 70-130 | |
| 2,2-Dichloropropane | 500 | 516 | 103 | 1 | 25 | 69-138 | |
| 1,1-Dichloropropene | 500 | 497 | 99 | 0 | 20 | 64-130 | |
| Ethylbenzene | 500 | 488 | 98 | 2 | 20 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 500 | 519 | 104 | 2 | 25 | 70-130 | |
| Hexachlorobutadiene | 500 | 472 | 94 | 0 | 20 | 10-150 | |
| 2-Hexanone | 500 | 640 | 128 | 4 | 35 | 10-150 | |
| Isopropylbenzene | 500 | 493 | 99 | 0 | 20 | 70-132 | |
| Isopropyl Ether (DIPE) | 500 | 613 | 123 | 1 | 25 | 64-138 | |
| Methylene Chloride | 500 | 468 | 94 | 1 | 20 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 500 | 643 | 129 | 1 | 35 | 52-150 | |
| Methyl-t-Butyl Ether (MTBE) | 500 | 475 | 95 | 3 | 25 | 70-130 | |
| m,p-Xylene | 500 | 488 | 98 | 2 | 25 | 70-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: JGA16033.D

Lab ID: 440-200815-3 MSD Client ID: VER-01I-B-36 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Naphthalene | 500 | 509 | 102 | 5 | 30 | 60-140 | |
| n-Butylbenzene | 500 | 516 | 103 | 0 | 20 | 61-149 | |
| N-Propylbenzene | 500 | 540 | 108 | 0 | 20 | 66-135 | |
| o-Xylene | 500 | 495 | 99 | 2 | 20 | 70-133 | |
| p-Isopropyltoluene | 500 | 505 | 101 | 1 | 20 | 70-130 | |
| sec-Butylbenzene | 500 | 518 | 104 | 1 | 20 | 67-134 | |
| Styrene | 500 | 474 | 95 | 1 | 35 | 29-150 | |
| Tert-amyl-methyl ether (TAME) | 500 | 458 | 92 | 2 | 30 | 68-133 | |
| tert-Butyl alcohol (TBA) | 5000 | 5620 | 112 | 0 | 25 | 70-130 | |
| tert-Butylbenzene | 500 | 501 | 100 | 0 | 20 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 500 | 439 | 88 | 0 | 20 | 60-149 | |
| 1,1,2,2-Tetrachloroethane | 500 | 527 | 105 | 3 | 30 | 63-130 | |
| Tetrachloroethene | 500 | 475 | 95 | 2 | 20 | 70-137 | |
| Toluene | 500 | 497 | 99 | 1 | 20 | 70-130 | |
| trans-1,2-Dichloroethene | 500 | 485 | 97 | 2 | 20 | 70-130 | |
| trans-1,3-Dichloropropene | 500 | 495 | 99 | 2 | 25 | 70-138 | |
| 1,2,3-Trichlorobenzene | 500 | 516 | 103 | 3 | 20 | 60-140 | |
| 1,2,4-Trichlorobenzene | 500 | 492 | 98 | 1 | 20 | 60-140 | |
| 1,1,1-Trichloroethane | 500 | 468 | 94 | 1 | 20 | 70-130 | |
| 1,1,2-Trichloroethane | 500 | 525 | 105 | 0 | 25 | 70-130 | |
| Trichloroethene | 500 | 476 | 95 | 0 | 20 | 70-130 | |
| Trichlorofluoromethane | 500 | 439 | 88 | 1 | 25 | 60-150 | |
| 1,2,3-Trichloropropane | 500 | 533 | 107 | 3 | 30 | 60-130 | |
| 1,2,4-Trimethylbenzene | 500 | 512 | 102 | 1 | 25 | 70-130 | |
| 1,3,5-Trimethylbenzene | 500 | 513 | 103 | 1 | 20 | 70-130 | |
| Vinyl chloride | 500 | 458 | 92 | 1 | 30 | 50-137 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab File ID: JGA16029.D Lab Sample ID: MB 440-452030/4

Matrix: Water Heated Purge:(Y/N) Y

Instrument ID: GCMS09 Date Analyzed: 01/16/2018 18:48

GC Column: DB-VRX A ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 440-452030/5 | JGA16030.D | 01/16/2018 19:14 |
| VER-01I-B-36 | 440-200815-3 | JGA16031.D | 01/16/2018 19:42 |
| VER-01I-B-36 MS | 440-200815-3 MS | JGA16032.D | 01/16/2018 20:08 |
| VER-01I-B-36 MSD | 440-200815-3 MSD | JGA16033.D | 01/16/2018 20:34 |
| VER-01I-B-24 | 440-200815-1 | JGA16036.D | 01/16/2018 21:53 |
| Trip Blank-01122018 | 440-200815-2 | JGA16037.D | 01/16/2018 22:20 |
| TB-011218 | 440-200815-4 | JGA16038.D | 01/16/2018 22:46 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab File ID: JFL12001.D BFB Injection Date: 12/12/2017

Instrument ID: GCMS09 BFB Injection Time: 14:34

Analysis Batch No.: 446291

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 24.8 | |
| 75 | 30.0 - 60.0 % of mass 95 | 48.1 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 6.7 | |
| 173 | Less than 2.0 % of mass 174 | 0.0 | (0.0) 1 |
| 174 | 50.0 - 120.00 % of mass 95 | 97.4 | |
| 175 | 5.0 - 9.0 % of mass 174 | 7.2 | (7.4) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 93.9 | (96.3) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 6.2 | (6.6) 2 |

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | STD02 440-446291/4 | JFL12004.D | 12/12/2017 | 15:54 |
| | STD04 440-446291/5 | JFL12005.D | 12/12/2017 | 16:20 |
| | STD05 440-446291/6 | JFL12006.D | 12/12/2017 | 16:47 |
| | STD1 440-446291/7 | JFL12007.D | 12/12/2017 | 17:13 |
| | STD2 440-446291/8 | JFL12008.D | 12/12/2017 | 17:40 |
| | STD5 440-446291/9 | JFL12009.D | 12/12/2017 | 18:06 |
| | STD10 440-446291/10 | JFL12010.D | 12/12/2017 | 18:33 |
| | ICIS 440-446291/11 | JFL12011.D | 12/12/2017 | 18:59 |
| | STD50 440-446291/12 | JFL12012.D | 12/12/2017 | 19:26 |
| | STD100 440-446291/13 | JFL12013.D | 12/12/2017 | 19:52 |
| | STD200 440-446291/14 | JFL12014.D | 12/12/2017 | 20:18 |
| | STD300 440-446291/15 | JFL12015.D | 12/12/2017 | 20:45 |
| | ICV 440-446291/18 | JFL12018.D | 12/12/2017 | 22:04 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Lab File ID: JGA16026.D  BFB Injection Date: 01/16/2018

Instrument ID: GCMS09  BFB Injection Time: 17:23

Analysis Batch No.: 452030

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 30.1 | |
| 75 | 30.0 - 60.0 % of mass 95 | 49.8 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 7.2 | |
| 173 | Less than 2.0 % of mass 174 | 0.4 | (0.4) 1 |
| 174 | 50.0 - 120.00 % of mass 95 | 88.0 | |
| 175 | 5.0 - 9.0 % of mass 174 | 6.6 | (7.5) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 85.1 | (96.6) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 5.6 | (6.6) 2 |

1-Value is % mass 174  2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | CCVIS 440-452030/2 | JGA16027.D | 01/16/2018 | 17:55 |
| | MB 440-452030/4 | JGA16029.D | 01/16/2018 | 18:48 |
| | LCS 440-452030/5 | JGA16030.D | 01/16/2018 | 19:14 |
| VER-01I-B-36 | 440-200815-3 | JGA16031.D | 01/16/2018 | 19:42 |
| VER-01I-B-36 MS | 440-200815-3 MS | JGA16032.D | 01/16/2018 | 20:08 |
| VER-01I-B-36 MSD | 440-200815-3 MSD | JGA16033.D | 01/16/2018 | 20:34 |
| VER-01I-B-24 | 440-200815-1 | JGA16036.D | 01/16/2018 | 21:53 |
| Trip Blank-01122018 | 440-200815-2 | JGA16037.D | 01/16/2018 | 22:20 |
| TB-011218 | 440-200815-4 | JGA16038.D | 01/16/2018 | 22:46 |

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Sample No.: ICIS 440-446291/11 Date Analyzed: 12/12/2017 18:59

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm)

Lab File ID (Standard): JFL12011.D Heated Purge: (Y/N) Y

Calibration ID: 18184

| | | TBAd9 | | FB | | CBNZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 245172 | 5.06 | 776720 | 7.96 | 717670 | 10.73 |
| UPPER LIMIT | | 490344 | 5.36 | 1553440 | 8.26 | 1435340 | 11.03 |
| LOWER LIMIT | | 122586 | 4.76 | 388360 | 7.66 | 358835 | 10.43 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 440-446291/18 | | 253556 | 5.06 | 770373 | 7.96 | 704690 | 10.73 |
| CCVIS 440-452030/2 | | 177065 | 5.07 | 653744 | 7.95 | 576686 | 10.73 |

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Sample No.: ICIS 440-446291/11 Date Analyzed: 12/12/2017 18:59

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm)

Lab File ID (Standard): JFL12011.D Heated Purge: (Y/N) Y

Calibration ID: 18184

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 445307 | 13.19 | | | | |
| UPPER LIMIT | | 890614 | 13.49 | | | | |
| LOWER LIMIT | | 222654 | 12.89 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 440-446291/18 | | 435798 | 13.19 | | | | |
| CCVIS 440-452030/2 | | 333553 | 13.18 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Sample No.: CCVIS 440-452030/2 Date Analyzed: 01/16/2018 17:55

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm)

Lab File ID (Standard): JGA16027.D Heated Purge: (Y/N) Y

Calibration ID: 18203

| | | TBAd9 | | FB | | CBNZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 177065 | 5.07 | 653744 | 7.95 | 576686 | 10.73 |
| UPPER LIMIT | | 354130 | 5.37 | 1307488 | 8.25 | 1153372 | 11.03 |
| LOWER LIMIT | | 88533 | 4.77 | 326872 | 7.65 | 288343 | 10.43 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 440-452030/4 | | 173373 | 5.06 | 602583 | 7.96 | 508440 | 10.73 |
| LCS 440-452030/5 | | 170976 | 5.07 | 622101 | 7.96 | 530748 | 10.73 |
| 440-200815-3 | VER-01I-B-36 | 180049 | 5.07 | 604819 | 7.96 | 510644 | 10.73 |
| 440-200815-3 MS | VER-01I-B-36 MS | 167673 | 5.07 | 625654 | 7.96 | 544703 | 10.73 |
| 440-200815-3 MSD | VER-01I-B-36 MSD | 179546 | 5.07 | 621503 | 7.95 | 547787 | 10.73 |
| 440-200815-1 | VER-01I-B-24 | 177817 | 5.07 | 597718 | 7.95 | 509040 | 10.73 |
| 440-200815-2 | Trip Blank-01122018 | 174394 | 5.07 | 586789 | 7.96 | 494219 | 10.73 |
| 440-200815-4 | TB-011218 | 195858 | 5.07 | 596063 | 7.95 | 498271 | 10.73 |

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Sample No.: CCVIS 440-452030/2 Date Analyzed: 01/16/2018 17:55

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm)

Lab File ID (Standard): JGA16027.D Heated Purge: (Y/N) Y

Calibration ID: 18203

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 333553 | 13.18 | | | | |
| UPPER LIMIT | | 667106 | 13.48 | | | | |
| LOWER LIMIT | | 166777 | 12.88 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 440-452030/4 | | 276831 | 13.18 | | | | |
| LCS 440-452030/5 | | 320359 | 13.18 | | | | |
| 440-200815-3 | VER-01I-B-36 | 287553 | 13.18 | | | | |
| 440-200815-3 MS | VER-01I-B-36 MS | 314946 | 13.18 | | | | |
| 440-200815-3 MSD | VER-01I-B-36 MSD | 313824 | 13.18 | | | | |
| 440-200815-1 | VER-01I-B-24 | 273421 | 13.18 | | | | |
| 440-200815-2 | Trip Blank-01122018 | 276691 | 13.18 | | | | |
| 440-200815-4 | TB-011218 | 269350 | 13.18 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-24 | Lab Sample ID: 440-200815-1

Matrix: Water | Lab File ID: JGA16036.D

Analysis Method: 8260B | Date Collected: 01/12/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 21:53

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452030 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 400 | 200 |
| 71-43-2 | Benzene | ND | | 10 | 5.0 |
| 108-86-1 | Bromobenzene | ND | | 10 | 5.0 |
| 74-97-5 | Bromochloromethane | ND | | 10 | 5.0 |
| 75-27-4 | Bromodichloromethane | ND | | 10 | 5.0 |
| 75-25-2 | Bromoform | ND | | 20 | 8.0 |
| 74-83-9 | Bromomethane | ND | | 10 | 5.0 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 100 | 50 |
| 56-23-5 | Carbon tetrachloride | ND | | 10 | 5.0 |
| 108-90-7 | Chlorobenzene | ND | | 10 | 5.0 |
| 75-00-3 | Chloroethane | ND | | 20 | 8.0 |
| 67-66-3 | Chloroform | 680 | | 10 | 5.0 |
| 74-87-3 | Chloromethane | ND | | 10 | 5.0 |
| 95-49-8 | 2-Chlorotoluene | ND | | 10 | 5.0 |
| 106-43-4 | 4-Chlorotoluene | ND | | 10 | 5.0 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 10 | 5.0 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 10 | 5.0 |
| 124-48-1 | Dibromochloromethane | ND | | 10 | 5.0 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 20 | 10 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 10 | 5.0 |
| 74-95-3 | Dibromomethane | ND | | 10 | 5.0 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 10 | 5.0 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 10 | 5.0 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 10 | 5.0 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 20 | 8.0 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 10 | 5.0 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 10 | 5.0 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 10 | 5.0 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 10 | 5.0 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 10 | 5.0 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 20 | 8.0 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 10 | 5.0 |
| 100-41-4 | Ethylbenzene | ND | | 10 | 5.0 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 10 | 5.0 |
| 87-68-3 | Hexachlorobutadiene | ND | | 10 | 5.0 |
| 591-78-6 | 2-Hexanone | ND | | 100 | 50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-24 | Lab Sample ID: 440-200815-1

Matrix: Water | Lab File ID: JGA16036.D

Analysis Method: 8260B | Date Collected: 01/12/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 21:53

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452030 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 10 | 5.0 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 10 | 5.0 |
| 75-09-2 | Methylene Chloride | ND | | 40 | 18 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 100 | 50 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 10 | 5.0 |
| 179601-23-1 | m,p-Xylene | ND | | 20 | 10 |
| 91-20-3 | Naphthalene | ND | | 20 | 8.0 |
| 104-51-8 | n-Butylbenzene | ND | | 20 | 8.0 |
| 103-65-1 | N-Propylbenzene | ND | | 10 | 5.0 |
| 95-47-6 | o-Xylene | ND | | 10 | 5.0 |
| 99-87-6 | p-Isopropyltoluene | ND | | 10 | 5.0 |
| 135-98-8 | sec-Butylbenzene | ND | | 10 | 5.0 |
| 100-42-5 | Styrene | ND | | 10 | 5.0 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 10 | 5.0 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 200 | 100 |
| 98-06-6 | tert-Butylbenzene | ND | | 10 | 5.0 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 10 | 5.0 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 10 | 5.0 |
| 127-18-4 | Tetrachloroethene | ND | | 10 | 5.0 |
| 108-88-3 | Toluene | ND | | 10 | 5.0 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 10 | 5.0 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 10 | 5.0 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 20 | 8.0 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 20 | 8.0 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 10 | 5.0 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 10 | 5.0 |
| 79-01-6 | Trichloroethene | ND | | 10 | 5.0 |
| 75-69-4 | Trichlorofluoromethane | ND | | 10 | 5.0 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 20 | 8.0 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 10 | 5.0 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 10 | 5.0 |
| 75-01-4 | Vinyl chloride | ND | | 10 | 5.0 |
| 1330-20-7 | Xylenes, Total | ND | | 20 | 10 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-24 Lab Sample ID: 440-200815-1

Matrix: Water Lab File ID: JGA16036.D

Analysis Method: 8260B Date Collected: 01/12/2018 03:30

Sample wt/vol: 10(mL) Date Analyzed: 01/16/2018 21:53

Soil Aliquot Vol: Dilution Factor: 20

Soil Extract Vol.: GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452030 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 111 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 104 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 108 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: Trip Blank-01122018 | Lab Sample ID: 440-200815-2

Matrix: Water | Lab File ID: JGA16037.D

Analysis Method: 8260B | Date Collected: 01/12/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 22:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452030 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | ND | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: Trip Blank-01122018 | Lab Sample ID: 440-200815-2

Matrix: Water | Lab File ID: JGA16037.D

Analysis Method: 8260B | Date Collected: 01/12/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 22:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452030 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Client Sample ID: Trip Blank-01122018 Lab Sample ID: 440-200815-2

Matrix: Water Lab File ID: JGA16037.D

Analysis Method: 8260B Date Collected: 01/12/2018 03:30

Sample wt/vol: 10(mL) Date Analyzed: 01/16/2018 22:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452030 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 108 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 108 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-36 | Lab Sample ID: 440-200815-3

Matrix: Water | Lab File ID: JGA16031.D

Analysis Method: 8260B | Date Collected: 01/12/2018 15:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 19:42

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452030 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 400 | 200 |
| 71-43-2 | Benzene | ND | | 10 | 5.0 |
| 108-86-1 | Bromobenzene | ND | | 10 | 5.0 |
| 74-97-5 | Bromochloromethane | ND | | 10 | 5.0 |
| 75-27-4 | Bromodichloromethane | ND | | 10 | 5.0 |
| 75-25-2 | Bromoform | ND | | 20 | 8.0 |
| 74-83-9 | Bromomethane | ND | | 10 | 5.0 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 100 | 50 |
| 56-23-5 | Carbon tetrachloride | ND | | 10 | 5.0 |
| 108-90-7 | Chlorobenzene | ND | | 10 | 5.0 |
| 75-00-3 | Chloroethane | ND | | 20 | 8.0 |
| 67-66-3 | Chloroform | 730 | | 10 | 5.0 |
| 74-87-3 | Chloromethane | ND | | 10 | 5.0 |
| 95-49-8 | 2-Chlorotoluene | ND | | 10 | 5.0 |
| 106-43-4 | 4-Chlorotoluene | ND | | 10 | 5.0 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 10 | 5.0 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 10 | 5.0 |
| 124-48-1 | Dibromochloromethane | ND | | 10 | 5.0 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 20 | 10 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 10 | 5.0 |
| 74-95-3 | Dibromomethane | ND | | 10 | 5.0 |
| 95-50-1 | 1,2-Dichlorobenzene | 5.6 | J | 10 | 5.0 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 10 | 5.0 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 10 | 5.0 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 20 | 8.0 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 10 | 5.0 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 10 | 5.0 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 10 | 5.0 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 10 | 5.0 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 10 | 5.0 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 20 | 8.0 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 10 | 5.0 |
| 100-41-4 | Ethylbenzene | ND | | 10 | 5.0 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 10 | 5.0 |
| 87-68-3 | Hexachlorobutadiene | ND | | 10 | 5.0 |
| 591-78-6 | 2-Hexanone | ND | | 100 | 50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-36 | Lab Sample ID: 440-200815-3

Matrix: Water | Lab File ID: JGA16031.D

Analysis Method: 8260B | Date Collected: 01/12/2018 15:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 19:42

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452030 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 10 | 5.0 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 10 | 5.0 |
| 75-09-2 | Methylene Chloride | ND | | 40 | 18 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 100 | 50 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 10 | 5.0 |
| 179601-23-1 | m,p-Xylene | ND | | 20 | 10 |
| 91-20-3 | Naphthalene | ND | | 20 | 8.0 |
| 104-51-8 | n-Butylbenzene | ND | | 20 | 8.0 |
| 103-65-1 | N-Propylbenzene | ND | | 10 | 5.0 |
| 95-47-6 | o-Xylene | ND | | 10 | 5.0 |
| 99-87-6 | p-Isopropyltoluene | ND | | 10 | 5.0 |
| 135-98-8 | sec-Butylbenzene | ND | | 10 | 5.0 |
| 100-42-5 | Styrene | ND | | 10 | 5.0 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 10 | 5.0 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 200 | 100 |
| 98-06-6 | tert-Butylbenzene | ND | | 10 | 5.0 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 10 | 5.0 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 10 | 5.0 |
| 127-18-4 | Tetrachloroethene | ND | | 10 | 5.0 |
| 108-88-3 | Toluene | ND | | 10 | 5.0 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 10 | 5.0 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 10 | 5.0 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 20 | 8.0 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 20 | 8.0 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 10 | 5.0 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 10 | 5.0 |
| 79-01-6 | Trichloroethene | ND | | 10 | 5.0 |
| 75-69-4 | Trichlorofluoromethane | ND | | 10 | 5.0 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 20 | 8.0 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 10 | 5.0 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 10 | 5.0 |
| 75-01-4 | Vinyl chloride | ND | | 10 | 5.0 |
| 1330-20-7 | Xylenes, Total | ND | | 20 | 10 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-36 Lab Sample ID: 440-200815-3

Matrix: Water Lab File ID: JGA16031.D

Analysis Method: 8260B Date Collected: 01/12/2018 15:30

Sample wt/vol: 10(mL) Date Analyzed: 01/16/2018 19:42

Soil Aliquot Vol: Dilution Factor: 20

Soil Extract Vol.: GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452030 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 108 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 101 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 109 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: TB-011218 | Lab Sample ID: 440-200815-4

Matrix: Water | Lab File ID: JGA16038.D

Analysis Method: 8260B | Date Collected: 01/12/2018 15:00

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 22:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452030 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | ND | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: TB-011218 | Lab Sample ID: 440-200815-4

Matrix: Water | Lab File ID: JGA16038.D

Analysis Method: 8260B | Date Collected: 01/12/2018 15:00

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 22:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452030 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Client Sample ID: TB-011218 Lab Sample ID: 440-200815-4

Matrix: Water Lab File ID: JGA16038.D

Analysis Method: 8260B Date Collected: 01/12/2018 15:00

Sample wt/vol: 10(mL) Date Analyzed: 01/16/2018 22:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452030 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 111 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 109 | | 80-128 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD02 440-446291/4 | JFL12004.D |
| Level 2 | STD04 440-446291/5 | JFL12005.D |
| Level 3 | STD05 440-446291/6 | JFL12006.D |
| Level 4 | STD1 440-446291/7 | JFL12007.D |
| Level 5 | STD2 440-446291/8 | JFL12008.D |
| Level 6 | STD5 440-446291/9 | JFL12009.D |
| Level 7 | STD10 440-446291/10 | JFL12010.D |
| Level 8 | ICIS 440-446291/11 | JFL12011.D |
| Level 9 | STD50 440-446291/12 | JFL12012.D |
| Level 10 | STD100 440-446291/13 | JFL12013.D |
| Level 11 | STD200 440-446291/14 | JFL12014.D |
| Level 12 | STD300 440-446291/15 | JFL12015.D |

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dichlorodifluoromethane | +++++<br>0.4424<br>0.4346 | +++++<br>0.4698<br>0.3953 | 0.4308<br>0.4751 | 0.4223<br>0.4418 | 0.4262<br>0.4378 | Ave | | 0.4376 | | | | 5.2 | | 15.0 | | | |
| Chloromethane | +++++<br>0.6826<br>0.6292 | +++++<br>0.7117<br>+++++ | 0.9020<br>0.7094 | 0.7416<br>0.6627 | 0.7417<br>0.6513 | Ave | | 0.7147 | | | 0.1000 | 11.2 | | 15.0 | | | |
| Vinyl chloride | +++++<br>0.5452<br>0.5029 | 0.5912<br>0.5733<br>+++++ | 0.5480<br>0.5560 | 0.5386<br>0.5349 | 0.5422<br>0.5213 | Ave | | 0.5454 | | | | 4.6 | | 30.0 | | | |
| 1,3-Butadiene | +++++<br>0.5457<br>0.5099 | +++++<br>0.5733<br>0.4521 | +++++<br>0.5780 | 0.5683<br>0.5299 | 0.5908<br>0.5364 | Ave | | 0.5427 | | | | 7.9 | | 15.0 | | | |
| Bromomethane | +++++<br>0.2896<br>0.2940 | +++++<br>0.3103<br>0.2754 | 0.3171<br>0.3055 | 0.3145<br>0.2884 | 0.3160<br>0.2926 | Ave | | 0.3003 | | | | 4.7 | | 15.0 | | | |
| Chloroethane | +++++<br>0.2284<br>0.2337 | +++++<br>0.2447<br>0.2217 | 0.2048<br>0.2386 | 0.2360<br>0.2280 | 0.2296<br>0.2337 | Ave | | 0.2299 | | | | 4.7 | | 15.0 | | | |
| Ethanol | +++++<br>0.1335<br>0.1508 | +++++<br>0.1485<br>0.1418 | +++++<br>0.1530 | +++++<br>0.1401 | 0.1404<br>0.1440 | Ave | | 0.1440 | | | | 4.5 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dichlorofluoromethane | +++++<br>0.5768<br>0.5933 | +++++<br>0.6177<br>0.5458 | 0.6574<br>0.6247 | 0.6138<br>0.5898 | 0.6315<br>0.5984 | Ave | | 0.6049 | | | | 5.2 | | 15.0 | | | |
| Acrolein | +++++<br>0.0330<br>0.0391 | +++++<br>0.0364<br>0.0362 | +++++<br>0.0378 | +++++<br>0.0393 | +++++<br>0.0396 | Ave | | 0.0374 | | | | 6.3 | | 15.0 | | | |
| Acetonitrile | +++++<br>0.0386<br>0.0364 | +++++<br>0.0414<br>0.0332 | +++++<br>0.0396 | 0.0473<br>0.0378 | 0.0450<br>0.0376 | Ave | | 0.0397 | | | | 10.9 | | 15.0 | | | |
| Trichlorofluoromethane | +++++<br>0.5821<br>0.6136 | +++++<br>0.6228<br>0.5727 | 0.6000<br>0.6202 | 0.5803<br>0.6004 | 0.5938<br>0.6145 | Ave | | 0.6000 | | | | 2.9 | | 15.0 | | | |
| Acetone | +++++<br>0.0866<br>0.0807 | +++++<br>0.0792<br>0.0746 | +++++<br>0.0754 | +++++<br>0.0841 | +++++<br>0.0814 | Ave | | 0.0803 | | | | 5.4 | | 15.0 | | | |
| Diethyl ether | +++++<br>0.1949<br>0.2209 | +++++<br>0.2163<br>0.2050 | +++++<br>0.2202 | 0.1974<br>0.2106 | 0.2035<br>0.2159 | Ave | | 0.2094 | | | | 4.6 | | 15.0 | | | |
| 1,1-Dichloroethene | +++++<br>0.2485<br>0.2772 | +++++<br>0.2753<br>0.2700 | 0.2796<br>0.2710 | 0.2711<br>0.2597 | 0.2761<br>0.2679 | Ave | | 0.2696 | | | | 3.5 | | 30.0 | | | |
| tert-Butyl alcohol (TBA) | +++++<br>1.2119<br>1.3745 | +++++<br>1.2807<br>1.2712 | +++++<br>1.2770 | 1.2052<br>1.2122 | 1.2307<br>1.3126 | Ave | | 1.2640 | | | | 4.4 | | 15.0 | | | |
| Iodomethane | +++++<br>0.5781<br>0.6426 | +++++<br>0.6398<br>0.5964 | +++++<br>0.6407 | 0.6040<br>0.6074 | 0.6169<br>0.6412 | Ave | | 0.6186 | | | | 3.8 | | 15.0 | | | |
| Acrylonitrile | 0.0821<br>0.0931<br>0.0924 | 0.0924<br>0.1064<br>+++++ | 0.1003<br>0.1013 | 0.1002<br>0.1012 | 0.0990<br>0.1030 | Ave | | 0.0974 | | | | 7.0 | | 15.0 | | | |
| Methylene Chloride | +++++<br>0.2501<br>0.2824 | +++++<br>0.2871<br>0.2682 | 0.3120<br>0.2810 | 0.2938<br>0.2661 | 0.2814<br>0.2762 | Ave | | 0.2798 | | | | 6.0 | | 15.0 | | | |
| Methyl acetate | +++++<br>0.1907<br>0.1809 | +++++<br>0.2164<br>+++++ | 0.2105<br>0.2036 | 0.2051<br>0.2033 | 0.2135<br>0.2033 | Ave | | 0.2030 | | | | 5.5 | | 15.0 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | +++++<br>0.3511<br>0.3696 | +++++<br>0.3694<br>0.3487 | 0.3744<br>0.3671 | 0.3574<br>0.3578 | 0.3734<br>0.3713 | Ave | | 0.3640 | | | | 2.6 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Allyl chloride | +++++<br>0.4851<br>0.5195 | +++++<br>0.5418<br>0.4785 | +++++<br>0.5191 | 0.5770<br>0.5120 | 0.5711<br>0.5274 | Ave | | 0.5257 | | | | 6.4 | | 15.0 | | | |
| Carbon disulfide | +++++<br>0.8838<br>0.8921 | +++++<br>0.9537<br>0.8082 | 0.9206<br>0.9470 | 0.9172<br>0.8957 | 0.9126<br>0.9150 | Ave | | 0.9046 | | | | 4.5 | | 15.0 | | | |
| trans-1,2-Dichloroethene | +++++<br>0.2503<br>0.2645 | 0.2997<br>0.2656<br>0.2474 | 0.2979<br>0.2699 | 0.2857<br>0.2599 | 0.2829<br>0.2655 | Ave | | 0.2717 | | | | 6.5 | | 15.0 | | | |
| Methyl-t-Butyl Ether (MTBE) | +++++<br>0.6037<br>0.6652 | +++++<br>0.6886<br>0.6032 | 0.6827<br>0.6824 | 0.6838<br>0.6506 | 0.6695<br>0.6656 | Ave | | 0.6595 | | | | 4.8 | | 15.0 | | | |
| 1,1-Dichloroethane | +++++<br>0.4638<br>0.5068 | +++++<br>0.5192<br>0.4624 | 0.5029<br>0.5144 | 0.4747<br>0.4945 | 0.5111<br>0.5058 | Ave | | 0.4956 | | | 0.1000 | 4.2 | | 15.0 | | | |
| Propionitrile | +++++<br>0.0369<br>0.0404 | +++++<br>0.0408<br>0.0366 | +++++<br>0.0413 | 0.0349<br>0.0401 | 0.0387<br>0.0413 | Ave | | 0.0390 | | | | 6.0 | | 15.0 | | | |
| Vinyl acetate | +++++<br>0.5156<br>0.5761 | +++++<br>0.6023<br>0.5103 | +++++<br>0.5818 | +++++<br>0.5614 | 0.6371<br>0.5994 | Ave | | 0.5730 | | | | 7.6 | | 15.0 | | | |
| Hexane | +++++<br>0.4765<br>0.4930 | +++++<br>0.5064<br>0.4518 | +++++<br>0.4975 | 0.5005<br>0.4943 | 0.5114<br>0.5005 | Ave | | 0.4924 | | | | 3.7 | | 15.0 | | | |
| 2-Butanone (MEK) | +++++<br>0.0121<br>0.0283 | +++++<br>0.0207<br>0.0261 | +++++<br>0.0216 | +++++<br>0.0269 | +++++<br>0.0281 | Lin2 | -0.077 | 0.0276 | | | | | | | 0.9960 | | 0.9900 |
| Isopropyl Ether (DIPE) | +++++<br>0.9948<br>0.9619 | +++++<br>1.0887<br>+++++ | 1.1015<br>1.0890 | 1.0713<br>1.0323 | 1.0709<br>1.0308 | Ave | | 1.0490 | | | | 4.5 | | 15.0 | | | |
| cis-1,2-Dichloroethene | +++++<br>0.2686<br>0.2892 | 0.3187<br>0.2981<br>0.2744 | 0.3170<br>0.3003 | 0.3227<br>0.2841 | 0.3107<br>0.2923 | Ave | | 0.2978 | | | | 6.1 | | 15.0 | | | |
| Bromochloromethane | +++++<br>0.1325<br>0.1596 | +++++<br>0.1534<br>0.1521 | 0.1260<br>0.1566 | 0.1333<br>0.1492 | 0.1497<br>0.1564 | Ave | | 0.1469 | | | | 8.0 | | 15.0 | | | |
| Chloroform | +++++<br>0.4241<br>0.4596 | +++++<br>0.4773<br>0.4220 | 0.4416<br>0.4725 | 0.4490<br>0.4561 | 0.4571<br>0.4709 | Ave | | 0.4530 | | | | 4.2 | | 30.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Ethyl-t-butyl ether (ETBE) | +++++<br>0.8824<br>0.9211 | +++++<br>1.0178<br>0.8070 | 0.9258<br>1.0017 | 0.9322<br>0.9425 | 0.9361<br>0.9666 | Ave | | 0.9333 | | | | 6.4 | | 15.0 | | | |
| 2,2-Dichloropropane | +++++<br>0.3677<br>0.3694 | +++++<br>0.3831<br>0.3399 | 0.4130<br>0.3939 | 0.3828<br>0.3776 | 0.3891<br>0.3927 | Ave | | 0.3809 | | | | 5.1 | | 15.0 | | | |
| Isobutyl alcohol | +++++<br>0.6850<br>0.7265 | +++++<br>0.7039<br>0.6705 | 0.7447<br>0.7029 | 0.6815<br>0.6600 | 0.7227<br>0.7196 | Ave | | 0.7017 | | | | 3.9 | | 15.0 | | | |
| Tetrahydrofuran | +++++<br>0.0871<br>0.0853 | +++++<br>0.0944<br>0.0778 | +++++<br>0.0870 | +++++<br>0.0874 | 0.1033<br>0.0884 | Ave | | 0.0888 | | | | 8.3 | | 15.0 | | | |
| 1,2-Dichloroethane | +++++<br>0.3376<br>0.3822 | 0.3434<br>0.3828<br>0.3544 | 0.3659<br>0.3911 | 0.3713<br>0.3701 | 0.3703<br>0.3799 | Ave | | 0.3681 | | | | 4.6 | | 15.0 | | | |
| 1,1,1-Trichloroethane | +++++<br>0.4474<br>0.5027 | +++++<br>0.4872<br>0.4637 | 0.4943<br>0.4946 | 0.4806<br>0.4822 | 0.4805<br>0.5019 | Ave | | 0.4835 | | | | 3.6 | | 15.0 | | | |
| 1,1-Dichloropropene | +++++<br>0.3306<br>0.3388 | +++++<br>0.3450<br>0.3133 | 0.3718<br>0.3461 | 0.3387<br>0.3398 | 0.3412<br>0.3460 | Ave | | 0.3411 | | | | 4.3 | | 15.0 | | | |
| Cyclohexane | +++++<br>0.5773<br>0.6128 | +++++<br>0.6303<br>0.5564 | +++++<br>0.6267 | 0.6166<br>0.6034 | 0.6142<br>0.6240 | Ave | | 0.6068 | | | | 4.1 | | 15.0 | | | |
| Carbon tetrachloride | +++++<br>0.4347<br>0.5041 | +++++<br>0.4684<br>0.4673 | 0.4719<br>0.4835 | 0.4454<br>0.4723 | 0.4443<br>0.5023 | Ave | | 0.4694 | | | | 5.0 | | 15.0 | | | |
| Benzene | +++++<br>0.9075<br>0.8588 | +++++<br>0.9902<br>+++++ | 1.0716<br>0.9985 | 0.9460<br>0.9483 | 0.9692<br>0.9563 | Ave | | 0.9607 | | | | 6.2 | | 15.0 | | | |
| Tert-amyl-methyl ether (TAME) | +++++<br>0.6221<br>0.6988 | +++++<br>0.7727<br>0.6136 | 0.8146<br>0.7579 | 0.7186<br>0.7109 | 0.6698<br>0.7130 | Ave | | 0.7092 | | | | 8.9 | | 15.0 | | | |
| n-Heptane | +++++<br>0.5340<br>0.5258 | +++++<br>0.5585<br>0.4676 | +++++<br>0.5591 | 0.5611<br>0.5400 | 0.5564<br>0.5449 | Ave | | 0.5386 | | | | 5.5 | | 15.0 | | | |
| Dibromomethane | +++++<br>0.1478<br>0.1808 | +++++<br>0.1692<br>0.1709 | 0.1788<br>0.1734 | 0.1610<br>0.1671 | 0.1669<br>0.1741 | Ave | | 0.1690 | | | | 5.6 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| 1,2-Dichloropropane | +++++<br>0.2525<br>0.2981 | +++++<br>0.2843<br>0.2802 | 0.2795<br>0.2913 | 0.2712<br>0.2779 | 0.2807<br>0.2875 | Ave | | 0.2803 | | | | 4.4 | | 30.0 | | | |
| Trichloroethene | +++++<br>0.2982<br>0.3429 | +++++<br>0.3260<br>0.3199 | 0.3220<br>0.3359 | 0.3301<br>0.3294 | 0.3204<br>0.3390 | Ave | | 0.3264 | | | | 3.9 | | 15.0 | | | |
| Bromodichloromethane | +++++<br>0.3178<br>0.3747 | +++++<br>0.3511<br>0.3486 | 0.3147<br>0.3683 | 0.3215<br>0.3511 | 0.3279<br>0.3717 | Ave | | 0.3447 | | | | 6.7 | | 15.0 | | | |
| 2-Chloroethyl vinyl ether | +++++<br>0.1266<br>0.1410 | +++++<br>0.1423<br>0.1243 | +++++<br>0.1438 | +++++<br>0.1379 | 0.1319<br>0.1488 | Ave | | 0.1371 | | | | 6.3 | | 15.0 | | | |
| Methylcyclohexane | +++++<br>0.4326<br>0.4964 | +++++<br>0.4712<br>0.4568 | +++++<br>0.4880 | 0.4690<br>0.4771 | 0.4784<br>0.4915 | Ave | | 0.4735 | | | | 4.1 | | 15.0 | | | |
| cis-1,3-Dichloropropene | +++++<br>0.4147<br>0.4091 | +++++<br>0.4508<br>0.3494 | 0.4439<br>0.4534 | 0.4510<br>0.4285 | 0.4210<br>0.4488 | Ave | | 0.4270 | | | | 7.5 | | 15.0 | | | |
| 4-Methyl-2-pentanone (MIBK) | +++++<br>0.2766<br>0.3024 | +++++<br>0.3024<br>0.2557 | +++++<br>0.2930 | +++++<br>0.3263 | 0.3430<br>0.3379 | Ave | | 0.3047 | | | | 9.9 | | 15.0 | | | |
| trans-1,3-Dichloropropene | +++++<br>0.3646<br>0.3823 | +++++<br>0.4039<br>0.3268 | 0.4016<br>0.4114 | 0.3939<br>0.3880 | 0.3966<br>0.4139 | Ave | | 0.3883 | | | | 6.7 | | 15.0 | | | |
| 1,1,2-Trichloroethane | +++++<br>0.1843<br>0.1887 | +++++<br>0.1996<br>0.1661 | 0.1676<br>0.1992 | 0.2073<br>0.1888 | 0.2057<br>0.1991 | Ave | | 0.1906 | | | | 7.6 | | 15.0 | | | |
| Toluene | +++++<br>1.1615<br>+++++ | +++++<br>1.2406<br>+++++ | 1.3033<br>1.2087 | 1.2350<br>1.1406 | 1.2324<br>1.1585 | Ave | | 1.2101 | | | | 4.5 | | 30.0 | | | |
| Ethyl methacrylate | +++++<br>0.2923<br>0.3119 | +++++<br>0.3192<br>0.2699 | +++++<br>0.3183 | 0.3369<br>0.3130 | 0.3158<br>0.3291 | Ave | | 0.3118 | | | | 6.4 | | 15.0 | | | |
| 1,3-Dichloropropane | +++++<br>0.3620<br>0.3643 | +++++<br>0.3945<br>0.3135 | 0.3997<br>0.3886 | 0.3990<br>0.3734 | 0.3680<br>0.3844 | Ave | | 0.3747 | | | | 6.9 | | 15.0 | | | |
| 2-Hexanone | +++++<br>0.2028<br>0.2293 | +++++<br>0.2199<br>0.1963 | +++++<br>0.2117 | +++++<br>0.2377 | 0.2408<br>0.2522 | Ave | | 0.2239 | | | | 8.7 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dibromochloromethane | +++++<br>0.3181<br>0.3676 | +++++<br>0.3547<br>0.3214 | 0.3272<br>0.3592 | 0.3460<br>0.3547 | 0.3406<br>0.3831 | Ave | | 0.3472 | | | | 6.0 | | 15.0 | | | |
| 1,2-Dibromoethane (EDB) | +++++<br>0.2564<br>0.2650 | +++++<br>0.2754<br>0.2321 | 0.2609<br>0.2743 | 0.2609<br>0.2628 | 0.2656<br>0.2803 | Ave | | 0.2634 | | | | 5.1 | | 15.0 | | | |
| Tetrachloroethene | +++++<br>0.3073<br>0.2936 | +++++<br>0.3059<br>0.2581 | 0.3124<br>0.3114 | 0.3088<br>0.2995 | 0.3033<br>0.3223 | Ave | | 0.3023 | | | | 5.7 | | 15.0 | | | |
| 1,1,1,2-Tetrachloroethane | +++++<br>0.3637<br>0.3798 | +++++<br>0.3881<br>+++++ | 0.5456<br>0.3799 | 0.4578<br>0.3660 | 0.4191<br>0.3973 | Ave | | 0.4108 | | | | 14.2 | | 15.0 | | | |
| Chlorobenzene | +++++<br>0.8743<br>0.7919 | +++++<br>0.9340<br>+++++ | 0.9516<br>0.9200 | 0.9170<br>0.8777 | 0.8964<br>0.9214 | Ave | | 0.8983 | | | 0.3000 | 5.2 | | 15.0 | | | |
| Ethylbenzene | +++++<br>1.3973<br>+++++ | +++++<br>1.4636<br>+++++ | 1.5172<br>1.4294 | 1.4883<br>1.3646 | 1.4616<br>1.3878 | Ave | | 1.4387 | | | | 3.7 | | 30.0 | | | |
| m,p-Xylene | +++++<br>0.5503<br>0.5743 | +++++<br>0.5831<br>0.4988 | 0.5764<br>0.5719 | 0.5940<br>0.5588 | 0.5737<br>0.6057 | Ave | | 0.5687 | | | | 5.1 | | 15.0 | | | |
| Bromoform | +++++<br>0.2208<br>0.2904 | +++++<br>0.2488<br>0.2545 | 0.2052<br>0.2641 | 0.2287<br>0.2648 | 0.2232<br>0.2930 | Ave | | 0.2494 | | | 0.1000 | 11.9 | | 15.0 | | | |
| Styrene | +++++<br>0.8839<br>0.8530 | +++++<br>0.9468<br>+++++ | 0.9476<br>0.9637 | 0.9474<br>0.9389 | 0.9110<br>0.9994 | Ave | | 0.9324 | | | | 4.7 | | 15.0 | | | |
| 1,1,2,2-Tetrachloroethane | +++++<br>0.5367<br>0.5762 | +++++<br>0.5876<br>0.5356 | 0.5898<br>0.5769 | 0.5580<br>0.5522 | 0.5821<br>0.5745 | Ave | | 0.5670 | | | 0.3000 | 3.5 | | 15.0 | | | |
| o-Xylene | +++++<br>0.5543<br>0.5790 | 0.5998<br>0.5862<br>0.4852 | 0.5876<br>0.5794 | 0.5748<br>0.5677 | 0.5851<br>0.6243 | Ave | | 0.5749 | | | | 6.0 | | 15.0 | | | |
| 1,2,3-Trichloropropane | +++++<br>0.1710<br>0.1825 | +++++<br>0.1786<br>0.1739 | 0.1274<br>0.1737 | 0.1832<br>0.1665 | 0.1639<br>0.1758 | Ave | | 0.1697 | | | | 9.5 | | 15.0 | | | |
| trans-1,4-Dichloro-2-butene | +++++<br>0.1903<br>0.2254 | +++++<br>0.2112<br>0.2111 | +++++<br>0.2034 | +++++<br>0.2073 | 0.2013<br>0.2179 | Ave | | 0.2085 | | | | 5.1 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Isopropylbenzene | +++++<br>1.5375<br>+++++ | +++++<br>1.6255<br>+++++ | 1.6420<br>1.5627 | 1.6118<br>1.5355 | 1.5914<br>1.5632 | Ave | | 1.5837 | | | | 2.5 | | 15.0 | | | |
| Bromobenzene | +++++<br>0.7388<br>0.7817 | +++++<br>0.7897<br>0.7374 | 0.7246<br>0.7712 | 0.7870<br>0.7525 | 0.7645<br>0.7759 | Ave | | 0.7623 | | | | 3.0 | | 15.0 | | | |
| N-Propylbenzene | +++++<br>2.8692<br>+++++ | +++++<br>3.0115<br>+++++ | 3.2490<br>2.9190 | 2.9719<br>2.8076 | 2.9949<br>2.6420 | Ave | | 2.9331 | | | | 6.0 | | 15.0 | | | |
| 2-Chlorotoluene | +++++<br>1.7000<br>1.5094 | +++++<br>1.7740<br>+++++ | 1.8955<br>1.7366 | 1.8566<br>1.6880 | 1.7766<br>1.6949 | Ave | | 1.7368 | | | | 6.4 | | 15.0 | | | |
| 4-Chlorotoluene | +++++<br>1.7605<br>1.5365 | +++++<br>1.8741<br>+++++ | 1.8967<br>1.8349 | 1.8253<br>1.7591 | 1.9014<br>1.7730 | Ave | | 1.7957 | | | | 6.2 | | 15.0 | | | |
| 1,3,5-Trimethylbenzene | +++++<br>2.1956<br>+++++ | +++++<br>2.3190<br>+++++ | 2.3085<br>2.2645 | 2.2794<br>2.2021 | 2.2815<br>2.1780 | Ave | | 2.2536 | | | | 2.4 | | 15.0 | | | |
| tert-Butylbenzene | +++++<br>2.0494<br>+++++ | +++++<br>2.1675<br>+++++ | 2.2255<br>2.1384 | 2.1379<br>2.0991 | 2.1666<br>2.0788 | Ave | | 2.1329 | | | | 2.6 | | 15.0 | | | |
| 1,2,4-Trimethylbenzene | +++++<br>2.2374<br>+++++ | +++++<br>2.3872<br>+++++ | 2.4301<br>2.3620 | 2.3588<br>2.2697 | 2.3905<br>2.2125 | Ave | | 2.3310 | | | | 3.4 | | 15.0 | | | |
| sec-Butylbenzene | +++++<br>3.0404<br>+++++ | +++++<br>3.1810<br>+++++ | 3.2261<br>3.1194 | 3.1676<br>3.0037 | 3.1496<br>2.7351 | Ave | | 3.0779 | | | | 5.1 | | 15.0 | | | |
| 1,3-Dichlorobenzene | +++++<br>1.4894<br>1.3306 | +++++<br>1.5889<br>+++++ | 1.6197<br>1.5717 | 1.5871<br>1.5219 | 1.5761<br>1.5397 | Ave | | 1.5361 | | | | 5.6 | | 15.0 | | | |
| 1,4-Dichlorobenzene | +++++<br>1.5185<br>1.3064 | +++++<br>1.6207<br>+++++ | 1.7425<br>1.6074 | 1.6859<br>1.5494 | 1.6305<br>1.5321 | Ave | | 1.5770 | | | | 7.9 | | 15.0 | | | |
| p-Isopropyltoluene | +++++<br>2.7321<br>+++++ | +++++<br>2.8365<br>+++++ | 3.0149<br>2.8004 | 2.8729<br>2.7330 | 2.8525<br>2.5417 | Ave | | 2.7980 | | | | 4.9 | | 15.0 | | | |
| 1,2-Dichlorobenzene | +++++<br>1.4075<br>1.2304 | +++++<br>1.5095<br>+++++ | 1.4919<br>1.5202 | 1.4374<br>1.4368 | 1.4612<br>1.4287 | Ave | | 1.4360 | | | | 6.0 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| n-Butylbenzene | +++++<br>2.3837<br>+++++ | +++++<br>2.4978<br>+++++ | 2.7349<br>2.4288 | 2.4601<br>2.3233 | 2.4607<br>2.1499 | Ave | | 2.4299 | | | | 6.8 | | 15.0 | | | |
| 1,2-Dibromo-3-Chloropropane | +++++<br>0.1109<br>0.1183 | +++++<br>0.1173<br>0.1066 | +++++<br>0.1165 | 0.1123<br>0.1175 | 0.1053<br>0.1231 | Ave | | 0.1142 | | | | 5.1 | | 15.0 | | | |
| 1,2,4-Trichlorobenzene | +++++<br>0.9846<br>0.9670 | +++++<br>1.0619<br>0.8323 | 1.0818<br>1.0898 | 1.0213<br>1.0689 | 1.0426<br>1.0896 | Ave | | 1.0240 | | | | 7.8 | | 15.0 | | | |
| Naphthalene | +++++<br>2.0525<br>+++++ | +++++<br>2.2851<br>+++++ | 2.2495<br>2.2993 | 2.1874<br>2.2273 | 2.1937<br>2.1592 | Ave | | 2.2067 | | | | 3.6 | | 15.0 | | | |
| Hexachlorobutadiene | +++++<br>0.5921<br>0.5980 | +++++<br>0.6408<br>0.5458 | 0.5970<br>0.6415 | 0.6168<br>0.6260 | 0.6354<br>0.6465 | Ave | | 0.6140 | | | | 5.1 | | 15.0 | | | |
| 1,2,3-Trichlorobenzene | +++++<br>0.8581<br>0.8831 | +++++<br>0.9608<br>0.7759 | 0.9246<br>0.9979 | 0.9395<br>0.9395 | 0.8884<br>0.9764 | Ave | | 0.9144 | | | | 7.1 | | 15.0 | | | |
| Dibromofluoromethane (Surr) | 0.2632 | 0.2901 | 0.2853 | 0.2730 | 0.2874 | Ave | | 0.2798 | | | | 4.1 | | 15.0 | | | |
| 1,2-Dichloroethane-d4 (Surr) | 0.2881 | 0.3191 | 0.3148 | 0.2947 | 0.3050 | Ave | | 0.3043 | | | | 4.3 | | 15.0 | | | |
| Toluene-d8 (Surr) | 1.0668 | 1.1124 | 1.0695 | 1.0112 | 1.0320 | Ave | | 1.0584 | | | | 3.7 | | 15.0 | | | |
| 4-Bromofluorobenzene (Surr) | 0.7416 | 0.7762 | 0.7463 | 0.7094 | 0.7521 | Ave | | 0.7451 | | | | 3.2 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD02 440-446291/4 | JFL12004.D |
| Level 2 | STD04 440-446291/5 | JFL12005.D |
| Level 3 | STD05 440-446291/6 | JFL12006.D |
| Level 4 | STD1 440-446291/7 | JFL12007.D |
| Level 5 | STD2 440-446291/8 | JFL12008.D |
| Level 6 | STD5 440-446291/9 | JFL12009.D |
| Level 7 | STD10 440-446291/10 | JFL12010.D |
| Level 8 | ICIS 440-446291/11 | JFL12011.D |
| Level 9 | STD50 440-446291/12 | JFL12012.D |
| Level 10 | STD100 440-446291/13 | JFL12013.D |
| Level 11 | STD200 440-446291/14 | JFL12014.D |
| Level 12 | STD300 440-446291/15 | JFL12015.D |

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Dichlorodifluoromethane | FB | Ave | +++++<br>67931<br>2934367 | +++++<br>145828<br>4006582 | 6659<br>369016 | 13469<br>694172 | 26034<br>1408304 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloromethane | FB | Ave | +++++<br>104823<br>4248909 | +++++<br>220904<br>+++++ | 13941<br>551020 | 23653<br>1041177 | 45305<br>2095208 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Vinyl chloride | FB | Ave | +++++<br>83722<br>3395676 | 7623<br>177940<br>+++++ | 8470<br>431829 | 17179<br>840441 | 33115<br>1677167 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Butadiene | FB | Ave | +++++<br>83804<br>3442979 | +++++<br>177927<br>4582062 | +++++<br>448955 | 18127<br>832487 | 36086<br>1725590 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromomethane | FB | Ave | +++++<br>44467<br>1985288 | +++++<br>96304<br>2791153 | 4901<br>237284 | 10030<br>453131 | 19300<br>941288 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloroethane | FB | Ave | +++++<br>35072<br>1578341 | +++++<br>75964<br>2246850 | 3165<br>185336 | 7528<br>358235 | 14024<br>751976 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethanol | TBAd 9 | Ave | +++++<br>25667<br>1561034 | +++++<br>59726<br>2123648 | +++++<br>150076 | +++++<br>369167 | 13984<br>749322 | +++++<br>200<br>10000 | +++++<br>400<br>15000 | +++++<br>1000 | +++++<br>2500 | 100<br>5000 |
| Dichlorofluoromethane | FB | Ave | +++++<br>88580<br>4006355 | +++++<br>191712<br>5531570 | 10161<br>485206 | 19578<br>926593 | 38571<br>1925195 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Acrolein | FB | Ave | +++++<br>5065<br>264056 | +++++<br>11306<br>367117 | +++++<br>29385 | +++++<br>61747 | +++++<br>127386 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Acetonitrile | FB | Ave | +++++<br>59286<br>2457789 | +++++<br>128507<br>3363738 | +++++<br>307928 | 15074<br>593436 | 27457<br>1210737 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Trichlorofluoromethane | FB | Ave | +++++<br>89388<br>4143485 | +++++<br>193297<br>5803784 | 9274<br>481702 | 18508<br>943278 | 36271<br>1976975 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Acetone | FB | Ave | +++++<br>13292<br>544960 | +++++<br>24580<br>756074 | +++++<br>58567 | +++++<br>132210 | +++++<br>261838 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Diethyl ether | FB | Ave | +++++<br>29935<br>1491415 | +++++<br>67123<br>2077656 | +++++<br>171028 | 6297<br>330853 | 12427<br>694726 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloroethene | FB | Ave | +++++<br>38167<br>1871636 | +++++<br>85457<br>2736237 | 4322<br>210506 | 8648<br>407999 | 16863<br>861795 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| tert-Butyl alcohol (TBA) | TBAd9 | Ave | +++++<br>58229<br>2845522 | +++++<br>128765<br>3808698 | +++++<br>313093 | 12944<br>639019 | 24520<br>1365997 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Iodomethane | FB | Ave | +++++<br>88784<br>4339477 | +++++<br>198585<br>6044353 | +++++<br>497629 | 19264<br>954346 | 37678<br>2062782 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Acrylonitrile | FB | Ave | 5144<br>142994<br>6239393 | 11913<br>330253<br>+++++ | 15495<br>786454 | 31953<br>1590748 | 60444<br>3312854 | 2.00<br>50.0<br>2000 | 4.00<br>100<br>+++++ | 5.00<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Methylene Chloride | FB | Ave | +++++<br>38407<br>1907211 | +++++<br>89100<br>2718423 | 4822<br>218266 | 9370<br>418074 | 17185<br>888655 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methyl acetate | FB | Ave | +++++<br>146419<br>6106553 | +++++<br>335801<br>+++++ | 16268<br>790684 | 32715<br>1597214 | 65195<br>3270287 | +++++<br>25.0<br>1000 | +++++<br>50.0<br>+++++ | 2.50<br>125 | 5.00<br>250 | 10.0<br>500 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | FB | Ave | +++++<br>53921<br>2496096 | +++++<br>114649<br>3534041 | 5786<br>285127 | 11398<br>562073 | 22804<br>1194412 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Allyl chloride | FB | Ave | +++++<br>74494<br>3507920 | +++++<br>168154<br>4848911 | +++++<br>403215 | 18403<br>804393 | 34880<br>1696780 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Carbon disulfide | FB | Ave | +++++<br>135716<br>6023838 | +++++<br>296004<br>8190642 | 14229<br>735587 | 29254<br>1407308 | 55742<br>2943540 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| trans-1,2-Dichloroethene | FB | Ave | +++++<br>38444<br>1786260 | 3864<br>82438<br>2507027 | 4604<br>209639 | 9111<br>408284 | 17280<br>853990 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methyl-t-Butyl Ether (MTBE) | FB | Ave | +++++<br>92715<br>4491564 | +++++<br>213718<br>6112604 | 10552<br>530040 | 21810<br>1022238 | 40893<br>2141351 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloroethane | FB | Ave | +++++<br>71228<br>3422124 | +++++<br>161161<br>4686617 | 7773<br>399556 | 15139<br>776982 | 31218<br>1627321 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Propionitrile | FB | Ave | +++++<br>56713<br>2725653 | +++++<br>126776<br>3705202 | +++++<br>320779 | 11130<br>629522 | 23637<br>1329092 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Vinyl acetate | FB | Ave | +++++<br>63346<br>3890415 | +++++<br>149546<br>5171244 | +++++<br>361546 | +++++<br>882009 | 38916<br>1928431 | +++++<br>4.00<br>200 | +++++<br>8.00<br>300 | +++++<br>20.0 | +++++<br>50.0 | 2.00<br>100 |
| Hexane | FB | Ave | +++++<br>73170<br>3329007 | +++++<br>157184<br>4578757 | +++++<br>386410 | 15963<br>776578 | 31234<br>1610040 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Butanone (MEK) | FB | Lin2 | +++++<br>1864<br>191176 | +++++<br>6439<br>264310 | +++++<br>16812 | +++++<br>42318 | +++++<br>90328 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Isopropyl Ether (DIPE) | FB | Ave | +++++<br>152775<br>6495570 | +++++<br>337912<br>+++++ | 17025<br>845817 | 34168<br>1621872 | 65407<br>3316273 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| cis-1,2-Dichloroethene | FB | Ave | +++++<br>41251<br>1952551 | 4109<br>92509<br>2781078 | 4899<br>233254 | 10293<br>446376 | 18976<br>940349 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromochloromethane | FB | Ave | +++++<br>20353<br>1077914 | +++++<br>47627<br>1541095 | 1948<br>121600 | 4251<br>234475 | 9142<br>503001 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloroform | FB | Ave | +++++<br>65130<br>3103430 | +++++<br>148134<br>4276243 | 6825<br>367027 | 14321<br>716609 | 27921<br>1515000 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethyl-t-butyl ether (ETBE) | FB | Ave | +++++<br>135502<br>6219979 | +++++<br>315901<br>8178591 | 14309<br>778068 | 29731<br>1480834 | 57175<br>3109602 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 2,2-Dichloropropane | FB | Ave | +++++<br>56469<br>2494717 | +++++<br>118891<br>3444461 | 6384<br>305976 | 12209<br>593297 | 23764<br>1263285 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Isobutyl alcohol | TBAd9 | Ave | +++++<br>82284<br>3759782 | +++++<br>176918<br>5022760 | 10387<br>430857 | 18299<br>869809 | 35997<br>1872079 | +++++<br>125<br>5000 | +++++<br>250<br>7500 | 12.5<br>625 | 25.0<br>1250 | 50.0<br>2500 |
| Tetrahydrofuran | FB | Ave | +++++<br>26753<br>1152129 | +++++<br>58602<br>1576985 | +++++<br>135090 | +++++<br>274776 | 12623<br>568482 | +++++<br>10.0<br>400 | +++++<br>20.0<br>600 | +++++<br>50.0 | +++++<br>100 | 4.00<br>200 |
| 1,2-Dichloroethane | FB | Ave | +++++<br>51850<br>2580584 | 4428<br>118809<br>3591883 | 5655<br>303778 | 11844<br>581449 | 22615<br>1222158 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,1-Trichloroethane | FB | Ave | +++++<br>68708<br>3394764 | +++++<br>151224<br>4699363 | 7640<br>384201 | 15330<br>757533 | 29346<br>1614607 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloropropene | FB | Ave | +++++<br>50772<br>2287870 | +++++<br>107087<br>3175403 | 5746<br>268822 | 10803<br>533793 | 20838<br>1112981 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Cyclohexane | FB | Ave | +++++<br>88649<br>4137961 | +++++<br>195619<br>5638851 | +++++<br>486757 | 19665<br>948045 | 37514<br>2007464 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Carbon tetrachloride | FB | Ave | +++++<br>66758<br>3404104 | +++++<br>145392<br>4735341 | 7293<br>375527 | 14205<br>741975 | 27139<br>1616062 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Benzene | FB | Ave | +++++<br>139369<br>5799126 | +++++<br>307348<br>+++++ | 16563<br>775574 | 30171<br>1489969 | 59198<br>3076379 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Tert-amyl-methyl ether (TAME) | FB | Ave | +++++<br>95527<br>4718736 | +++++<br>239818<br>6218700 | 12590<br>588644 | 22919<br>1116865 | 40908<br>2293693 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Heptane | FB | Ave | +++++<br>81997<br>3550716 | +++++<br>173353<br>4739293 | +++++<br>434256 | 17895<br>848347 | 33983<br>1752942 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Dibromomethane | FB | Ave | +++++<br>22690<br>1221183 | +++++<br>52501<br>1732452 | 2764<br>134647 | 5135<br>262599 | 10195<br>560154 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2-Dichloropropane | FB | Ave | +++++<br>38775<br>2012769 | +++++<br>88241<br>2839226 | 4320<br>226235 | 8650<br>436544 | 17147<br>925081 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Trichloroethene | FB | Ave | +++++<br>45791<br>2315642 | +++++<br>101196<br>3241852 | 4977<br>260931 | 10527<br>517476 | 19569<br>1090565 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromodichloromethane | FB | Ave | +++++<br>48802<br>2530369 | +++++<br>108985<br>3532738 | 4864<br>286053 | 10254<br>551652 | 20025<br>1195899 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Chloroethyl vinyl ether | CBNZ d5 | Ave | +++++<br>16709<br>979788 | +++++<br>39314<br>1396105 | +++++<br>103187 | +++++<br>200983 | 7118<br>442610 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Methylcyclohexane | FB | Ave | +++++<br>66433<br>3351871 | +++++<br>146253<br>4629638 | +++++<br>379029 | 14960<br>749611 | 29222<br>1581211 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| cis-1,3-Dichloropropene | CBNZ d5 | Ave | +++++<br>54723<br>2842529 | +++++<br>124509<br>3922970 | 6082<br>325393 | 12510<br>624361 | 22724<br>1335096 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 4-Methyl-2-pentanone (MIBK) | CBNZ d5 | Ave | +++++<br>36496<br>2101030 | +++++<br>83526<br>2871041 | +++++<br>210310 | +++++<br>475511 | 18514<br>1005312 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| trans-1,3-Dichloropropene | CBNZ d5 | Ave | +++++<br>48107<br>2656511 | +++++<br>111543<br>3669869 | 5503<br>295273 | 10927<br>565360 | 21409<br>1231496 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2-Trichloroethane | CBNZ d5 | Ave | +++++<br>24317<br>1311244 | +++++<br>55113<br>1864502 | 2297<br>142948 | 5750<br>275140 | 11102<br>592448 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Toluene | CBNZ d5 | Ave | +++++<br>153273<br>+++++ | +++++<br>342626<br>+++++ | 17858<br>867418 | 34260<br>1662032 | 66521<br>3446490 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethyl methacrylate | CBNZ d5 | Ave | +++++<br>38566<br>2167227 | +++++<br>88162<br>3030427 | +++++<br>228460 | 9345<br>456089 | 17044<br>979220 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Dichloropropane | CBNZ d5 | Ave | +++++<br>47766<br>2531145 | +++++<br>108951<br>3520209 | 5477<br>278873 | 11068<br>544146 | 19861<br>1143718 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Hexanone | CBNZ d5 | Ave | +++++<br>26767<br>1593496 | +++++<br>60741<br>2203782 | +++++<br>151951 | +++++<br>346390 | 12998<br>750186 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Dibromochloromethane | CBNZ d5 | Ave | +++++<br>41978<br>2554286 | +++++<br>97959<br>3608153 | 4483<br>257760 | 9597<br>516800 | 18383<br>1139772 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 1,2-Dibromoethane (EDB) | CBNZ d5 | Ave | +++++<br>33828<br>1841145 | +++++<br>76056<br>2606251 | 3575<br>196851 | 7238<br>382923 | 14334<br>833837 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Tetrachloroethene | CBNZ d5 | Ave | +++++<br>40556<br>2039976 | +++++<br>84479<br>2897733 | 4280<br>223471 | 8567<br>436452 | 16369<br>958759 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,1,2-Tetrachloroethane | CBNZ d5 | Ave | +++++<br>47996<br>2638818 | +++++<br>107180<br>+++++ | 7476<br>272615 | 12699<br>533311 | 22622<br>1181847 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chlorobenzene | CBNZ d5 | Ave | +++++<br>115368<br>5502452 | +++++<br>257946<br>+++++ | 13039<br>660255 | 25438<br>1278971 | 48386<br>2741196 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethylbenzene | CBNZ d5 | Ave | +++++<br>184377<br>+++++ | +++++<br>404229<br>+++++ | 20790<br>1025862 | 41285<br>1988468 | 78888<br>4128608 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| m,p-Xylene | CBNZ d5 | Ave | +++++<br>72622<br>3990492 | +++++<br>161048<br>5600582 | 7898<br>410468 | 16478<br>814319 | 30965<br>1802057 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromoform | CBNZ d5 | Ave | +++++<br>29132<br>2017465 | +++++<br>68718<br>2857737 | 2812<br>189567 | 6344<br>385854 | 12046<br>871816 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Styrene | CBNZ d5 | Ave | +++++<br>116642<br>5926712 | +++++<br>261479<br>+++++ | 12985<br>691628 | 26280<br>1368079 | 49171<br>2973312 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2,2-Tetrachloroethane | DCBd 4 | Ave | +++++<br>42887<br>2459153 | +++++<br>99512<br>3315179 | 4856<br>256912 | 9411<br>505935 | 18871<br>1120389 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| o-Xylene | CBNZ d5 | Ave | +++++<br>73149<br>4023012 | 6713<br>161887<br>5447502 | 8051<br>415847 | 15946<br>827236 | 31580<br>1857444 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,3-Trichloropropane | DCBd 4 | Ave | +++++<br>13661<br>779082 | +++++<br>30244<br>1076653 | 1049<br>77333 | 3089<br>152543 | 5314<br>342949 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| trans-1,4-Dichloro-2-butene | DCBd 4 | Ave | +++++<br>15205<br>962055 | +++++<br>35767<br>1306704 | +++++<br>90563 | +++++<br>189936 | 6525<br>425053 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Isopropylbenzene | CBNZ d5 | Ave | +++++<br>202880<br>+++++ | +++++<br>448929<br>+++++ | 22499<br>1121520 | 44713<br>2237520 | 85898<br>4650597 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Bromobenzene | DCBd 4 | Ave | +++++<br>59036<br>3336368 | +++++<br>133751<br>4564592 | 5966<br>343407 | 13273<br>689354 | 24786<br>1513305 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| N-Propylbenzene | DCBd 4 | Ave | +++++<br>229264<br>+++++ | +++++<br>510030<br>+++++ | 26749<br>1299847 | 50121<br>2572168 | 97093<br>5152600 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Chlorotoluene | DCBd 4 | Ave | +++++<br>135839<br>6442380 | +++++<br>300451<br>+++++ | 15606<br>773304 | 31311<br>1546422 | 57596<br>3305631 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 4-Chlorotoluene | DCBd 4 | Ave | +++++<br>140674<br>6557855 | +++++<br>317391<br>+++++ | 15616<br>817085 | 30783<br>1611545 | 61641<br>3457785 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3,5-Trimethylbenzene | DCBd 4 | Ave | +++++<br>175439<br>+++++ | +++++<br>392740<br>+++++ | 19006<br>1008412 | 38441<br>2017425 | 73964<br>4247642 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| tert-Butylbenzene | DCBd 4 | Ave | +++++<br>163758<br>+++++ | +++++<br>367094<br>+++++ | 18323<br>952249 | 36055<br>1923057 | 70238<br>4054294 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,4-Trimethylbenzene | DCBd 4 | Ave | +++++<br>178778<br>+++++ | +++++<br>404304<br>+++++ | 20007<br>1051802 | 39780<br>2079340 | 77498<br>4314942 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| sec-Butylbenzene | DCBd 4 | Ave | +++++<br>242944<br>+++++ | +++++<br>538743<br>+++++ | 26561<br>1389097 | 53421<br>2751838 | 102109<br>5334176 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Dichlorobenzene | DCBd 4 | Ave | +++++<br>119013<br>5679119 | +++++<br>269089<br>+++++ | 13335<br>699881 | 26767<br>1394285 | 51096<br>3002798 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,4-Dichlorobenzene | DCBd 4 | Ave | +++++<br>121336<br>5575837 | +++++<br>274475<br>+++++ | 14346<br>715788 | 28433<br>1419433 | 52859<br>2988031 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| p-Isopropyltoluene | DCBd 4 | Ave | +++++<br>218309<br>+++++ | +++++<br>480384<br>+++++ | 24822<br>1247029 | 48451<br>2503840 | 92476<br>4957030 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2-Dichlorobenzene | DCBd 4 | Ave | +++++<br>112465<br>5251299 | +++++<br>255651<br>+++++ | 12283<br>676966 | 24242<br>1316267 | 47371<br>2786472 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Butylbenzene | DCBd 4 | Ave | +++++<br>190475<br>+++++ | +++++<br>423021<br>+++++ | 22517<br>1081562 | 41490<br>2128419 | 79774<br>4193001 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 446291

SDG No.:

Instrument ID: GCMS09 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/12/2017 15:54 Calibration End Date: 12/12/2017 20:45 Calibration ID: 18184

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 1,2-Dibromo-3-Chloropropane | DCBd 4 | Ave | +++++<br>8862<br>504852 | +++++<br>19863<br>659824 | +++++<br>51884 | 1894<br>107644 | 3413<br>239994 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,4-Trichlorobenzene | DCBd 4 | Ave | +++++<br>78679<br>4127335 | +++++<br>179838<br>5152212 | 8907<br>485284 | 17224<br>979292 | 33800<br>2125027 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Naphthalene | DCBd 4 | Ave | +++++<br>164006<br>+++++ | +++++<br>387000<br>+++++ | 18520<br>1023892 | 36890<br>2040515 | 71119<br>4211055 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Hexachlorobutadiene | DCBd 4 | Ave | +++++<br>47309<br>2552477 | +++++<br>108523<br>3378775 | 4915<br>285657 | 10402<br>573541 | 20599<br>1260854 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,3-Trichlorobenzene | DCBd 4 | Ave | +++++<br>68568<br>3769019 | +++++<br>162719<br>4802712 | 7612<br>444378 | 15844<br>860675 | 28801<br>1904255 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Dibromofluoromethane (Surr) | FB | Ave | 40426 | 90036 | 221573 | 428933 | 924685 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| 1,2-Dichloroethane-d4 (Surr) | FB | Ave | 44244 | 99028 | 244516 | 463088 | 981160 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| Toluene-d8 (Surr) | CBNZ d5 | Ave | 140765 | 307237 | 767534 | 1473425 | 3070247 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| 4-Bromofluorobenzene (Surr) | DCBd 4 | Ave | 59261 | 131465 | 332336 | 649888 | 1466890 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |

Curve Type Legend:

| |
|---|
| Ave = Average ISTD |
| Lin2 = Linear 1/conc^2 ISTD |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: ICV 440-446291/18 Calibration Date: 12/12/2017 22:04

Instrument ID: GCMS09 Calib Start Date: 12/12/2017 15:54

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 12/12/2017 20:45

Lab File ID: JFL12018.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.4376 | 0.4884 | | 27.9 | 25.0 | 11.6 | 40.0 |
| Chloromethane | Ave | 0.7147 | 0.6834 | 0.1000 | 23.9 | 25.0 | -4.4 | 40.0 |
| Vinyl chloride | Ave | 0.5454 | 0.5364 | | 24.6 | 25.0 | -1.6 | 30.0 |
| 1,3-Butadiene | Ave | 0.5427 | 0.5230 | | 24.1 | 25.0 | -3.6 | 30.0 |
| Bromomethane | Ave | 0.3003 | 0.2951 | | 24.6 | 25.0 | -1.8 | 30.0 |
| Chloroethane | Ave | 0.2299 | 0.2340 | | 25.4 | 25.0 | 1.7 | 30.0 |
| Ethanol | Ave | 0.1440 | 0.1431 | | 994 | 1000 | -0.6 | 40.0 |
| Dichlorofluoromethane | Ave | 0.6049 | 0.6418 | | 26.5 | 25.0 | 6.1 | 40.0 |
| Acrolein | Ave | 0.0374 | 0.0314 | | 21.0 | 25.0 | -16.0 | 40.0 |
| Acetonitrile | Ave | 0.0397 | 0.0380 | | 240 | 250 | -4.2 | 40.0 |
| Trichlorofluoromethane | Ave | 0.6000 | 0.6101 | | 25.4 | 25.0 | 1.7 | 40.0 |
| Acetone | Ave | 0.0803 | 0.0865 | | 26.9 | 25.0 | 7.7 | 40.0 |
| Diethyl ether | Ave | 0.2094 | 0.2166 | | 25.9 | 25.0 | 3.5 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.2696 | 0.2571 | | 23.8 | 25.0 | -4.6 | 30.0 |
| tert-Butyl alcohol (TBA) | Ave | 1.264 | 1.269 | | 251 | 250 | 0.4 | 30.0 |
| Iodomethane | Ave | 0.6186 | 0.6131 | | 24.8 | 25.0 | -0.9 | 40.0 |
| Acrylonitrile | Ave | 0.0974 | 0.1001 | | 257 | 250 | 2.8 | 40.0 |
| Methylene Chloride | Ave | 0.2798 | 0.2716 | | 24.3 | 25.0 | -2.9 | 30.0 |
| Methyl acetate | Ave | 0.2030 | 0.1956 | | 120 | 125 | -3.7 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.3640 | 0.3408 | | 23.4 | 25.0 | -6.4 | 40.0 |
| Allyl chloride | Ave | 0.5257 | 0.5064 | | 24.1 | 25.0 | -3.7 | 40.0 |
| Carbon disulfide | Ave | 0.9046 | 0.8998 | | 24.9 | 25.0 | -0.5 | 40.0 |
| trans-1,2-Dichloroethene | Ave | 0.2717 | 0.2599 | | 23.9 | 25.0 | -4.4 | 30.0 |
| Methyl-t-Butyl Ether (MTBE) | Ave | 0.6595 | 0.6710 | | 25.4 | 25.0 | 1.7 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.4956 | 0.4992 | 0.1000 | 25.2 | 25.0 | 0.7 | 30.0 |
| Propionitrile | Ave | 0.0390 | 0.0404 | | 259 | 250 | 3.5 | 40.0 |
| Vinyl acetate | Ave | 0.5730 | 0.5911 | | 25.8 | 25.0 | 3.2 | 40.0 |
| Hexane | Ave | 0.4924 | 0.4902 | | 24.9 | 25.0 | -0.5 | 40.0 |
| 2-Butanone (MEK) | Lin2 | | 0.0251 | | 25.6 | 25.0 | 2.2 | 40.0 |
| Isopropyl Ether (DIPE) | Ave | 1.049 | 1.060 | | 25.3 | 25.0 | 1.1 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.2978 | 0.2908 | | 24.4 | 25.0 | -2.4 | 30.0 |
| Bromochloromethane | Ave | 0.1469 | 0.1514 | | 25.8 | 25.0 | 3.1 | 30.0 |
| Chloroform | Ave | 0.4530 | 0.4605 | | 25.4 | 25.0 | 1.6 | 30.0 |
| Ethyl-t-butyl ether (ETBE) | Ave | 0.9333 | 0.9669 | | 25.9 | 25.0 | 3.6 | 30.0 |
| 2,2-Dichloropropane | Ave | 0.3809 | 0.3611 | | 23.7 | 25.0 | -5.2 | 30.0 |
| Isobutyl alcohol | Ave | 0.7017 | 0.6686 | | 595 | 625 | -4.7 | 40.0 |
| Tetrahydrofuran | Ave | 0.0888 | 0.0836 | | 47.1 | 50.0 | -5.9 | 40.0 |
| 1,2-Dichloroethane | Ave | 0.3681 | 0.3704 | | 25.2 | 25.0 | 0.6 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.4835 | 0.4787 | | 24.7 | 25.0 | -1.0 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.3411 | 0.3425 | | 25.1 | 25.0 | 0.4 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: ICV 440-446291/18 Calibration Date: 12/12/2017 22:04

Instrument ID: GCMS09 Calib Start Date: 12/12/2017 15:54

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 12/12/2017 20:45

Lab File ID: JFL12018.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Cyclohexane | Ave | 0.6068 | 0.5957 | | 24.5 | 25.0 | -1.8 | 30.0 |
| Carbon tetrachloride | Ave | 0.4694 | 0.4636 | | 24.7 | 25.0 | -1.2 | 40.0 |
| Benzene | Ave | 0.9607 | 0.9647 | | 25.1 | 25.0 | 0.4 | 30.0 |
| Tert-amyl-methyl ether (TAME) | Ave | 0.7092 | 0.7275 | | 25.6 | 25.0 | 2.6 | 30.0 |
| n-Heptane | Ave | 0.5386 | 0.5246 | | 24.4 | 25.0 | -2.6 | 30.0 |
| Dibromomethane | Ave | 0.1690 | 0.1684 | | 24.9 | 25.0 | -0.3 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.2803 | 0.2798 | | 25.0 | 25.0 | -0.2 | 30.0 |
| Trichloroethene | Ave | 0.3264 | 0.3264 | | 25.0 | 25.0 | 0.0 | 30.0 |
| Bromodichloromethane | Ave | 0.3447 | 0.3612 | | 26.2 | 25.0 | 4.8 | 30.0 |
| 2-Chloroethyl vinyl ether | Ave | 0.1371 | 0.1417 | | 25.8 | 25.0 | 3.4 | 40.0 |
| Methylcyclohexane | Ave | 0.4735 | 0.4675 | | 24.7 | 25.0 | -1.3 | 30.0 |
| cis-1,3-Dichloropropene | Ave | 0.4270 | 0.4316 | | 25.3 | 25.0 | 1.1 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.3047 | 0.3237 | | 26.6 | 25.0 | 6.3 | 40.0 |
| trans-1,3-Dichloropropene | Ave | 0.3883 | 0.3905 | | 25.1 | 25.0 | 0.6 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.1906 | 0.2000 | | 26.2 | 25.0 | 4.9 | 30.0 |
| Toluene | Ave | 1.210 | 1.166 | | 24.1 | 25.0 | -3.7 | 30.0 |
| 1,3-Dichloropropane | Ave | 0.3747 | 0.3652 | | 24.4 | 25.0 | -2.5 | 30.0 |
| Ethyl methacrylate | Ave | 0.3118 | 0.3142 | | 25.2 | 25.0 | 0.8 | 40.0 |
| 2-Hexanone | Ave | 0.2239 | 0.2357 | | 26.3 | 25.0 | 5.3 | 40.0 |
| Dibromochloromethane | Ave | 0.3472 | 0.3574 | | 25.7 | 25.0 | 2.9 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2634 | 0.2708 | | 25.7 | 25.0 | 2.8 | 30.0 |
| Tetrachloroethene | Ave | 0.3023 | 0.2938 | | 24.3 | 25.0 | -2.8 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.4108 | 0.3857 | | 23.5 | 25.0 | -6.1 | 40.0 |
| Chlorobenzene | Ave | 0.8983 | 0.8949 | 0.3000 | 24.9 | 25.0 | -0.4 | 30.0 |
| Ethylbenzene | Ave | 1.439 | 1.381 | | 24.0 | 25.0 | -4.0 | 30.0 |
| m,p-Xylene | Ave | 0.5687 | 0.5564 | | 24.5 | 25.0 | -2.2 | 30.0 |
| Bromoform | Ave | 0.2494 | 0.2646 | 0.1000 | 26.5 | 25.0 | 6.1 | 40.0 |
| Styrene | Ave | 0.9324 | 0.9475 | | 25.4 | 25.0 | 1.6 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5670 | 0.5700 | 0.3000 | 25.1 | 25.0 | 0.5 | 30.0 |
| o-Xylene | Ave | 0.5749 | 0.5697 | | 24.8 | 25.0 | -0.9 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.1697 | 0.1759 | | 25.9 | 25.0 | 3.7 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.2085 | 0.2107 | | 25.3 | 25.0 | 1.1 | 40.0 |
| Isopropylbenzene | Ave | 1.584 | 1.540 | | 24.3 | 25.0 | -2.7 | 30.0 |
| Bromobenzene | Ave | 0.7623 | 0.7652 | | 25.1 | 25.0 | 0.4 | 30.0 |
| N-Propylbenzene | Ave | 2.933 | 2.874 | | 24.5 | 25.0 | -2.0 | 30.0 |
| 2-Chlorotoluene | Ave | 1.737 | 1.708 | | 24.6 | 25.0 | -1.7 | 30.0 |
| 4-Chlorotoluene | Ave | 1.796 | 1.801 | | 25.1 | 25.0 | 0.3 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.254 | 2.219 | | 24.6 | 25.0 | -1.5 | 30.0 |
| tert-Butylbenzene | Ave | 2.133 | 2.110 | | 24.7 | 25.0 | -1.1 | 30.0 |
| 1,2,4-Trimethylbenzene | Ave | 2.331 | 2.279 | | 24.4 | 25.0 | -2.2 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: ICV 440-446291/18 Calibration Date: 12/12/2017 22:04

Instrument ID: GCMS09 Calib Start Date: 12/12/2017 15:54

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 12/12/2017 20:45

Lab File ID: JFL12018.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | Ave | 3.078 | 3.021 | | 24.5 | 25.0 | -1.8 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.536 | 1.520 | | 24.7 | 25.0 | -1.0 | 30.0 |
| 1,4-Dichlorobenzene | Ave | 1.577 | 1.585 | | 25.1 | 25.0 | 0.5 | 30.0 |
| p-Isopropyltoluene | Ave | 2.798 | 2.730 | | 24.4 | 25.0 | -2.4 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.436 | 1.481 | | 25.8 | 25.0 | 3.2 | 30.0 |
| n-Butylbenzene | Ave | 2.430 | 2.293 | | 23.6 | 25.0 | -5.6 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Ave | 0.1142 | 0.1205 | | 26.4 | 25.0 | 5.5 | 40.0 |
| 1,2,4-Trichlorobenzene | Ave | 1.024 | 1.048 | | 25.6 | 25.0 | 2.3 | 40.0 |
| Naphthalene | Ave | 2.207 | 2.265 | | 25.7 | 25.0 | 2.7 | 40.0 |
| Hexachlorobutadiene | Ave | 0.6140 | 0.6131 | | 25.0 | 25.0 | -0.1 | 40.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.9144 | 0.9821 | | 26.8 | 25.0 | 7.4 | 40.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2798 | 0.2806 | | 25.1 | 25.0 | 0.3 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.3043 | 0.3075 | | 25.3 | 25.0 | 1.0 | |
| Toluene-d8 (Surr) | Ave | 1.058 | 1.053 | | 24.9 | 25.0 | -0.5 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.7451 | 0.7464 | | 25.0 | 25.0 | 0.2 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: ICV 440-447198/14 Calibration Date: 12/16/2017 19:45

Instrument ID: GCMS09 Calib Start Date: 12/12/2017 15:54

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 12/12/2017 20:45

Lab File ID: JFL16014.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dibromofluoromethane (Surr) | Ave | 0.2798 | 0.2773 | | 24.8 | 25.0 | -0.9 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.3043 | 0.3041 | | 25.0 | 25.0 | -0.0 | |
| Toluene-d8 (Surr) | Ave | 1.058 | 1.096 | | 25.9 | 25.0 | 3.5 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.7451 | 0.7545 | | 25.3 | 25.0 | 1.3 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: ICV 440-447198/14 Calibration Date: 12/16/2017 19:45

Instrument ID: GCMS09 Calib Start Date: 12/16/2017 14:55

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 12/16/2017 18:52

Lab File ID: JFL16014.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorodifluoromethane | Ave | 0.5079 | 0.5608 | | 27.6 | 25.0 | 10.4 | 40.0 |
| 1,2-Dichloro-1,1,2-trifluoro ethane | Ave | 0.3359 | 0.3327 | | 24.8 | 25.0 | -0.9 | 40.0 |
| Isopropyl alcohol | Ave | 0.6781 | 0.6488 | | 239 | 250 | -4.3 | 40.0 |
| 1,1-Dichloro-1-fluoroethane | Ave | 0.4668 | 0.4691 | | 25.1 | 25.0 | 0.5 | 40.0 |
| 1,2-Dibromotetrafluoroethane | Ave | 0.2918 | 0.2948 | | 25.3 | 25.0 | 1.0 | 40.0 |
| 2-Chloro-1,3-butadiene | Ave | 0.5047 | 0.4753 | | 23.5 | 25.0 | -5.8 | 40.0 |
| Methylacrylonitrile | Ave | 0.1686 | 0.1616 | | 240 | 250 | -4.2 | 40.0 |
| Methyl acrylate | Ave | 0.2387 | 0.2297 | | 24.0 | 25.0 | -3.8 | 30.0 |
| 2,2-Dimethylpentane | Ave | 0.4405 | 0.4112 | | 23.3 | 25.0 | -6.7 | 30.0 |
| 2,4-Dimethylpentane | Ave | 0.4029 | 0.3701 | | 23.0 | 25.0 | -8.1 | 30.0 |
| 2,2,3-Trimethylbutane | Ave | 0.2961 | 0.2768 | | 23.4 | 25.0 | -6.5 | 30.0 |
| 3,3-Dimethylpentane | Ave | 1.263 | 1.172 | | 23.2 | 25.0 | -7.2 | 30.0 |
| 2-Methylhexane | Ave | 0.8138 | 0.7645 | | 23.5 | 25.0 | -6.1 | 30.0 |
| 2,3-Dimethylpentane | Ave | 0.7125 | 0.6690 | | 23.5 | 25.0 | -6.1 | 30.0 |
| 3-Methylhexane | Ave | 0.6985 | 0.6563 | | 23.5 | 25.0 | -6.0 | 30.0 |
| Thiophene | Ave | 0.5000 | 0.4979 | | 24.9 | 25.0 | -0.4 | 40.0 |
| 3-Ethylpentane | Ave | 1.031 | 0.9858 | | 23.9 | 25.0 | -4.4 | 30.0 |
| Isooctane | Ave | 1.450 | 1.377 | | 23.7 | 25.0 | -5.1 | 30.0 |
| Ethyl acrylate | Ave | 0.3622 | 0.3378 | | 23.3 | 25.0 | -6.7 | 30.0 |
| Methyl methacrylate | Ave | 0.1407 | 0.1335 | | 47.4 | 50.0 | -5.2 | 40.0 |
| Dimethyl disulfide | Ave | 0.4937 | 0.4990 | | 25.3 | 25.0 | 1.1 | 30.0 |
| 2-Ethyl-1-butanol | Ave | 0.0719 | 0.0661 | | 230 | 250 | -8.0 | 30.0 |
| 1-Chlorohexane | Ave | 0.7161 | 0.6810 | | 23.8 | 25.0 | -4.9 | 30.0 |
| Butyl acrylate | Ave | 0.7246 | 0.7345 | | 25.3 | 25.0 | 1.4 | 30.0 |
| Cyclohexanone | Ave | 0.0177 | 0.0185 | | 261 | 250 | 4.2 | 30.0 |
| Benzyl chloride | Ave | 0.6432 | 0.5424 | | 21.1 | 25.0 | -15.7 | 30.0 |
| Nonanal | Ave | 0.0925 | 0.1260 | | 34.1 | 25.0 | 36.2* | 30.0 |
| Hexachloroethane | Ave | 0.3518 | 0.3396 | | 24.1 | 25.0 | -3.5 | 40.0 |
| 1,3,5-Trichlorobenzene | Ave | 1.187 | 1.165 | | 24.5 | 25.0 | -1.9 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCVIS 440-452030/2 Calibration Date: 01/16/2018 17:55

Instrument ID: GCMS09 Calib Start Date: 12/12/2017 15:54

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 12/12/2017 20:45

Lab File ID: JGA16027.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.4376 | 0.4609 | | 26.3 | 25.0 | 5.3 | 40.0 |
| Chloromethane | Ave | 0.7147 | 0.8282 | 0.1000 | 29.0 | 25.0 | 15.9 | 40.0 |
| Vinyl chloride | Ave | 0.5454 | 0.5595 | | 25.6 | 25.0 | 2.6 | 20.0 |
| 1,3-Butadiene | Ave | 0.5427 | 0.6669 | | 30.7 | 25.0 | 22.9 | 30.0 |
| Bromomethane | Ave | 0.3003 | 0.2696 | | 22.4 | 25.0 | -10.2 | 30.0 |
| Chloroethane | Ave | 0.2299 | 0.2448 | | 26.6 | 25.0 | 6.5 | 30.0 |
| Ethanol | Ave | 0.1440 | 0.1834 | | 1270 | 1000 | 27.3 | 40.0 |
| Dichlorofluoromethane | Ave | 0.6049 | 0.5731 | | 23.7 | 25.0 | -5.3 | 40.0 |
| Acrolein | Ave | 0.0374 | 0.0212 | | 14.2 | 25.0 | -43.3* | 40.0 |
| Acetonitrile | Ave | 0.0397 | 0.0450 | | 284 | 250 | 13.5 | 40.0 |
| Trichlorofluoromethane | Ave | 0.6000 | 0.5529 | | 23.0 | 25.0 | -7.9 | 40.0 |
| Acetone | Ave | 0.0803 | 0.0783 | | 24.4 | 25.0 | -2.4 | 40.0 |
| Diethyl ether | Ave | 0.2094 | 0.2240 | | 26.7 | 25.0 | 7.0 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.2696 | 0.2541 | | 23.6 | 25.0 | -5.7 | 20.0 |
| tert-Butyl alcohol (TBA) | Ave | 1.264 | 1.387 | | 274 | 250 | 9.7 | 30.0 |
| Iodomethane | Ave | 0.6186 | 0.5592 | | 22.6 | 25.0 | -9.6 | 40.0 |
| Acrylonitrile | Ave | 0.0974 | 0.1158 | | 297 | 250 | 18.9 | 40.0 |
| Methylene Chloride | Ave | 0.2798 | 0.2667 | | 23.8 | 25.0 | -4.7 | 30.0 |
| Methyl acetate | Ave | 0.2030 | 0.2396 | | 147 | 125 | 18.0 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.3640 | 0.3444 | | 23.7 | 25.0 | -5.4 | 40.0 |
| Allyl chloride | Ave | 0.5257 | 0.6496 | | 30.9 | 25.0 | 23.6 | 40.0 |
| Carbon disulfide | Ave | 0.9046 | 0.8538 | | 23.6 | 25.0 | -5.6 | 40.0 |
| trans-1,2-Dichloroethene | Ave | 0.2717 | 0.2584 | | 23.8 | 25.0 | -4.9 | 30.0 |
| Methyl-t-Butyl Ether (MTBE) | Ave | 0.6595 | 0.6009 | | 22.8 | 25.0 | -8.9 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.4956 | 0.5291 | 0.1000 | 26.7 | 25.0 | 6.8 | 30.0 |
| Propionitrile | Ave | 0.0390 | 0.0425 | | 272 | 250 | 8.9 | 40.0 |
| Vinyl acetate | Ave | 0.5730 | 0.7209 | | 25.2 | 20.0 | 25.8 | 40.0 |
| Hexane | Ave | 0.4924 | 0.5501 | | 27.9 | 25.0 | 11.7 | 40.0 |
| 2-Butanone (MEK) | Lin2 | | 0.0212 | | 22.0 | 25.0 | -12.1 | 40.0 |
| Isopropyl Ether (DIPE) | Ave | 1.049 | 1.260 | | 30.0 | 25.0 | 20.1 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.2978 | 0.2814 | | 23.6 | 25.0 | -5.5 | 30.0 |
| Bromochloromethane | Ave | 0.1469 | 0.1447 | | 24.6 | 25.0 | -1.5 | 30.0 |
| Chloroform | Ave | 0.4530 | 0.4583 | | 25.3 | 25.0 | 1.2 | 20.0 |
| Ethyl-t-butyl ether (ETBE) | Ave | 0.9333 | 0.9553 | | 25.6 | 25.0 | 2.4 | 30.0 |
| 2,2-Dichloropropane | Ave | 0.3809 | 0.4130 | | 27.1 | 25.0 | 8.4 | 30.0 |
| Isobutyl alcohol | Ave | 0.7017 | 0.8549 | | 761 | 625 | 21.8 | 40.0 |
| Tetrahydrofuran | Ave | 0.0888 | 0.0995 | | 56.0 | 50.0 | 12.0 | 40.0 |
| 1,2-Dichloroethane | Ave | 0.3681 | 0.3693 | | 25.1 | 25.0 | 0.3 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.4835 | 0.4579 | | 23.7 | 25.0 | -5.3 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.3411 | 0.3286 | | 24.1 | 25.0 | -3.7 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCVIS 440-452030/2 Calibration Date: 01/16/2018 17:55

Instrument ID: GCMS09 Calib Start Date: 12/12/2017 15:54

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 12/12/2017 20:45

Lab File ID: JGA16027.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Cyclohexane | Ave | 0.6068 | 0.6807 | | 28.0 | 25.0 | 12.2 | 30.0 |
| Carbon tetrachloride | Ave | 0.4694 | 0.4444 | | 23.7 | 25.0 | -5.3 | 40.0 |
| Benzene | Ave | 0.9607 | 0.9840 | | 25.6 | 25.0 | 2.4 | 30.0 |
| Tert-amyl-methyl ether (TAME) | Ave | 0.7092 | 0.6379 | | 22.5 | 25.0 | -10.1 | 30.0 |
| n-Heptane | Ave | 0.5386 | 0.6700 | | 31.1 | 25.0 | 24.4 | 30.0 |
| Dibromomethane | Ave | 0.1690 | 0.1591 | | 23.5 | 25.0 | -5.9 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.2803 | 0.2880 | | 25.7 | 25.0 | 2.8 | 20.0 |
| Trichloroethene | Ave | 0.3264 | 0.3098 | | 23.7 | 25.0 | -5.1 | 30.0 |
| Bromodichloromethane | Ave | 0.3447 | 0.3436 | | 24.9 | 25.0 | -0.3 | 30.0 |
| 2-Chloroethyl vinyl ether | Ave | 0.1371 | 0.0927 | | 16.9 | 25.0 | -32.4 | 40.0 |
| Methylcyclohexane | Ave | 0.4735 | 0.4569 | | 24.1 | 25.0 | -3.5 | 30.0 |
| cis-1,3-Dichloropropene | Ave | 0.4270 | 0.4303 | | 25.2 | 25.0 | 0.8 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.3047 | 0.3461 | | 28.4 | 25.0 | 13.6 | 40.0 |
| trans-1,3-Dichloropropene | Ave | 0.3883 | 0.3857 | | 24.8 | 25.0 | -0.7 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.1906 | 0.1938 | | 25.4 | 25.0 | 1.7 | 30.0 |
| Toluene | Ave | 1.210 | 1.217 | | 25.1 | 25.0 | 0.6 | 20.0 |
| 1,3-Dichloropropane | Ave | 0.3747 | 0.3757 | | 25.1 | 25.0 | 0.3 | 30.0 |
| Ethyl methacrylate | Ave | 0.3118 | 0.2937 | | 23.5 | 25.0 | -5.8 | 40.0 |
| 2-Hexanone | Ave | 0.2239 | 0.2503 | | 28.0 | 25.0 | 11.8 | 40.0 |
| Dibromochloromethane | Ave | 0.3472 | 0.3432 | | 24.7 | 25.0 | -1.2 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2634 | 0.2546 | | 24.2 | 25.0 | -3.3 | 30.0 |
| Tetrachloroethene | Ave | 0.3023 | 0.2940 | | 24.3 | 25.0 | -2.7 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.4108 | 0.3543 | | 21.6 | 25.0 | -13.7 | 40.0 |
| Chlorobenzene | Ave | 0.8983 | 0.8844 | 0.3000 | 24.6 | 25.0 | -1.5 | 30.0 |
| Ethylbenzene | Ave | 1.439 | 1.419 | | 24.7 | 25.0 | -1.4 | 20.0 |
| m,p-Xylene | Ave | 0.5687 | 0.5659 | | 24.9 | 25.0 | -0.5 | 30.0 |
| Bromoform | Ave | 0.2494 | 0.2265 | 0.1000 | 22.7 | 25.0 | -9.2 | 40.0 |
| Styrene | Ave | 0.9324 | 0.9130 | | 24.5 | 25.0 | -2.1 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5670 | 0.5800 | 0.3000 | 25.6 | 25.0 | 2.3 | 30.0 |
| o-Xylene | Ave | 0.5749 | 0.5715 | | 24.9 | 25.0 | -0.6 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.1697 | 0.1706 | | 25.1 | 25.0 | 0.6 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.2085 | 0.2305 | | 27.6 | 25.0 | 10.6 | 40.0 |
| Isopropylbenzene | Ave | 1.584 | 1.555 | | 24.5 | 25.0 | -1.8 | 30.0 |
| Bromobenzene | Ave | 0.7623 | 0.7726 | | 25.3 | 25.0 | 1.4 | 30.0 |
| N-Propylbenzene | Ave | 2.933 | 3.179 | | 27.1 | 25.0 | 8.4 | 30.0 |
| 2-Chlorotoluene | Ave | 1.737 | 1.835 | | 26.4 | 25.0 | 5.7 | 30.0 |
| 4-Chlorotoluene | Ave | 1.796 | 1.912 | | 26.6 | 25.0 | 6.5 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.254 | 2.361 | | 26.2 | 25.0 | 4.8 | 30.0 |
| tert-Butylbenzene | Ave | 2.133 | 2.168 | | 25.4 | 25.0 | 1.6 | 30.0 |
| 1,2,4-Trimethylbenzene | Ave | 2.331 | 2.424 | | 26.0 | 25.0 | 4.0 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCVIS 440-452030/2 Calibration Date: 01/16/2018 17:55

Instrument ID: GCMS09 Calib Start Date: 12/12/2017 15:54

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 12/12/2017 20:45

Lab File ID: JGA16027.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | Ave | 3.078 | 3.269 | | 26.5 | 25.0 | 6.2 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.536 | 1.602 | | 26.1 | 25.0 | 4.3 | 30.0 |
| 1,4-Dichlorobenzene | Ave | 1.577 | 1.589 | | 25.2 | 25.0 | 0.8 | 30.0 |
| p-Isopropyltoluene | Ave | 2.798 | 2.889 | | 25.8 | 25.0 | 3.2 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.436 | 1.442 | | 25.1 | 25.0 | 0.4 | 30.0 |
| n-Butylbenzene | Ave | 2.430 | 2.568 | | 26.4 | 25.0 | 5.7 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Ave | 0.1142 | 0.1026 | | 22.5 | 25.0 | -10.2 | 40.0 |
| 1,2,4-Trichlorobenzene | Ave | 1.024 | 1.042 | | 25.4 | 25.0 | 1.8 | 40.0 |
| Naphthalene | Ave | 2.207 | 2.119 | | 24.0 | 25.0 | -4.0 | 40.0 |
| Hexachlorobutadiene | Ave | 0.6140 | 0.5904 | | 24.0 | 25.0 | -3.8 | 40.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.9144 | 0.9067 | | 24.8 | 25.0 | -0.8 | 40.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2798 | 0.2835 | | 25.3 | 25.0 | 1.3 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.3043 | 0.3128 | | 25.7 | 25.0 | 2.8 | |
| Toluene-d8 (Surr) | Ave | 1.058 | 1.082 | | 25.6 | 25.0 | 2.2 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.7451 | 0.7719 | | 25.9 | 25.0 | 3.6 | 20.0 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452030/4

Matrix: Water | Lab File ID: JGA16029.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 18:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452030 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | ND | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452030/4

Matrix: Water | Lab File ID: JGA16029.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 18:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452030 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 440-452030/4

Matrix: Water  Lab File ID: JGA16029.D

Analysis Method: 8260B  Date Collected:

Sample wt/vol: 10(mL)  Date Analyzed: 01/16/2018 18:48

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX A  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 452030  Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 109 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 99 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 108 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-452030/5

Matrix: Water | Lab File ID: JGA16030.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 19:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452030 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 27.5 | | 20 | 10 |
| 71-43-2 | Benzene | 25.3 | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | 24.5 | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | 24.1 | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 24.9 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 23.3 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | 20.7 | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | 24.0 | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 23.2 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | 25.0 | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | 25.1 | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 24.6 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | 26.6 | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | 25.8 | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | 26.3 | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | 23.7 | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | 25.4 | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 24.9 | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 22.9 | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 24.7 | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | 23.0 | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 25.0 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 24.9 | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 24.6 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | 23.2 | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | 26.0 | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | 24.7 | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | 22.6 | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | 25.4 | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | 25.6 | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | 25.8 | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | 24.9 | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | 25.1 | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 25.5 | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | 23.5 | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | 30.9 | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-452030/5

Matrix: Water | Lab File ID: JGA16030.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 19:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452030 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 25.4 | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | 30.2 | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 23.4 | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 31.8 | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 22.7 | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | 25.4 | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | 24.4 | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | 25.9 | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | 26.6 | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | 25.5 | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | 25.0 | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | 26.1 | | 0.50 | 0.25 |
| 100-42-5 | Styrene | 24.8 | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 22.5 | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 278 | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | 24.8 | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 22.4 | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 25.5 | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 24.3 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | 25.6 | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | 23.6 | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | 24.7 | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 24.9 | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 24.3 | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | 23.0 | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | 26.6 | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 23.4 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | 22.0 | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | 25.1 | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 25.4 | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25.8 | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | 23.5 | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | 50.9 | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 440-452030/5

Matrix: Water  Lab File ID: JGA16030.D

Analysis Method: 8260B  Date Collected:

Sample wt/vol: 10(mL)  Date Analyzed: 01/16/2018 19:14

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX A  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 452030  Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 102 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 105 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-36 MS | Lab Sample ID: 440-200815-3 MS

Matrix: Water | Lab File ID: JGA16032.D

Analysis Method: 8260B | Date Collected: 01/12/2018 15:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 20:08

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452030 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 531 | | 400 | 200 |
| 71-43-2 | Benzene | 508 | | 10 | 5.0 |
| 108-86-1 | Bromobenzene | 509 | | 10 | 5.0 |
| 74-97-5 | Bromochloromethane | 486 | | 10 | 5.0 |
| 75-27-4 | Bromodichloromethane | 498 | | 10 | 5.0 |
| 75-25-2 | Bromoform | 462 | | 20 | 8.0 |
| 74-83-9 | Bromomethane | 410 | | 10 | 5.0 |
| 78-93-3 | 2-Butanone (MEK) | 459 | | 100 | 50 |
| 56-23-5 | Carbon tetrachloride | 461 | | 10 | 5.0 |
| 108-90-7 | Chlorobenzene | 494 | | 10 | 5.0 |
| 75-00-3 | Chloroethane | 506 | | 20 | 8.0 |
| 67-66-3 | Chloroform | 1230 | | 10 | 5.0 |
| 74-87-3 | Chloromethane | 533 | | 10 | 5.0 |
| 95-49-8 | 2-Chlorotoluene | 525 | | 10 | 5.0 |
| 106-43-4 | 4-Chlorotoluene | 539 | | 10 | 5.0 |
| 156-59-2 | cis-1,2-Dichloroethene | 479 | | 10 | 5.0 |
| 10061-01-5 | cis-1,3-Dichloropropene | 505 | | 10 | 5.0 |
| 124-48-1 | Dibromochloromethane | 491 | | 10 | 5.0 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 468 | | 20 | 10 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 489 | | 10 | 5.0 |
| 74-95-3 | Dibromomethane | 467 | | 10 | 5.0 |
| 95-50-1 | 1,2-Dichlorobenzene | 508 | | 10 | 5.0 |
| 541-73-1 | 1,3-Dichlorobenzene | 507 | | 10 | 5.0 |
| 106-46-7 | 1,4-Dichlorobenzene | 514 | | 10 | 5.0 |
| 75-71-8 | Dichlorodifluoromethane | 444 | | 20 | 8.0 |
| 75-34-3 | 1,1-Dichloroethane | 535 | | 10 | 5.0 |
| 107-06-2 | 1,2-Dichloroethane | 501 | | 10 | 5.0 |
| 75-35-4 | 1,1-Dichloroethene | 451 | | 10 | 5.0 |
| 78-87-5 | 1,2-Dichloropropane | 524 | | 10 | 5.0 |
| 142-28-9 | 1,3-Dichloropropane | 506 | | 10 | 5.0 |
| 594-20-7 | 2,2-Dichloropropane | 514 | | 20 | 8.0 |
| 563-58-6 | 1,1-Dichloropropene | 497 | | 10 | 5.0 |
| 100-41-4 | Ethylbenzene | 495 | | 10 | 5.0 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 509 | | 10 | 5.0 |
| 87-68-3 | Hexachlorobutadiene | 474 | | 10 | 5.0 |
| 591-78-6 | 2-Hexanone | 615 | | 100 | 50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-36 MS | Lab Sample ID: 440-200815-3 MS

Matrix: Water | Lab File ID: JGA16032.D

Analysis Method: 8260B | Date Collected: 01/12/2018 15:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 20:08

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452030 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 491 | | 10 | 5.0 |
| 108-20-3 | Isopropyl Ether (DIPE) | 609 | | 10 | 5.0 |
| 75-09-2 | Methylene Chloride | 470 | | 40 | 18 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 636 | | 100 | 50 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 460 | | 10 | 5.0 |
| 179601-23-1 | m,p-Xylene | 500 | | 20 | 10 |
| 91-20-3 | Naphthalene | 484 | | 20 | 8.0 |
| 104-51-8 | n-Butylbenzene | 517 | | 20 | 8.0 |
| 103-65-1 | N-Propylbenzene | 539 | | 10 | 5.0 |
| 95-47-6 | o-Xylene | 487 | | 10 | 5.0 |
| 99-87-6 | p-Isopropyltoluene | 501 | | 10 | 5.0 |
| 135-98-8 | sec-Butylbenzene | 524 | | 10 | 5.0 |
| 100-42-5 | Styrene | 477 | | 10 | 5.0 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 448 | | 10 | 5.0 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 5620 | | 200 | 100 |
| 98-06-6 | tert-Butylbenzene | 502 | | 10 | 5.0 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 440 | | 10 | 5.0 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 513 | | 10 | 5.0 |
| 127-18-4 | Tetrachloroethene | 486 | | 10 | 5.0 |
| 108-88-3 | Toluene | 502 | | 10 | 5.0 |
| 156-60-5 | trans-1,2-Dichloroethene | 475 | | 10 | 5.0 |
| 10061-02-6 | trans-1,3-Dichloropropene | 488 | | 10 | 5.0 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 503 | | 20 | 8.0 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 489 | | 20 | 8.0 |
| 71-55-6 | 1,1,1-Trichloroethane | 461 | | 10 | 5.0 |
| 79-00-5 | 1,1,2-Trichloroethane | 527 | | 10 | 5.0 |
| 79-01-6 | Trichloroethene | 474 | | 10 | 5.0 |
| 75-69-4 | Trichlorofluoromethane | 433 | | 10 | 5.0 |
| 96-18-4 | 1,2,3-Trichloropropane | 515 | | 20 | 8.0 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 515 | | 10 | 5.0 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 518 | | 10 | 5.0 |
| 75-01-4 | Vinyl chloride | 462 | | 10 | 5.0 |
| 1330-20-7 | Xylenes, Total | 987 | | 20 | 10 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-36 MS Lab Sample ID: 440-200815-3 MS

Matrix: Water Lab File ID: JGA16032.D

Analysis Method: 8260B Date Collected: 01/12/2018 15:30

Sample wt/vol: 10(mL) Date Analyzed: 01/16/2018 20:08

Soil Aliquot Vol: Dilution Factor: 20

Soil Extract Vol.: GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452030 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 104 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 104 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-36 MSD | Lab Sample ID: 440-200815-3 MSD

Matrix: Water | Lab File ID: JGA16033.D

Analysis Method: 8260B | Date Collected: 01/12/2018 15:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 20:34

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452030 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 546 | | 400 | 200 |
| 71-43-2 | Benzene | 506 | | 10 | 5.0 |
| 108-86-1 | Bromobenzene | 510 | | 10 | 5.0 |
| 74-97-5 | Bromochloromethane | 486 | | 10 | 5.0 |
| 75-27-4 | Bromodichloromethane | 503 | | 10 | 5.0 |
| 75-25-2 | Bromoform | 462 | | 20 | 8.0 |
| 74-83-9 | Bromomethane | 416 | | 10 | 5.0 |
| 78-93-3 | 2-Butanone (MEK) | 478 | | 100 | 50 |
| 56-23-5 | Carbon tetrachloride | 462 | | 10 | 5.0 |
| 108-90-7 | Chlorobenzene | 491 | | 10 | 5.0 |
| 75-00-3 | Chloroethane | 505 | | 20 | 8.0 |
| 67-66-3 | Chloroform | 1230 | | 10 | 5.0 |
| 74-87-3 | Chloromethane | 527 | | 10 | 5.0 |
| 95-49-8 | 2-Chlorotoluene | 526 | | 10 | 5.0 |
| 106-43-4 | 4-Chlorotoluene | 529 | | 10 | 5.0 |
| 156-59-2 | cis-1,2-Dichloroethene | 472 | | 10 | 5.0 |
| 10061-01-5 | cis-1,3-Dichloropropene | 504 | | 10 | 5.0 |
| 124-48-1 | Dibromochloromethane | 490 | | 10 | 5.0 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 486 | | 20 | 10 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 483 | | 10 | 5.0 |
| 74-95-3 | Dibromomethane | 482 | | 10 | 5.0 |
| 95-50-1 | 1,2-Dichlorobenzene | 515 | | 10 | 5.0 |
| 541-73-1 | 1,3-Dichlorobenzene | 516 | | 10 | 5.0 |
| 106-46-7 | 1,4-Dichlorobenzene | 511 | | 10 | 5.0 |
| 75-71-8 | Dichlorodifluoromethane | 455 | | 20 | 8.0 |
| 75-34-3 | 1,1-Dichloroethane | 527 | | 10 | 5.0 |
| 107-06-2 | 1,2-Dichloroethane | 505 | | 10 | 5.0 |
| 75-35-4 | 1,1-Dichloroethene | 444 | | 10 | 5.0 |
| 78-87-5 | 1,2-Dichloropropane | 525 | | 10 | 5.0 |
| 142-28-9 | 1,3-Dichloropropane | 500 | | 10 | 5.0 |
| 594-20-7 | 2,2-Dichloropropane | 516 | | 20 | 8.0 |
| 563-58-6 | 1,1-Dichloropropene | 497 | | 10 | 5.0 |
| 100-41-4 | Ethylbenzene | 488 | | 10 | 5.0 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 519 | | 10 | 5.0 |
| 87-68-3 | Hexachlorobutadiene | 472 | | 10 | 5.0 |
| 591-78-6 | 2-Hexanone | 640 | | 100 | 50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-36 MSD | Lab Sample ID: 440-200815-3 MSD

Matrix: Water | Lab File ID: JGA16033.D

Analysis Method: 8260B | Date Collected: 01/12/2018 15:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 20:34

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452030 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 493 | | 10 | 5.0 |
| 108-20-3 | Isopropyl Ether (DIPE) | 613 | | 10 | 5.0 |
| 75-09-2 | Methylene Chloride | 468 | | 40 | 18 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 643 | | 100 | 50 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 475 | | 10 | 5.0 |
| 179601-23-1 | m,p-Xylene | 488 | | 20 | 10 |
| 91-20-3 | Naphthalene | 509 | | 20 | 8.0 |
| 104-51-8 | n-Butylbenzene | 516 | | 20 | 8.0 |
| 103-65-1 | N-Propylbenzene | 540 | | 10 | 5.0 |
| 95-47-6 | o-Xylene | 495 | | 10 | 5.0 |
| 99-87-6 | p-Isopropyltoluene | 505 | | 10 | 5.0 |
| 135-98-8 | sec-Butylbenzene | 518 | | 10 | 5.0 |
| 100-42-5 | Styrene | 474 | | 10 | 5.0 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 458 | | 10 | 5.0 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 5620 | | 200 | 100 |
| 98-06-6 | tert-Butylbenzene | 501 | | 10 | 5.0 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 439 | | 10 | 5.0 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 527 | | 10 | 5.0 |
| 127-18-4 | Tetrachloroethene | 475 | | 10 | 5.0 |
| 108-88-3 | Toluene | 497 | | 10 | 5.0 |
| 156-60-5 | trans-1,2-Dichloroethene | 485 | | 10 | 5.0 |
| 10061-02-6 | trans-1,3-Dichloropropene | 495 | | 10 | 5.0 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 516 | | 20 | 8.0 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 492 | | 20 | 8.0 |
| 71-55-6 | 1,1,1-Trichloroethane | 468 | | 10 | 5.0 |
| 79-00-5 | 1,1,2-Trichloroethane | 525 | | 10 | 5.0 |
| 79-01-6 | Trichloroethene | 476 | | 10 | 5.0 |
| 75-69-4 | Trichlorofluoromethane | 439 | | 10 | 5.0 |
| 96-18-4 | 1,2,3-Trichloropropane | 533 | | 20 | 8.0 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 512 | | 10 | 5.0 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 513 | | 10 | 5.0 |
| 75-01-4 | Vinyl chloride | 458 | | 10 | 5.0 |
| 1330-20-7 | Xylenes, Total | 983 | | 20 | 10 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-36 MSD Lab Sample ID: 440-200815-3 MSD

Matrix: Water Lab File ID: JGA16033.D

Analysis Method: 8260B Date Collected: 01/12/2018 15:30

Sample wt/vol: 10(mL) Date Analyzed: 01/16/2018 20:34

Soil Aliquot Vol: Dilution Factor: 20

Soil Extract Vol.: GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452030 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 103 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 102 | | 80-128 |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: GCMS09 Start Date: 12/12/2017 14:34

Analysis Batch Number: 446291 End Date: 12/12/2017 22:04

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-446291/1 | | 12/12/2017 14:34 | 1 | JFL12001.D | DB-VRX A 0.25(mm) |
| ZZZZZ | | 12/12/2017 15:01 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 12/12/2017 15:28 | 1 | | DB-VRX A 0.25(mm) |
| STD02 440-446291/4 IC | | 12/12/2017 15:54 | 1 | JFL12004.D | DB-VRX A 0.25(mm) |
| STD04 440-446291/5 IC | | 12/12/2017 16:20 | 1 | JFL12005.D | DB-VRX A 0.25(mm) |
| STD05 440-446291/6 IC | | 12/12/2017 16:47 | 1 | JFL12006.D | DB-VRX A 0.25(mm) |
| STD1 440-446291/7 IC | | 12/12/2017 17:13 | 1 | JFL12007.D | DB-VRX A 0.25(mm) |
| STD2 440-446291/8 IC | | 12/12/2017 17:40 | 1 | JFL12008.D | DB-VRX A 0.25(mm) |
| STD5 440-446291/9 IC | | 12/12/2017 18:06 | 1 | JFL12009.D | DB-VRX A 0.25(mm) |
| STD10 440-446291/10 IC | | 12/12/2017 18:33 | 1 | JFL12010.D | DB-VRX A 0.25(mm) |
| ICIS 440-446291/11 | | 12/12/2017 18:59 | 1 | JFL12011.D | DB-VRX A 0.25(mm) |
| STD50 440-446291/12 IC | | 12/12/2017 19:26 | 1 | JFL12012.D | DB-VRX A 0.25(mm) |
| STD100 440-446291/13 IC | | 12/12/2017 19:52 | 1 | JFL12013.D | DB-VRX A 0.25(mm) |
| STD200 440-446291/14 IC | | 12/12/2017 20:18 | 1 | JFL12014.D | DB-VRX A 0.25(mm) |
| STD300 440-446291/15 IC | | 12/12/2017 20:45 | 1 | JFL12015.D | DB-VRX A 0.25(mm) |
| ZZZZZ | | 12/12/2017 21:11 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 12/12/2017 21:37 | 1 | | DB-VRX A 0.25(mm) |
| ICV 440-446291/18 | | 12/12/2017 22:04 | 1 | JFL12018.D | DB-VRX A 0.25(mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: GCMS09 Start Date: 12/16/2017 14:04

Analysis Batch Number: 447198 End Date: 12/16/2017 19:45

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-447198/1 | | 12/16/2017 14:04 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 12/16/2017 14:28 | 1 | | DB-VRX A 0.25(mm) |
| STD05 440-447198/3 IC | | 12/16/2017 14:55 | 1 | | DB-VRX A 0.25(mm) |
| STD1 440-447198/4 IC | | 12/16/2017 15:21 | 1 | | DB-VRX A 0.25(mm) |
| STD2 440-447198/5 IC | | 12/16/2017 15:48 | 1 | | DB-VRX A 0.25(mm) |
| STD5 440-447198/6 IC | | 12/16/2017 16:14 | 1 | | DB-VRX A 0.25(mm) |
| STD10 440-447198/7 IC | | 12/16/2017 16:40 | 1 | | DB-VRX A 0.25(mm) |
| STD25 440-447198/8 IC | | 12/16/2017 17:07 | 1 | | DB-VRX A 0.25(mm) |
| STD50 440-447198/9 IC | | 12/16/2017 17:33 | 1 | | DB-VRX A 0.25(mm) |
| STD100 440-447198/10 IC | | 12/16/2017 17:59 | 1 | | DB-VRX A 0.25(mm) |
| STD200 440-447198/11 IC | | 12/16/2017 18:26 | 1 | | DB-VRX A 0.25(mm) |
| STD300 440-447198/12 IC | | 12/16/2017 18:52 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 12/16/2017 19:18 | 1 | | DB-VRX A 0.25(mm) |
| ICV 440-447198/14 | | 12/16/2017 19:45 | 1 | JFL16014.D | DB-VRX A 0.25(mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: GCMS09 Start Date: 01/16/2018 17:23

Analysis Batch Number: 452030 End Date: 01/17/2018 02:44

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-452030/1 | | 01/16/2018 17:23 | 1 | JGA16026.D | DB-VRX A 0.25(mm) |
| CCVIS 440-452030/2 | | 01/16/2018 17:55 | 1 | JGA16027.D | DB-VRX A 0.25(mm) |
| CCV 440-452030/3 | | 01/16/2018 18:22 | 1 | | DB-VRX A 0.25(mm) |
| MB 440-452030/4 | | 01/16/2018 18:48 | 1 | JGA16029.D | DB-VRX A 0.25(mm) |
| LCS 440-452030/5 | | 01/16/2018 19:14 | 1 | JGA16030.D | DB-VRX A 0.25(mm) |
| 440-200815-3 | | 01/16/2018 19:42 | 20 | JGA16031.D | DB-VRX A 0.25(mm) |
| 440-200815-3 MS | | 01/16/2018 20:08 | 20 | JGA16032.D | DB-VRX A 0.25(mm) |
| 440-200815-3 MSD | | 01/16/2018 20:34 | 20 | JGA16033.D | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/16/2018 21:01 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/16/2018 21:27 | 1 | | DB-VRX A 0.25(mm) |
| 440-200815-1 | | 01/16/2018 21:53 | 20 | JGA16036.D | DB-VRX A 0.25(mm) |
| 440-200815-2 | | 01/16/2018 22:20 | 1 | JGA16037.D | DB-VRX A 0.25(mm) |
| 440-200815-4 | | 01/16/2018 22:46 | 1 | JGA16038.D | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/16/2018 23:13 | 10 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/16/2018 23:39 | 20 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/17/2018 00:06 | 20 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/17/2018 00:32 | 4 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/17/2018 00:58 | 2000 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/17/2018 01:25 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/17/2018 01:51 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/17/2018 02:17 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/17/2018 02:44 | 1 | | DB-VRX A 0.25(mm) |

# GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Batch Number: 447198  Batch Start Date: 12/16/17 14:04  Batch Analyst: Barbu, Ligia 1

Batch Method: 8260B  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | VMWNU8260ISS 00133 | VMWTier2CCV2 00168 | | |
|---|---|---|---|---|---|---|---|---|---|
| ICV 440-447198/14 | | 8260B | | 10 mL | 10 mL | 5 uL | 5 uL | | |

| Batch Notes | |
|---|---|
| | |

| Basis | Basis Description |
|---|---|
| | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Batch Number: 452030  Batch Start Date: 01/16/18 17:23  Batch Analyst: Hmuadmueng, Ornuma 1

Batch Method: 8260B  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | Initial pH | VMW8260TUNE1 00415 | VMWNU8260CCV1 00883 | VMWNU8260ISS 00136 |
|---|---|---|---|---|---|---|---|---|---|
| BFB 440-452030/1 | | 8260B | | 10 mL | 10 mL | | 2 uL | | |
| CCVIS 440-452030/2 | | 8260B | | 10 mL | 10 mL | | | 5 uL | 5 uL |
| MB 440-452030/4 | | 8260B | | 10 mL | 10 mL | | | | 5 uL |
| LCS 440-452030/5 | | 8260B | | 10 mL | 10 mL | | | | 5 uL |
| 440-200815-B-3 | VER-01I-B-36 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-200815-B-3 MS | VER-01I-B-36 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-200815-B-3 MSD | VER-01I-B-36 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-200815-A-1 | VER-01I-B-24 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-200815-A-2 | Trip Blank-01122018 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-200815-B-4 | TB-011218 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | VMWNU8260LCS2 00173 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BFB 440-452030/1 | | 8260B | | | | | | | |
| CCVIS 440-452030/2 | | 8260B | | | | | | | |
| MB 440-452030/4 | | 8260B | | | | | | | |
| LCS 440-452030/5 | | 8260B | | 5 uL | | | | | |
| 440-200815-B-3 | VER-01I-B-36 | 8260B | T | | | | | | |
| 440-200815-B-3 MS | VER-01I-B-36 | 8260B | T | 5 uL | | | | | |
| 440-200815-B-3 MSD | VER-01I-B-36 | 8260B | T | 5 uL | | | | | |
| 440-200815-A-1 | VER-01I-B-24 | 8260B | T | | | | | | |
| 440-200815-A-2 | Trip Blank-01122018 | 8260B | T | | | | | | |
| 440-200815-B-4 | TB-011218 | 8260B | T | | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Batch Number: 452030  Batch Start Date: 01/16/18 17:23  Batch Analyst: Hmuadmueng, Ornuma 1

Batch Method: 8260B  Batch End Date:

| Batch Notes | |
|---|---|
| | |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# 314.0_LL

## Perchlorate (IC)

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098658-006_6_ECD_1.d

Lab ID: LCS 440-451680/6 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 10.0 | 9.06 | 91 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098658-004_4_ECD_1.d

Lab ID: MRL 440-451680/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 1.00 | 0.903 J | 90 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098658-112_112_ECD_1.d

Lab ID: 440-200815-3 MS Client ID: VER-01I-B-36 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Perchlorate | 500 | 1200000 | 1230000 | 4190 | 80-120 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098658-113_113_ECD_1.d

Lab ID: 440-200815-3 MSD Client ID: VER-01I-B-36 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Perchlorate | 500 | 1210000 | -1566 | 2 | 20 | 80-120 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098658-008_8_ECD_1.d

Lab ID: INF 440-451680/8 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | INF CONCENTRATION (ug/L) | INF % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 10.0 | 9.90 | 99 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab File ID: 440-0098658-007_7_ECD_1.d Lab Sample ID: MB 440-451680/7

Matrix: Water Date Extracted:

Instrument ID: IC-25 Date Analyzed: 01/15/2018 11:07

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-451680/3 | 440-0098658-003_3_ECD_1.d | 01/15/2018 09:51 |
| | LCS 440-451680/6 | 440-0098658-006_6_ECD_1.d | 01/15/2018 10:49 |
| | CCB 440-451680/15 | 440-0098658-015_15_ECD 1.d | 01/15/2018 13:41 |
| | CCB 440-451680/91 | 440-0098658-091_91_ECD 1.d | 01/16/2018 14:01 |
| VER-01I-B-24 | 440-200815-1 | 440-0098658-096_96_ECD_1.d | 01/16/2018 16:35 |
| VER-01I-B-36 | 440-200815-3 | 440-0098658-097_97_ECD 1.d | 01/16/2018 16:53 |
| | CCB 440-451680/103 | 440-0098658-103_103_ECD_1.d | 01/16/2018 18:43 |
| VER-01I-B-36 MS | 440-200815-3 MS | 440-0098658-112_112_ECD_1.d | 01/16/2018 21:28 |
| VER-01I-B-36 MSD | 440-200815-3 MSD | 440-0098658-113_113_ECD_1.d | 01/16/2018 21:47 |
| | CCB 440-451680/115 | 440-0098658-115_115_ECD_1.d | 01/16/2018 22:23 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-24 | Lab Sample ID: 440-200815-1

Matrix: Water | Lab File ID: 440-0098658-096_96_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/12/2018 03:30

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/16/2018 16:35

Con. Extract Vol.: | Dilution Factor: 100000

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1200000 | | 100000 | 50000 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-36 | Lab Sample ID: 440-200815-3

Matrix: Water | Lab File ID: 440-0098658-097_97_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/12/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/16/2018 16:53

Con. Extract Vol.: | Dilution Factor: 100000

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1200000 | | 100000 | 50000 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 447839

SDG No.:

Instrument ID: IC-25 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/20/2017 11:10 Calibration End Date: 12/20/2017 13:16 Calibration ID: 18248

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-447839/1 | 440-0097758-001_1_ECD_1.d |
| Level 2 | STD1 440-447839/2 | 440-0097758-002_2_ECD_1.d |
| Level 3 | STD2 440-447839/3 | 440-0097758-003_3_ECD_1.d |
| Level 4 | STD3 440-447839/4 | 440-0097758-004_4_ECD_1.d |
| Level 5 | STD4 440-447839/5 | 440-0097758-005_5_ECD_1.d |
| Level 6 | STD5 440-447839/6 | 440-0097758-006_6_ECD_1.d |
| Level 7 | STD6 440-447839/7 | 440-0097758-007_7_ECD_1.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | | 11.814 | 11.814 | 11.804 | 11.804 | 11.804 | 11.810 | | | | 0.000 - 0.000 | 11.808 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1  Analy Batch No.: 447839

SDG No.:

Instrument ID: IC-25  GC Column: AS7 A  ID: 4(mm)  Heated Purge: (Y/N) N

Calibration Start Date: 12/20/2017 11:10  Calibration End Date: 12/20/2017 13:16  Calibration ID: 18248

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-447839/1 | 440-0097758-001_1_ECD_1.d |
| Level 2 | STD1 440-447839/2 | 440-0097758-002_2_ECD_1.d |
| Level 3 | STD2 440-447839/3 | 440-0097758-003_3_ECD_1.d |
| Level 4 | STD3 440-447839/4 | 440-0097758-004_4_ECD_1.d |
| Level 5 | STD4 440-447839/5 | 440-0097758-005_5_ECD_1.d |
| Level 6 | STD5 440-447839/6 | 440-0097758-006_6_ECD_1.d |
| Level 7 | STD6 440-447839/7 | 440-0097758-007_7_ECD_1.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Perchlorate | 137199 | 193691<br>140806 | 172072<br>133109 | 150105 | Lin | 57064.1722 | 132466.839 | | | | | | | 0.9990 | | 0.9950 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 447839

SDG No.:

Instrument ID: IC-25 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/20/2017 11:10 Calibration End Date: 12/20/2017 13:16 Calibration ID: 18248

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-447839/1 | 440-0097758-001_1_ECD_1.d |
| Level 2 | STD1 440-447839/2 | 440-0097758-002_2_ECD_1.d |
| Level 3 | STD2 440-447839/3 | 440-0097758-003_3_ECD_1.d |
| Level 4 | STD3 440-447839/4 | 440-0097758-004_4_ECD_1.d |
| Level 5 | STD4 440-447839/5 | 440-0097758-005_5_ECD_1.d |
| Level 6 | STD5 440-447839/6 | 440-0097758-006_6_ECD_1.d |
| Level 7 | STD6 440-447839/7 | 440-0097758-007_7_ECD_1.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| Perchlorate | Lin | 2112096 | 193691<br>3327719 | 344144 | 600421 | 1371988 | 0.000000<br>15.0 | 1.00<br>25.0 | 2.00 | 4.00 | 10.0 |

Curve Type Legend:
Lin = Linear

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: ICV 440-447839/8 Calibration Date: 12/20/2017 13:40

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0097758-008_8_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 10.1 | 10.0 | 101 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: ICV 440-447839/8 Calibration Date: 12/20/2017 13:40

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0097758-008_8_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.81 | 11.22 | 12.41 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451680/2 Calibration Date: 01/15/2018 09:25

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098658-002_2_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 8.78 | 10.0 | 88 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451680/2 Calibration Date: 01/15/2018 09:25

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098658-002_2_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.39 | 11.77 | 13.01 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451680/14 Calibration Date: 01/15/2018 13:22

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098658-014_14_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 8.97 | 10.0 | 90 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451680/14 Calibration Date: 01/15/2018 13:22

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098658-014_14_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.38 | 11.76 | 13.00 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451680/90 Calibration Date: 01/16/2018 13:42

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098658-090_90_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 19.0 | 20.0 | 95 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451680/90 Calibration Date: 01/16/2018 13:42

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098658-090_90_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.40 | 11.78 | 13.02 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451680/102 Calibration Date: 01/16/2018 18:25

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098658-102_102_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 8.55 | 10.0 | 86 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451680/102 Calibration Date: 01/16/2018 18:25

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098658-102_102_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.41 | 11.79 | 13.03 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451680/114 Calibration Date: 01/16/2018 22:05

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098658-114_114_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 19.0 | 20.0 | 95 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451680/114 Calibration Date: 01/16/2018 22:05

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098658-114_114_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.41 | 11.79 | 13.04 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-451680/7

Matrix: Water | Lab File ID: 440-0098658-007_7_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/15/2018 11:07

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451680/3

Matrix: Water | Lab File ID: 440-0098658-003_3_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/15/2018 09:51

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451680/15

Matrix: Water | Lab File ID: 440-0098658-015_15_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/15/2018 13:41

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451680/91

Matrix: Water | Lab File ID: 440-0098658-091_91_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/16/2018 14:01

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451680/103

Matrix: Water | Lab File ID: 440-0098658-103_103_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/16/2018 18:43

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451680/115

Matrix: Water | Lab File ID: 440-0098658-115_115_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/16/2018 22:23

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-451680/6

Matrix: Water | Lab File ID: 440-0098658-006_6_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/15/2018 10:49

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 9.06 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-451680/4

Matrix: Water | Lab File ID: 440-0098658-004_4_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/15/2018 10:09

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 0.903 | J | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: INF 440-451680/8

Matrix: Water | Lab File ID: 440-0098658-008_8_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/15/2018 11:26

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 9.90 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-36 MS | Lab Sample ID: 440-200815-3 MS

Matrix: Water | Lab File ID: 440-0098658-112_112_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/12/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/16/2018 21:28

Con. Extract Vol.: | Dilution Factor: 100000

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1230000 | | 100000 | 50000 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-36 MSD | Lab Sample ID: 440-200815-3 MSD

Matrix: Water | Lab File ID: 440-0098658-113_113_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/12/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/16/2018 21:47

Con. Extract Vol.: | Dilution Factor: 100000

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1210000 | | 100000 | 50000 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-25 Start Date: 12/20/2017 11:10

Analysis Batch Number: 447839 End Date: 12/20/2017 19:55

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| STD0 440-447839/1 IC | | 12/20/2017 11:10 | 1 | 440-0097758-001 1 ECD 1.d | AS7 A 4(mm) |
| STD1 440-447839/2 IC | | 12/20/2017 11:28 | 1 | 440-0097758-002 2 ECD 1.d | AS7 A 4(mm) |
| STD2 440-447839/3 IC | | 12/20/2017 12:02 | 1 | 440-0097758-003 3 ECD 1.d | AS7 A 4(mm) |
| STD3 440-447839/4 IC | | 12/20/2017 12:21 | 1 | 440-0097758-004 4 ECD 1.d | AS7 A 4(mm) |
| STD4 440-447839/5 IC | | 12/20/2017 12:39 | 1 | 440-0097758-005 5 ECD 1.d | AS7 A 4(mm) |
| STD5 440-447839/6 IC | | 12/20/2017 12:57 | 1 | 440-0097758-006 6 ECD 1.d | AS7 A 4(mm) |
| STD6 440-447839/7 IC | | 12/20/2017 13:16 | 1 | 440-0097758-007 7 ECD 1.d | AS7 A 4(mm) |
| ICV 440-447839/8 | | 12/20/2017 13:40 | 1 | 440-0097758-008 8 ECD 1.d | AS7 A 4(mm) |
| ICB 440-447839/9 | | 12/20/2017 13:58 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 14:16 | 1 | | AS7 A 4(mm) |
| CCV 440-447839/11 | | 12/20/2017 14:34 | 1 | | AS7 A 4(mm) |
| CCB 440-447839/12 | | 12/20/2017 14:58 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 15:17 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 15:35 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 15:53 | 1 | | AS7 A 4(mm) |
| INF 440-447839/16 | | 12/20/2017 16:12 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 16:38 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 16:55 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 17:14 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 17:46 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 18:04 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 18:23 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 18:41 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 18:59 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 19:18 | 1 | | AS7 A 4(mm) |
| CCV 440-447839/26 | | 12/20/2017 19:36 | 1 | | AS7 A 4(mm) |
| CCB 440-447839/27 | | 12/20/2017 19:55 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-25 Start Date: 01/15/2018 09:07

Analysis Batch Number: 451680 End Date: 01/16/2018 22:23

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/15/2018 09:07 | 1 | | AS16 4(mm) |
| CCV 440-451680/2 | | 01/15/2018 09:25 | 1 | 440-0098658-002 2 ECD 1.d | AS16 4(mm) |
| CCB 440-451680/3 | | 01/15/2018 09:51 | 1 | 440-0098658-003 3 ECD 1.d | AS16 4(mm) |
| MRL 440-451680/4 | | 01/15/2018 10:09 | 1 | 440-0098658-004 4 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 10:28 | 1 | | AS16 4(mm) |
| LCS 440-451680/6 | | 01/15/2018 10:49 | 1 | 440-0098658-006 6 ECD 1.d | AS16 4(mm) |
| MB 440-451680/7 | | 01/15/2018 11:07 | 1 | 440-0098658-007 7 ECD 1.d | AS16 4(mm) |
| INF 440-451680/8 | | 01/15/2018 11:26 | 1 | 440-0098658-008 8 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 11:51 | 10 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 12:09 | 10 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 12:27 | 20 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 12:46 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 13:04 | 1 | | AS16 4(mm) |
| CCV 440-451680/14 | | 01/15/2018 13:22 | 1 | 440-0098658-014 14 ECD 1.d | AS16 4(mm) |
| CCB 440-451680/15 | | 01/15/2018 13:41 | 1 | 440-0098658-015 15 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 14:03 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 14:21 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 14:39 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 14:58 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 15:16 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 15:34 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 15:53 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 16:11 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 16:29 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 16:48 | 1 | | AS16 4(mm) |
| CCV 440-451680/26 | | 01/15/2018 17:06 | 1 | | AS16 4(mm) |
| CCB 440-451680/27 | | 01/15/2018 17:25 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 17:48 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 18:06 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 18:24 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 18:43 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 19:01 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 19:19 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 19:38 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 19:56 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 20:14 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 20:33 | 1 | | AS16 4(mm) |
| CCV 440-451680/38 | | 01/15/2018 20:51 | 1 | | AS16 4(mm) |
| CCB 440-451680/39 | | 01/15/2018 21:09 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 21:28 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 21:46 | 1 | | AS16 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-25 Start Date: 01/15/2018 09:07

Analysis Batch Number: 451680 End Date: 01/16/2018 22:23

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/15/2018 22:04 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 22:23 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 22:41 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 23:00 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 23:18 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 23:36 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 23:55 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 00:13 | 1 | | AS16 4(mm) |
| CCV 440-451680/50 | | 01/16/2018 00:31 | 1 | | AS16 4(mm) |
| CCB 440-451680/51 | | 01/16/2018 00:50 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 01:08 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 01:26 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 01:45 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 02:03 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 02:21 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 02:40 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 02:58 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 03:17 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 03:35 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 03:53 | 1 | | AS16 4(mm) |
| CCV 440-451680/62 | | 01/16/2018 04:12 | 1 | | AS16 4(mm) |
| CCB 440-451680/63 | | 01/16/2018 04:30 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 04:48 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 05:07 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 05:25 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 05:43 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 06:02 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 06:20 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 06:38 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 06:57 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 07:15 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 07:34 | 1 | | AS16 4(mm) |
| CCV 440-451680/74 | | 01/16/2018 07:52 | 1 | | AS16 4(mm) |
| CCB 440-451680/75 | | 01/16/2018 08:10 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 09:26 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 09:44 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 10:02 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 10:20 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 10:39 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 10:57 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 11:15 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 11:34 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 11:52 | 5 | | AS16 4(mm) |
| CCV 440-451680/85 | | 01/16/2018 12:11 | 1 | | AS16 4(mm) |
| CCB 440-451680/86 | | 01/16/2018 12:29 | 1 | | AS16 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-25 Start Date: 01/15/2018 09:07

Analysis Batch Number: 451680 End Date: 01/16/2018 22:23

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/16/2018 12:47 | 2 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 13:06 | 10 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 13:24 | 20 | | AS16 4(mm) |
| CCV 440-451680/90 | | 01/16/2018 13:42 | 1 | 440-0098658-090 90 ECD 1.d | AS16 4(mm) |
| CCB 440-451680/91 | | 01/16/2018 14:01 | 1 | 440-0098658-091 91 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 14:45 | 100 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 15:02 | 100 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 15:54 | 50 | | AS16 4(mm) |
| 440-200815-1 | | 01/16/2018 16:35 | 100000 | 440-0098658-096 96 ECD 1.d | AS16 4(mm) |
| 440-200815-3 | | 01/16/2018 16:53 | 100000 | 440-0098658-097 97 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 17:11 | 50 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 17:30 | 50 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 17:48 | 50 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 18:07 | 1 | | AS16 4(mm) |
| CCV 440-451680/102 | | 01/16/2018 18:25 | 1 | 440-0098658-102 102 ECD 1.d | AS16 4(mm) |
| CCB 440-451680/103 | | 01/16/2018 18:43 | 1 | 440-0098658-103 103 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 19:02 | 2 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 19:20 | 10000 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 19:38 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 19:57 | 10000 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 20:15 | 20000 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 20:33 | 20000 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 20:52 | 100000 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 21:10 | 100000 | | AS16 4(mm) |
| 440-200815-3 MS | | 01/16/2018 21:28 | 100000 | 440-0098658-112 112 ECD 1.d | AS16 4(mm) |
| 440-200815-3 MSD | | 01/16/2018 21:47 | 100000 | 440-0098658-113 113 ECD 1.d | AS16 4(mm) |
| CCV 440-451680/114 | | 01/16/2018 22:05 | 1 | 440-0098658-114 114 ECD 1.d | AS16 4(mm) |
| CCB 440-451680/115 | | 01/16/2018 22:23 | 1 | 440-0098658-115 115 ECD 1.d | AS16 4(mm) |

# Method 7199

## Chromium, Hexavalent (IC) by Method 7199

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: LCS 440-451317/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 49.7 | 99 | 90-110 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: LCS 440-451533/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 49.9 | 100 | 90-110 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: MRL 440-451317/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 1.00 | 0.984 J | 98 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: MRL 440-451533/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 1.00 | 0.986 J | 99 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: 440-200815-3 MS Client ID: VER-01I-B-36 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chromium, hexavalent | 1500 | 13000 | 13800 | 84 | 85-115 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: 440-200715-J-9 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 2.3 | 51.9 | 99 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: 440-200815-3 MSD Client ID: VER-01I-B-36 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 1500 | 13800 | 86 | 0 | 20 | 85-115 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: 440-200715-J-9 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 52.0 | 100 | 0 | 20 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2 Lab Sample ID: MB 440-451317/6

Matrix: Water Date Extracted:

Instrument ID: IC-16 Date Analyzed: 01/12/2018 06:58

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-451317/3 | Info 2_TAIIRV0066_Hex Chrom_20180112-063530.d | 01/12/2018 06:23 |
| | LCS 440-451317/5 | Info 2_TAIIRV0066_Hex Chrom_20180112-065845.d | 01/12/2018 06:47 |
| | CCB 440-451317/17 | Info 2_TAIIRV0066_Hex Chrom_20180112-203943.d | 01/12/2018 20:28 |
| VER-01I-B-24 | 440-200815-1 | Info 2_TAIIRV0066_Hex Chrom_20180112-210428.d | 01/12/2018 20:52 |
| | 440-200715-J-9 MS | Info 2_TAIIRV0066_Hex Chrom_20180112-221903.d | 01/12/2018 22:07 |
| | 440-200715-J-9 MSD | Info 2_TAIIRV0066_Hex Chrom_20180112-223040.d | 01/12/2018 22:19 |
| | CCB 440-451317/29 | Info 2_TAIIRV0066_Hex Chrom_20180112-235722.d | 01/12/2018 23:45 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2 Lab Sample ID: MB 440-451533/6

Matrix: Water Date Extracted:

Instrument ID: IC-16 Date Analyzed: 01/13/2018 08:29

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-451533/3 | Info 2_TAIIRV0066_Hex Chrom_20180113-080604.d | 01/13/2018 07:54 |
| | LCS 440-451533/5 | Info 2_TAIIRV0066_Hex Chrom_20180113-082919.d | 01/13/2018 08:17 |
| VER-01I-B-36 | 440-200815-3 | Info 2_TAIIRV0066_Hex Chrom_20180113-101357.d | 01/13/2018 10:02 |
| VER-01I-B-36 MS | 440-200815-3 MS | Info 2_TAIIRV0066_Hex Chrom_20180113-103713.d | 01/13/2018 10:25 |
| VER-01I-B-36 MSD | 440-200815-3 MSD | Info 2_TAIIRV0066_Hex Chrom_20180113-104851.d | 01/13/2018 10:37 |
| | CCB 440-451533/13 | Info 2_TAIIRV0066_Hex Chrom_20180113-111206.d | 01/13/2018 11:00 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-24 | Lab Sample ID: 440-200815-1

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/12/2018 03:30

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/12/2018 20:52

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451317 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 12000 | | 1000 | 130 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-36 | Lab Sample ID: 440-200815-3

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/12/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/13/2018 10:02

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451533 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 13000 | | 1000 | 130 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 432478

SDG No.:

Instrument ID: IC-16 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2017 12:38 Calibration End Date: 10/02/2017 13:59 Calibration ID: 17606

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-432478/3 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d |
| Level 2 | STD2 440-432478/4 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d |
| Level 3 | STD3 440-432478/5 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d |
| Level 4 | STD4 440-432478/6 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d |
| Level 5 | STD5 440-432478/7 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d |
| Level 6 | STD6 440-432478/8 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d |
| Level 7 | STD7 440-432478/9 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 7.528 | 7.528 | 7.528 | 7.528 | 7.523 | 7.523 | 7.523 | | | | 7.151 - 7.904 | 7.526 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 432478

SDG No.:

Instrument ID: IC-16 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2017 12:38 Calibration End Date: 10/02/2017 13:59 Calibration ID: 17606

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-432478/3 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d |
| Level 2 | STD2 440-432478/4 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d |
| Level 3 | STD3 440-432478/5 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d |
| Level 4 | STD4 440-432478/6 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d |
| Level 5 | STD5 440-432478/7 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d |
| Level 6 | STD6 440-432478/8 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d |
| Level 7 | STD7 440-432478/9 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Chromium, hexavalent | 48520<br>43927 | 45274<br>44791 | 45566<br>44690 | 43498 | Lin1 | 1102.44248 | 44469.5021 | | | | | | | 1.0000 | | 0.9990 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 432478

SDG No.:

Instrument ID: IC-16 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2017 12:38 Calibration End Date: 10/02/2017 13:59 Calibration ID: 17606

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-432478/3 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d |
| Level 2 | STD2 440-432478/4 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d |
| Level 3 | STD3 440-432478/5 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d |
| Level 4 | STD4 440-432478/6 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d |
| Level 5 | STD5 440-432478/7 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d |
| Level 6 | STD6 440-432478/8 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d |
| Level 7 | STD7 440-432478/9 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| Chromium, hexavalent | Lin1 | 14556<br>3359349 | 45274<br>4468974 | 455662 | 1087448 | 2196335 | 0.300<br>75.0 | 1.00<br>100 | 10.0 | 25.0 | 50.0 |

Curve Type Legend:
Lin1 = Linear 1/conc

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: ICV 440-432478/10 Calibration Date: 10/02/2017 14:26

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20171 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 50.1 | 50.0 | 100 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: ICV 440-432478/10 Calibration Date: 10/02/2017 14:26

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20171

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.52 | 7.15 | 7.90 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451317/2 Calibration Date: 01/12/2018 06:07

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 50.0 | 50.0 | 100 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451317/2 Calibration Date: 01/12/2018 06:07

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 6.73 | 6.39 | 7.06 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451317/16 Calibration Date: 01/12/2018 20:16

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 49.8 | 50.0 | 100 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451317/16 Calibration Date: 01/12/2018 20:16

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 6.63 | 6.39 | 7.06 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451317/28 Calibration Date: 01/12/2018 23:34

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 50.3 | 50.0 | 101 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451317/28 Calibration Date: 01/12/2018 23:34

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 6.67 | 6.39 | 7.06 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451533/2 Calibration Date: 01/13/2018 07:32

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 49.7 | 50.0 | 99 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451533/2 Calibration Date: 01/13/2018 07:32

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 6.80 | 6.39 | 7.06 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451533/12 Calibration Date: 01/13/2018 10:48

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 51.1 | 50.0 | 102 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451533/12 Calibration Date: 01/13/2018 10:48

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 6.85 | 6.39 | 7.06 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-451317/6

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/12/2018 06:58

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451317 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-451533/6

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/13/2018 08:29

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451533 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 440-451317/3

Matrix: Water Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 10(mL) Date Analyzed: 01/12/2018 06:23

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1000(uL) GC Column: AS7 A ID: 4(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 451317 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451317/17

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/12/2018 20:28

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451317 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451317/29

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/12/2018 23:45

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451317 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451533/3

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/13/2018 07:54

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451533 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451533/13

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/13/2018 11:00

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451533 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-451317/5

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/12/2018 06:47

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451317 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 49.7 | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-451533/5

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/13/2018 08:17

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451533 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 49.9 | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-451317/4

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/12/2018 06:35

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451317 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 0.984 | J | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-451533/4

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/13/2018 08:06

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451533 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 0.986 | J | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-36 MS | Lab Sample ID: 440-200815-3 MS

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/12/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/13/2018 10:25

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451533 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 13800 | | 1000 | 130 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-200715-J-9 MS

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/12/2018 08:25

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/12/2018 22:07

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451317 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 51.9 | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-36 MSD | Lab Sample ID: 440-200815-3 MSD

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/12/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/13/2018 10:37

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451533 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 13800 | | 1000 | 130 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-200715-J-9 MSD

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/12/2018 08:25

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/12/2018 22:19

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451317 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 52.0 | | 2.0 | 0.25 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-16 Start Date: 10/02/2017 12:38

Analysis Batch Number: 432478 End Date: 10/03/2017 04:27

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| STD0 440-432478/2 IC | | 10/02/2017 12:38 | 1 | | AS7 A 4(mm) |
| STD1 440-432478/3 IC | | 10/02/2017 12:50 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d | AS7 A 4(mm) |
| STD2 440-432478/4 IC | | 10/02/2017 13:01 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d | AS7 A 4(mm) |
| STD3 440-432478/5 IC | | 10/02/2017 13:13 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d | AS7 A 4(mm) |
| STD4 440-432478/6 IC | | 10/02/2017 13:25 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d | AS7 A 4(mm) |
| STD5 440-432478/7 IC | | 10/02/2017 13:36 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d | AS7 A 4(mm) |
| STD6 440-432478/8 IC | | 10/02/2017 13:48 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d | AS7 A 4(mm) |
| STD7 440-432478/9 IC | | 10/02/2017 13:59 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d | AS7 A 4(mm) |
| ICV 440-432478/10 | | 10/02/2017 14:26 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-143755.d | AS7 A 4(mm) |
| ICB 440-432478/11 | | 10/02/2017 14:47 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 14:59 | 1 | | AS7 A 4(mm) |
| CCV 440-432478/1012 | | 10/02/2017 14:59 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 15:10 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/1013 | | 10/02/2017 15:10 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 15:22 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 15:34 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 20:53 | 1 | | AS7 A 4(mm) |
| CCV 440-432478/17 | | 10/02/2017 21:05 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/18 | | 10/02/2017 21:16 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:03 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:15 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:26 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:38 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:50 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-16 Start Date: 10/02/2017 12:38

Analysis Batch Number: 432478 End Date: 10/03/2017 04:27

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 10/02/2017 23:01 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:13 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:25 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:36 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:48 | 10 | | AS7 A 4(mm) |
| CCV 440-432478/29 | | 10/02/2017 23:59 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/30 | | 10/03/2017 00:11 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:23 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:34 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:46 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:58 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:09 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:21 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:32 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:44 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:56 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 02:07 | 1 | | AS7 A 4(mm) |
| CCV 440-432478/41 | | 10/03/2017 02:19 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/42 | | 10/03/2017 02:31 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 02:42 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 02:54 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 03:29 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 03:40 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 03:52 | 2 | | AS7 A 4(mm) |
| CCV 440-432478/51 | | 10/03/2017 04:15 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/52 | | 10/03/2017 04:27 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-16 Start Date: 01/12/2018 06:07

Analysis Batch Number: 451317 End Date: 01/13/2018 03:40

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-451317/2 | | 01/12/2018 06:07 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180112-061859.d | AS7 A 4(mm) |
| CCB 440-451317/3 | | 01/12/2018 06:23 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180112-063530.d | AS7 A 4(mm) |
| MRL 440-451317/4 | | 01/12/2018 06:35 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180112-064707.d | AS7 A 4(mm) |
| LCS 440-451317/5 | | 01/12/2018 06:47 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180112-065845.d | AS7 A 4(mm) |
| MB 440-451317/6 | | 01/12/2018 06:58 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180112-071022.d | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 07:10 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 07:22 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 07:35 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 07:47 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 08:17 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 08:28 | 1000 | | AS7 A 4(mm) |
| CCV 440-451317/13 | | 01/12/2018 08:40 | 1 | | AS7 A 4(mm) |
| CCB 440-451317/14 | | 01/12/2018 08:56 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 20:04 | 1 | | AS7 A 4(mm) |
| CCV 440-451317/16 | | 01/12/2018 20:16 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180112-202805.d | AS7 A 4(mm) |
| CCB 440-451317/17 | | 01/12/2018 20:28 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180112-203943.d | AS7 A 4(mm) |
| 440-200815-1 | | 01/12/2018 20:52 | 500 | Info 2_TAIIRV0066_Hex Chrom_20180112-210428.d | AS7 A 4(mm) |
| 440-200815-1 | | 01/12/2018 21:04 | 500 | Info 2_TAIIRV0066_Hex Chrom_20180112-211605.d | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 21:55 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-16 Start Date: 01/12/2018 06:07

Analysis Batch Number: 451317 End Date: 01/13/2018 03:40

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| 440-200715-J-9 MS | | 01/12/2018 22:07 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180112-221903.d | AS7 A 4(mm) |
| 440-200715-J-9 MSD | | 01/12/2018 22:19 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180112-223040.d | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 22:30 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 22:42 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 22:53 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 23:05 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/12/2018 23:17 | 1 | | AS7 A 4(mm) |
| CCV 440-451317/28 | | 01/12/2018 23:34 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180112-234544.d | AS7 A 4(mm) |
| CCB 440-451317/29 | | 01/12/2018 23:45 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180112-235722.d | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 00:10 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 00:22 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 00:33 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 00:45 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 00:57 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 01:08 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 01:20 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 01:32 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 01:43 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 01:55 | 1 | | AS7 A 4(mm) |
| CCV 440-451317/40 | | 01/13/2018 02:07 | 1 | | AS7 A 4(mm) |
| CCB 440-451317/41 | | 01/13/2018 02:18 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 02:30 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 02:41 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 02:53 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 03:05 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 03:16 | 1 | | AS7 A 4(mm) |
| CCV 440-451317/47 | | 01/13/2018 03:28 | 1 | | AS7 A 4(mm) |
| CCB 440-451317/48 | | 01/13/2018 03:40 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-16 Start Date: 01/13/2018 07:32

Analysis Batch Number: 451533 End Date: 01/13/2018 11:00

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-451533/2 | | 01/13/2018 07:32 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180113-074407.d | AS7 A 4(mm) |
| CCB 440-451533/3 | | 01/13/2018 07:54 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180113-080604.d | AS7 A 4(mm) |
| MRL 440-451533/4 | | 01/13/2018 08:06 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180113-081742.d | AS7 A 4(mm) |
| LCS 440-451533/5 | | 01/13/2018 08:17 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180113-082919.d | AS7 A 4(mm) |
| MB 440-451533/6 | | 01/13/2018 08:29 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180113-084057.d | AS7 A 4(mm) |
| ZZZZZ | | 01/13/2018 08:40 | 1 | | AS7 A 4(mm) |
| 440-200815-3 | | 01/13/2018 10:02 | 500 | Info 2_TAIIRV0066_Hex Chrom_20180113-101357.d | AS7 A 4(mm) |
| 440-200815-3 | | 01/13/2018 10:13 | 500 | Info 2_TAIIRV0066_Hex Chrom_20180113-102535.d | AS7 A 4(mm) |
| 440-200815-3 MS | | 01/13/2018 10:25 | 500 | Info 2_TAIIRV0066_Hex Chrom_20180113-103713.d | AS7 A 4(mm) |
| 440-200815-3 MSD | | 01/13/2018 10:37 | 500 | Info 2_TAIIRV0066_Hex Chrom_20180113-104851.d | AS7 A 4(mm) |
| CCV 440-451533/12 | | 01/13/2018 10:48 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180113-110028.d | AS7 A 4(mm) |
| CCB 440-451533/13 | | 01/13/2018 11:00 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180113-111206.d | AS7 A 4(mm) |

# Method 300.1

## Disinfection By-Products (IC) by Method 300.1

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): AS9-HC ID: 4 (mm)

| Client Sample ID | Lab Sample ID | DCAA # |
|---|---|---|
| VER-01I-B-24 | 440-200815-1 | 102 |
| VER-01I-B-24 | 440-200815-1 | 103 |
| VER-01I-B-36 | 440-200815-3 | 101 |
| VER-01I-B-36 | 440-200815-3 | 101 |
| | MB 440-451611/5 | 100 |
| | MB 440-451612/5 | 100 |
| | LCS 440-451611/4 | 100 |
| | LCS 440-451612/4 | 100 |
| | MRL 440-451611/3 | 100 |
| | MRL 440-451612/3 | 100 |
| VER-01I-B-36 MS | 440-200815-3 MS | 101 |
| VER-01I-B-36 MS | 440-200815-3 MS | 102 |
| VER-01I-B-36 MSD | 440-200815-3 MSD | 101 |
| VER-01I-B-36 MSD | 440-200815-3 MSD | 100 |

| | QC LIMITS |
|---|---|
| DCAA = Dichloroacetic acid(Surr) | 90-115 |

# Column to be used to flag recovery values

FORM II 300.1B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098639-004.d

Lab ID: LCS 440-451611/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 100 | 104 | 104 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098639-004.d

Lab ID: LCS 440-451612/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorite | 100 | 100 | 100 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098639-003.d

Lab ID: MRL 440-451611/3 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 20.0 | 22.5 | 113 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098639-003.d

Lab ID: MRL 440-451612/3 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorite | 20.0 | 21.7 | 109 | 10-200 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098639-051.d

Lab ID: 440-200815-3 MS Client ID: VER-01I-B-36 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorite | 200 | ND | ND | NC | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098639-035.d

Lab ID: 440-200815-3 MS Client ID: VER-01I-B-36 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorate | 200 | 3800000 | 4070000 | 152903 | 75-125 | E 4 |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098639-052.d

Lab ID: 440-200815-3 MSD Client ID: VER-01I-B-36 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS | | # |
|---|---|---|---|---|---|---|---|
| | | | | | RPD | REC | |
| Chlorite | 200 | ND | NC | NC | 25 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098639-036.d

Lab ID: 440-200815-3 MSD Client ID: VER-01I-B-36 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chlorate | 200 | 3500000 | -129536 | 15 | 25 | 75-125 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab File ID: 440-0098639-005.d Lab Sample ID: MB 440-451611/5

Matrix: Water Date Extracted:

Instrument ID: IC-8 Date Analyzed: 01/14/2018 10:01

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-451611/2 | 440-0098639-002.d | 01/14/2018 08:01 |
| | LCS 440-451611/4 | 440-0098639-004.d | 01/14/2018 09:24 |
| | CCB 440-451611/14 | 440-0098639-014.d | 01/14/2018 15:27 |
| | CCB 440-451611/26 | 440-0098639-026.d | 01/14/2018 22:42 |
| VER-01I-B-24 | 440-200815-1 | 440-0098639-033.d | 01/15/2018 02:55 |
| VER-01I-B-36 | 440-200815-3 | 440-0098639-034.d | 01/15/2018 03:32 |
| VER-01I-B-36 MS | 440-200815-3 MS | 440-0098639-035.d | 01/15/2018 04:08 |
| VER-01I-B-36 MSD | 440-200815-3 MSD | 440-0098639-036.d | 01/15/2018 04:44 |
| | CCB 440-451611/38 | 440-0098639-038.d | 01/15/2018 05:57 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab File ID: 440-0098639-005.d Lab Sample ID: MB 440-451612/5

Matrix: Water Date Extracted:

Instrument ID: IC-8 Date Analyzed: 01/14/2018 10:01

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-451612/2 | 440-0098639-002.d | 01/14/2018 08:01 |
| | LCS 440-451612/4 | 440-0098639-004.d | 01/14/2018 09:24 |
| | CCB 440-451612/14 | 440-0098639-014.d | 01/14/2018 15:27 |
| | CCB 440-451612/26 | 440-0098639-026.d | 01/14/2018 22:42 |
| VER-01I-B-24 | 440-200815-1 | 440-0098639-032.d | 01/15/2018 02:19 |
| | CCB 440-451612/38 | 440-0098639-038.d | 01/15/2018 05:57 |
| VER-01I-B-36 | 440-200815-3 | 440-0098639-050.d | 01/15/2018 13:34 |
| VER-01I-B-36 MS | 440-200815-3 MS | 440-0098639-051.d | 01/15/2018 14:10 |
| VER-01I-B-36 MSD | 440-200815-3 MSD | 440-0098639-052.d | 01/15/2018 14:47 |
| | CCB 440-451612/56 | 440-0098639-056.d | 01/15/2018 17:12 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-24 | Lab Sample ID: 440-200815-1

Matrix: Water | Lab File ID: 440-0098639-032.d

Analysis Method: 300.1B | Date Collected: 01/12/2018 03:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/15/2018 02:19

Con. Extract Vol.: | Dilution Factor: 100

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451612 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 2000 | 1000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-24 | Lab Sample ID: 440-200815-1

Matrix: Water | Lab File ID: 440-0098639-033.d

Analysis Method: 300.1B | Date Collected: 01/12/2018 03:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/15/2018 02:55

Con. Extract Vol.: | Dilution Factor: 10000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451611 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 3100000 | | 200000 | 100000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 103 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-36 | Lab Sample ID: 440-200815-3

Matrix: Water | Lab File ID: 440-0098639-050.d

Analysis Method: 300.1B | Date Collected: 01/12/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/15/2018 13:34

Con. Extract Vol.: | Dilution Factor: 1000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451612 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20000 | 10000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-36 | Lab Sample ID: 440-200815-3

Matrix: Water | Lab File ID: 440-0098639-034.d

Analysis Method: 300.1B | Date Collected: 01/12/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/15/2018 03:32

Con. Extract Vol.: | Dilution Factor: 10000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451611 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 3800000 | | 200000 | 100000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 445955

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18157

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445955/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445955/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445955/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445955/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445955/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445955/7 | 440-0097300-007.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromate | | 8.809 | 8.800 | 8.800 | 8.800 | 8.800 | | | | | 0.000 - 0.000 | 8.802 |
| Bromide | | 18.375 | 18.334 | 18.325 | 18.358 | 18.275 | | | | | 0.000 - 0.000 | 18.333 |
| Chlorate | | 20.175 | 20.134 | 20.117 | 20.158 | 20.075 | | | | | 0.000 - 0.000 | 20.132 |
| Dichloroacetic acid(Surr) | 14.975 | 14.967 | 14.975 | 14.967 | 14.983 | 14.975 | | | | | 13.919 - 16.015 | 14.974 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 445955

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18157

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445955/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445955/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445955/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445955/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445955/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445955/7 | 440-0097300-007.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Bromate | 85030 | 84777<br>83932 | 83142 | 85924 | Lin | 13316.2536 | 84031.2285 | | | | | | | 1.0000 | | 0.9950 |
| Bromide | 155080 | 170331<br>157285 | 156910 | 155772 | Lin | 6334.71702 | 156810.286 | | | | | | | 1.0000 | | 0.9950 |
| Chlorate | 137286 | 122469<br>136488 | 132031 | 134495 | Lin | -163510.51 | 137057.039 | | | | | | | 1.0000 | | 0.9950 |
| Dichloroacetic acid(Surr) | 82131<br>81437 | 81949<br>82824 | 82576 | 83010 | Ave | | 82321.1870 | | | | 0.7 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 445955

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18157

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445955/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445955/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445955/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445955/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445955/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445955/7 | 440-0097300-007.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Bromate | Lin | 8393172 | 423885 | 1039271 | 2148106 | 4251475 | 0.000000<br>100 | 5.00 | 12.5 | 25.0 | 50.0 |
| Bromide | Lin | 157284596 | 8516526 | 19613766 | 38942890 | 77540030 | 0.000000<br>1000 | 50.0 | 125 | 250 | 500 |
| Chlorate | Lin | 54595205 | 2449371 | 6601552 | 13449523 | 27457206 | 0.000000<br>400 | 20.0 | 50.0 | 100 | 200 |
| Dichloroacetic acid(Surr) | Ave | 81614796<br>82303494 | 81433893 | 82056259 | 82487538 | 80924785 | 994<br>994 | 994 | 994 | 994 | 994 |

Curve Type Legend:

Ave = Average
Lin = Linear

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 445956

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18158

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445956/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445956/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445956/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445956/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445956/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445956/7 | 440-0097300-007.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | 7.517 | 7.509 | 7.509 | 7.517 | 7.517 | | | | | 0.000 - 0.000 | 7.514 |
| Dichloroacetic acid(Surr) | 14.975 | 14.967 | 14.975 | 14.967 | 14.983 | 14.975 | | | | | 13.919 - 16.015 | 14.974 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 445956

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18158

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445956/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445956/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445956/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445956/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445956/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445956/7 | 440-0097300-007.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Chlorite | 159315 | 144620<br>163366 | 153703 | 157087 | Lin | -425656.25 | 163700.877 | | | | | | | 1.0000 | | 0.9950 |
| Dichloroacetic acid(Surr) | 82131<br>81437 | 81949<br>82824 | 82576 | 83010 | Ave | | 82321.1870 | | | | 0.7 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200815-1 Analy Batch No.: 445956

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18158

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445956/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445956/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445956/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445956/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445956/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445956/7 | 440-0097300-007.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Chlorite | Lin | 65346431 | 2892398 | 7685136 | 15708703 | 31863070 | 0.000000<br>400 | 20.0 | 50.0 | 100 | 200 |
| Dichloroacetic acid(Surr) | Ave | 81614796<br>82303494 | 81433893 | 82056259 | 82487538 | 80924785 | 994<br>994 | 994 | 994 | 994 | 994 |

Curve Type Legend:

Ave = Average
Lin = Linear

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: ICV 440-445955/8 Calibration Date: 12/11/2017 09:01

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS14 ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0097300-008.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 83178 | | 29.6 | 30.1 | -1.5 | 15.0 |
| Bromide | Lin | | 155600 | | 298 | 300 | -0.8 | 15.0 |
| Chlorate | Lin | | 134468 | | 119 | 120 | -0.9 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82190 | | 992 | 994 | -0.2 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: ICV 440-445955/8 Calibration Date: 12/11/2017 09:01

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS14 ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0097300-008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.77 | 8.19 | 9.43 |
| Bromide | 18.03 | 16.57 | 19.06 |
| Chlorate | 19.86 | 18.64 | 20.60 |
| Dichloroacetic acid(Surr) | 14.99 | 13.80 | 15.87 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: ICV 440-445956/8 Calibration Date: 12/11/2017 09:01

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS14 ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0097300-008.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 155519 | | 117 | 120 | -2.8 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82190 | | 992 | 994 | -0.2 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: ICV 440-445956/8 Calibration Date: 12/11/2017 09:01

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS14 ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0097300-008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.50 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.99 | 13.80 | 15.87 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451611/1 Calibration Date: 01/14/2018 07:25

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-001.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 90226 | | 26.7 | 25.0 | 6.7 | 15.0 |
| Bromide | Lin | | 166369 | | 265 | 250 | 6.1 | 15.0 |
| Chlorate | Lin | | 144145 | | 106 | 100 | 6.4 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 84427 | | 1020 | 994 | 2.6 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451611/1 Calibration Date: 01/14/2018 07:25

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.80 | 8.07 | 9.28 |
| Bromide | 18.12 | 16.55 | 19.05 |
| Chlorate | 19.70 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.64 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451612/1 Calibration Date: 01/14/2018 07:25

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-001.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 165398 | | 104 | 100 | 3.6 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 84427 | | 1020 | 994 | 2.6 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451612/1 Calibration Date: 01/14/2018 07:25

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.53 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.64 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451611/13 Calibration Date: 01/14/2018 14:50

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-013.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 84330 | | 50.0 | 50.0 | 0.0 | 15.0 |
| Bromide | Lin | | 158346 | | 505 | 500 | 1.0 | 15.0 |
| Chlorate | Lin | | 139434 | | 205 | 200 | 2.3 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82702 | | 998 | 994 | 0.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451611/13 Calibration Date: 01/14/2018 14:50

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-013.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.68 | 8.07 | 9.28 |
| Bromide | 17.59 | 16.55 | 19.05 |
| Chlorate | 19.24 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.64 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451612/13  Calibration Date: 01/14/2018 14:50

Instrument ID: IC-8  Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC  ID: 4.00(mm)  Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-013.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 155768 | | 193 | 200 | -3.5 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82702 | | 998 | 994 | 0.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451612/13 Calibration Date: 01/14/2018 14:50

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-013.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.48 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.64 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451611/25 Calibration Date: 01/14/2018 22:05

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-025.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 86255 | | 25.5 | 25.0 | 2.0 | 15.0 |
| Bromide | Lin | | 157828 | | 252 | 250 | 0.6 | 15.0 |
| Chlorate | Lin | | 138611 | | 102 | 100 | 2.3 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83605 | | 1010 | 994 | 1.6 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451611/25 Calibration Date: 01/14/2018 22:05

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-025.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.69 | 8.07 | 9.28 |
| Bromide | 17.77 | 16.55 | 19.05 |
| Chlorate | 19.39 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.62 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451612/25 Calibration Date: 01/14/2018 22:05

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-025.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 152775 | | 95.9 | 100 | -4.1 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83605 | | 1010 | 994 | 1.6 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451612/25 Calibration Date: 01/14/2018 22:05

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-025.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.47 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.62 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451611/37 Calibration Date: 01/15/2018 05:20

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-037.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 85924 | | 51.0 | 50.0 | 1.9 | 15.0 |
| Bromide | Lin | | 160231 | | 511 | 500 | 2.2 | 15.0 |
| Chlorate | Lin | | 140102 | | 206 | 200 | 2.8 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83358 | | 1010 | 994 | 1.3 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451611/37 Calibration Date: 01/15/2018 05:20

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-037.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.79 | 8.07 | 9.28 |
| Bromide | 18.33 | 16.55 | 19.05 |
| Chlorate | 19.87 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.59 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451612/37  Calibration Date: 01/15/2018 05:20

Instrument ID: IC-8  Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC  ID: 4.00(mm)  Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-037.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 157611 | | 195 | 200 | -2.4 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83358 | | 1010 | 994 | 1.3 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451612/37 Calibration Date: 01/15/2018 05:20

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-037.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.50 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.59 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451612/55  Calibration Date: 01/15/2018 16:35

Instrument ID: IC-8  Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC  ID: 4.00(mm)  Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-055.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 150825 | | 187 | 200 | -6.6 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83238 | | 1000 | 994 | 1.1 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Lab Sample ID: CCV 440-451612/55 Calibration Date: 01/15/2018 16:35

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098639-055.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.48 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.68 | 13.75 | 15.82 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-451611/5

Matrix: Water | Lab File ID: 440-0098639-005.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2018 10:01

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451611 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-451612/5

Matrix: Water | Lab File ID: 440-0098639-005.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2018 10:01

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451612 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451611/2

Matrix: Water | Lab File ID: 440-0098639-002.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2018 08:01

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451611 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451611/14

Matrix: Water | Lab File ID: 440-0098639-014.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2018 15:27

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451611 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-451611/26

Matrix: Water  Lab File ID: 440-0098639-026.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/14/2018 22:42

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 451611  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451611/38

Matrix: Water | Lab File ID: 440-0098639-038.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/15/2018 05:57

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451611 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451612/2

Matrix: Water | Lab File ID: 440-0098639-002.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2018 08:01

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451612 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-451612/14

Matrix: Water  Lab File ID: 440-0098639-014.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/14/2018 15:27

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 451612  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451612/26

Matrix: Water | Lab File ID: 440-0098639-026.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2018 22:42

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451612 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451612/38

Matrix: Water | Lab File ID: 440-0098639-038.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/15/2018 05:57

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451612 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-451612/56

Matrix: Water  Lab File ID: 440-0098639-056.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/15/2018 17:12

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 451612  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-451611/4

Matrix: Water | Lab File ID: 440-0098639-004.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2018 09:24

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451611 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 104 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-451612/4

Matrix: Water | Lab File ID: 440-0098639-004.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2018 09:24

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451612 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 100 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-451611/3

Matrix: Water | Lab File ID: 440-0098639-003.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/14/2018 08:38

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451611 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 22.5 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Client Sample ID:  Lab Sample ID: MRL 440-451612/3

Matrix: Water  Lab File ID: 440-0098639-003.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/14/2018 08:38

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 451612  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 21.7 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-36 MS  Lab Sample ID: 440-200815-3 MS

Matrix: Water  Lab File ID: 440-0098639-051.d

Analysis Method: 300.1B  Date Collected: 01/12/2018 15:30

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/15/2018 14:10

Con. Extract Vol.:  Dilution Factor: 1000

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 451612  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20000 | 10000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-36 MS | Lab Sample ID: 440-200815-3 MS

Matrix: Water | Lab File ID: 440-0098639-035.d

Analysis Method: 300.1B | Date Collected: 01/12/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/15/2018 04:08

Con. Extract Vol.: | Dilution Factor: 10000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451611 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 4070000 | | 200000 | 100000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-36 MSD | Lab Sample ID: 440-200815-3 MSD

Matrix: Water | Lab File ID: 440-0098639-052.d

Analysis Method: 300.1B | Date Collected: 01/12/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/15/2018 14:47

Con. Extract Vol.: | Dilution Factor: 1000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451612 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20000 | 10000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Client Sample ID: VER-01I-B-36 MSD | Lab Sample ID: 440-200815-3 MSD

Matrix: Water | Lab File ID: 440-0098639-036.d

Analysis Method: 300.1B | Date Collected: 01/12/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/15/2018 04:44

Con. Extract Vol.: | Dilution Factor: 10000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451611 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 3500000 | | 200000 | 100000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-8 Start Date: 12/11/2017 04:35

Analysis Batch Number: 445955 End Date: 12/12/2017 11:51

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 12/11/2017 04:35 | 1 | | AS14 4(mm) |
| STD0 440-445955/2 IC | | 12/11/2017 05:11 | 1 | 440-0097300-002.d | AS14 4(mm) |
| STD1 440-445955/3 IC | | 12/11/2017 05:47 | 1 | 440-0097300-003.d | AS14 4(mm) |
| STD2 440-445955/4 IC | | 12/11/2017 06:24 | 1 | 440-0097300-004.d | AS14 4(mm) |
| STD3 440-445955/5 IC | | 12/11/2017 07:00 | 1 | 440-0097300-005.d | AS14 4(mm) |
| STD4 440-445955/6 IC | | 12/11/2017 07:36 | 1 | 440-0097300-006.d | AS14 4(mm) |
| STD5 440-445955/7 IC | | 12/11/2017 08:12 | 1 | 440-0097300-007.d | AS14 4(mm) |
| ICV 440-445955/8 | | 12/11/2017 09:01 | 1 | 440-0097300-008.d | AS14 4(mm) |
| ICB 440-445955/9 | | 12/11/2017 09:37 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 10:14 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 10:50 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 11:26 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 12:39 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 13:15 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 13:51 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 15:40 | 1 | | AS14 4(mm) |
| CCV 440-445955/20 | | 12/11/2017 16:16 | 1 | | AS14 4(mm) |
| CCB 440-445955/21 | | 12/11/2017 16:52 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 18:05 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 18:41 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 19:17 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 22:55 | 10 | | AS14 4(mm) |
| CCV 440-445955/32 | | 12/11/2017 23:31 | 1 | | AS14 4(mm) |
| CCB 440-445955/33 | | 12/12/2017 00:07 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 01:20 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 01:56 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 02:32 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 03:08 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 03:45 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 04:33 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 05:09 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 05:45 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 06:21 | 1 | | AS14 4(mm) |
| CCV 440-445955/44 | | 12/12/2017 06:58 | 1 | | AS14 4(mm) |
| CCB 440-445955/45 | | 12/12/2017 07:34 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 08:14 | 2 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 08:49 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 09:26 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 10:02 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 10:38 | 5 | | AS14 4(mm) |
| CCV 440-445955/51 | | 12/12/2017 11:14 | 1 | | AS14 4(mm) |
| CCB 440-445955/52 | | 12/12/2017 11:51 | 1 | | AS14 4(mm) |

300.1B

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-8 Start Date: 12/11/2017 04:35

Analysis Batch Number: 445956 End Date: 12/12/2017 07:34

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 12/11/2017 04:35 | 1 | | AS14 4(mm) |
| STD0 440-445956/2 IC | | 12/11/2017 05:11 | 1 | 440-0097300-002.d | AS14 4(mm) |
| STD1 440-445956/3 IC | | 12/11/2017 05:47 | 1 | 440-0097300-003.d | AS14 4(mm) |
| STD2 440-445956/4 IC | | 12/11/2017 06:24 | 1 | 440-0097300-004.d | AS14 4(mm) |
| STD3 440-445956/5 IC | | 12/11/2017 07:00 | 1 | 440-0097300-005.d | AS14 4(mm) |
| STD4 440-445956/6 IC | | 12/11/2017 07:36 | 1 | 440-0097300-006.d | AS14 4(mm) |
| STD5 440-445956/7 IC | | 12/11/2017 08:12 | 1 | 440-0097300-007.d | AS14 4(mm) |
| ICV 440-445956/8 | | 12/11/2017 09:01 | 1 | 440-0097300-008.d | AS14 4(mm) |
| ICB 440-445956/9 | | 12/11/2017 09:37 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 10:14 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 10:50 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 11:26 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 12:02 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 12:39 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 13:15 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 13:51 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 14:27 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 15:04 | 5 | | AS14 4(mm) |
| CCV 440-445956/20 | | 12/11/2017 16:16 | 1 | | AS14 4(mm) |
| CCB 440-445956/21 | | 12/11/2017 16:52 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 17:29 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 18:05 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 18:41 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 19:17 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 19:54 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 20:30 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 21:06 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 21:42 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 22:19 | 5 | | AS14 4(mm) |
| CCV 440-445956/32 | | 12/11/2017 23:31 | 1 | | AS14 4(mm) |
| CCB 440-445956/33 | | 12/12/2017 00:07 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 00:44 | 1 | | AS14 4(mm) |
| CCV 440-445956/44 | | 12/12/2017 06:58 | 1 | | AS14 4(mm) |
| CCB 440-445956/45 | | 12/12/2017 07:34 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-8 Start Date: 01/14/2018 07:25

Analysis Batch Number: 451611 End Date: 01/15/2018 17:12

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-451611/1 | | 01/14/2018 07:25 | 1 | 440-0098639-001.d | AS9-HC 4(mm) |
| CCB 440-451611/2 | | 01/14/2018 08:01 | 1 | 440-0098639-002.d | AS9-HC 4(mm) |
| MRL 440-451611/3 | | 01/14/2018 08:38 | 1 | 440-0098639-003.d | AS9-HC 4(mm) |
| LCS 440-451611/4 | | 01/14/2018 09:24 | 1 | 440-0098639-004.d | AS9-HC 4(mm) |
| MB 440-451611/5 | | 01/14/2018 10:01 | 1 | 440-0098639-005.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 10:37 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 11:13 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 11:49 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 13:38 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 14:14 | 20 | | AS9-HC 4(mm) |
| CCV 440-451611/13 | | 01/14/2018 14:50 | 1 | 440-0098639-013.d | AS9-HC 4(mm) |
| CCB 440-451611/14 | | 01/14/2018 15:27 | 1 | 440-0098639-014.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 16:03 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 16:39 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 17:15 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 17:52 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 18:28 | 100 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 19:04 | 100 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 19:40 | 100 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 20:17 | 100 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 20:53 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 21:29 | 1000 | | AS9-HC 4(mm) |
| CCV 440-451611/25 | | 01/14/2018 22:05 | 1 | 440-0098639-025.d | AS9-HC 4(mm) |
| CCB 440-451611/26 | | 01/14/2018 22:42 | 1 | 440-0098639-026.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 23:18 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 23:54 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 00:30 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 01:07 | 100 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 01:43 | 100 | | AS9-HC 4(mm) |
| 440-200815-1 | | 01/15/2018 02:55 | 10000 | 440-0098639-033.d | AS9-HC 4(mm) |
| 440-200815-3 | | 01/15/2018 03:32 | 10000 | 440-0098639-034.d | AS9-HC 4(mm) |
| 440-200815-3 MS | | 01/15/2018 04:08 | 10000 | 440-0098639-035.d | AS9-HC 4(mm) |
| 440-200815-3 MSD | | 01/15/2018 04:44 | 10000 | 440-0098639-036.d | AS9-HC 4(mm) |
| CCV 440-451611/37 | | 01/15/2018 05:20 | 1 | 440-0098639-037.d | AS9-HC 4(mm) |
| CCB 440-451611/38 | | 01/15/2018 05:57 | 1 | 440-0098639-038.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 06:33 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 07:09 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 07:45 | 5 | | AS9-HC 4(mm) |

300.1B

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-8 Start Date: 01/14/2018 07:25

Analysis Batch Number: 451611 End Date: 01/15/2018 17:12

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/15/2018 08:22 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 08:58 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 09:34 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 10:30 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 11:06 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 11:42 | 100 | | AS9-HC 4(mm) |
| CCV 440-451611/48 | | 01/15/2018 12:22 | 1 | | AS9-HC 4(mm) |
| CCB 440-451611/49 | | 01/15/2018 12:58 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 15:23 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/15/2018 15:59 | 1 | | AS9-HC 4(mm) |
| CCV 440-451611/55 | | 01/15/2018 16:35 | 1 | | AS9-HC 4(mm) |
| CCB 440-451611/56 | | 01/15/2018 17:12 | 1 | | AS9-HC 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Instrument ID: IC-8 Start Date: 01/14/2018 07:25

Analysis Batch Number: 451612 End Date: 01/15/2018 17:12

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-451612/1 | | 01/14/2018 07:25 | 1 | 440-0098639-001.d | AS9-HC 4(mm) |
| CCB 440-451612/2 | | 01/14/2018 08:01 | 1 | 440-0098639-002.d | AS9-HC 4(mm) |
| MRL 440-451612/3 | | 01/14/2018 08:38 | 1 | 440-0098639-003.d | AS9-HC 4(mm) |
| LCS 440-451612/4 | | 01/14/2018 09:24 | 1 | 440-0098639-004.d | AS9-HC 4(mm) |
| MB 440-451612/5 | | 01/14/2018 10:01 | 1 | 440-0098639-005.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 10:37 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 11:13 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 11:49 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 12:25 | 100 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 13:02 | 100 | | AS9-HC 4(mm) |
| CCV 440-451612/13 | | 01/14/2018 14:50 | 1 | 440-0098639-013.d | AS9-HC 4(mm) |
| CCB 440-451612/14 | | 01/14/2018 15:27 | 1 | 440-0098639-014.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 16:03 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 16:39 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/14/2018 17:15 | 1 | | AS9-HC 4(mm) |
| CCV 440-451612/25 | | 01/14/2018 22:05 | 1 | 440-0098639-025.d | AS9-HC 4(mm) |
| CCB 440-451612/26 | | 01/14/2018 22:42 | 1 | 440-0098639-026.d | AS9-HC 4(mm) |
| 440-200815-1 | | 01/15/2018 02:19 | 100 | 440-0098639-032.d | AS9-HC 4(mm) |
| CCV 440-451612/37 | | 01/15/2018 05:20 | 1 | 440-0098639-037.d | AS9-HC 4(mm) |
| CCB 440-451612/38 | | 01/15/2018 05:57 | 1 | 440-0098639-038.d | AS9-HC 4(mm) |
| 440-200815-3 | | 01/15/2018 13:34 | 1000 | 440-0098639-050.d | AS9-HC 4(mm) |
| 440-200815-3 MS | | 01/15/2018 14:10 | 1000 | 440-0098639-051.d | AS9-HC 4(mm) |
| 440-200815-3 MSD | | 01/15/2018 14:47 | 1000 | 440-0098639-052.d | AS9-HC 4(mm) |
| CCV 440-451612/55 | | 01/15/2018 16:35 | 1 | 440-0098639-055.d | AS9-HC 4(mm) |
| CCB 440-451612/56 | | 01/15/2018 17:12 | 1 | 440-0098639-056.d | AS9-HC 4(mm) |

# METALS

COVER PAGE
METALS

Lab Name: TestAmerica Irvine Job Number: 440-200815-1

SDG No.:

Project: NERT VER Treatability Study

| Client Sample ID | Lab Sample ID |
|---|---|
| VER-01I-B-24 | 440-200815-1 |
| VER-01I-B-36 | 440-200815-3 |

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: VER-01I-B-24 Lab Sample ID: 440-200815-1

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG ID.:

Matrix: Water Date Sampled: 01/12/2018 03:30

Reporting Basis: WET Date Received: 01/12/2018 19:25

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 15 | 0.025 | 0.013 | mg/L | | | 5 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: VER-01I-B-36 Lab Sample ID: 440-200815-3

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG ID.:

Matrix: Water Date Sampled: 01/12/2018 15:30

Reporting Basis: WET Date Received: 01/12/2018 19:25

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 14 | 0.025 | 0.013 | mg/L | | | 5 | 6010B |

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

ICV Source: ME ICP ICV2_01765  Concentration Units: mg/L

CCV Source: ME ICP STD3_01848

| Analyte | ICV 440-452609/5 01/18/2018 10:54 | | | | CCV 440-452609/38 01/18/2018 19:34 | | | | CCV 440-452609/50 01/18/2018 19:59 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Found | C | True | %R | Found | C | True | %R | Found | C | True | %R |
| **Chromium** | 1.03 | | 1.00 | 103 | 1.01 | | 1.00 | 101 | 1.01 | | 1.00 | 101 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

ICV Source: ME ICP ICV2_01766  Concentration Units: mg/L

CCV Source: ME ICP STD3_01851

| Analyte | ICV 440-452696/5 01/19/2018 09:27 | | | | CCV 440-452696/25 01/19/2018 11:18 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Found | C | True | %R | Found | C | True | %R | Found | C | True | %R |
| **Chromium** | 1.02 | | 1.00 | 102 | 1.01 | | 1.00 | 101 | | | | |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Method: 6010B Instrument ID: ICP9

Lab Sample ID: CRI 440-452609/14 Concentration Units: mg/L

CRQL Check Standard Source: ME ICP 2X RL_00054

| Analyte | CRQL Check Standard | | | | |
|---|---|---|---|---|---|
| | True | Found | Qualifiers | %R(1) | Limits |
| Chromium | 0.0100 | 0.0106 | | 106 | 50-150 |

Lab Sample ID: CRI 440-452696/13 Concentration Units: mg/L

CRQL Check Standard Source: ME ICP 2X RL_00055

| Analyte | CRQL Check Standard | | | | |
|---|---|---|---|---|---|
| | True | Found | Qualifiers | %R(1) | Limits |
| Chromium | 0.0100 | 0.0108 | | 108 | 50-150 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Concentration Units: mg/L

| Analyte | RL | ICB 440-452609/7 01/18/2018 11:00 | | CCB 440-452609/39 01/18/2018 19:36 | | CCB 440-452609/51 01/18/2018 20:01 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Found | C | Found | C | Found | C | Found | C |
| **Chromium** | 0.0050 | ND | | ND | | ND | | | |

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Concentration Units: mg/L

| Analyte | RL | ICB 440-452696/7 01/19/2018 09:32 | | CCB 440-452696/26 01/19/2018 11:20 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Found | C | Found | C | Found | C | Found | C |
| **Chromium** | 0.0050 | ND | | ND | | | | | |

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 440-452435/1-A

Instrument Code: ICP9 Batch No.: 452696

| CAS No. | Analyte | Concentration | C | Q | Method |
|---|---|---|---|---|---|
| 7440-47-3 | Chromium | ND | | | 6010B |

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Lab Sample ID: ICSAB 440-452609/9  Instrument ID: ICP9

Lab File ID: 180118-2h.csv  ICS Source: ME ICP IFB_01810

Concentration Units: mg/L

| Analyte | True Solution AB | Found Solution AB | Percent Recovery |
|---|---|---|---|
| **Chromium** | **0.500** | **0.537** | **107** |
| *Aluminum* | *601* | *678* | *113* |
| *Antimony* | *0.500* | *0.569* | *114* |
| *Arsenic* | *0.500* | *0.549* | *110* |
| *Barium* | *0.500* | *0.510* | *102* |
| *Beryllium* | *0.500* | *0.566* | *113* |
| *Boron* | *0.500* | *0.577* | *115* |
| *Cadmium* | *0.500* | *0.499* | *100* |
| *Calcium* | *603* | *681* | *113* |
| *Cobalt* | *0.500* | *0.498* | *100* |
| *Copper* | *0.500* | *0.585* | *117* |
| *Iron* | *601* | *595* | *99* |
| *Lead* | *0.500* | *0.502* | *100* |
| *Lithium* | *0.500* | *0.557* | *111* |
| *Magnesium* | *603* | *641* | *106* |
| *Manganese* | *0.500* | *0.512* | *102* |
| *Molybdenum* | *0.500* | *0.539* | *108* |
| *Nickel* | *0.500* | *0.493* | *99* |
| *Phosphorus* | *0.500* | *0.532* | *106* |
| *Potassium* | *10.0* | *11.5* | *115* |
| *Selenium* | *0.500* | *0.509* | *102* |
| *Silicon* | *2.50* | *2.70* | *108* |
| *Silver* | *0.250* | *0.288* | *115* |
| *Sodium* | *10.0* | *11.3* | *113* |
| *Strontium* | *0.500* | *0.526* | *105* |
| *Thallium* | *0.500* | *0.477* | *95* |
| *Tin* | *0.500* | *0.505* | *101* |
| *Titanium* | *0.500* | *0.557* | *111* |
| *Tungsten* | *0.500* | *0.537* | *107* |
| *Vanadium* | *0.500* | *0.540* | *108* |
| *Zinc* | *0.500* | *0.461* | *92* |
| *Zirconium* | *0.500* | *0.541* | *108* |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Lab Sample ID: ICSA 440-452609/10  Instrument ID: ICP9

Lab File ID: 180118-2h.csv  ICS Source: ME ICP IFA_01791

Concentration Units: mg/L

| Analyte | True Solution A | Found Solution A | Percent Recovery |
|---|---|---|---|
| **Chromium** | | **0.0016** | |
| *Aluminum* | *600* | *693* | *115* |
| *Antimony* | | *-0.0008* | |
| *Arsenic* | | *0.0004* | |
| *Barium* | | *0.0046* | |
| *Beryllium* | | *-0.0003* | |
| *Boron* | | *0.0268* | |
| *Cadmium* | | *0.0054* | |
| *Calcium* | *600* | *691* | *115* |
| *Cobalt* | | *0.0103* | |
| *Copper* | | *0.0032* | |
| *Iron* | *600* | *608* | *101* |
| *Lead* | | *0.0002* | |
| *Lithium* | | *-0.0088* | |
| *Magnesium* | *600* | *656* | *109* |
| *Manganese* | | *-0.0055* | |
| *Molybdenum* | | *0.0016* | |
| *Nickel* | | *0.0075* | |
| *Phosphorus* | | *-0.0293* | |
| *Potassium* | | *0.167* | |
| *Selenium* | | *0.0057* | |
| *Silicon* | | *-0.0450* | |
| *Silver* | | *-0.0029* | |
| *Sodium* | | *0.371* | |
| *Strontium* | | *-0.0192* | |
| *Thallium* | | *-0.0073* | |
| *Tin* | | *-0.0081* | |
| *Titanium* | | *0.0014* | |
| *Tungsten* | | *0.0059* | |
| *Vanadium* | | *-0.0017* | |
| *Zinc* | | *-0.0160* | |
| *Zirconium* | | *0.0016* | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Lab Sample ID: ICSA 440-452696/8  Instrument ID: ICP9

Lab File ID: 180119-1A.csv  ICS Source: ME ICP IFA_01792

Concentration Units: mg/L

| Analyte | True Solution A | Found Solution A | Percent Recovery |
|---|---|---|---|
| **Chromium** | | **0.0011** | |
| *Aluminum* | *600* | *685* | *114* |
| *Antimony* | | *-0.0048* | |
| *Arsenic* | | *0.0156* | |
| *Barium* | | *0.0046* | |
| *Beryllium* | | *0.0006* | |
| *Boron* | | *0.0237* | |
| *Cadmium* | | *0.0061* | |
| *Calcium* | *600* | *686* | *114* |
| *Cobalt* | | *0.0104* | |
| *Copper* | | *0.0023* | |
| *Iron* | *600* | *601* | *100* |
| *Lead* | | *-0.0076* | |
| *Lithium* | | *0.0008* | |
| *Magnesium* | *600* | *647* | *108* |
| *Manganese* | | *0.0055* | |
| *Molybdenum* | | *0.0021* | |
| *Nickel* | | *0.0050* | |
| *Phosphorus* | | *-0.0221* | |
| *Potassium* | | *0.0570* | |
| *Selenium* | | *0.0072* | |
| *Silicon* | | *-0.0450* | |
| *Silver* | | *-0.0028* | |
| *Sodium* | | *0.341* | |
| *Strontium* | | *-0.0188* | |
| *Thallium* | | *-0.0138* | |
| *Tin* | | *-0.0024* | |
| *Titanium* | | *0.0015* | |
| *Tungsten* | | *0.0083* | |
| *Vanadium* | | *-0.0015* | |
| *Zinc* | | *-0.0118* | |
| *Zirconium* | | *0.0016* | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Lab Sample ID: ICSAB 440-452696/9  Instrument ID: ICP9

Lab File ID: 180119-1A.csv  ICS Source: ME ICP IFB_01811

Concentration Units: mg/L

| Analyte | True Solution AB | Found Solution AB | Percent Recovery |
|---|---|---|---|
| **Chromium** | **0.500** | **0.520** | **104** |
| *Aluminum* | *601* | *662* | *110* |
| *Antimony* | *0.500* | *0.553* | *111* |
| *Arsenic* | *0.500* | *0.550* | *110* |
| *Barium* | *0.500* | *0.495* | *99* |
| *Beryllium* | *0.500* | *0.551* | *110* |
| *Boron* | *0.500* | *0.555* | *111* |
| *Cadmium* | *0.500* | *0.483* | *97* |
| *Calcium* | *603* | *656* | *109* |
| *Cobalt* | *0.500* | *0.486* | *97* |
| *Copper* | *0.500* | *0.571* | *114* |
| *Iron* | *601* | *582* | *97* |
| *Lead* | *0.500* | *0.480* | *96* |
| *Lithium* | *0.500* | *0.550* | *110* |
| *Magnesium* | *603* | *625* | *104* |
| *Manganese* | *0.500* | *0.513* | *103* |
| *Molybdenum* | *0.500* | *0.526* | *105* |
| *Nickel* | *0.500* | *0.481* | *96* |
| *Phosphorus* | *0.500* | *0.524* | *105* |
| *Potassium* | *10.0* | *11.3* | *113* |
| *Selenium* | *0.500* | *0.483* | *97* |
| *Silicon* | *2.50* | *2.55* | *102* |
| *Silver* | *0.250* | *0.282* | *113* |
| *Sodium* | *10.0* | *11.1* | *111* |
| *Strontium* | *0.500* | *0.515* | *103* |
| *Thallium* | *0.500* | *0.459* | *92* |
| *Tin* | *0.500* | *0.495* | *99* |
| *Titanium* | *0.500* | *0.543* | *109* |
| *Tungsten* | *0.500* | *0.524* | *105* |
| *Vanadium* | *0.500* | *0.528* | *106* |
| *Zinc* | *0.500* | *0.451* | *90* |
| *Zirconium* | *0.500* | *0.515* | *103* |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: VER-01I-B-36 MS | Lab ID: 440-200815-3 MS

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Matrix: Water | Concentration Units: mg/L

% Solids:

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 15.2 | | 14 | | 1.00 | 146 | 75-125 | 4 | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: VER-01I-B-36 MSD
Lab ID: 440-200815-3 MSD
Lab Name: TestAmerica Irvine
Job No.: 440-200815-1
SDG No.:
Matrix: Water
Concentration Units: mg/L
% Solids:

| Analyte | (SDR) | C | Spike Added (SA) | %R | Control Limit %R | RPD | RPD Limit | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 15.1 | | 1.00 | 135 | 75-125 | 1 | 20 | 4 | 6010B |

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: VER-01I-B-36 PDS | Lab ID: 440-200815-3 PDS

Lab Name: TestAmerica Irvine | Job No.: 440-200815-1

SDG No.:

Matrix: Water | Concentration Units: mg/L

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 14.8 | | 14 | | 1.00 | NC | 80-120 | | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 440-452435/2-A

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

Sample Matrix: Water  LCS Source: ME ICP2 ICV1A_00051

| Analyte | Water(mg/L) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | True | Found | C | %R | Limits | | Q | Method |
| Chromium | 1.00 | 1.09 | | 109 | 80 | 120 | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 440-200815-3

SDG No:

Lab Name: TestAmerica Irvine Job No: 440-200815-1

Matrix: Water Concentration Units: mg/L

| Analyte | Initial Sample Result (I) | C | Serial Dilution Result (S) | C | % Difference | Q | Method |
|---|---|---|---|---|---|---|---|
| Chromium | 14 | | 14.3 | | 3.8 | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine  Job Number: 440-200815-1

SDG Number:

Matrix: Water  Instrument ID: ICP9

Method: 6010B  MDL Date: 06/15/2017 17:45

Prep Method: 3005A

| Analyte | Wavelength/ Mass | RL (mg/L) | MDL (mg/L) |
|---|---|---|---|
| Chromium | 205.552 | 0.005 | 0.0025 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine Job Number: 440-200815-1

SDG Number:

Matrix: Water Instrument ID: ICP9

Method: 6010B XMDL Date: 06/15/2017 17:46

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Chromium | 205.552 | 0.005 | 0.0025 |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-200815-1

SDG No.:

ICP-AES Instrument ID: ICP9 Date: 01/18/2018

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 396.152 | | -0.000113 | 0.000335 | 0.000181 | 0.000104 | -0.000033 | 0.000059 | 0.000156 | 0.027697 | 0.000141 | 0.000151 | 0.0001 | 0.000149 | 0.001271 |
| Antimony | 206.834 | -0.00004 | -0.000006 | 0.00011 | 0.011494 | 0.000046 | 0 | -0.000008 | -0.000015 | -0.016976 | 0.000031 | 0.000285 | 0.000246 | 0.000194 | -0.000311 |
| Arsenic | 188.980 | -0.000001 | 0.000004 | 0.00001 | -0.011892 | -0.000057 | 0.000006 | 0.000003 | -0.000097 | -0.000247 | -0.000118 | -0.000045 | -0.0003 | -0.000181 | 0.000746 |
| Barium | 233.527 | 0 | 0 | -0.000008 | 0.000005 | 0.000003 | 0.000002 | 0.000002 | 0.000003 | -0.0002 | -0.000001 | -0.000013 | -0.000001 | -0.000166 | 0.000131 |
| Beryllium | 234.861 | 0 | 0 | 0.000005 | -0.000003 | -0.000001 | 0.00015 | 0 | -0.000065 | -0.000283 | -0.000005 | 0 | 0.000001 | -0.000001 | -0.000002 |
| Boron | 249.678 | 0 | 0 | 0.000864 | 0.000331 | -0.000038 | -0.00009 | -0.000003 | -0.000106 | -0.000041 | -0.000044 | -0.000044 | -0.000026 | -0.000044 | -0.010089 |
| Cadmium | 214.439 | -0.000001 | 0 | -0.000005 | -0.000016 | -0.000003 | 0.00001 | 0 | -0.000001 | -0.000015 | -0.000002 | -0.000003 | 0 | -0.000004 | -0.000105 |
| Calcium | 422.673 | -0.00001 | | 0.000994 | 0.000535 | -0.000109 | -0.00006 | 0.000043 | 0.00015 | -0.000274 | 0.00001 | 0.000023 | -0.000301 | 0.000679 | -0.000279 |
| Chromium | 205.560 | 0.000002 | 0.000001 | -0.000004 | | 0.000103 | 0.000001 | 0.000001 | 0.000002 | -0.000689 | -0.000347 | -0.000006 | 0.000025 | -0.000003 | 0.000429 |
| Cobalt | 228.615 | -0.000074 | -0.000001 | | 0.000295 | 0.000012 | 0.000079 | 0.000001 | 0.000008 | 0.000035 | 0.000122 | 0.000003 | 0.00196 | 0.000006 | 0.000203 |
| Copper | 324.754 | 0.000001 | -0.000036 | 0.000007 | -0.000005 | | 0.000017 | 0.000003 | 0.000004 | 0.00028 | -0.000017 | 0.000003 | -0.000201 | -0.000162 | 0.000005 |
| Iron | 238.204 | -0.000001 | 0.000002 | -0.000563 | -0.000085 | -0.000005 | | 0.000038 | 0.000026 | -0.000037 | -0.00012 | -0.00005 | -0.000012 | -0.000018 | -0.000026 |
| Lead | 220.353 | -0.000075 | 0 | 0.00001 | -0.00002 | 0.000012 | 0.00004 | 0.00003 | 0.000163 | -0.001276 | 0.000103 | 0.000085 | -0.000369 | -0.000017 | -0.001029 |
| Lithium | 670.783 | -0.000008 | 0.000091 | -0.000403 | -0.000358 | -0.000417 | 0.000007 | -0.000043 | -0.000191 | -0.000044 | 0.000649 | -0.000155 | 0.000322 | -0.000365 | -0.000287 |
| Magnesium | 279.078 | -0.000008 | 0.000004 | -0.000345 | -0.000396 | -0.00006 | -0.000154 | | 0.000619 | -0.000486 | -0.000082 | -0.000084 | -0.000074 | 0.000166 | -0.000444 |
| Manganese | 259.372 | 0 | 0.000001 | 0.000014 | -0.000012 | 0.000001 | 0.0014 | 0.0014 | | 0.00506 | 0.000001 | 0.000001 | 0.000019 | 0.000008 | 0.000003 |
| Molybdenum | 204.598 | 0.00002 | -0.000002 | -0.000026 | 0.000026 | -0.000025 | 0.000001 | -0.000003 | -0.000008 | | -0.000008 | 0.000011 | -0.000055 | -0.000071 | -0.000042 |
| Nickel | 231.604 | -0.000054 | -0.000002 | -0.000729 | -0.000004 | -0.000007 | 0.000068 | 0.000003 | -0.000086 | -0.000043 | | 0.000055 | 0.000025 | -0.000031 | -0.000076 |
| Phosphorus | 213.618 | 0.00001 | -0.000003 | 0.000107 | -0.000002 | -0.049125 | -0.000015 | 0.000002 | -0.000009 | -0.022058 | 0.000016 | -0.000101 | 0.000039 | 0.000032 | -0.000338 |
| Potassium | 766.491 | 0 | 0 | -0.002978 | -0.00312 | -0.002577 | 0 | 0.000377 | -0.003299 | -0.003487 | -0.001449 | -0.002276 | -0.001505 | -0.002888 | -0.003948 |
| Selenium | 196.026 | -0.000002 | 0.000001 | -0.000473 | -0.00005 | -0.000118 | -0.00027 | 0.000003 | 0.000473 | -0.000001 | -0.000076 | 0.00001 | -0.000029 | -0.000143 | 0.008371 |
| Silicon | 251.611 | 0.000025 | 0.000032 | 0.000226 | 0.000128 | 0.000078 | -0.000059 | 0.000052 | 0.000244 | 0.011459 | 0.00022 | 0.000666 | 0.003874 | 0.000343 | 0.066637 |
| Silver | 328.068 | 0 | -0.000002 | 0.000013 | -0.000014 | 0.000008 | -0.000006 | -0.000001 | 0.000077 | 0.000057 | 0.000007 | -0.000002 | -0.000079 | 0.000092 | 0.000005 |
| Sodium | 589.592 | 0.000011 | 0.000027 | -0.000151 | 0.000095 | -0.000181 | -0.000033 | 0.000018 | 0.000103 | 0.001732 | -0.000426 | -0.000326 | -0.000135 | -0.000514 | 0.002616 |
| Strontium | 421.552 | 0 | 0.000032 | 0 | -0.000002 | -0.000001 | 0.000001 | 0 | 0.000001 | 0 | -0.000003 | 0.000004 | 0.000002 | 0.000002 | 0.000015 |
| Thallium | 190.794 | 0.000008 | 0.000006 | 0.00333 | 0.000217 | 0.000096 | 0.000009 | 0.000005 | 0.001473 | 0.000248 | -0.000006 | 0.000051 | -0.013168 | -0.022591 | 0.000561 |
| Tin | 189.925 | -0.000002 | 0.000001 | 0.000038 | 0.000046 | 0.000048 | 0.000002 | 0.000006 | 0.000043 | 0.000032 | 0.000087 | | 0.000059 | 0.000459 | 0.000154 |
| Titanium | 336.122 | 0 | -0.000009 | -0.000016 | -0.000021 | 0.000001 | 0 | 0.000001 | 0.000001 | -0.000126 | -0.000041 | 0 | | -0.000256 | 0.000448 |
| Tungsten | 207.912 | 0.000002 | -0.000007 | -0.00009 | -0.000027 | -0.000032 | 0.000002 | -0.000002 | -0.000039 | 0.00016 | -0.000017 | 0.000023 | -0.000013 | -0.000051 | |
| Vanadium | 292.401 | 0 | 0.000004 | 0.000002 | 0.000275 | 0.000012 | 0.000033 | 0.000002 | 0.000011 | -0.009648 | 0.000021 | 0.000013 | 0.000804 | | 0.000223 |

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-200815-1

SDG No.:

ICP-AES Instrument ID: ICP9 Date: 01/18/2018

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Zinc | 202.548 | 0.000003 | 0.000003 | -0.000028 | -0.001505 | 0.007594 | -0.0000366 | 0.000008 | 0.000073 | 0.000042 | -0.000032 | 0.000032 | 0.000063 | 0.000033 | 0.0003 |
| Zirconium | 343.823 | 0 | 0.000002 | -0.000094 | -0.000006 | 0 | 0.000011 | 0 | -0.000024 | 0.000007 | -0.000004 | 0.000016 | 0 | -0.000003 | 0.000114 |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-200815-1

SDG No.:

ICP-AES Instrument ID: ICP9 Date: 01/18/2018

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 396.152 | 0.000144 | 0.008724 | | | | | | | | | | | | |
| Antimony | 206.834 | 0.00016 | -0.000045 | | | | | | | | | | | | |
| Arsenic | 188.980 | -0.00006 | -0.000056 | | | | | | | | | | | | |
| Barium | 233.527 | 0.000001 | 0.000002 | | | | | | | | | | | | |
| Beryllium | 234.861 | 0.000001 | 0.000008 | | | | | | | | | | | | |
| Boron | 249.678 | -0.000001 | 0.000463 | | | | | | | | | | | | |
| Cadmium | 214.439 | -0.000002 | -0.000004 | | | | | | | | | | | | |
| Calcium | 422.673 | -0.00032 | -0.00005 | | | | | | | | | | | | |
| Chromium | 205.560 | -0.000026 | 0.000017 | | | | | | | | | | | | |
| Cobalt | 228.615 | -0.000005 | 0.000009 | | | | | | | | | | | | |
| Copper | 324.754 | -0.000013 | 0.000007 | | | | | | | | | | | | |
| Iron | 238.204 | -0.00003 | 0.000223 | | | | | | | | | | | | |
| Lead | 220.353 | -0.000019 | -0.00027 | | | | | | | | | | | | |
| Lithium | 670.783 | -0.000044 | -0.000041 | | | | | | | | | | | | |
| Magnesium | 279.078 | -0.000127 | -0.000031 | | | | | | | | | | | | |
| Manganese | 259.372 | 0.000002 | 0.000041 | | | | | | | | | | | | |
| Molybdenum | 204.598 | -0.00003 | 0.000023 | | | | | | | | | | | | |
| Nickel | 231.604 | -0.000011 | -0.000035 | | | | | | | | | | | | |
| Phosphorus | 213.618 | 0.00003 | 0.000123 | | | | | | | | | | | | |
| Potassium | 766.491 | -0.003593 | -0.003514 | | | | | | | | | | | | |
| Selenium | 196.026 | -0.000005 | -0.000021 | | | | | | | | | | | | |
| Silicon | 251.611 | 0.002002 | 0.0079 | | | | | | | | | | | | |
| Silver | 328.068 | 0.000017 | 0.003635 | | | | | | | | | | | | |
| Sodium | 589.592 | -0.00036 | -0.000181 | | | | | | | | | | | | |
| Strontium | 421.552 | -0.000002 | -0.000021 | | | | | | | | | | | | |
| Thallium | 190.794 | 0.000009 | -0.000081 | | | | | | | | | | | | |
| Tin | 189.925 | 0.000176 | 0.000611 | | | | | | | | | | | | |
| Titanium | 336.122 | 0.000008 | 0.000128 | | | | | | | | | | | | |
| Tungsten | 207.912 | 0.009684 | 0.000018 | | | | | | | | | | | | |
| Vanadium | 292.401 | 0.000017 | -0.000005 | | | | | | | | | | | | |

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-200815-1

SDG No.:

ICP-AES Instrument ID: ICP9 Date: 01/18/2018

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | 0 | 0 | | | | | | | | | | | | |
| Zinc | 202.548 | | 0.000211 | | | | | | | | | | | | |
| Zirconium | 343.823 | 0.000006 | | | | | | | | | | | | | |

X-IN

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Irvine Job No: 440-200815-1

SDG No.:

Instrument ID: ICP9 Date: 06/15/2017 18:17

| Analyte | Integ. Time (Sec.) | Concentration (mg/L) | Method |
|---|---|---|---|
| Chromium | | 30 | 6010B |

FORM XI - IN

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Irvine Job No.: 440-200815-1

SDG No.:

Prep Method: 3005A

| Lab Sample ID | Preparation Date | Prep Batch | Initial Weight | Initial Volume (mL) | Final Volume (mL) |
|---|---|---|---|---|---|
| MB 440-452435/1-A | 01/18/2018 09:57 | 452435 | | 25 | 25 |
| LCS 440-452435/2-A | 01/18/2018 09:57 | 452435 | | 25 | 25 |
| 440-200815-3 | 01/18/2018 09:57 | 452435 | | 25 | 25 |
| 440-200815-3 MS | 01/18/2018 09:57 | 452435 | | 25 | 25 |
| 440-200815-3 MSD | 01/18/2018 09:57 | 452435 | | 25 | 25 |
| 440-200815-1 | 01/18/2018 09:57 | 452435 | | 25 | 25 |

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Instrument ID: ICP9  Analysis Method: 6010B

Start Date: 01/18/2018 10:44  End Date: 01/18/2018 20:55

| Lab Sample Id | D/F | Type | Time | Analytes |
|---|---|---|---|---|
| | | | | Cr |
| ICIS 440-452609/1 | | | 10:44 | X |
| STD1 440-452609/2 IC | | | 10:46 | X |
| STD2 440-452609/3 IC | | | 10:48 | X |
| STD3 440-452609/4 IC | | | 10:50 | X |
| ICV 440-452609/5 | 1 | | 10:54 | X |
| ZZZZZZ | | | 10:57 | |
| ICB 440-452609/7 | 1 | | 11:00 | X |
| ICSA 440-452609/8 | | | 11:03 | |
| ICSAB 440-452609/9 | 1 | | 11:05 | X |
| ICSA 440-452609/10 | 1 | | 11:11 | X |
| ZZZZZZ | | | 11:19 | |
| RINSE 440-452609/12 | | | 11:21 | |
| ZZZZZZ | | | 11:23 | |
| CRI 440-452609/14 | 1 | | 11:26 | X |
| CCV 440-452609/15 | | | 18:43 | |
| CCB 440-452609/16 | | | 18:45 | |
| ZZZZZZ | | | 18:51 | |
| ZZZZZZ | | | 18:53 | |
| ZZZZZZ | | | 18:55 | |
| ZZZZZZ | | | 18:57 | |
| ZZZZZZ | | | 18:59 | |
| ZZZZZZ | | | 19:01 | |
| ZZZZZZ | | | 19:03 | |
| ZZZZZZ | | | 19:05 | |
| ZZZZZZ | | | 19:07 | |
| ZZZZZZ | | | 19:09 | |
| CCV 440-452609/27 | | | 19:11 | |
| CCB 440-452609/28 | | | 19:14 | |
| ZZZZZZ | | | 19:16 | |
| ZZZZZZ | | | 19:18 | |
| ZZZZZZ | | | 19:20 | |
| ZZZZZZ | | | 19:22 | |
| ZZZZZZ | | | 19:24 | |
| ZZZZZZ | | | 19:26 | |
| ZZZZZZ | | | 19:28 | |
| ZZZZZZ | | | 19:30 | |
| ZZZZZZ | | | 19:32 | |
| CCV 440-452609/38 | 1 | | 19:34 | X |
| CCB 440-452609/39 | 1 | | 19:36 | X |
| ZZZZZZ | | | 19:38 | |
| ZZZZZZ | | | 19:40 | |
| ZZZZZZ | | | 19:43 | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Instrument ID: ICP9  Analysis Method: 6010B

Start Date: 01/18/2018 10:44  End Date: 01/18/2018 20:55

| Lab Sample Id | D/F | Type | Time | Analytes |
|---|---|---|---|---|
| | | | | Cr |
| ZZZZZZ | | | 19:45 | |
| ZZZZZZ | | | 19:47 | |
| ZZZZZZ | | | 19:49 | |
| ZZZZZZ | | | 19:51 | |
| 440-200815-1 | 5 | R | 19:53 | X |
| ZZZZZZ | | | 19:55 | |
| ZZZZZZ | | | 19:57 | |
| CCV 440-452609/50 | 1 | | 19:59 | X |
| CCB 440-452609/51 | 1 | | 20:01 | X |
| ZZZZZZ | | | 20:03 | |
| ZZZZZZ | | | 20:05 | |
| ZZZZZZ | | | 20:07 | |
| ZZZZZZ | | | 20:09 | |
| ZZZZZZ | | | 20:12 | |
| ZZZZZZ | | | 20:14 | |
| CCV 440-452609/58 | | | 20:16 | |
| CCB 440-452609/59 | | | 20:18 | |
| ZZZZZZ | | | 20:20 | |
| ZZZZZZ | | | 20:22 | |
| ZZZZZZ | | | 20:24 | |
| ZZZZZZ | | | 20:26 | |
| ZZZZZZ | | | 20:28 | |
| ZZZZZZ | | | 20:30 | |
| ZZZZZZ | | | 20:32 | |
| CCV 440-452609/67 | | | 20:34 | |
| CCB 440-452609/68 | | | 20:37 | |
| ZZZZZZ | | | 20:39 | |
| ZZZZZZ | | | 20:41 | |
| ZZZZZZ | | | 20:43 | |
| RINSE 440-452609/72 | | | 20:45 | |
| RINSE 440-452609/73 | | | 20:47 | |
| RINSE 440-452609/74 | | | 20:49 | |
| RINSE 440-452609/75 | | | 20:51 | |
| RINSE 440-452609/76 | | | 20:53 | |
| RINSE 440-452609/77 | | | 20:55 | |

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Instrument ID: ICP9  Analysis Method: 6010B

Start Date: 01/19/2018 09:19  End Date: 01/19/2018 11:36

| Lab Sample Id | D/F | Type | Time | Analytes |
|---|---|---|---|---|
| | | | | Cr |
| ICIS 440-452696/1 | 1 | | 09:19 | X |
| STD1 440-452696/2 IC | | | 09:21 | X |
| STD2 440-452696/3 IC | | | 09:23 | X |
| STD3 440-452696/4 IC | | | 09:25 | X |
| ICV 440-452696/5 | 1 | | 09:27 | X |
| ZZZZZZ | | | 09:29 | |
| ICB 440-452696/7 | 1 | | 09:32 | X |
| ICSA 440-452696/8 | 1 | | 09:37 | X |
| ICSAB 440-452696/9 | 1 | | 09:39 | X |
| ZZZZZZ | | | 09:43 | |
| RINSE 440-452696/11 | | | 09:45 | |
| ZZZZZZ | | | 09:47 | |
| CRI 440-452696/13 | 1 | | 09:49 | X |
| ZZZZZZ | | | 09:53 | |
| MB 440-452435/1-A | 1 | R | 10:46 | X |
| LCS 440-452435/2-A | 1 | R | 10:48 | X |
| 440-200815-3 | 5 | R | 10:50 | X |
| 440-200815-3 MS | 5 | R | 10:52 | X |
| 440-200815-3 MSD | 5 | R | 10:54 | X |
| 440-200815-3 PDS | 5 | R | 10:56 | X |
| 440-200815-3 SD | 25 | R | 10:59 | X |
| ZZZZZZ | | | 11:01 | |
| ZZZZZZ | | | 11:03 | |
| ZZZZZZ | | | 11:05 | |
| CCV 440-452696/25 | 1 | | 11:18 | X |
| CCB 440-452696/26 | 1 | | 11:20 | X |
| ZZZZZZ | | | 11:24 | |
| ZZZZZZ | | | 11:27 | |
| ZZZZZZ | | | 11:29 | |
| ZZZZZZ | | | 11:31 | |
| CCV 440-452696/31 | | | 11:34 | |
| CCB 440-452696/32 | | | 11:36 | |

Prep Types:
R = Total Recoverable

FORM XIII-IN

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Batch Number: 452435  Batch Start Date: 01/18/18 09:57  Batch Analyst: Lopez-Canseco, Jessica

Batch Method: 3005A  Batch End Date: 01/18/18 17:30

| Lab Sample ID | Client Sample ID | Method Chain | Basis | Initial pH | InitialAmount | FinalAmount | ME HCl 00393 | ME HNO3 00412 | ME ICP2 ICV1A 00051 |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-452435/1 | | 3005A, 6010B | | | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| LCS 440-452435/2 | | 3005A, 6010B | | | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-200815-G-3 | VER-01I-B-36 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| 440-200815-G-3 MS | VER-01I-B-36 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-200815-G-3 MSD | VER-01I-B-36 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-200815-G-1 | VER-01I-B-24 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| 440-200815-G-3 PDS | VER-01I-B-36 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | ME ICP2 ICV1B 00045 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-452435/1 | | 3005A, 6010B | | | | | | | |
| LCS 440-452435/2 | | 3005A, 6010B | | 250 uL | | | | | |
| 440-200815-G-3 | VER-01I-B-36 | 3005A, 6010B | R | | | | | | |
| 440-200815-G-3 MS | VER-01I-B-36 | 3005A, 6010B | R | 250 uL | | | | | |
| 440-200815-G-3 MSD | VER-01I-B-36 | 3005A, 6010B | R | 250 uL | | | | | |
| 440-200815-G-1 | VER-01I-B-24 | 3005A, 6010B | R | | | | | | |
| 440-200815-G-3 PDS | VER-01I-B-36 | 3005A, 6010B | R | 250 uL | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200815-1

SDG No.:

Batch Number: 452435  Batch Start Date: 01/18/18 09:57  Batch Analyst: Lopez-Canseco, Jessica

Batch Method: 3005A  Batch End Date: 01/18/18 17:30

| Batch Notes | |
|---|---|
| Temperature - Corrected - End | 93 Degrees C |
| Temperature - Corrected - Start | 93 Degrees C |
| Digestion End Time | 01/18/2018 15:19 |
| Digestion Start Time | 01/18/2018 11:19 |
| Digestion Unit ID | 4 |
| Hydrochloric Acid ID | 0000183197 |
| Nitric Acid ID | 0000185595 |
| Pipette/Syringe/Dispenser ID | #201 |
| Thermometer ID | P-128 Loc A5 CF= -1 |
| Digestion Tube/Cup ID | 1707186 |
| Temperature - Uncorrected - End | 94 Degrees C |
| Temperature - Uncorrected - Start | 94 Degrees C |

| Basis | Basis Description |
|---|---|
| R | Total Recoverable |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Shipping and Receiving Documents

**TestAmerica Irvine**
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information | Sampler: Jeff Richeson | Lab PM: Mata, Patty | Carrier Tracking No(s): | COC No: |
|---|---|---|---|---|
| Client Contact: Carl Lenker | Phone: (805) 660-1774 | E-Mail: patty.mata@testamericainc.com | | Page: 1 of 2 |
| Company: Tetra Tech, Inc. | | | | Job #: |
| Address: 17885 Von Karman Ave, Ste 500 | Due Date Requested: | | | |
| City: Irvine | TAT Requested (days): | | | |
| State, Zip: CA, 92614 | | | | |
| Phone: 949-809-5000(Tel) | PO #: | | | |
| Email: Carl.Lenker@tetratech.com | WO #: | | | |
| Project Name: NERT VER Treatability Study | Project #: M16 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

| | |
|---|---|
| A - HCL | M - Hexane |
| B - NaOH | N - None |
| C - Zn Acetate | O - AsNaO2 |
| D - Nitric Acid | P - Na2O4S |
| E - NaHSO4 | Q - Na2SO3 |
| F - MeOH | R - Na2S2O3 |
| G - Amchlor | S - H2SO4 |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice | U - Acetone |
| J - DI Water | V - MCAA |
| K - EDTA | W - pH 4-5 |
| L - EDA | Z - other (specify) |

Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 7199_ORGFM - Chromium, hexavalent | 314.0_LL - Perchlorate | E300.1 Chlorate and Chloride | SW846 [redacted] VOCs 524.2 | [redacted] Total Chromium 6010B | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | X | X | N | N | L | A | D | X | |
| VER-01I-B-[redacted]24 | 01/12/18 | 0330 | G | W | Y | | X | X | X | X | X | 7 | |
| Trip Blank-01122018 | 01/12/18 | 0330 | G | W | | | | | | X | | 3 | |

440-200815 Chain of Custody

**Possible Hazard Identification**
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|
| | | | |

| | Date/Time: | Company | | Date/Time: | Company |
|---|---|---|---|---|---|
| Relinquished by: | 01/12/18 | Tetra Tech | Received by: | 1-12-18 1200 | TALVS |
| Relinquished by: | 1-12-18 1205 | TALVS | Received by: | | |
| Relinquished by: | | | Received by: | 01/12/18 1925 | TALVS |

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.: SWA-526 6064 0090

Cooler Temperature(s) °C and Other Remarks: TALVS 16.8 1.6/1.54-84

Page 335 of 337

**TestAmerica Irvine**
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information | Sampler: Jeff Richeson | Lab PM: Mata, Patty | Carrier Tracking No(s): | COC No: |
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| Company: Tetra Tech, Inc. | | | | Job #: |
| Address: 17885 Von Karman Ave, Ste 500 | Due Date Requested: | | | |
| City: Irvine | TAT Requested (days): | | | |
| State, Zip: CA, 92614 | | | | |
| Phone: 949-809-5000(Tel) | PO #: | | | |
| Email: Carl.Lenker@tetratech.com | WO #: | | | |
| Project Name: NERT VER Treatability Study | Project #: M16 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

| | |
|---|---|
| A - HCL | M - Hexane |
| B - NaOH | N - None |
| C - Zn Acetate | O - AsNaO2 |
| D - Nitric Acid | P - Na2O4S |
| E - NaHSO4 | Q - Na2SO3 |
| F - MeOH | R - Na2S2O3 |
| G - Amchlor | S - H2SO4 |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice | U - Acetone |
| J - DI Water | V - MCAA |
| K - EDTA | W - pH 4-5 |
| L - EDA | Z - other (specify) |

Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 7199_ORGFM - Chromium, hexavalent | 314.0_LL - Perchlorate | E300.1 Chlorate and Chlorite | SW846 [redacted] VOCs 8260B | [redacted] Total Chromium 6010B | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | N | N | L | A | D | | |
| VER-02I-B-36 | 1/12/18 | 1530 | G | W | X | X | X | X | X | X | X | | |
| TB-011218 | 1/12/18 | 1500 | G | W | | | | | | X | | | |

440-200815 Chain of Custody

***Possible Hazard Identification***
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

***Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)***
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|
| | | | |

| | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|---|
| 1 | [signature] | 1/12/18 1530 | Tetra Tech | [signature] | 1-13-18 1530 | TALVS |
| 2 | [signature] | 1-12-18 1630 | TALVS | SW A | | |
| 3 | | | | [signature] | 01/13/18, 0920 | TALV |

Custody Seals Intact: ☐ Yes ☐ No

Custody Seal No.: TWA: 526 6063 9654

Cooler Temperature(s) °C and Other Remarks: TALVS 18.1 4.7/4.8 -ED

Page 336 of 337

01/13

# Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 440-200815-1

**Login Number: 200815**
**List Number: 1**
**Creator: Garcia, Veronica G**

**List Source: TestAmerica Irvine**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | N/A | Not present |
| Sample custody seals, if present, are intact. | N/A | Not Present |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

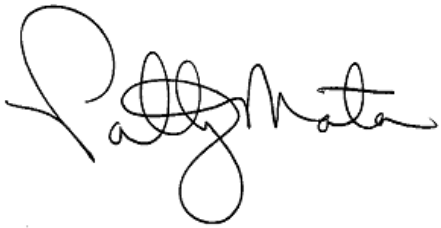
# ANALYTICAL REPORT

Job Number: 440-200988-1

Job Description: NERT VER Treatability Study

For:
Tetra Tech, Inc.
17885 Von Karman Ave, Ste 500
Irvine, CA 92614

Attention: Jeff Richeson



Approved for release.
Patty Mata
Senior Project Manager
1/23/2018 4:00 PM

Patty Mata, Senior Project Manager
17461 Derian Ave, Irvine, CA, 92614-5817
patty.mata@testamericainc.com
01/23/2018

# Table of Contents


Cover Title Page . . . . . 1

Data Summaries . . . . . 6

Definitions . . . . . 6

Case Narrative . . . . . 7

Detection Summary . . . . . 8

Client Sample Results . . . . . 9

Default Detection Limits . . . . . 15

Surrogate Summary . . . . . 17

QC Sample Results . . . . . 18

QC Association . . . . . 29

Chronicle . . . . . 31

Certification Summary . . . . . 32

Method Summary . . . . . 33

Sample Summary . . . . . 34

Manual Integration Summary . . . . . 35

Reagent Traceability . . . . . 44

Organic Sample Data . . . . . 69

GC/MS VOA . . . . . 69

Method 8260B Low Level . . . . . 69

Method 8260B Low Level QC Summary . . . . . 70

Method 8260B Low Level Sample Data . . . . . 84

Standards Data . . . . . 93

Method 8260B Low Level ICAL Data . . . . . 93

Method 8260B Low Level CCAL Data . . . . . 109

Raw QC Data . . . . . 115

Method 8260B Low Level Blank Data . . . . . 115

# Table of Contents


Method 8260B Low Level LCS/LCSD Data . . . . . 118

Method 8260B Low Level MS/MSD Data . . . . . 121

Method 8260B Low Level Run Logs . . . . . 127

Method 8260B Low Level Prep Data . . . . . 129

HPLC/IC . . . . . 131

314.0_LL . . . . . 131

314.0_LL QC Summary . . . . . 132

314.0_LL Sample Data . . . . . 138

Standards Data . . . . . 140

314.0_LL ICAL Data . . . . . 140

314.0_LL CCAL Data . . . . . 143

Raw QC Data . . . . . 155

314.0_LL Blank Data . . . . . 155

314.0_LL LCS/LCSD Data . . . . . 161

314.0_LL MS/MSD Data . . . . . 164

314.0_LL Run Logs . . . . . 166

Method 7199 . . . . . 170

Method 7199 QC Summary . . . . . 171

Method 7199 Sample Data . . . . . 177

Standards Data . . . . . 179

Method 7199 ICAL Data . . . . . 179

Method 7199 CCAL Data . . . . . 182

Raw QC Data . . . . . 200

Method 7199 Blank Data . . . . . 200

Method 7199 LCS/LCSD Data . . . . . 209

Method 7199 MS/MSD Data . . . . . 211

# Table of Contents


Method 7199 Run Logs . . . . . 213

Method 300.1 . . . . . 219

Method 300.1 QC Summary . . . . . 220

Method 300.1 Sample Data . . . . . 231

Standards Data . . . . . 235

Method 300.1 ICAL Data . . . . . 235

Method 300.1 CCAL Data . . . . . 241

Raw QC Data . . . . . 263

Method 300.1 Blank Data . . . . . 263

Method 300.1 LCS/LCSD Data . . . . . 274

Method 300.1 MS/MSD Data . . . . . 278

Method 300.1 Run Logs . . . . . 282

Inorganic Sample Data . . . . . 288

Metals Data . . . . . 288

Met Cover Page . . . . . 289

Met Sample Data . . . . . 290

Met QC Data . . . . . 292

Met ICV/CCV . . . . . 292

Met CRQL . . . . . 293

Met Blanks . . . . . 294

Met ICSA/ICSAB . . . . . 296

Met MS/MSD/PDS . . . . . 298

Met LCS/LCSD . . . . . 301

Met Serial Dilution . . . . . 302

Met MDL . . . . . 303

Met IECF . . . . . 305

# Table of Contents


Met Linear Ranges . . . . . 309

Met Preparation Log . . . . . 310

Met Analysis Run Log . . . . . 311

Met Prep Data . . . . . 313

Shipping and Receiving Documents . . . . . 315

Client Chain of Custody . . . . . 316

Sample Receipt Checklist . . . . . 318

## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| W | PS: Post-digestion spike was outside control limits |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| PQL | Practical Quantitation Limit |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

**Job Narrative**
**440-200988-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 1/15/2018 6:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.1º C and 2.5º C. The following sample was received on 1/16/2018 at 7:00 AM but was included in this report with samples received at an earlier date/time per client request: VER-01I-C-12 (440-200988-3).

**GC/MS VOA**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**HPLC/IC**
Method(s) 300.1B: The following samples were diluted for the chlorite analyte due to the nature of the sample matrix: VER-01I-C-BL (440-200988-1) and VER-01I-C-12 (440-200988-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**Metals**
Method(s) 6010B: The post digestion spike % recovery for Chromium associated with batch 440-452846 was outside of control limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**VOA Prep**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-200988-1

## Client Sample ID: VER-01I-C-BL — Lab Sample ID: 440-200988-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloroform | 470 | | 5.0 | 2.5 | ug/L | 10 | | 8260B | Total/NA |
| 1,2-Dichlorobenzene | 2.8 | J | 5.0 | 2.5 | ug/L | 10 | | 8260B | Total/NA |
| Chlorate | 3000000 | | 200000 | 100000 | ug/L | 10000 | | 300.1B | Total/NA |
| Perchlorate | 1200000 | | 100000 | 50000 | ug/L | 100000 | | 314.0 LL | Total/NA |
| Chromium, hexavalent | 7700 | | 1000 | 130 | ug/L | 500 | | 7199 | Total/NA |
| Chromium | 8.7 | | 0.025 | 0.013 | mg/L | 5 | | 6010B | Total Recoverable |

## Client Sample ID: Trip Blank — Lab Sample ID: 440-200988-2

No Detections.

## Client Sample ID: VER-01I-C-12 — Lab Sample ID: 440-200988-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloroform | 710 | | 5.0 | 2.5 | ug/L | 10 | | 8260B | Total/NA |
| 1,2-Dichlorobenzene | 5.3 | | 5.0 | 2.5 | ug/L | 10 | | 8260B | Total/NA |
| Chlorate | 3100000 | | 400000 | 200000 | ug/L | 20000 | | 300.1B | Total/NA |
| Perchlorate | 1100000 | | 100000 | 50000 | ug/L | 100000 | | 314.0 LL | Total/NA |
| Chromium, hexavalent | 12000 | | 1000 | 130 | ug/L | 500 | | 7199 | Total/NA |
| Chromium | 12 | | 0.025 | 0.013 | mg/L | 5 | | 6010B | Total Recoverable |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: VER-01I-C-BL

**Date Collected: 01/15/18 03:30**
**Date Received: 01/15/18 18:15**

## Lab Sample ID: 440-200988-1

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 200 | 100 | ug/L | | | 01/16/18 20:06 | 10 |
| Benzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| Bromobenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| Bromochloromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| Bromodichloromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| Bromoform | ND | | 10 | 4.0 | ug/L | | | 01/16/18 20:06 | 10 |
| Bromomethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| 2-Butanone (MEK) | ND | | 50 | 25 | ug/L | | | 01/16/18 20:06 | 10 |
| Carbon tetrachloride | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| Chlorobenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| Chloroethane | ND | | 10 | 4.0 | ug/L | | | 01/16/18 20:06 | 10 |
| **Chloroform** | **470** | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| Chloromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| 2-Chlorotoluene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| 4-Chlorotoluene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| cis-1,2-Dichloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| cis-1,3-Dichloropropene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| Dibromochloromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| 1,2-Dibromo-3-Chloropropane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 20:06 | 10 |
| 1,2-Dibromoethane (EDB) | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| Dibromomethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| **1,2-Dichlorobenzene** | **2.8** | **J** | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| 1,3-Dichlorobenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| 1,4-Dichlorobenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| Dichlorodifluoromethane | ND | | 10 | 4.0 | ug/L | | | 01/16/18 20:06 | 10 |
| 1,1-Dichloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| 1,2-Dichloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| 1,1-Dichloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| 1,2-Dichloropropane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| 1,3-Dichloropropane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| 2,2-Dichloropropane | ND | | 10 | 4.0 | ug/L | | | 01/16/18 20:06 | 10 |
| 1,1-Dichloropropene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| Ethylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| Ethyl-t-butyl ether (ETBE) | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| Hexachlorobutadiene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| 2-Hexanone | ND | | 50 | 25 | ug/L | | | 01/16/18 20:06 | 10 |
| Isopropylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| Isopropyl Ether (DIPE) | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| Methylene Chloride | ND | | 20 | 8.8 | ug/L | | | 01/16/18 20:06 | 10 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 50 | 25 | ug/L | | | 01/16/18 20:06 | 10 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| m,p-Xylene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 20:06 | 10 |
| Naphthalene | ND | | 10 | 4.0 | ug/L | | | 01/16/18 20:06 | 10 |
| n-Butylbenzene | ND | | 10 | 4.0 | ug/L | | | 01/16/18 20:06 | 10 |
| N-Propylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| o-Xylene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| p-Isopropyltoluene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| sec-Butylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| Styrene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |

**Client Sample ID: VER-01I-C-BL** **Lab Sample ID: 440-200988-1**
**Date Collected: 01/15/18 03:30** **Matrix: Water**
**Date Received: 01/15/18 18:15**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Tert-amyl-methyl ether (TAME) | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| tert-Butyl alcohol (TBA) | ND | | 100 | 50 | ug/L | | | 01/16/18 20:06 | 10 |
| tert-Butylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| 1,1,1,2-Tetrachloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| 1,1,2,2-Tetrachloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| Tetrachloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| Toluene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| trans-1,2-Dichloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| trans-1,3-Dichloropropene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| 1,2,3-Trichlorobenzene | ND | | 10 | 4.0 | ug/L | | | 01/16/18 20:06 | 10 |
| 1,2,4-Trichlorobenzene | ND | | 10 | 4.0 | ug/L | | | 01/16/18 20:06 | 10 |
| 1,1,1-Trichloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| 1,1,2-Trichloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| Trichloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| Trichlorofluoromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| 1,2,3-Trichloropropane | ND | | 10 | 4.0 | ug/L | | | 01/16/18 20:06 | 10 |
| 1,2,4-Trimethylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| 1,3,5-Trimethylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| Vinyl chloride | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 20:06 | 10 |
| Xylenes, Total | ND | | 10 | 5.0 | ug/L | | | 01/16/18 20:06 | 10 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *80 - 120* | | *01/16/18 20:06* | *10* |
| *Dibromofluoromethane (Surr)* | *104* | | *76 - 132* | | *01/16/18 20:06* | *10* |
| *Toluene-d8 (Surr)* | *111* | | *80 - 128* | | *01/16/18 20:06* | *10* |

## Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 20000 | 10000 | ug/L | | | 01/19/18 03:28 | 1000 |
| **Chlorate** | **3000000** | | 200000 | 100000 | ug/L | | | 01/18/18 07:32 | 10000 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* | | *01/18/18 07:32* | *10000* |
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* | | *01/19/18 03:28* | *1000* |

## Method: 314.0 LL - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perchlorate** | **1200000** | | 100000 | 50000 | ug/L | | | 01/16/18 20:52 | 100000 |

## Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium, hexavalent** | **7700** | | 1000 | 130 | ug/L | | | 01/15/18 21:27 | 500 |

## Method: 6010B - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **8.7** | | 0.025 | 0.013 | mg/L | | 01/19/18 10:59 | 01/19/18 19:08 | 5 |

## Client Sample ID: Trip Blank
**Date Collected: 01/15/18 03:30**
**Date Received: 01/15/18 18:15**

## Lab Sample ID: 440-200988-2
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 01/16/18 21:56 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 21:56 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:56 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 21:56 | 1 |
| Chloroform | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 01/16/18 21:56 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 21:56 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 21:56 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:56 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 01/16/18 21:56 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:56 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 01/16/18 21:56 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 21:56 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 21:56 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |

## Client Sample ID: Trip Blank — Lab Sample ID: 440-200988-2

**Date Collected: 01/15/18 03:30** — **Matrix: Water**
**Date Received: 01/15/18 18:15**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:56 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 21:56 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 21:56 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 21:56 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 21:56 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 01/16/18 21:56 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *103* | | *80 - 120* | | *01/16/18 21:56* | *1* |
| *Dibromofluoromethane (Surr)* | *104* | | *76 - 132* | | *01/16/18 21:56* | *1* |
| *Toluene-d8 (Surr)* | *110* | | *80 - 128* | | *01/16/18 21:56* | *1* |

## Client Sample ID: VER-01I-C-12 — Lab Sample ID: 440-200988-3

**Date Collected: 01/15/18 15:30** — **Matrix: Water**
**Date Received: 01/15/18 18:15**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 200 | 100 | ug/L | | | 01/16/18 21:28 | 10 |
| Benzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| Bromobenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| Bromochloromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| Bromodichloromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| Bromoform | ND | | 10 | 4.0 | ug/L | | | 01/16/18 21:28 | 10 |
| Bromomethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| 2-Butanone (MEK) | ND | | 50 | 25 | ug/L | | | 01/16/18 21:28 | 10 |
| Carbon tetrachloride | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| Chlorobenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| Chloroethane | ND | | 10 | 4.0 | ug/L | | | 01/16/18 21:28 | 10 |
| **Chloroform** | **710** | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| Chloromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| 2-Chlorotoluene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| 4-Chlorotoluene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| cis-1,2-Dichloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| cis-1,3-Dichloropropene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| Dibromochloromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |

## Client Sample ID: VER-01I-C-12 Lab Sample ID: 440-200988-3

**Date Collected: 01/15/18 15:30** **Matrix: Water**
**Date Received: 01/15/18 18:15**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromo-3-Chloropropane | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:28 | 10 |
| 1,2-Dibromoethane (EDB) | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| Dibromomethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| **1,2-Dichlorobenzene** | **5.3** | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| 1,3-Dichlorobenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| 1,4-Dichlorobenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| Dichlorodifluoromethane | ND | | 10 | 4.0 | ug/L | | | 01/16/18 21:28 | 10 |
| 1,1-Dichloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| 1,2-Dichloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| 1,1-Dichloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| 1,2-Dichloropropane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| 1,3-Dichloropropane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| 2,2-Dichloropropane | ND | | 10 | 4.0 | ug/L | | | 01/16/18 21:28 | 10 |
| 1,1-Dichloropropene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| Ethylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| Ethyl-t-butyl ether (ETBE) | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| Hexachlorobutadiene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| 2-Hexanone | ND | | 50 | 25 | ug/L | | | 01/16/18 21:28 | 10 |
| Isopropylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| Isopropyl Ether (DIPE) | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| Methylene Chloride | ND | | 20 | 8.8 | ug/L | | | 01/16/18 21:28 | 10 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 50 | 25 | ug/L | | | 01/16/18 21:28 | 10 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| m,p-Xylene | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:28 | 10 |
| Naphthalene | ND | | 10 | 4.0 | ug/L | | | 01/16/18 21:28 | 10 |
| n-Butylbenzene | ND | | 10 | 4.0 | ug/L | | | 01/16/18 21:28 | 10 |
| N-Propylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| o-Xylene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| p-Isopropyltoluene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| sec-Butylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| Styrene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| Tert-amyl-methyl ether (TAME) | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| tert-Butyl alcohol (TBA) | ND | | 100 | 50 | ug/L | | | 01/16/18 21:28 | 10 |
| tert-Butylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| 1,1,1,2-Tetrachloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| 1,1,2,2-Tetrachloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| Tetrachloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| Toluene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| trans-1,2-Dichloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| trans-1,3-Dichloropropene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| 1,2,3-Trichlorobenzene | ND | | 10 | 4.0 | ug/L | | | 01/16/18 21:28 | 10 |
| 1,2,4-Trichlorobenzene | ND | | 10 | 4.0 | ug/L | | | 01/16/18 21:28 | 10 |
| 1,1,1-Trichloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| 1,1,2-Trichloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| Trichloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| Trichlorofluoromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| 1,2,3-Trichloropropane | ND | | 10 | 4.0 | ug/L | | | 01/16/18 21:28 | 10 |
| 1,2,4-Trimethylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| 1,3,5-Trimethylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |

## Client Sample ID: VER-01I-C-12 — Lab Sample ID: 440-200988-3

**Date Collected: 01/15/18 15:30** — **Matrix: Water**
**Date Received: 01/15/18 18:15**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl chloride | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 21:28 | 10 |
| Xylenes, Total | ND | | 10 | 5.0 | ug/L | | | 01/16/18 21:28 | 10 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *104* | | *80 - 120* | | *01/16/18 21:28* | *10* |
| *Dibromofluoromethane (Surr)* | *106* | | *76 - 132* | | *01/16/18 21:28* | *10* |
| *Toluene-d8 (Surr)* | *111* | | *80 - 128* | | *01/16/18 21:28* | *10* |

### Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 20000 | 10000 | ug/L | | | 01/19/18 04:04 | 1000 |
| **Chlorate** | **3100000** | | 400000 | 200000 | ug/L | | | 01/19/18 05:53 | 20000 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* | | *01/19/18 05:53* | *20000* |
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* | | *01/19/18 04:04* | *1000* |

### Method: 314.0 LL - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perchlorate** | **1100000** | | 100000 | 50000 | ug/L | | | 01/16/18 21:10 | 100000 |

### Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium, hexavalent** | **12000** | | 1000 | 130 | ug/L | | | 01/16/18 10:12 | 500 |

### Method: 6010B - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **12** | | 0.025 | 0.013 | mg/L | | 01/19/18 10:59 | 01/19/18 19:21 | 5 |

# Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-200988-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,1-Trichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,2,2-Tetrachloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,2-Trichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2,3-Trichlorobenzene | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,3-Trichloropropane | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,4-Trichlorobenzene | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,4-Trimethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dibromo-3-Chloropropane | 1.0 | 0.50 | ug/L | 8260B |
| 1,2-Dibromoethane (EDB) | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichloropropane | 0.50 | 0.25 | ug/L | 8260B |
| 1,3,5-Trimethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,3-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,3-Dichloropropane | 0.50 | 0.25 | ug/L | 8260B |
| 1,4-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 2,2-Dichloropropane | 1.0 | 0.40 | ug/L | 8260B |
| 2-Butanone (MEK) | 5.0 | 2.5 | ug/L | 8260B |
| 2-Chlorotoluene | 0.50 | 0.25 | ug/L | 8260B |
| 2-Hexanone | 5.0 | 2.5 | ug/L | 8260B |
| 4-Chlorotoluene | 0.50 | 0.25 | ug/L | 8260B |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | 2.5 | ug/L | 8260B |
| Acetone | 20 | 10 | ug/L | 8260B |
| Benzene | 0.50 | 0.25 | ug/L | 8260B |
| Bromobenzene | 0.50 | 0.25 | ug/L | 8260B |
| Bromochloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Bromodichloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Bromoform | 1.0 | 0.40 | ug/L | 8260B |
| Bromomethane | 0.50 | 0.25 | ug/L | 8260B |
| Carbon tetrachloride | 0.50 | 0.25 | ug/L | 8260B |
| Chlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| Chloroethane | 1.0 | 0.40 | ug/L | 8260B |
| Chloroform | 0.50 | 0.25 | ug/L | 8260B |
| Chloromethane | 0.50 | 0.25 | ug/L | 8260B |
| cis-1,2-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| cis-1,3-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| Dibromochloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Dibromomethane | 0.50 | 0.25 | ug/L | 8260B |
| Dichlorodifluoromethane | 1.0 | 0.40 | ug/L | 8260B |
| Ethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Ethyl-t-butyl ether (ETBE) | 0.50 | 0.25 | ug/L | 8260B |
| Hexachlorobutadiene | 0.50 | 0.25 | ug/L | 8260B |
| Isopropyl Ether (DIPE) | 0.50 | 0.25 | ug/L | 8260B |
| Isopropylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| m,p-Xylene | 1.0 | 0.50 | ug/L | 8260B |
| Methylene Chloride | 2.0 | 0.88 | ug/L | 8260B |
| Methyl-t-Butyl Ether (MTBE) | 0.50 | 0.25 | ug/L | 8260B |
| Naphthalene | 1.0 | 0.40 | ug/L | 8260B |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| n-Butylbenzene | 1.0 | 0.40 | ug/L | 8260B |
| N-Propylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| o-Xylene | 0.50 | 0.25 | ug/L | 8260B |
| p-Isopropyltoluene | 0.50 | 0.25 | ug/L | 8260B |
| sec-Butylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Styrene | 0.50 | 0.25 | ug/L | 8260B |
| Tert-amyl-methyl ether (TAME) | 0.50 | 0.25 | ug/L | 8260B |
| tert-Butyl alcohol (TBA) | 10 | 5.0 | ug/L | 8260B |
| tert-Butylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Tetrachloroethene | 0.50 | 0.25 | ug/L | 8260B |
| Toluene | 0.50 | 0.25 | ug/L | 8260B |
| trans-1,2-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| trans-1,3-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| Trichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| Trichlorofluoromethane | 0.50 | 0.25 | ug/L | 8260B |
| Vinyl chloride | 0.50 | 0.25 | ug/L | 8260B |
| Xylenes, Total | 1.0 | 0.50 | ug/L | 8260B |

## Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chlorate | 20 | 10 | ug/L | 300.1B |
| Chlorite | 20 | 10 | ug/L | 300.1B |

## Method: 314.0 LL - Perchlorate (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Perchlorate | 1.0 | 0.50 | ug/L | 314.0 LL |

## Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chromium, hexavalent | 2.0 | 0.25 | ug/L | 7199 |

## Method: 6010B - Metals (ICP) - Total Recoverable

### Prep: 3005A

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chromium | 0.0050 | 0.0025 | mg/L | 6010B |

# Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-200988-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Matrix: Water**

**Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | |
|---|---|---|---|---|
| | | BFB | DBFM | TOL |
| Lab Sample ID | Client Sample ID | (80-120) | (76-132) | (80-128) |
| 440-200988-1 | VER-01I-C-BL | 100 | 104 | 111 |
| 440-200988-1 MS | VER-01I-C-BL | 101 | 100 | 107 |
| 440-200988-1 MSD | VER-01I-C-BL | 101 | 101 | 108 |
| 440-200988-2 | Trip Blank | 103 | 104 | 110 |
| 440-200988-3 | VER-01I-C-12 | 104 | 106 | 111 |
| LCS 440-452052/5 | Lab Control Sample | 100 | 101 | 108 |
| MB 440-452052/4 | Method Blank | 101 | 96 | 113 |

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

## Method: 300.1B - Disinfection By-Products, (IC)

**Matrix: Water**

**Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) |
|---|---|---|
| | | DCAA |
| Lab Sample ID | Client Sample ID | (90-115) |
| 440-200988-1 | VER-01I-C-BL | 101 |
| 440-200988-1 | VER-01I-C-BL | 100 |
| 440-200988-3 | VER-01I-C-12 | 100 |
| 440-200988-3 | VER-01I-C-12 | 100 |
| 440-201039-A-1 MS | Matrix Spike | 100 |
| 440-201039-A-1 MSD | Matrix Spike Duplicate | 98 |
| 440-201200-A-1 MS | Matrix Spike | 98 |
| 440-201200-A-1 MSD | Matrix Spike Duplicate | 100 |
| LCS 440-452345/4 | Lab Control Sample | 101 |
| LCS 440-452346/4 | Lab Control Sample | 101 |
| MB 440-452345/5 | Method Blank | 102 |
| MB 440-452346/5 | Method Blank | 102 |
| MRL 440-452345/3 | Lab Control Sample | 101 |
| MRL 440-452346/3 | Lab Control Sample | 101 |

**Surrogate Legend**

DCAA = Dichloroacetic acid(Surr)

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 440-452052/4**
**Matrix: Water**
**Analysis Batch: 452052**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 01/16/18 19:11 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 19:11 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 19:11 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 19:11 | 1 |
| Chloroform | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 01/16/18 19:11 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 19:11 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 19:11 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 19:11 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 01/16/18 19:11 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 01/16/18 19:11 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 01/16/18 19:11 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 19:11 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 19:11 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 440-452052/4**
**Matrix: Water**
**Analysis Batch: 452052**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 01/16/18 19:11 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 19:11 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 19:11 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/16/18 19:11 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 01/16/18 19:11 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 01/16/18 19:11 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *101* | | *80 - 120* | | *01/16/18 19:11* | *1* |
| *Dibromofluoromethane (Surr)* | *96* | | *76 - 132* | | *01/16/18 19:11* | *1* |
| *Toluene-d8 (Surr)* | *113* | | *80 - 128* | | *01/16/18 19:11* | *1* |

**Lab Sample ID: LCS 440-452052/5**
**Matrix: Water**
**Analysis Batch: 452052**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acetone | 25.0 | 24.4 | | ug/L | | 98 | 10 - 150 |
| Benzene | 25.0 | 25.8 | | ug/L | | 103 | 68 - 130 |
| Bromobenzene | 25.0 | 28.2 | | ug/L | | 113 | 70 - 130 |
| Bromochloromethane | 25.0 | 26.7 | | ug/L | | 107 | 70 - 130 |
| Bromodichloromethane | 25.0 | 27.1 | | ug/L | | 108 | 70 - 132 |
| Bromoform | 25.0 | 27.0 | | ug/L | | 108 | 60 - 148 |
| Bromomethane | 25.0 | 23.2 | | ug/L | | 93 | 64 - 139 |
| 2-Butanone (MEK) | 25.0 | 24.7 | | ug/L | | 99 | 44 - 150 |
| Carbon tetrachloride | 25.0 | 26.4 | | ug/L | | 106 | 60 - 150 |
| Chlorobenzene | 25.0 | 24.7 | | ug/L | | 99 | 70 - 130 |
| Chloroethane | 25.0 | 24.7 | | ug/L | | 99 | 64 - 135 |
| Chloroform | 25.0 | 25.6 | | ug/L | | 102 | 70 - 130 |
| Chloromethane | 25.0 | 24.1 | | ug/L | | 97 | 47 - 140 |
| 2-Chlorotoluene | 25.0 | 27.2 | | ug/L | | 109 | 70 - 130 |
| 4-Chlorotoluene | 25.0 | 28.1 | | ug/L | | 112 | 70 - 130 |
| cis-1,2-Dichloroethene | 25.0 | 26.5 | | ug/L | | 106 | 70 - 133 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 440-452052/5**
**Matrix: Water**
**Analysis Batch: 452052**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| cis-1,3-Dichloropropene | 25.0 | 28.2 | | ug/L | | 113 | 70 - 133 |
| Dibromochloromethane | 25.0 | 26.9 | | ug/L | | 108 | 69 - 145 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 26.9 | | ug/L | | 108 | 52 - 140 |
| 1,2-Dibromoethane (EDB) | 25.0 | 27.2 | | ug/L | | 109 | 70 - 130 |
| Dibromomethane | 25.0 | 26.0 | | ug/L | | 104 | 70 - 130 |
| 1,2-Dichlorobenzene | 25.0 | 26.2 | | ug/L | | 105 | 70 - 130 |
| 1,3-Dichlorobenzene | 25.0 | 25.9 | | ug/L | | 104 | 70 - 130 |
| 1,4-Dichlorobenzene | 25.0 | 25.5 | | ug/L | | 102 | 70 - 130 |
| Dichlorodifluoromethane | 25.0 | 25.2 | | ug/L | | 101 | 29 - 150 |
| 1,1-Dichloroethane | 25.0 | 25.1 | | ug/L | | 101 | 64 - 130 |
| 1,2-Dichloroethane | 25.0 | 25.8 | | ug/L | | 103 | 57 - 138 |
| 1,1-Dichloroethene | 25.0 | 24.4 | | ug/L | | 98 | 70 - 130 |
| 1,2-Dichloropropane | 25.0 | 26.2 | | ug/L | | 105 | 67 - 130 |
| 1,3-Dichloropropane | 25.0 | 26.4 | | ug/L | | 106 | 70 - 130 |
| 2,2-Dichloropropane | 25.0 | 26.6 | | ug/L | | 106 | 68 - 141 |
| 1,1-Dichloropropene | 25.0 | 28.1 | | ug/L | | 113 | 70 - 130 |
| Ethylbenzene | 25.0 | 26.9 | | ug/L | | 108 | 70 - 130 |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 27.0 | | ug/L | | 108 | 60 - 136 |
| Hexachlorobutadiene | 25.0 | 25.8 | | ug/L | | 103 | 10 - 150 |
| 2-Hexanone | 25.0 | 28.5 | | ug/L | | 114 | 10 - 150 |
| Isopropylbenzene | 25.0 | 29.3 | | ug/L | | 117 | 70 - 136 |
| Isopropyl Ether (DIPE) | 25.0 | 26.8 | | ug/L | | 107 | 58 - 139 |
| Methylene Chloride | 25.0 | 22.7 | | ug/L | | 91 | 52 - 130 |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 28.2 | | ug/L | | 113 | 59 - 149 |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 27.1 | | ug/L | | 108 | 63 - 131 |
| m,p-Xylene | 25.0 | 28.7 | | ug/L | | 115 | 70 - 130 |
| Naphthalene | 25.0 | 30.0 | | ug/L | | 120 | 60 - 140 |
| n-Butylbenzene | 25.0 | 29.2 | | ug/L | | 117 | 65 - 150 |
| N-Propylbenzene | 25.0 | 29.3 | | ug/L | | 117 | 67 - 139 |
| o-Xylene | 25.0 | 29.2 | | ug/L | | 117 | 70 - 130 |
| p-Isopropyltoluene | 25.0 | 28.8 | | ug/L | | 115 | 70 - 132 |
| sec-Butylbenzene | 25.0 | 28.7 | | ug/L | | 115 | 70 - 138 |
| Styrene | 25.0 | 27.8 | | ug/L | | 111 | 70 - 134 |
| Tert-amyl-methyl ether (TAME) | 25.0 | 26.0 | | ug/L | | 104 | 57 - 139 |
| tert-Butyl alcohol (TBA) | 250 | 271 | | ug/L | | 108 | 70 - 130 |
| tert-Butylbenzene | 25.0 | 29.3 | | ug/L | | 117 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 26.8 | | ug/L | | 107 | 60 - 141 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 26.4 | | ug/L | | 106 | 63 - 130 |
| Tetrachloroethene | 25.0 | 27.3 | | ug/L | | 109 | 70 - 130 |
| Toluene | 25.0 | 26.8 | | ug/L | | 107 | 70 - 130 |
| trans-1,2-Dichloroethene | 25.0 | 27.7 | | ug/L | | 111 | 70 - 130 |
| trans-1,3-Dichloropropene | 25.0 | 27.7 | | ug/L | | 111 | 70 - 132 |
| 1,2,3-Trichlorobenzene | 25.0 | 27.4 | | ug/L | | 109 | 60 - 140 |
| 1,2,4-Trichlorobenzene | 25.0 | 27.4 | | ug/L | | 109 | 60 - 140 |
| 1,1,1-Trichloroethane | 25.0 | 26.1 | | ug/L | | 105 | 70 - 130 |
| 1,1,2-Trichloroethane | 25.0 | 27.4 | | ug/L | | 110 | 70 - 130 |
| Trichloroethene | 25.0 | 27.4 | | ug/L | | 109 | 70 - 130 |
| Trichlorofluoromethane | 25.0 | 26.2 | | ug/L | | 105 | 60 - 150 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 440-452052/5**
**Matrix: Water**
**Analysis Batch: 452052**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,2,3-Trichloropropane | 25.0 | 25.9 | | ug/L | | 104 | 63 - 130 |
| 1,2,4-Trimethylbenzene | 25.0 | 28.9 | | ug/L | | 116 | 70 - 135 |
| 1,3,5-Trimethylbenzene | 25.0 | 29.4 | | ug/L | | 118 | 70 - 136 |
| Vinyl chloride | 25.0 | 24.6 | | ug/L | | 98 | 59 - 133 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *101* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *108* | | *80 - 128* |

**Lab Sample ID: 440-200988-1 MS**
**Matrix: Water**
**Analysis Batch: 452052**

**Client Sample ID: VER-01I-C-BL**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 250 | 219 | | ug/L | | 88 | 10 - 150 |
| Benzene | ND | | 250 | 259 | | ug/L | | 104 | 66 - 130 |
| Bromobenzene | ND | | 250 | 275 | | ug/L | | 110 | 70 - 130 |
| Bromochloromethane | ND | | 250 | 268 | | ug/L | | 107 | 70 - 130 |
| Bromodichloromethane | ND | | 250 | 276 | | ug/L | | 110 | 70 - 138 |
| Bromoform | ND | | 250 | 262 | | ug/L | | 105 | 59 - 150 |
| Bromomethane | ND | | 250 | 234 | | ug/L | | 93 | 62 - 131 |
| 2-Butanone (MEK) | ND | | 250 | 231 | | ug/L | | 92 | 48 - 140 |
| Carbon tetrachloride | ND | | 250 | 261 | | ug/L | | 105 | 60 - 150 |
| Chlorobenzene | ND | | 250 | 247 | | ug/L | | 99 | 70 - 130 |
| Chloroethane | ND | | 250 | 245 | | ug/L | | 98 | 68 - 130 |
| Chloroform | 470 | | 250 | 702 | | ug/L | | 92 | 70 - 130 |
| Chloromethane | ND | | 250 | 238 | | ug/L | | 95 | 39 - 144 |
| 2-Chlorotoluene | ND | | 250 | 271 | | ug/L | | 108 | 70 - 130 |
| 4-Chlorotoluene | ND | | 250 | 284 | | ug/L | | 113 | 70 - 130 |
| cis-1,2-Dichloroethene | ND | | 250 | 267 | | ug/L | | 107 | 70 - 130 |
| cis-1,3-Dichloropropene | ND | | 250 | 272 | | ug/L | | 109 | 70 - 133 |
| Dibromochloromethane | ND | | 250 | 261 | | ug/L | | 104 | 70 - 148 |
| 1,2-Dibromo-3-Chloropropane | ND | | 250 | 242 | | ug/L | | 97 | 48 - 140 |
| 1,2-Dibromoethane (EDB) | ND | | 250 | 263 | | ug/L | | 105 | 70 - 131 |
| Dibromomethane | ND | | 250 | 261 | | ug/L | | 104 | 70 - 130 |
| 1,2-Dichlorobenzene | 2.8 | J | 250 | 266 | | ug/L | | 105 | 70 - 130 |
| 1,3-Dichlorobenzene | ND | | 250 | 260 | | ug/L | | 104 | 70 - 130 |
| 1,4-Dichlorobenzene | ND | | 250 | 257 | | ug/L | | 103 | 70 - 130 |
| Dichlorodifluoromethane | ND | | 250 | 245 | | ug/L | | 98 | 25 - 142 |
| 1,1-Dichloroethane | ND | | 250 | 247 | | ug/L | | 99 | 65 - 130 |
| 1,2-Dichloroethane | ND | | 250 | 262 | | ug/L | | 105 | 56 - 146 |
| 1,1-Dichloroethene | ND | | 250 | 247 | | ug/L | | 99 | 70 - 130 |
| 1,2-Dichloropropane | ND | | 250 | 265 | | ug/L | | 106 | 69 - 130 |
| 1,3-Dichloropropane | ND | | 250 | 260 | | ug/L | | 104 | 70 - 130 |
| 2,2-Dichloropropane | ND | | 250 | 269 | | ug/L | | 108 | 69 - 138 |
| 1,1-Dichloropropene | ND | | 250 | 283 | | ug/L | | 113 | 64 - 130 |
| Ethylbenzene | ND | | 250 | 263 | | ug/L | | 105 | 70 - 130 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-200988-1 MS**
**Matrix: Water**
**Analysis Batch: 452052**

**Client Sample ID: VER-01I-C-BL**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Ethyl-t-butyl ether (ETBE) | ND | | 250 | 276 | | ug/L | | 110 | 70 - 130 |
| Hexachlorobutadiene | ND | | 250 | 257 | | ug/L | | 103 | 10 - 150 |
| 2-Hexanone | ND | | 250 | 264 | | ug/L | | 106 | 10 - 150 |
| Isopropylbenzene | ND | | 250 | 287 | | ug/L | | 115 | 70 - 132 |
| Isopropyl Ether (DIPE) | ND | | 250 | 273 | | ug/L | | 109 | 64 - 138 |
| Methylene Chloride | ND | | 250 | 231 | | ug/L | | 92 | 52 - 130 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 250 | 264 | | ug/L | | 105 | 52 - 150 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 250 | 273 | | ug/L | | 109 | 70 - 130 |
| m,p-Xylene | ND | | 250 | 282 | | ug/L | | 113 | 70 - 133 |
| Naphthalene | ND | | 250 | 282 | | ug/L | | 113 | 60 - 140 |
| n-Butylbenzene | ND | | 250 | 292 | | ug/L | | 117 | 61 - 149 |
| N-Propylbenzene | ND | | 250 | 290 | | ug/L | | 116 | 66 - 135 |
| o-Xylene | ND | | 250 | 287 | | ug/L | | 115 | 70 - 133 |
| p-Isopropyltoluene | ND | | 250 | 284 | | ug/L | | 114 | 70 - 130 |
| sec-Butylbenzene | ND | | 250 | 284 | | ug/L | | 114 | 67 - 134 |
| Styrene | ND | | 250 | 257 | | ug/L | | 103 | 29 - 150 |
| Tert-amyl-methyl ether (TAME) | ND | | 250 | 263 | | ug/L | | 105 | 68 - 133 |
| tert-Butyl alcohol (TBA) | ND | | 2500 | 2700 | | ug/L | | 108 | 70 - 130 |
| tert-Butylbenzene | ND | | 250 | 290 | | ug/L | | 116 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | ND | | 250 | 273 | | ug/L | | 109 | 60 - 149 |
| 1,1,2,2-Tetrachloroethane | ND | | 250 | 250 | | ug/L | | 100 | 63 - 130 |
| Tetrachloroethene | ND | | 250 | 267 | | ug/L | | 107 | 70 - 137 |
| Toluene | ND | | 250 | 263 | | ug/L | | 105 | 70 - 130 |
| trans-1,2-Dichloroethene | ND | | 250 | 277 | | ug/L | | 111 | 70 - 130 |
| trans-1,3-Dichloropropene | ND | | 250 | 272 | | ug/L | | 109 | 70 - 138 |
| 1,2,3-Trichlorobenzene | ND | | 250 | 276 | | ug/L | | 111 | 60 - 140 |
| 1,2,4-Trichlorobenzene | ND | | 250 | 273 | | ug/L | | 109 | 60 - 140 |
| 1,1,1-Trichloroethane | ND | | 250 | 261 | | ug/L | | 105 | 70 - 130 |
| 1,1,2-Trichloroethane | ND | | 250 | 263 | | ug/L | | 105 | 70 - 130 |
| Trichloroethene | ND | | 250 | 271 | | ug/L | | 108 | 70 - 130 |
| Trichlorofluoromethane | ND | | 250 | 260 | | ug/L | | 104 | 60 - 150 |
| 1,2,3-Trichloropropane | ND | | 250 | 247 | | ug/L | | 99 | 60 - 130 |
| 1,2,4-Trimethylbenzene | ND | | 250 | 288 | | ug/L | | 115 | 70 - 130 |
| 1,3,5-Trimethylbenzene | ND | | 250 | 287 | | ug/L | | 115 | 70 - 130 |
| Vinyl chloride | ND | | 250 | 244 | | ug/L | | 98 | 50 - 137 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *101* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *100* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *107* | | *80 - 128* |

**Lab Sample ID: 440-200988-1 MSD**
**Matrix: Water**
**Analysis Batch: 452052**

**Client Sample ID: VER-01I-C-BL**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 250 | 232 | | ug/L | | 93 | 10 - 150 | 6 | 35 |
| Benzene | ND | | 250 | 262 | | ug/L | | 105 | 66 - 130 | 1 | 20 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-200988-1 MSD**
**Matrix: Water**
**Analysis Batch: 452052**

**Client Sample ID: VER-01I-C-BL**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromobenzene | ND | | 250 | 277 | | ug/L | | 111 | 70 - 130 | 1 | 20 |
| Bromochloromethane | ND | | 250 | 269 | | ug/L | | 108 | 70 - 130 | 0 | 25 |
| Bromodichloromethane | ND | | 250 | 278 | | ug/L | | 111 | 70 - 138 | 1 | 20 |
| Bromoform | ND | | 250 | 260 | | ug/L | | 104 | 59 - 150 | 1 | 25 |
| Bromomethane | ND | | 250 | 233 | | ug/L | | 93 | 62 - 131 | 0 | 25 |
| 2-Butanone (MEK) | ND | | 250 | 216 | | ug/L | | 87 | 48 - 140 | 6 | 40 |
| Carbon tetrachloride | ND | | 250 | 259 | | ug/L | | 104 | 60 - 150 | 1 | 25 |
| Chlorobenzene | ND | | 250 | 250 | | ug/L | | 100 | 70 - 130 | 1 | 20 |
| Chloroethane | ND | | 250 | 245 | | ug/L | | 98 | 68 - 130 | 0 | 25 |
| Chloroform | 470 | | 250 | 704 | | ug/L | | 92 | 70 - 130 | 0 | 20 |
| Chloromethane | ND | | 250 | 237 | | ug/L | | 95 | 39 - 144 | 1 | 25 |
| 2-Chlorotoluene | ND | | 250 | 272 | | ug/L | | 109 | 70 - 130 | 0 | 20 |
| 4-Chlorotoluene | ND | | 250 | 282 | | ug/L | | 113 | 70 - 130 | 1 | 20 |
| cis-1,2-Dichloroethene | ND | | 250 | 269 | | ug/L | | 108 | 70 - 130 | 1 | 20 |
| cis-1,3-Dichloropropene | ND | | 250 | 279 | | ug/L | | 112 | 70 - 133 | 2 | 20 |
| Dibromochloromethane | ND | | 250 | 272 | | ug/L | | 109 | 70 - 148 | 4 | 25 |
| 1,2-Dibromo-3-Chloropropane | ND | | 250 | 228 | | ug/L | | 91 | 48 - 140 | 6 | 30 |
| 1,2-Dibromoethane (EDB) | ND | | 250 | 264 | | ug/L | | 106 | 70 - 131 | 1 | 25 |
| Dibromomethane | ND | | 250 | 254 | | ug/L | | 102 | 70 - 130 | 3 | 25 |
| 1,2-Dichlorobenzene | 2.8 | J | 250 | 265 | | ug/L | | 105 | 70 - 130 | 0 | 20 |
| 1,3-Dichlorobenzene | ND | | 250 | 259 | | ug/L | | 104 | 70 - 130 | 0 | 20 |
| 1,4-Dichlorobenzene | ND | | 250 | 254 | | ug/L | | 102 | 70 - 130 | 1 | 20 |
| Dichlorodifluoromethane | ND | | 250 | 254 | | ug/L | | 102 | 25 - 142 | 4 | 30 |
| 1,1-Dichloroethane | ND | | 250 | 256 | | ug/L | | 102 | 65 - 130 | 3 | 20 |
| 1,2-Dichloroethane | ND | | 250 | 261 | | ug/L | | 104 | 56 - 146 | 0 | 20 |
| 1,1-Dichloroethene | ND | | 250 | 239 | | ug/L | | 96 | 70 - 130 | 3 | 20 |
| 1,2-Dichloropropane | ND | | 250 | 270 | | ug/L | | 108 | 69 - 130 | 2 | 20 |
| 1,3-Dichloropropane | ND | | 250 | 263 | | ug/L | | 105 | 70 - 130 | 1 | 25 |
| 2,2-Dichloropropane | ND | | 250 | 269 | | ug/L | | 108 | 69 - 138 | 0 | 25 |
| 1,1-Dichloropropene | ND | | 250 | 281 | | ug/L | | 112 | 64 - 130 | 1 | 20 |
| Ethylbenzene | ND | | 250 | 270 | | ug/L | | 108 | 70 - 130 | 3 | 20 |
| Ethyl-t-butyl ether (ETBE) | ND | | 250 | 285 | | ug/L | | 114 | 70 - 130 | 3 | 25 |
| Hexachlorobutadiene | ND | | 250 | 248 | | ug/L | | 99 | 10 - 150 | 3 | 20 |
| 2-Hexanone | ND | | 250 | 240 | | ug/L | | 96 | 10 - 150 | 10 | 35 |
| Isopropylbenzene | ND | | 250 | 292 | | ug/L | | 117 | 70 - 132 | 2 | 20 |
| Isopropyl Ether (DIPE) | ND | | 250 | 279 | | ug/L | | 112 | 64 - 138 | 2 | 25 |
| Methylene Chloride | ND | | 250 | 233 | | ug/L | | 93 | 52 - 130 | 1 | 20 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 250 | 244 | | ug/L | | 98 | 52 - 150 | 8 | 35 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 250 | 275 | | ug/L | | 110 | 70 - 130 | 1 | 25 |
| m,p-Xylene | ND | | 250 | 290 | | ug/L | | 116 | 70 - 133 | 3 | 25 |
| Naphthalene | ND | | 250 | 275 | | ug/L | | 110 | 60 - 140 | 3 | 30 |
| n-Butylbenzene | ND | | 250 | 290 | | ug/L | | 116 | 61 - 149 | 1 | 20 |
| N-Propylbenzene | ND | | 250 | 289 | | ug/L | | 116 | 66 - 135 | 1 | 20 |
| o-Xylene | ND | | 250 | 297 | | ug/L | | 119 | 70 - 133 | 3 | 20 |
| p-Isopropyltoluene | ND | | 250 | 282 | | ug/L | | 113 | 70 - 130 | 1 | 20 |
| sec-Butylbenzene | ND | | 250 | 279 | | ug/L | | 111 | 67 - 134 | 2 | 20 |
| Styrene | ND | | 250 | 264 | | ug/L | | 106 | 29 - 150 | 3 | 35 |
| Tert-amyl-methyl ether (TAME) | ND | | 250 | 267 | | ug/L | | 107 | 68 - 133 | 2 | 30 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-200988-1 MSD**
**Matrix: Water**
**Analysis Batch: 452052**

**Client Sample ID: VER-01I-C-BL**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| tert-Butyl alcohol (TBA) | ND | | 2500 | 2710 | | ug/L | | 109 | 70 - 130 | 0 | 25 |
| tert-Butylbenzene | ND | | 250 | 287 | | ug/L | | 115 | 70 - 130 | 1 | 20 |
| 1,1,1,2-Tetrachloroethane | ND | | 250 | 272 | | ug/L | | 109 | 60 - 149 | 0 | 20 |
| 1,1,2,2-Tetrachloroethane | ND | | 250 | 243 | | ug/L | | 97 | 63 - 130 | 3 | 30 |
| Tetrachloroethene | ND | | 250 | 267 | | ug/L | | 107 | 70 - 137 | 0 | 20 |
| Toluene | ND | | 250 | 265 | | ug/L | | 106 | 70 - 130 | 1 | 20 |
| trans-1,2-Dichloroethene | ND | | 250 | 274 | | ug/L | | 110 | 70 - 130 | 1 | 20 |
| trans-1,3-Dichloropropene | ND | | 250 | 282 | | ug/L | | 113 | 70 - 138 | 4 | 25 |
| 1,2,3-Trichlorobenzene | ND | | 250 | 272 | | ug/L | | 109 | 60 - 140 | 2 | 20 |
| 1,2,4-Trichlorobenzene | ND | | 250 | 272 | | ug/L | | 109 | 60 - 140 | 0 | 20 |
| 1,1,1-Trichloroethane | ND | | 250 | 256 | | ug/L | | 102 | 70 - 130 | 2 | 20 |
| 1,1,2-Trichloroethane | ND | | 250 | 266 | | ug/L | | 106 | 70 - 130 | 1 | 25 |
| Trichloroethene | ND | | 250 | 269 | | ug/L | | 107 | 70 - 130 | 1 | 20 |
| Trichlorofluoromethane | ND | | 250 | 241 | | ug/L | | 96 | 60 - 150 | 8 | 25 |
| 1,2,3-Trichloropropane | ND | | 250 | 234 | | ug/L | | 94 | 60 - 130 | 5 | 30 |
| 1,2,4-Trimethylbenzene | ND | | 250 | 290 | | ug/L | | 116 | 70 - 130 | 1 | 25 |
| 1,3,5-Trimethylbenzene | ND | | 250 | 289 | | ug/L | | 116 | 70 - 130 | 1 | 20 |
| Vinyl chloride | ND | | 250 | 245 | | ug/L | | 98 | 50 - 137 | 0 | 30 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *101* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *101* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *108* | | *80 - 128* |

## Method: 300.1B - Disinfection By-Products, (IC)

**Lab Sample ID: MB 440-452345/5**
**Matrix: Water**
**Analysis Batch: 452345**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorate | ND | | 20 | 10 | ug/L | | | 01/18/18 06:19 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *102* | | *90 - 115* | | *01/18/18 06:19* | *1* |

**Lab Sample ID: LCS 440-452345/4**
**Matrix: Water**
**Analysis Batch: 452345**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 100 | 99.0 | | ug/L | | 99 | 75 - 125 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

**Lab Sample ID: MRL 440-452345/3**
**Matrix: Water**
**Analysis Batch: 452345**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 20.0 | 20.8 | | ug/L | | 104 | 50 - 150 | | |

| *Surrogate* | *MRL %Recovery* | *MRL Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

**Lab Sample ID: 440-201039-A-1 MS**
**Matrix: Water**
**Analysis Batch: 452345**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 3300 | | 200 | 3180 | 4 | ug/L | | -80 | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

**Lab Sample ID: 440-201039-A-1 MSD**
**Matrix: Water**
**Analysis Batch: 452345**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 3300 | | 200 | 3510 | 4 | ug/L | | 86 | 75 - 125 | 10 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *98* | | *90 - 115* |

**Lab Sample ID: MB 440-452346/5**
**Matrix: Water**
**Analysis Batch: 452346**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 20 | 10 | ug/L | | | 01/18/18 06:19 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *102* | | *90 - 115* | | *01/18/18 06:19* | *1* |

**Lab Sample ID: LCS 440-452346/4**
**Matrix: Water**
**Analysis Batch: 452346**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | | 100 | 101 | | ug/L | | 101 | 85 - 115 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

**Lab Sample ID: MRL 440-452346/3**
**Matrix: Water**
**Analysis Batch: 452346**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | | 20.0 | 21.2 | | ug/L | | 106 | 10 - 200 | | |

| *Surrogate* | *MRL %Recovery* | *MRL Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

**Lab Sample ID: 440-201200-A-1 MS**
**Matrix: Water**
**Analysis Batch: 452346**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 200 | 190 | | ug/L | | 95 | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *98* | | *90 - 115* |

**Lab Sample ID: 440-201200-A-1 MSD**
**Matrix: Water**
**Analysis Batch: 452346**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 200 | 189 | | ug/L | | 94 | 75 - 125 | 1 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

## Method: 314.0 LL - Perchlorate (IC)

**Lab Sample ID: MB 440-451680/7**
**Matrix: Water**
**Analysis Batch: 451680**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 1.0 | 0.50 | ug/L | | | 01/15/18 11:07 | 1 |

**Lab Sample ID: LCS 440-451680/6**
**Matrix: Water**
**Analysis Batch: 451680**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | | | 10.0 | 9.06 | | ug/L | | 91 | 85 - 115 | | |

**Lab Sample ID: 440-200984-A-1 MS**
**Matrix: Water**
**Analysis Batch: 451680**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 530 | | 500 | 952 | | ug/L | | 84 | 80 - 120 | | |

## Method: 314.0 LL - Perchlorate (IC) (Continued)

**Lab Sample ID: 440-200984-A-1 MSD**
**Matrix: Water**
**Analysis Batch: 451680**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 530 | | 500 | 986 | | ug/L | | 91 | 80 - 120 | 4 | 20 |

**Lab Sample ID: INF 440-451680/8**
**Matrix: Water**
**Analysis Batch: 451680**

**Client Sample ID: Lab Control Sample**

| Analyte | Spike Added | INF Result | INF Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 9.90 | | ug/L | | 99 | 80 - 120 |

## Method: 7199 - Chromium, Hexavalent (IC)

**Lab Sample ID: MB 440-451661/6**
**Matrix: Water**
**Analysis Batch: 451661**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 2.0 | 0.25 | ug/L | | | 01/15/18 08:10 | 1 |

**Lab Sample ID: LCS 440-451661/5**
**Matrix: Water**
**Analysis Batch: 451661**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 50.7 | | ug/L | | 101 | 90 - 110 |

**Lab Sample ID: MRL 440-451661/4**
**Matrix: Water**
**Analysis Batch: 451661**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 1.00 | 1.01 | J | ug/L | | 101 | 50 - 150 |

**Lab Sample ID: 440-200993-F-9 MS**
**Matrix: Water**
**Analysis Batch: 451661**

**Client Sample ID: Matrix Spike**
**Prep Type: Dissolved**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 50.0 | 49.7 | | ug/L | | 99 | 85 - 115 |

**Lab Sample ID: 440-200993-F-9 MSD**
**Matrix: Water**
**Analysis Batch: 451661**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Dissolved**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 50.0 | 51.2 | | ug/L | | 102 | 85 - 115 | 3 | 20 |

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 440-452668/1-A**
**Matrix: Water**
**Analysis Batch: 452846**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 452668**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | ND | | 0.0050 | 0.0025 | mg/L | | 01/19/18 10:59 | 01/19/18 19:03 | 1 |

**Lab Sample ID: LCS 440-452668/2-A**
**Matrix: Water**
**Analysis Batch: 452846**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 452668**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium | 1.00 | 0.949 | | mg/L | | 95 | 80 - 120 |

**Lab Sample ID: 440-200988-1 MS**
**Matrix: Water**
**Analysis Batch: 452846**

**Client Sample ID: VER-01I-C-BL**
**Prep Type: Total Recoverable**
**Prep Batch: 452668**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 8.7 | | 1.00 | 8.76 | 4 | mg/L | | 5 | 75 - 125 |

**Lab Sample ID: 440-200988-1 MSD**
**Matrix: Water**
**Analysis Batch: 452846**

**Client Sample ID: VER-01I-C-BL**
**Prep Type: Total Recoverable**
**Prep Batch: 452668**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 8.7 | | 1.00 | 8.91 | 4 | mg/L | | 20 | 75 - 125 | 2 | 20 |

# QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-200988-1

## GC/MS VOA

### Analysis Batch: 452052

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200988-1 | VER-01I-C-BL | Total/NA | Water | 8260B | |
| 440-200988-2 | Trip Blank | Total/NA | Water | 8260B | |
| 440-200988-3 | VER-01I-C-12 | Total/NA | Water | 8260B | |
| MB 440-452052/4 | Method Blank | Total/NA | Water | 8260B | |
| LCS 440-452052/5 | Lab Control Sample | Total/NA | Water | 8260B | |
| 440-200988-1 MS | VER-01I-C-BL | Total/NA | Water | 8260B | |
| 440-200988-1 MSD | VER-01I-C-BL | Total/NA | Water | 8260B | |

## HPLC/IC

### Analysis Batch: 451661

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200988-1 | VER-01I-C-BL | Total/NA | Water | 7199 | |
| 440-200988-3 | VER-01I-C-12 | Total/NA | Water | 7199 | |
| MB 440-451661/6 | Method Blank | Total/NA | Water | 7199 | |
| LCS 440-451661/5 | Lab Control Sample | Total/NA | Water | 7199 | |
| MRL 440-451661/4 | Lab Control Sample | Total/NA | Water | 7199 | |
| 440-200993-F-9 MS | Matrix Spike | Dissolved | Water | 7199 | |
| 440-200993-F-9 MSD | Matrix Spike Duplicate | Dissolved | Water | 7199 | |

### Analysis Batch: 451680

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200988-1 | VER-01I-C-BL | Total/NA | Water | 314.0 LL | |
| 440-200988-3 | VER-01I-C-12 | Total/NA | Water | 314.0 LL | |
| MB 440-451680/7 | Method Blank | Total/NA | Water | 314.0 LL | |
| INF 440-451680/8 | Lab Control Sample | | Water | 314.0 LL | |
| LCS 440-451680/6 | Lab Control Sample | Total/NA | Water | 314.0 LL | |
| 440-200984-A-1 MS | Matrix Spike | Total/NA | Water | 314.0 LL | |
| 440-200984-A-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 314.0 LL | |

### Analysis Batch: 452345

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200988-1 | VER-01I-C-BL | Total/NA | Water | 300.1B | |
| 440-200988-3 | VER-01I-C-12 | Total/NA | Water | 300.1B | |
| MB 440-452345/5 | Method Blank | Total/NA | Water | 300.1B | |
| LCS 440-452345/4 | Lab Control Sample | Total/NA | Water | 300.1B | |
| MRL 440-452345/3 | Lab Control Sample | Total/NA | Water | 300.1B | |
| 440-201039-A-1 MS | Matrix Spike | Total/NA | Water | 300.1B | |
| 440-201039-A-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.1B | |

### Analysis Batch: 452346

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200988-1 | VER-01I-C-BL | Total/NA | Water | 300.1B | |
| 440-200988-3 | VER-01I-C-12 | Total/NA | Water | 300.1B | |
| MB 440-452346/5 | Method Blank | Total/NA | Water | 300.1B | |
| LCS 440-452346/4 | Lab Control Sample | Total/NA | Water | 300.1B | |
| MRL 440-452346/3 | Lab Control Sample | Total/NA | Water | 300.1B | |
| 440-201200-A-1 MS | Matrix Spike | Total/NA | Water | 300.1B | |
| 440-201200-A-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.1B | |

# QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-200988-1

## Metals

### Prep Batch: 452668

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200988-1 | VER-01I-C-BL | Total Recoverable | Water | 3005A | |
| 440-200988-3 | VER-01I-C-12 | Total Recoverable | Water | 3005A | |
| MB 440-452668/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 440-452668/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 440-200988-1 MS | VER-01I-C-BL | Total Recoverable | Water | 3005A | |
| 440-200988-1 MSD | VER-01I-C-BL | Total Recoverable | Water | 3005A | |

### Analysis Batch: 452846

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-200988-1 | VER-01I-C-BL | Total Recoverable | Water | 6010B | 452668 |
| 440-200988-3 | VER-01I-C-12 | Total Recoverable | Water | 6010B | 452668 |
| MB 440-452668/1-A | Method Blank | Total Recoverable | Water | 6010B | 452668 |
| LCS 440-452668/2-A | Lab Control Sample | Total Recoverable | Water | 6010B | 452668 |
| 440-200988-1 MS | VER-01I-C-BL | Total Recoverable | Water | 6010B | 452668 |
| 440-200988-1 MSD | VER-01I-C-BL | Total Recoverable | Water | 6010B | 452668 |

# Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-200988-1

## Client Sample ID: VER-01I-C-BL
**Date Collected: 01/15/18 03:30**
**Date Received: 01/15/18 18:15**

**Lab Sample ID: 440-200988-1**
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 10 | 452052 | 01/16/18 20:06 | K1S | TAL IRV |
| Total/NA | Analysis | 300.1B | | 10000 | 452345 | 01/18/18 07:32 | YZ | TAL IRV |
| Total/NA | Analysis | 300.1B | | 1000 | 452346 | 01/19/18 03:28 | YZ | TAL IRV |
| Total/NA | Analysis | 314.0 LL | | 100000 | 451680 | 01/16/18 20:52 | NN | TAL IRV |
| Total/NA | Analysis | 7199 | | 500 | 451661 | 01/15/18 21:27 | MN | TAL IRV |
| Total Recoverable | Prep | 3005A | | | 452668 | 01/19/18 10:59 | MN1 | TAL IRV |
| Total Recoverable | Analysis | 6010B | | 5 | 452846 | 01/19/18 19:08 | K1E | TAL IRV |

## Client Sample ID: Trip Blank
**Date Collected: 01/15/18 03:30**
**Date Received: 01/15/18 18:15**

**Lab Sample ID: 440-200988-2**
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 452052 | 01/16/18 21:56 | K1S | TAL IRV |

## Client Sample ID: VER-01I-C-12
**Date Collected: 01/15/18 15:30**
**Date Received: 01/15/18 18:15**

**Lab Sample ID: 440-200988-3**
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 10 | 452052 | 01/16/18 21:28 | K1S | TAL IRV |
| Total/NA | Analysis | 300.1B | | 1000 | 452346 | 01/19/18 04:04 | YZ | TAL IRV |
| Total/NA | Analysis | 300.1B | | 20000 | 452345 | 01/19/18 05:53 | YZ | TAL IRV |
| Total/NA | Analysis | 314.0 LL | | 100000 | 451680 | 01/16/18 21:10 | NN | TAL IRV |
| Total/NA | Analysis | 7199 | | 500 | 451661 | 01/16/18 10:12 | MN | TAL IRV |
| Total Recoverable | Prep | 3005A | | | 452668 | 01/19/18 10:59 | MN1 | TAL IRV |
| Total Recoverable | Analysis | 6010B | | 5 | 452846 | 01/19/18 19:21 | K1E | TAL IRV |

**Laboratory References:**
TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

# Accreditation/Certification Summary

Client: Tetra Tech, Inc. TestAmerica Job ID: 440-200988-1
Project/Site: NERT VER Treatability Study

## Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|---|---|---|---|---|
| Alaska | State Program | 10 | CA01531 | 06-30-18 |
| Arizona | State Program | 9 | AZ0671 | 10-14-18 |
| California | LA Cty Sanitation Districts | 9 | 10256 | 06-30-18 |
| California | State Program | 9 | CA ELAP 2706 | 06-30-18 |
| Guam | State Program | 9 | Cert. No. 17-003R | 01-23-18 * |
| Hawaii | State Program | 9 | N/A | 01-29-18 * |
| Kansas | NELAP | 7 | E-10420 | 07-31-18 |
| Nevada | State Program | 9 | CA015312018-1 | 07-31-18 |
| New Mexico | State Program | 6 | N/A | 01-29-18 * |
| Northern Mariana Islands | State Program | 9 | MP0002 | 01-29-17 * |
| Oregon | NELAP | 10 | 4028 | 01-29-18 * |
| USDA | Federal | | P330-15-00184 | 07-08-18 |
| Washington | State Program | 10 | C900 | 09-03-18 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Method Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-200988-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL IRV |
| 300.1B | Disinfection By-Products, (IC) | EPA | TAL IRV |
| 314.0 LL | Perchlorate (IC) | EPA | TAL IRV |
| 7199 | Chromium, Hexavalent (IC) | SW846 | TAL IRV |
| 6010B | Metals (ICP) | SW846 | TAL IRV |

**Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

# Sample Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-200988-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 440-200988-1 | VER-01I-C-BL | Water | 01/15/18 03:30 | 01/15/18 18:15 |
| 440-200988-2 | Trip Blank | Water | 01/15/18 03:30 | 01/15/18 18:15 |
| 440-200988-3 | VER-01I-C-12 | Water | 01/15/18 15:30 | 01/15/18 18:15 |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: GCMS59 Analysis Batch Number: 451572

Lab Sample ID: STD05 440-451572/6 IC Client Sample ID:

Date Analyzed: 01/13/18 16:44 Lab File ID: XGA13006.D GC Column: DB-VRX A ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,2,3-Trichloropropane | 11.14 | Unspecified | | |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 445955

Lab Sample ID: STD1 440-445955/3 IC Client Sample ID:

Date Analyzed: 12/11/17 05:47 Lab File ID: 440-0097300-003.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.81 | Baseline Smoothing | zakhrabovy | 12/11/17 06:34 |

Lab Sample ID: STD2 440-445955/4 IC Client Sample ID:

Date Analyzed: 12/11/17 06:24 Lab File ID: 440-0097300-004.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 07:02 |

Lab Sample ID: STD3 440-445955/5 IC Client Sample ID:

Date Analyzed: 12/11/17 07:00 Lab File ID: 440-0097300-005.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 07:39 |

Lab Sample ID: STD4 440-445955/6 IC Client Sample ID:

Date Analyzed: 12/11/17 07:36 Lab File ID: 440-0097300-006.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 08:20 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 445955

Lab Sample ID: STD5 440-445955/7 IC Client Sample ID:

Date Analyzed: 12/11/17 08:12 Lab File ID: 440-0097300-007.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 08:53 |

Lab Sample ID: ICV 440-445955/8 Client Sample ID:

Date Analyzed: 12/11/17 09:01 Lab File ID: 440-0097300-008.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.77 | Baseline Smoothing | zakhrabovy | 12/12/17 03:14 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 445956

Lab Sample ID: STD1 440-445956/3 IC Client Sample ID:

Date Analyzed: 12/11/17 05:47 Lab File ID: 440-0097300-003.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.52 | Baseline Smoothing | zakhrabovy | 12/11/17 06:34 |

Lab Sample ID: STD2 440-445956/4 IC Client Sample ID:

Date Analyzed: 12/11/17 06:24 Lab File ID: 440-0097300-004.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.51 | Baseline Smoothing | zakhrabovy | 12/11/17 07:02 |

Lab Sample ID: STD3 440-445956/5 IC Client Sample ID:

Date Analyzed: 12/11/17 07:00 Lab File ID: 440-0097300-005.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.51 | Baseline Smoothing | zakhrabovy | 12/11/17 07:39 |

Lab Sample ID: STD4 440-445956/6 IC Client Sample ID:

Date Analyzed: 12/11/17 07:36 Lab File ID: 440-0097300-006.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.52 | Baseline Smoothing | zakhrabovy | 12/11/17 08:20 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-8  Analysis Batch Number: 445956

Lab Sample ID: STD5 440-445956/7 IC  Client Sample ID:

Date Analyzed: 12/11/17 08:12  Lab File ID: 440-0097300-007.d  GC Column: AS14  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.52 | Baseline Smoothing | zakhrabovy | 12/11/17 08:53 |

Lab Sample ID: ICV 440-445956/8  Client Sample ID:

Date Analyzed: 12/11/17 09:01  Lab File ID: 440-0097300-008.d  GC Column: AS14  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.50 | Baseline Smoothing | zakhrabovy | 12/12/17 03:14 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-8  Analysis Batch Number: 452345

Lab Sample ID: CCV 440-452345/1  Client Sample ID:

Date Analyzed: 01/18/18 03:43  Lab File ID: 440-0098772-001.d  GC Column: AS9-HC  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.75 | Baseline Smoothing | zakhrabovy | 01/18/18 04:57 |

Lab Sample ID: CCV 440-452345/13  Client Sample ID:

Date Analyzed: 01/18/18 11:43  Lab File ID: 440-0098772-013.d  GC Column: AS9-HC  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.66 | Baseline Smoothing | zakhrabovy | 01/18/18 12:22 |

Lab Sample ID: CCV 440-452345/37  Client Sample ID:

Date Analyzed: 01/19/18 02:16  Lab File ID: 440-0098772-037.d  GC Column: AS9-HC  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.71 | Baseline Smoothing | zakhrabovy | 01/19/18 03:51 |

Lab Sample ID: CCV 440-452345/49  Client Sample ID:

Date Analyzed: 01/19/18 09:31  Lab File ID: 440-0098772-049.d  GC Column: AS9-HC  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.68 | Baseline Smoothing | zakhrabovy | 01/19/18 10:10 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 452346

Lab Sample ID: CCV 440-452346/1 Client Sample ID:

Date Analyzed: 01/18/18 03:43 Lab File ID: 440-0098772-001.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.48 | Baseline Smoothing | zakhrabovy | 01/18/18 04:57 |

Lab Sample ID: MRL 440-452346/3 Client Sample ID:

Date Analyzed: 01/18/18 04:55 Lab File ID: 440-0098772-003.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.48 | Baseline Smoothing | zakhrabovy | 01/18/18 05:43 |

Lab Sample ID: LCS 440-452346/4 Client Sample ID:

Date Analyzed: 01/18/18 05:43 Lab File ID: 440-0098772-004.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.48 | Baseline Smoothing | zakhrabovy | 01/18/18 06:27 |

Lab Sample ID: CCV 440-452346/13 Client Sample ID:

Date Analyzed: 01/18/18 11:43 Lab File ID: 440-0098772-013.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.47 | Baseline Smoothing | zakhrabovy | 01/18/18 12:22 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 452346

Lab Sample ID: 440-201200-A-1 MS Client Sample ID:

Date Analyzed: 01/18/18 14:11 Lab File ID: 440-0098772-017.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.40 | Baseline Smoothing | zakhrabovy | 01/19/18 03:47 |

Lab Sample ID: 440-201200-A-1 MSD Client Sample ID:

Date Analyzed: 01/18/18 14:47 Lab File ID: 440-0098772-018.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.41 | Baseline Smoothing | zakhrabovy | 01/19/18 03:48 |

Lab Sample ID: CCV 440-452346/37 Client Sample ID:

Date Analyzed: 01/19/18 02:16 Lab File ID: 440-0098772-037.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.48 | Baseline Smoothing | zakhrabovy | 01/19/18 03:51 |

Lab Sample ID: CCV 440-452346/49 Client Sample ID:

Date Analyzed: 01/19/18 09:31 Lab File ID: 440-0098772-049.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.46 | Baseline Smoothing | zakhrabovy | 01/19/18 10:10 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-16 Analysis Batch Number: 432478

Lab Sample ID: STD2 440-432478/4 IC Client Sample ID:

Date Analyzed: 10/02/17 13:01 Lab File ID: Info 2_TAIIRV0066_Hex Chr GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 7.53 | Incomplete Integration | nickloffn | 10/02/17 13:25 |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **ME HCl_00393** | 12/12/18 | Avantor Performance Materials, INc., Lot 0000183197 | | | (Purchased Reagent) | | Stock Chemical | 100 % |
| **ME HNO3_00412** | 01/12/19 | Macron Fine Chemicals, Lot 0000185595 | | | (Purchased Reagent) | | Stock Chemical | 1 % |
| **ME ICP 2X RL_00055** | 01/20/18 | 01/19/18 | 2%HNO3/2%HCl, Lot 211065110 | 100 mL | ME ICP STD3_01850 | 2 mL | Chromium | 0.01 ug/mL |
| .ME ICP STD3_01850 | 01/20/18 | 01/19/18 | 1%HNO3/2%HCL, Lot 211065110 | 100 mL | Custom mix A_00001 | 1 mL | Chromium | 0.5 ug/mL |
| ..Custom mix A_00001 | 10/26/20 | INORGANIC VENTURES, Lot M2-MEB662656 | | | (Purchased Reagent) | | Chromium | 50 mg/L |
| **ME ICP ICV2_01766** | 01/20/18 | 01/19/18 | 1%HNO3/2%HCl, Lot N/A | 50 mL | ME ICP SPKE A_00029 | 0.5 mL | Chromium | 1 mg/L |
| .ME ICP SPKE A_00029 | 03/30/18 | ACCUSTANDARD, Lot 216035030 | | | (Purchased Reagent) | | Chromium | 100 ug/mL |
| **ME ICP IFA_01792** | 01/20/18 | 01/19/18 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Al | 600 mg/L |
| | | | | | | | Ca | 600 mg/L |
| | | | | | | | Fe | 600 mg/L |
| | | | | | | | Mg | 600 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | o2si, Lot 10064997-1 | | | (Purchased Reagent) | | Al | 6000 mg/L |
| | | | | | | | Ca | 6000 mg/L |
| | | | | | | | Fe | 6000 mg/L |
| | | | | | | | Mg | 6000 mg/L |
| **ME ICP IFB_01811** | 01/20/18 | 01/19/18 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Al | 600.5 mg/L |
| | | | | | | | Ca | 602.5 mg/L |
| | | | | | | | Fe | 600.5 mg/L |
| | | | | | | | Mg | 602.5 mg/L |
| | | | | | ME ICP2 ICV1A_00051 | 0.25 mL | Ag | 0.25 mg/L |
| | | | | | | | Al | 600.5 mg/L |
| | | | | | | | As | 0.5 mg/L |
| | | | | | | | B | 0.5 mg/L |
| | | | | | | | Ba | 0.5 mg/L |
| | | | | | | | Be | 0.5 mg/L |
| | | | | | | | Ca | 602.5 mg/L |
| | | | | | | | Cd | 0.5 mg/L |
| | | | | | | | Chromium | 0.5 mg/L |
| | | | | | | | Co | 0.5 mg/L |
| | | | | | | | Cu | 0.5 mg/L |
| | | | | | | | Fe | 600.5 mg/L |
| | | | | | | | K | 10 mg/L |
| | | | | | | | Li | 0.5 mg/L |
| | | | | | | | Mg | 602.5 mg/L |
| | | | | | | | Mn | 0.5 mg/L |
| | | | | | | | Na | 10 mg/L |
| | | | | | | | Ni | 0.5 mg/L |
| | | | | | | | P | 0.5 mg/L |
| | | | | | | | Pb | 0.5 mg/L |
| | | | | | | | Se | 0.5 mg/L |
| | | | | | | | Sr | 0.5 mg/L |
| | | | | | | | Tl | 0.5 mg/L |
| | | | | | | | V | 0.5 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Zn | 0.5 mg/L |
| | | | | | ME ICP2 ICV1B_00045 | 0.25 mL | Mo | 0.5 mg/L |
| | | | | | | | Sb | 0.5 mg/L |
| | | | | | | | Si | 2.5 mg/L |
| | | | | | | | Sn | 0.5 mg/L |
| | | | | | | | Ti | 0.5 mg/L |
| | | | | | | | W | 0.5 mg/L |
| | | | | | | | Zr | 0.5 mg/L |
| | | | | | ME K_00007 | 0.25 mL | K | 10 mg/L |
| | | | | | ME Na_00010 | 0.25 mL | Na | 10 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | o2si, Lot 10064997-1 | | | (Purchased Reagent) | | Al | 6000 mg/L |
| | | | | | | | Ca | 6000 mg/L |
| | | | | | | | Fe | 6000 mg/L |
| | | | | | | | Mg | 6000 mg/L |
| .ME ICP2 ICV1A_00051 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662245 | | | (Purchased Reagent) | | Ag | 50 mg/L |
| | | | | | | | Al | 100 mg/L |
| | | | | | | | As | 100 mg/L |
| | | | | | | | B | 100 mg/L |
| | | | | | | | Ba | 100 mg/L |
| | | | | | | | Be | 100 mg/L |
| | | | | | | | Ca | 500 mg/L |
| | | | | | | | Cd | 100 mg/L |
| | | | | | | | Chromium | 100 mg/L |
| | | | | | | | Co | 100 mg/L |
| | | | | | | | Cu | 100 mg/L |
| | | | | | | | Fe | 100 mg/L |
| | | | | | | | K | 1000 mg/L |
| | | | | | | | Li | 100 mg/L |
| | | | | | | | Mg | 500 mg/L |
| | | | | | | | Mn | 100 mg/L |
| | | | | | | | Na | 1000 mg/L |
| | | | | | | | Ni | 100 mg/L |
| | | | | | | | P | 100 mg/L |
| | | | | | | | Pb | 100 mg/L |
| | | | | | | | Se | 100 mg/L |
| | | | | | | | Sr | 100 mg/L |
| | | | | | | | Tl | 100 mg/L |
| | | | | | | | V | 100 mg/L |
| | | | | | | | Zn | 100 mg/L |
| .ME ICP2 ICV1B_00045 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662246 | | | (Purchased Reagent) | | Mo | 100 mg/L |
| | | | | | | | Sb | 100 mg/L |
| | | | | | | | Si | 500 mg/L |
| | | | | | | | Sn | 100 mg/L |
| | | | | | | | Ti | 100 mg/L |
| | | | | | | | W | 100 mg/L |
| | | | | | | | Zr | 100 mg/L |
| .ME K_00007 | 08/17/18 | O2SI, Lot 1103100 | | | (Purchased Reagent) | | K | 1000 mg/L |
| .ME Na_00010 | 08/17/18 | O2SI, Lot 1103103 | | | (Purchased Reagent) | | Na | 1000 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **ME ICP STD3_01851** | 01/20/18 | 01/19/18 | 1%HNO3/2%HCL, Lot 211065110 | 100 mL | ME ICP2 ICV1A_00051 | 1 mL | Chromium | 1 ug/mL |
| .ME ICP2 ICV1A_00051 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662245 | | | (Purchased Reagent) | | Chromium | 100 mg/L |
| | | | | | | | Ag | 50 mg/L |
| | | | | | | | Al | 100 mg/L |
| | | | | | | | As | 100 mg/L |
| | | | | | | | B | 100 mg/L |
| | | | | | | | Ba | 100 mg/L |
| | | | | | | | Be | 100 mg/L |
| | | | | | | | Ca | 500 mg/L |
| | | | | | | | Cd | 100 mg/L |
| | | | | | | | Chromium | 100 mg/L |
| | | | | | | | Co | 100 mg/L |
| | | | | | | | Cu | 100 mg/L |
| | | | | | | | Fe | 100 mg/L |
| | | | | | | | K | 1000 mg/L |
| | | | | | | | Li | 100 mg/L |
| | | | | | | | Mg | 500 mg/L |
| | | | | | | | Mn | 100 mg/L |
| | | | | | | | Na | 1000 mg/L |
| | | | | | | | Ni | 100 mg/L |
| | | | | | | | P | 100 mg/L |
| | | | | | | | Pb | 100 mg/L |
| | | | | | | | Se | 100 mg/L |
| | | | | | | | Sr | 100 mg/L |
| | | | | | | | Tl | 100 mg/L |
| | | | | | | | V | 100 mg/L |
| | | | | | | | Zn | 100 mg/L |
| **ME ICP2 ICV1B_00045** | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662246 | | | (Purchased Reagent) | | Mo | 100 mg/L |
| | | | | | | | Sb | 100 mg/L |
| | | | | | | | Si | 500 mg/L |
| | | | | | | | SiO2 | 1071.15 mg/L |
| | | | | | | | Sn | 100 mg/L |
| | | | | | | | Ti | 100 mg/L |
| | | | | | | | W | 100 mg/L |
| | | | | | | | Zr | 100 mg/L |
| **VMW8260TUNE1_00415** | | | | | | | 1,2-Dichloroethene, Total | |
| | | | | | | | 1,3-Dichloropropene, Total | |
| | | | | | | | Tentatively Identified Compound | |
| | | | | | | | Total Volatile Organic Compounds | |
| | | | | | | | Trihalomethanes, Total | |
| | | | | | | | Xylenes, Total | |
| | | | | | VMA8260BFB1_00040 | 10 uL | BFB | 25 ug/mL |
| .VMA8260BFB1_00040 | 06/08/18 | Absolute Standards, Lot 112514 | | | (Purchased Reagent) | | BFB | 2500 ug/mL |
| **VMW8260TUNE1_00416** | | | | | | | 1,2-Dichloroethene, Total | |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,3-Dichloropropene, Total | |
| | | | | | | | Tentatively Identified Compound | |
| | | | | | | | Total Volatile Organic Compounds | |
| | | | | | | | Trihalomethanes, Total | |
| | | | | | | | Xylenes, Total | |
| | | | | | VMA8260BFB1_00040 | 10 uL | BFB | 25 ug/mL |
| .VMA8260BFB1_00040 | 06/08/18 | Absolute Standards, Lot 112514 | | | (Purchased Reagent) | | BFB | 2500 ug/mL |
| **VMWNU8260002_00504** | 01/16/18 | 01/09/18 | Methanol, Lot 4555167 | 1 mL | VMWNU8260200_00178 | 10 uL | 2-Chloroethyl vinyl ether | 2 ug/mL |
| | | | | | | | Bromomethane | 2 ug/mL |
| | | | | | | | Butadiene | 2 ug/mL |
| | | | | | | | Chloroethane | 2 ug/mL |
| | | | | | | | Chloromethane | 2 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2 ug/mL |
| | | | | | | | Vinyl chloride | 2 ug/mL |
| | | | | | | | 2-Butanone (MEK) | 2 ug/mL |
| | | | | | | | 2-Hexanone | 2 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 2 ug/mL |
| | | | | | | | Acetone | 2 ug/mL |
| | | | | | | | 1,1,1,2-Tetrachloroethane | 2 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Acrylonitrile | 20 ug/mL |
| | | | | | | | Benzene | 2 ug/mL |
| | | | | | | | Bromobenzene | 2 ug/mL |
| | | | | | | | Bromochloromethane | 2 ug/mL |
| | | | | | | | Bromodichloromethane | 2 ug/mL |
| | | | | | | | Bromoform | 2 ug/mL |
| | | | | | | | Carbon disulfide | 2 ug/mL |
| | | | | | | | Carbon tetrachloride | 2 ug/mL |
| | | | | | | | Chlorobenzene | 2 ug/mL |
| | | | | | | | Chloroform | 2 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2 ug/mL |
| | | | | | | | Cyclohexane | 2 ug/mL |
| | | | | | | | Dibromochloromethane | 2 ug/mL |
| | | | | | | | Dibromomethane | 2 ug/mL |
| | | | | | | | Ethyl ether | 2 ug/mL |
| | | | | | | | Ethyl methacrylate | 2 ug/mL |
| | | | | | | | Ethylbenzene | 2 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2 ug/mL |
| | | | | | | | Hexane | 2 ug/mL |
| | | | | | | | Iodomethane | 2 ug/mL |
| | | | | | | | Isobutyl alcohol | 50 ug/mL |
| | | | | | | | Isopropylbenzene | 2 ug/mL |
| | | | | | | | m,p-Xylene | 2 ug/mL |
| | | | | | | | Methyl acetate | 10 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2 ug/mL |
| | | | | | | | Methylcyclohexane | 2 ug/mL |
| | | | | | | | Methylene Chloride | 2 ug/mL |
| | | | | | | | n-Butylbenzene | 2 ug/mL |
| | | | | | | | n-Heptane | 2 ug/mL |
| | | | | | | | N-Propylbenzene | 2 ug/mL |
| | | | | | | | Naphthalene | 2 ug/mL |
| | | | | | | | o-Xylene | 2 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2 ug/mL |
| | | | | | | | sec-Butylbenzene | 2 ug/mL |
| | | | | | | | Styrene | 2 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 20 ug/mL |
| | | | | | | | tert-Butylbenzene | 2 ug/mL |
| | | | | | | | Tetrachloroethene | 2 ug/mL |
| | | | | | | | Tetrahydrofuran | 4 ug/mL |
| | | | | | | | Toluene | 2 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2 ug/mL |
| | | | | | | | Trichloroethene | 2 ug/mL |
| | | | | | | | Vinyl acetate | 2 ug/mL |
| | | | | | | | Ethanol | 100 ug/mL |
| | | | | | | | Acetonitrile | 20 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2 ug/mL |
| | | | | | | | Propionitrile | 20 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2 ug/mL |
| | | | | | | | Acrolein | 2 ug/mL |
| .VMWNU8260200_00178 | 01/16/18 | 01/09/18 | Methanol, Lot 4555167 | 1 mL | VMA1582602CV1_00029 | 80 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |
| | | | | | VMA158260GAS1_00211 | 80 uL | Bromomethane | 200 ug/mL |
| | | | | | | | Butadiene | 200 ug/mL |
| | | | | | | | Chloroethane | 200 ug/mL |
| | | | | | | | Chloromethane | 200 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 200 ug/mL |
| | | | | | | | Dichlorofluoromethane | 200 ug/mL |
| | | | | | | | Trichlorofluoromethane | 200 ug/mL |
| | | | | | | | Vinyl chloride | 200 ug/mL |
| | | | | | VMA158260KET1_00046 | 16 uL | 2-Butanone (MEK) | 200 ug/mL |
| | | | | | | | 2-Hexanone | 200 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 200 ug/mL |
| | | | | | | | Acetone | 200 ug/mL |
| | | | | | VMA158260MEG1_00043 | 80 uL | 1,1,1,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 200 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 200 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 200 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 200 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 2-Chlorotoluene | 200 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 200 ug/mL |
| | | | | | | | 4-Chlorotoluene | 200 ug/mL |
| | | | | | | | Acrylonitrile | 2000 ug/mL |
| | | | | | | | Benzene | 200 ug/mL |
| | | | | | | | Bromobenzene | 200 ug/mL |
| | | | | | | | Bromochloromethane | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Bromodichloromethane | 200 ug/mL |
| | | | | | | | Bromoform | 200 ug/mL |
| | | | | | | | Carbon disulfide | 200 ug/mL |
| | | | | | | | Carbon tetrachloride | 200 ug/mL |
| | | | | | | | Chlorobenzene | 200 ug/mL |
| | | | | | | | Chloroform | 200 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | Cyclohexane | 200 ug/mL |
| | | | | | | | Dibromochloromethane | 200 ug/mL |
| | | | | | | | Dibromomethane | 200 ug/mL |
| | | | | | | | Ethyl ether | 200 ug/mL |
| | | | | | | | Ethyl methacrylate | 200 ug/mL |
| | | | | | | | Ethylbenzene | 200 ug/mL |
| | | | | | | | Hexachlorobutadiene | 200 ug/mL |
| | | | | | | | Hexane | 200 ug/mL |
| | | | | | | | Iodomethane | 200 ug/mL |
| | | | | | | | Isobutyl alcohol | 5000 ug/mL |
| | | | | | | | Isopropylbenzene | 200 ug/mL |
| | | | | | | | m,p-Xylene | 200 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 200 ug/mL |
| | | | | | | | Methylcyclohexane | 200 ug/mL |
| | | | | | | | Methylene Chloride | 200 ug/mL |
| | | | | | | | n-Butylbenzene | 200 ug/mL |
| | | | | | | | n-Heptane | 200 ug/mL |
| | | | | | | | N-Propylbenzene | 200 ug/mL |
| | | | | | | | Naphthalene | 200 ug/mL |
| | | | | | | | o-Xylene | 200 ug/mL |
| | | | | | | | p-Isopropyltoluene | 200 ug/mL |
| | | | | | | | sec-Butylbenzene | 200 ug/mL |
| | | | | | | | Styrene | 200 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 2000 ug/mL |
| | | | | | | | tert-Butylbenzene | 200 ug/mL |
| | | | | | | | Tetrachloroethene | 200 ug/mL |
| | | | | | | | Tetrahydrofuran | 400 ug/mL |
| | | | | | | | Toluene | 200 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 200 ug/mL |
| | | | | | | | Trichloroethene | 200 ug/mL |
| | | | | | VMA158260VA1_00046 | 40 uL | Vinyl acetate | 200 ug/mL |
| | | | | | VMA178260ETH1_00009 | 100 uL | Ethanol | 10000 ug/mL |
| | | | | | VMA178260POL1_00009 | 80 uL | Acetonitrile | 2000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 200 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 200 ug/mL |
| | | | | | | | Propionitrile | 2000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | VMANU8260ACR1_00102 | 10 uL | Acrolein | 200 ug/mL |
| ..VMA1582602CV1_00029 | 06/26/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| ..VMA158260GAS1_00211 | 07/09/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| ..VMA158260KET1_00046 | 06/26/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| ..VMA158260MEG1_00043 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| ..VMA158260VA1_00046 | 02/28/18 | | Restek, Lot A0129689 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| ..VMA178260ETH1_00009 | 06/26/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| ..VMA178260POL1_00009 | 06/26/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| ..VMANU8260ACR1_00102 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260200_00178** | 01/16/18 | 01/09/18 | Methanol, Lot 4555167 | 1 mL | VMA1582602CV1_00029 | 80 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |
| | | | | | VMA158260GAS1_00211 | 80 uL | Bromomethane | 200 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Butadiene | 200 ug/mL |
| | | | | | | | Chloroethane | 200 ug/mL |
| | | | | | | | Chloromethane | 200 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 200 ug/mL |
| | | | | | | | Dichlorofluoromethane | 200 ug/mL |
| | | | | | | | Trichlorofluoromethane | 200 ug/mL |
| | | | | | | | Vinyl chloride | 200 ug/mL |
| | | | | | VMA158260KET1_00046 | 16 uL | 2-Butanone (MEK) | 200 ug/mL |
| | | | | | | | 2-Hexanone | 200 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 200 ug/mL |
| | | | | | | | Acetone | 200 ug/mL |
| | | | | | VMA158260MEG1_00043 | 80 uL | 1,1,1,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 200 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 200 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 200 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 200 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 2-Chlorotoluene | 200 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 200 ug/mL |
| | | | | | | | 4-Chlorotoluene | 200 ug/mL |
| | | | | | | | Acrylonitrile | 2000 ug/mL |
| | | | | | | | Benzene | 200 ug/mL |
| | | | | | | | Bromobenzene | 200 ug/mL |
| | | | | | | | Bromochloromethane | 200 ug/mL |
| | | | | | | | Bromodichloromethane | 200 ug/mL |
| | | | | | | | Bromoform | 200 ug/mL |
| | | | | | | | Carbon disulfide | 200 ug/mL |
| | | | | | | | Carbon tetrachloride | 200 ug/mL |
| | | | | | | | Chlorobenzene | 200 ug/mL |
| | | | | | | | Chloroform | 200 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | cis-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | Cyclohexane | 200 ug/mL |
| | | | | | | | Dibromochloromethane | 200 ug/mL |
| | | | | | | | Dibromomethane | 200 ug/mL |
| | | | | | | | Ethyl ether | 200 ug/mL |
| | | | | | | | Ethyl methacrylate | 200 ug/mL |
| | | | | | | | Ethylbenzene | 200 ug/mL |
| | | | | | | | Hexachlorobutadiene | 200 ug/mL |
| | | | | | | | Hexane | 200 ug/mL |
| | | | | | | | Iodomethane | 200 ug/mL |
| | | | | | | | Isobutyl alcohol | 5000 ug/mL |
| | | | | | | | Isopropylbenzene | 200 ug/mL |
| | | | | | | | m,p-Xylene | 200 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 200 ug/mL |
| | | | | | | | Methylcyclohexane | 200 ug/mL |
| | | | | | | | Methylene Chloride | 200 ug/mL |
| | | | | | | | n-Butylbenzene | 200 ug/mL |
| | | | | | | | n-Heptane | 200 ug/mL |
| | | | | | | | N-Propylbenzene | 200 ug/mL |
| | | | | | | | Naphthalene | 200 ug/mL |
| | | | | | | | o-Xylene | 200 ug/mL |
| | | | | | | | p-Isopropyltoluene | 200 ug/mL |
| | | | | | | | sec-Butylbenzene | 200 ug/mL |
| | | | | | | | Styrene | 200 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 2000 ug/mL |
| | | | | | | | tert-Butylbenzene | 200 ug/mL |
| | | | | | | | Tetrachloroethene | 200 ug/mL |
| | | | | | | | Tetrahydrofuran | 400 ug/mL |
| | | | | | | | Toluene | 200 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 200 ug/mL |
| | | | | | | | Trichloroethene | 200 ug/mL |
| | | | | | VMA158260VA1_00046 | 40 uL | Vinyl acetate | 200 ug/mL |
| | | | | | VMA178260ETH1_00009 | 100 uL | Ethanol | 10000 ug/mL |
| | | | | | VMA178260POL1_00009 | 80 uL | Acetonitrile | 2000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 200 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 200 ug/mL |
| | | | | | | | Propionitrile | 2000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 200 ug/mL |
| | | | | | VMANU8260ACR1_00102 | 10 uL | Acrolein | 200 ug/mL |
| .VMA1582602CV1_00029 | 06/26/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| .VMA158260GAS1_00211 | 07/09/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00046 | 06/26/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00043 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA158260VA1_00046 | 02/28/18 | | Restek, Lot A0129689 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| .VMA178260ETH1_00009 | 06/26/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| .VMA178260POL1_00009 | 06/26/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| .VMANU8260ACR1_00102 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260CCV1_00875** | 01/16/18 | 01/09/18 | Methanol, Lot 4555167 | 1 mL | VMA1582602CV1_00029 | 20 uL | 2-Chloroethyl vinyl ether | 50 ug/mL |
| | | | | | VMA158260GAS1_00211 | 20 uL | Bromomethane | 50 ug/mL |
| | | | | | | | Butadiene | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 50 ug/mL |
| | | | | | | | Dichlorofluoromethane | 50 ug/mL |
| | | | | | | | Trichlorofluoromethane | 50 ug/mL |
| | | | | | | | Vinyl chloride | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | VMA158260KET1_00046 | 4 uL | 2-Butanone (MEK) | 50 ug/mL |
| | | | | | | | 2-Hexanone | 50 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ug/mL |
| | | | | | | | Acetone | 50 ug/mL |
| | | | | | VMA158260MEG1_00043 | 20 uL | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | Acrylonitrile | 500 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromochloromethane | 50 ug/mL |
| | | | | | | | Bromodichloromethane | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon disulfide | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Cyclohexane | 50 ug/mL |
| | | | | | | | Dibromochloromethane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Ethyl ether | 50 ug/mL |
| | | | | | | | Ethyl methacrylate | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Hexane | 50 ug/mL |
| | | | | | | | Iodomethane | 50 ug/mL |
| | | | | | | | Isobutyl alcohol | 1250 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m,p-Xylene | 50 ug/mL |
| | | | | | | | Methyl acetate | 250 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ug/mL |
| | | | | | | | Methylcyclohexane | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | n-Heptane | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | p-Isopropyltoluene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Tetrahydrofuran | 100 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | VMA158260VA1_00046 | 8 uL | Vinyl acetate | 40 ug/mL |
| | | | | | VMA178260ETH1_00009 | 20 uL | Ethanol | 2000 ug/mL |
| | | | | | VMA178260POL1_00009 | 20 uL | Acetonitrile | 500 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 50 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ug/mL |
| | | | | | | | Propionitrile | 500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ug/mL |
| | | | | | VMANU8260ACR1_00102 | 2.5 uL | Acrolein | 50 ug/mL |
| .VMA1582602CV1_00029 | 06/26/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| .VMA158260GAS1_00211 | 07/09/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00046 | 06/26/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .VMA158260MEG1_00043 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA158260VA1_00046 | 02/28/18 | | Restek, Lot A0129689 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| .VMA178260ETH1_00009 | 06/26/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| .VMA178260POL1_00009 | 06/26/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| .VMANU8260ACR1_00102 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260CCV1_00883** | 01/23/18 | 01/16/18 | Methanol, Lot 4506057 | 1 mL | VMA158260GAS1_00213 | 20 uL | Bromomethane | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 50 ug/mL |
| | | | | | | | Trichlorofluoromethane | 50 ug/mL |
| | | | | | | | Vinyl chloride | 50 ug/mL |
| | | | | | VMA158260KET1_00046 | 4 uL | 2-Butanone (MEK) | 50 ug/mL |
| | | | | | | | 2-Hexanone | 50 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ug/mL |
| | | | | | | | Acetone | 50 ug/mL |
| | | | | | VMA158260MEG1_00043 | 20 uL | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromochloromethane | 50 ug/mL |
| | | | | | | | Bromodichloromethane | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Dibromochloromethane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m,p-Xylene | 50 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | p-Isopropyltoluene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | VMA178260POL1_00009 | 20 uL | Ethyl-t-butyl ether (ETBE) | 50 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ug/mL |
| .VMA158260GAS1_00213 | 07/16/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00046 | 06/26/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00043 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL1_00009 | 06/26/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNU8260IS_00175** | 02/02/18 | 01/02/18 | Methanol, Lot 4555159 | 1 mL | VMANU8260ISD1_00189 | 20 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00198 | 25 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00189 | 06/12/18 | | Restek, Lot A0128916 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00198 | 06/12/18 | | Restek, Lot A0128685 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00135** | 01/27/18 | 12/27/17 | Methanol, Lot 4506063 | 40 mL | VMANU8260ISD1_00191 | 800 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00202 | 1000 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00191 | 06/27/18 | | Restek, Lot A0128916 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00202 | 06/27/18 | | Restek, Lot A0128685 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00135** | 01/27/18 | 12/27/17 | Methanol, Lot 4506063 | 40 mL | VMANU8260SUR2_00036 | 800 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR2_00036 | 05/08/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNU8260LCS2_00173** | 01/17/18 | 01/10/18 | Methanol, Lot 4555167 | 10 mL | VMA158260GAS2_00230 | 200 uL | Bromomethane | 50 ppm |
| | | | | | | | Chloroethane | 50 ppm |
| | | | | | | | Chloromethane | 50 ppm |
| | | | | | | | Dichlorodifluoromethane | 50 ppm |
| | | | | | | | Trichlorofluoromethane | 50 ppm |
| | | | | | | | Vinyl chloride | 50 ppm |
| | | | | | VMA158260KET2_00042 | 40 uL | 2-Butanone (MEK) | 50 ppm |
| | | | | | | | 2-Hexanone | 50 ppm |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ppm |
| | | | | | | | Acetone | 50 ppm |
| | | | | | VMA158260MEG2_00053 | 200 uL | 1,1,1,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,1-Trichloroethane | 50 ppm |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,2-Trichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethene | 50 ppm |
| | | | | | | | 1,1-Dichloropropene | 50 ppm |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,3-Trichloropropane | 50 ppm |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ppm |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ppm |
| | | | | | | | 1,2-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,2-Dichloroethane | 50 ppm |
| | | | | | | | 1,2-Dichloropropane | 50 ppm |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,3-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,3-Dichloropropane | 50 ppm |
| | | | | | | | 1,4-Dichlorobenzene | 50 ppm |
| | | | | | | | 2,2-Dichloropropane | 50 ppm |
| | | | | | | | 2-Chlorotoluene | 50 ppm |
| | | | | | | | 4-Chlorotoluene | 50 ppm |
| | | | | | | | Benzene | 50 ppm |
| | | | | | | | Bromobenzene | 50 ppm |
| | | | | | | | Bromochloromethane | 50 ppm |
| | | | | | | | Bromodichloromethane | 50 ppm |
| | | | | | | | Bromoform | 50 ppm |
| | | | | | | | Carbon tetrachloride | 50 ppm |
| | | | | | | | Chlorobenzene | 50 ppm |
| | | | | | | | Chloroform | 50 ppm |
| | | | | | | | cis-1,2-Dichloroethene | 50 ppm |
| | | | | | | | cis-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Dibromochloromethane | 50 ppm |
| | | | | | | | Dibromomethane | 50 ppm |
| | | | | | | | Ethylbenzene | 50 ppm |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Hexachlorobutadiene | 50 ppm |
| | | | | | | | Isopropylbenzene | 50 ppm |
| | | | | | | | m,p-Xylene | 50 ppm |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ppm |
| | | | | | | | Methylene Chloride | 50 ppm |
| | | | | | | | n-Butylbenzene | 50 ppm |
| | | | | | | | N-Propylbenzene | 50 ppm |
| | | | | | | | Naphthalene | 50 ppm |
| | | | | | | | o-Xylene | 50 ppm |
| | | | | | | | p-Isopropyltoluene | 50 ppm |
| | | | | | | | sec-Butylbenzene | 50 ppm |
| | | | | | | | Styrene | 50 ppm |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ppm |
| | | | | | | | tert-Butylbenzene | 50 ppm |
| | | | | | | | Tetrachloroethene | 50 ppm |
| | | | | | | | Toluene | 50 ppm |
| | | | | | | | trans-1,2-Dichloroethene | 50 ppm |
| | | | | | | | trans-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Trichloroethene | 50 ppm |
| | | | | | VMA178260POL2_00011 | 200 uL | Ethyl-t-butyl ether (ETBE) | 50 ppm |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ppm |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ppm |
| .VMA158260GAS2_00230 | 07/10/18 | | Restek, Lot A0128832 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET2_00042 | 06/27/18 | | Restek, Lot A0123880 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG2_00053 | 06/27/18 | | Restek, Lot A0120604 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL2_00011 | 06/27/18 | | Restek, Lot A0126826 | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNUSURR200_00176** | 02/09/18 | 01/09/18 | Methanol, Lot 4555167 | 1 mL | VMANU8260SUR1_00065 | 80 uL | 1,2-Dichloroethane-d4 (Surr) | 200 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 200 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 200 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 200 ug/mL |
| .VMANU8260SUR1_00065 | 06/19/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNUSURR50_00176** | 02/09/18 | 01/09/18 | Methanol, Lot 4555167 | 1 mL | VMANU8260SUR1_00065 | 20 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR1_00065 | 06/19/18 | Restek, Lot A0124069 | | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **WC3001ICV_00036** | 05/31/18 | 12/08/17 | Di Water, Lot 20171208 | 100 mL | WC2CHLORATE_00004 | 0.4 mL | Chlorate | 4.004 mg/L |
| | | | | | WC2CHLORITE_00019 | 0.4 mL | Chlorite | 4 mg/L |
| .WC2CHLORATE_00004 | 11/30/20 | Ultra Scientific, Lot CP-5286 | | | (Purchased Reagent) | | Chlorate | 1001 mg/L |
| .WC2CHLORITE_00019 | 05/31/18 | Ultra Scientific, Lot CR-24923 | | | (Purchased Reagent) | | Chlorite | 1000 mg/L |
| **WC3001LCS_00059** | 06/08/18 | 12/08/17 | Di Water, Lot 20171208 | 100 mL | WC1BROMATE_00008 | 0.1 mL | Bromate | 1 mg/L |
| | | | | | WC1CHLORATE_00009 | 0.4 mL | Chlorate | 4 mg/L |
| | | | | | WC1CHLORITE_00008 | 0.4 mL | Chlorite | 4 mg/L |
| | | | | | wcbromide_00014 | 0.1 mL | Bromide | 10 mg/L |
| .WC1BROMATE_00008 | 01/01/19 | O2Si, Lot 131599-4 | | | (Purchased Reagent) | | Bromate | 1000 mg/L |
| .WC1CHLORATE_00009 | 01/01/19 | O2Si, Lot 142627-2 | | | (Purchased Reagent) | | Chlorate | 1000 mg/L |
| .WC1CHLORITE_00008 | 11/27/19 | O2Si, Lot 146667-16 | | | (Purchased Reagent) | | Chlorite | 1000 mg/L |
| .wcbromide_00014 | 09/28/18 | Hgh Purity Standards, Lot 1615819 | | | (Purchased Reagent) | | Bromide | 10000 ug/mL |
| **WC314.INF10_00018** | 01/16/18 | 01/15/18 | DI water, Lot 20180115 | 50 mL | WCCLO41st-10_00013 | 0.05 mL | Perchlorate | 10 ppb |
| .WCCLO41st-10_00013 | 01/29/18 | 11/30/17 | Di Water, Lot 20171130 | 100 mL | WCCLO4-1st_00002 | 1 mL | Perchlorate | 10 mg/L |
| ..WCCLO4-1st_00002 | 01/30/18 | SPEX CERTIPREP, Lot 3-149CLO4-2Y | | | (Purchased Reagent) | | Perchlorate | 1000 mg/L |
| **WCCLO41st-10_00012** | 01/29/18 | 11/29/17 | Di Water, Lot 20171129 | 100 mL | WCCLO4-1st_00002 | 1 mL | Perchlorate | 10 mg/L |
| .WCCLO4-1st_00002 | 01/30/18 | SPEX CERTIPREP, Lot 3-149CLO4-2Y | | | (Purchased Reagent) | | Perchlorate | 1000 mg/L |
| **WCCLO4ICV10_00029** | 03/10/18 | 12/08/17 | Di Water, Lot 12/10/2017 | 100 mL | WCCLO4ICV_00016 | 1 mL | Perchlorate | 10.0002 mg/L |
| .WCCLO4ICV_00016 | 12/10/18 | 12/08/17 | Di Water, Lot 12/10/2017 | 250 mL | WCCLO4ICVSOLI_00002 | 0.3078 g | Perchlorate | 1000.02 mg/L |
| ..WCCLO4ICVSOLI_00002 | 06/01/22 | SPECTRUM, Lot 2FH0070 | | | (Purchased Reagent) | | Perchlorate | 0.81223 g/g |
| **WCCR6ICV5PPM_00051** | 11/02/17 | 10/02/17 | Di Water, Lot 20171002 | 50 mL | WCCR6ICV_00023 | 5 mL | Chromium, hexavalent | 4.99849 mg/L |
| .WCCR6ICV_00023 | 04/02/18 | 10/02/17 | Di Water, Lot 20170323 | 1000 mL | WCK2CR2O7_00003 | 0.1414 g | Chromium, hexavalent | 49.9849 mg/L |
| ..WCK2CR2O7_00003 | 03/22/22 | FISHER, Lot 166724 | | | (Purchased Reagent) | | Chromium, hexavalent | 0.3535 g/g |
| **WCCR6LCS5PPM_00098** | 10/21/17 | 09/21/17 | Di Water, Lot 201709021 | 50 mL | WCCR6LCS50PPM_00037 | 5 mL | Chromium, hexavalent | 5 mg/L |
| .WCCR6LCS50PPM_00037 | 12/03/17 | 06/05/17 | Di Water, Lot 20170605 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| ..WCCr6 K2Cr2O4_00009 | 04/30/19 | ERA, Lot 040416 | | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCCR6LCS5PPM_00103** | 01/26/18 | 12/26/17 | Di Water, Lot 20171226 | 50 mL | WCCR6LCS50PPM_00038 | 5 mL | Chromium, hexavalent | 5 mg/L |
| .WCCR6LCS50PPM_00038 | 05/21/18 | 11/21/17 | Di Water, Lot 20171121 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| ..WCCr6 K2Cr2O4_00009 | 04/30/19 | ERA, Lot 040416 | | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCDCA_00055** | 03/08/18 | 12/08/17 | Di Water, Lot 20171208 | 100 mL | WCKDCA_00003 | 0.065 g | Dichloroacetic acid(Surr) | 496.855 mg/L |
| .WCKDCA_00003 | 02/28/20 | Aldrich, Lot MKBR8264V | | | (Purchased Reagent) | | Dichloroacetic acid(Surr) | 0.764393 g/g |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **WCDCA_00056** | 03/26/18 | 12/26/17 | Di Water, Lot 20171226 | 100 mL | WCKDCA_00003 | 0.065 g | Dichloroacetic acid(Surr) | 496.855 mg/L |
| .WCKDCA_00003 | 02/28/20 | Aldrich, Lot MKBR8264V | | | (Purchased Reagent) | | Dichloroacetic acid(Surr) | 0.764393 g/g |

# Method 8260B Low Level

## Volatile Organic Compounds (GC/MS) by Method 8260B Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-VRX A ID: 0.25(mm)

| Client Sample ID | Lab Sample ID | DBFM # | TOL # | BFB # |
|---|---|---|---|---|
| VER-01I-C-BL | 440-200988-1 | 104 | 111 | 100 |
| Trip Blank | 440-200988-2 | 104 | 110 | 103 |
| VER-01I-C-12 | 440-200988-3 | 106 | 111 | 104 |
| | MB 440-452052/4 | 96 | 113 | 101 |
| | LCS 440-452052/5 | 101 | 108 | 100 |
| VER-01I-C-BL MS | 440-200988-1 MS | 100 | 107 | 101 |
| VER-01I-C-BL MSD | 440-200988-1 MSD | 101 | 108 | 101 |

| | QC LIMITS |
|---|---|
| DBFM = Dibromofluoromethane (Surr) | 76-132 |
| TOL = Toluene-d8 (Surr) | 80-128 |
| BFB = 4-Bromofluorobenzene (Surr) | 80-120 |

# Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: XGA16035.D

Lab ID: LCS 440-452052/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Acetone | 25.0 | 24.4 | 98 | 10-150 | |
| Benzene | 25.0 | 25.8 | 103 | 68-130 | |
| Bromobenzene | 25.0 | 28.2 | 113 | 70-130 | |
| Bromochloromethane | 25.0 | 26.7 | 107 | 70-130 | |
| Bromodichloromethane | 25.0 | 27.1 | 108 | 70-132 | |
| Bromoform | 25.0 | 27.0 | 108 | 60-148 | |
| Bromomethane | 25.0 | 23.2 | 93 | 64-139 | |
| 2-Butanone (MEK) | 25.0 | 24.7 | 99 | 44-150 | |
| Carbon tetrachloride | 25.0 | 26.4 | 106 | 60-150 | |
| Chlorobenzene | 25.0 | 24.7 | 99 | 70-130 | |
| Chloroethane | 25.0 | 24.7 | 99 | 64-135 | |
| Chloroform | 25.0 | 25.6 | 102 | 70-130 | |
| Chloromethane | 25.0 | 24.1 | 97 | 47-140 | |
| 2-Chlorotoluene | 25.0 | 27.2 | 109 | 70-130 | |
| 4-Chlorotoluene | 25.0 | 28.1 | 112 | 70-130 | |
| cis-1,2-Dichloroethene | 25.0 | 26.5 | 106 | 70-133 | |
| cis-1,3-Dichloropropene | 25.0 | 28.2 | 113 | 70-133 | |
| Dibromochloromethane | 25.0 | 26.9 | 108 | 69-145 | |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 26.9 | 108 | 52-140 | |
| 1,2-Dibromoethane (EDB) | 25.0 | 27.2 | 109 | 70-130 | |
| Dibromomethane | 25.0 | 26.0 | 104 | 70-130 | |
| 1,2-Dichlorobenzene | 25.0 | 26.2 | 105 | 70-130 | |
| 1,3-Dichlorobenzene | 25.0 | 25.9 | 104 | 70-130 | |
| 1,4-Dichlorobenzene | 25.0 | 25.5 | 102 | 70-130 | |
| Dichlorodifluoromethane | 25.0 | 25.2 | 101 | 29-150 | |
| 1,1-Dichloroethane | 25.0 | 25.1 | 101 | 64-130 | |
| 1,2-Dichloroethane | 25.0 | 25.8 | 103 | 57-138 | |
| 1,1-Dichloroethene | 25.0 | 24.4 | 98 | 70-130 | |
| 1,2-Dichloropropane | 25.0 | 26.2 | 105 | 67-130 | |
| 1,3-Dichloropropane | 25.0 | 26.4 | 106 | 70-130 | |
| 2,2-Dichloropropane | 25.0 | 26.6 | 106 | 68-141 | |
| 1,1-Dichloropropene | 25.0 | 28.1 | 113 | 70-130 | |
| Ethylbenzene | 25.0 | 26.9 | 108 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 27.0 | 108 | 60-136 | |
| Hexachlorobutadiene | 25.0 | 25.8 | 103 | 10-150 | |
| 2-Hexanone | 25.0 | 28.5 | 114 | 10-150 | |
| Isopropylbenzene | 25.0 | 29.3 | 117 | 70-136 | |
| Isopropyl Ether (DIPE) | 25.0 | 26.8 | 107 | 58-139 | |
| Methylene Chloride | 25.0 | 22.7 | 91 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 28.2 | 113 | 59-149 | |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 27.1 | 108 | 63-131 | |
| m,p-Xylene | 25.0 | 28.7 | 115 | 70-130 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: XGA16035.D

Lab ID: LCS 440-452052/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Naphthalene | 25.0 | 30.0 | 120 | 60-140 | |
| n-Butylbenzene | 25.0 | 29.2 | 117 | 65-150 | |
| N-Propylbenzene | 25.0 | 29.3 | 117 | 67-139 | |
| o-Xylene | 25.0 | 29.2 | 117 | 70-130 | |
| p-Isopropyltoluene | 25.0 | 28.8 | 115 | 70-132 | |
| sec-Butylbenzene | 25.0 | 28.7 | 115 | 70-138 | |
| Styrene | 25.0 | 27.8 | 111 | 70-134 | |
| Tert-amyl-methyl ether (TAME) | 25.0 | 26.0 | 104 | 57-139 | |
| tert-Butyl alcohol (TBA) | 250 | 271 | 108 | 70-130 | |
| tert-Butylbenzene | 25.0 | 29.3 | 117 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 25.0 | 26.8 | 107 | 60-141 | |
| 1,1,2,2-Tetrachloroethane | 25.0 | 26.4 | 106 | 63-130 | |
| Tetrachloroethene | 25.0 | 27.3 | 109 | 70-130 | |
| Toluene | 25.0 | 26.8 | 107 | 70-130 | |
| trans-1,2-Dichloroethene | 25.0 | 27.7 | 111 | 70-130 | |
| trans-1,3-Dichloropropene | 25.0 | 27.7 | 111 | 70-132 | |
| 1,2,3-Trichlorobenzene | 25.0 | 27.4 | 109 | 60-140 | |
| 1,2,4-Trichlorobenzene | 25.0 | 27.4 | 109 | 60-140 | |
| 1,1,1-Trichloroethane | 25.0 | 26.1 | 105 | 70-130 | |
| 1,1,2-Trichloroethane | 25.0 | 27.4 | 110 | 70-130 | |
| Trichloroethene | 25.0 | 27.4 | 109 | 70-130 | |
| Trichlorofluoromethane | 25.0 | 26.2 | 105 | 60-150 | |
| 1,2,3-Trichloropropane | 25.0 | 25.9 | 104 | 63-130 | |
| 1,2,4-Trimethylbenzene | 25.0 | 28.9 | 116 | 70-135 | |
| 1,3,5-Trimethylbenzene | 25.0 | 29.4 | 118 | 70-136 | |
| Vinyl chloride | 25.0 | 24.6 | 98 | 59-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: XGA16037.D

Lab ID: 440-200988-1 MS Client ID: VER-01I-C-BL MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Acetone | 250 | ND | 219 | 88 | 10-150 | |
| Benzene | 250 | ND | 259 | 104 | 66-130 | |
| Bromobenzene | 250 | ND | 275 | 110 | 70-130 | |
| Bromochloromethane | 250 | ND | 268 | 107 | 70-130 | |
| Bromodichloromethane | 250 | ND | 276 | 110 | 70-138 | |
| Bromoform | 250 | ND | 262 | 105 | 59-150 | |
| Bromomethane | 250 | ND | 234 | 93 | 62-131 | |
| 2-Butanone (MEK) | 250 | ND | 231 | 92 | 48-140 | |
| Carbon tetrachloride | 250 | ND | 261 | 105 | 60-150 | |
| Chlorobenzene | 250 | ND | 247 | 99 | 70-130 | |
| Chloroethane | 250 | ND | 245 | 98 | 68-130 | |
| Chloroform | 250 | 470 | 702 | 92 | 70-130 | |
| Chloromethane | 250 | ND | 238 | 95 | 39-144 | |
| 2-Chlorotoluene | 250 | ND | 271 | 108 | 70-130 | |
| 4-Chlorotoluene | 250 | ND | 284 | 113 | 70-130 | |
| cis-1,2-Dichloroethene | 250 | ND | 267 | 107 | 70-130 | |
| cis-1,3-Dichloropropene | 250 | ND | 272 | 109 | 70-133 | |
| Dibromochloromethane | 250 | ND | 261 | 104 | 70-148 | |
| 1,2-Dibromo-3-Chloropropane | 250 | ND | 242 | 97 | 48-140 | |
| 1,2-Dibromoethane (EDB) | 250 | ND | 263 | 105 | 70-131 | |
| Dibromomethane | 250 | ND | 261 | 104 | 70-130 | |
| 1,2-Dichlorobenzene | 250 | 2.8 J | 266 | 105 | 70-130 | |
| 1,3-Dichlorobenzene | 250 | ND | 260 | 104 | 70-130 | |
| 1,4-Dichlorobenzene | 250 | ND | 257 | 103 | 70-130 | |
| Dichlorodifluoromethane | 250 | ND | 245 | 98 | 25-142 | |
| 1,1-Dichloroethane | 250 | ND | 247 | 99 | 65-130 | |
| 1,2-Dichloroethane | 250 | ND | 262 | 105 | 56-146 | |
| 1,1-Dichloroethene | 250 | ND | 247 | 99 | 70-130 | |
| 1,2-Dichloropropane | 250 | ND | 265 | 106 | 69-130 | |
| 1,3-Dichloropropane | 250 | ND | 260 | 104 | 70-130 | |
| 2,2-Dichloropropane | 250 | ND | 269 | 108 | 69-138 | |
| 1,1-Dichloropropene | 250 | ND | 283 | 113 | 64-130 | |
| Ethylbenzene | 250 | ND | 263 | 105 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 250 | ND | 276 | 110 | 70-130 | |
| Hexachlorobutadiene | 250 | ND | 257 | 103 | 10-150 | |
| 2-Hexanone | 250 | ND | 264 | 106 | 10-150 | |
| Isopropylbenzene | 250 | ND | 287 | 115 | 70-132 | |
| Isopropyl Ether (DIPE) | 250 | ND | 273 | 109 | 64-138 | |
| Methylene Chloride | 250 | ND | 231 | 92 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 250 | ND | 264 | 105 | 52-150 | |
| Methyl-t-Butyl Ether (MTBE) | 250 | ND | 273 | 109 | 70-130 | |
| m,p-Xylene | 250 | ND | 282 | 113 | 70-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: XGA16037.D

Lab ID: 440-200988-1 MS Client ID: VER-01I-C-BL MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Naphthalene | 250 | ND | 282 | 113 | 60-140 | |
| n-Butylbenzene | 250 | ND | 292 | 117 | 61-149 | |
| N-Propylbenzene | 250 | ND | 290 | 116 | 66-135 | |
| o-Xylene | 250 | ND | 287 | 115 | 70-133 | |
| p-Isopropyltoluene | 250 | ND | 284 | 114 | 70-130 | |
| sec-Butylbenzene | 250 | ND | 284 | 114 | 67-134 | |
| Styrene | 250 | ND | 257 | 103 | 29-150 | |
| Tert-amyl-methyl ether (TAME) | 250 | ND | 263 | 105 | 68-133 | |
| tert-Butyl alcohol (TBA) | 2500 | ND | 2700 | 108 | 70-130 | |
| tert-Butylbenzene | 250 | ND | 290 | 116 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 250 | ND | 273 | 109 | 60-149 | |
| 1,1,2,2-Tetrachloroethane | 250 | ND | 250 | 100 | 63-130 | |
| Tetrachloroethene | 250 | ND | 267 | 107 | 70-137 | |
| Toluene | 250 | ND | 263 | 105 | 70-130 | |
| trans-1,2-Dichloroethene | 250 | ND | 277 | 111 | 70-130 | |
| trans-1,3-Dichloropropene | 250 | ND | 272 | 109 | 70-138 | |
| 1,2,3-Trichlorobenzene | 250 | ND | 276 | 111 | 60-140 | |
| 1,2,4-Trichlorobenzene | 250 | ND | 273 | 109 | 60-140 | |
| 1,1,1-Trichloroethane | 250 | ND | 261 | 105 | 70-130 | |
| 1,1,2-Trichloroethane | 250 | ND | 263 | 105 | 70-130 | |
| Trichloroethene | 250 | ND | 271 | 108 | 70-130 | |
| Trichlorofluoromethane | 250 | ND | 260 | 104 | 60-150 | |
| 1,2,3-Trichloropropane | 250 | ND | 247 | 99 | 60-130 | |
| 1,2,4-Trimethylbenzene | 250 | ND | 288 | 115 | 70-130 | |
| 1,3,5-Trimethylbenzene | 250 | ND | 287 | 115 | 70-130 | |
| Vinyl chloride | 250 | ND | 244 | 98 | 50-137 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: XGA16038.D

Lab ID: 440-200988-1 MSD Client ID: VER-01I-C-BL MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Acetone | 250 | 232 | 93 | 6 | 35 | 10-150 | |
| Benzene | 250 | 262 | 105 | 1 | 20 | 66-130 | |
| Bromobenzene | 250 | 277 | 111 | 1 | 20 | 70-130 | |
| Bromochloromethane | 250 | 269 | 108 | 0 | 25 | 70-130 | |
| Bromodichloromethane | 250 | 278 | 111 | 1 | 20 | 70-138 | |
| Bromoform | 250 | 260 | 104 | 1 | 25 | 59-150 | |
| Bromomethane | 250 | 233 | 93 | 0 | 25 | 62-131 | |
| 2-Butanone (MEK) | 250 | 216 | 87 | 6 | 40 | 48-140 | |
| Carbon tetrachloride | 250 | 259 | 104 | 1 | 25 | 60-150 | |
| Chlorobenzene | 250 | 250 | 100 | 1 | 20 | 70-130 | |
| Chloroethane | 250 | 245 | 98 | 0 | 25 | 68-130 | |
| Chloroform | 250 | 704 | 92 | 0 | 20 | 70-130 | |
| Chloromethane | 250 | 237 | 95 | 1 | 25 | 39-144 | |
| 2-Chlorotoluene | 250 | 272 | 109 | 0 | 20 | 70-130 | |
| 4-Chlorotoluene | 250 | 282 | 113 | 1 | 20 | 70-130 | |
| cis-1,2-Dichloroethene | 250 | 269 | 108 | 1 | 20 | 70-130 | |
| cis-1,3-Dichloropropene | 250 | 279 | 112 | 2 | 20 | 70-133 | |
| Dibromochloromethane | 250 | 272 | 109 | 4 | 25 | 70-148 | |
| 1,2-Dibromo-3-Chloropropane | 250 | 228 | 91 | 6 | 30 | 48-140 | |
| 1,2-Dibromoethane (EDB) | 250 | 264 | 106 | 1 | 25 | 70-131 | |
| Dibromomethane | 250 | 254 | 102 | 3 | 25 | 70-130 | |
| 1,2-Dichlorobenzene | 250 | 265 | 105 | 0 | 20 | 70-130 | |
| 1,3-Dichlorobenzene | 250 | 259 | 104 | 0 | 20 | 70-130 | |
| 1,4-Dichlorobenzene | 250 | 254 | 102 | 1 | 20 | 70-130 | |
| Dichlorodifluoromethane | 250 | 254 | 102 | 4 | 30 | 25-142 | |
| 1,1-Dichloroethane | 250 | 256 | 102 | 3 | 20 | 65-130 | |
| 1,2-Dichloroethane | 250 | 261 | 104 | 0 | 20 | 56-146 | |
| 1,1-Dichloroethene | 250 | 239 | 96 | 3 | 20 | 70-130 | |
| 1,2-Dichloropropane | 250 | 270 | 108 | 2 | 20 | 69-130 | |
| 1,3-Dichloropropane | 250 | 263 | 105 | 1 | 25 | 70-130 | |
| 2,2-Dichloropropane | 250 | 269 | 108 | 0 | 25 | 69-138 | |
| 1,1-Dichloropropene | 250 | 281 | 112 | 1 | 20 | 64-130 | |
| Ethylbenzene | 250 | 270 | 108 | 3 | 20 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 250 | 285 | 114 | 3 | 25 | 70-130 | |
| Hexachlorobutadiene | 250 | 248 | 99 | 3 | 20 | 10-150 | |
| 2-Hexanone | 250 | 240 | 96 | 10 | 35 | 10-150 | |
| Isopropylbenzene | 250 | 292 | 117 | 2 | 20 | 70-132 | |
| Isopropyl Ether (DIPE) | 250 | 279 | 112 | 2 | 25 | 64-138 | |
| Methylene Chloride | 250 | 233 | 93 | 1 | 20 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 250 | 244 | 98 | 8 | 35 | 52-150 | |
| Methyl-t-Butyl Ether (MTBE) | 250 | 275 | 110 | 1 | 25 | 70-130 | |
| m,p-Xylene | 250 | 290 | 116 | 3 | 25 | 70-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: XGA16038.D

Lab ID: 440-200988-1 MSD Client ID: VER-01I-C-BL MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Naphthalene | 250 | 275 | 110 | 3 | 30 | 60-140 | |
| n-Butylbenzene | 250 | 290 | 116 | 1 | 20 | 61-149 | |
| N-Propylbenzene | 250 | 289 | 116 | 1 | 20 | 66-135 | |
| o-Xylene | 250 | 297 | 119 | 3 | 20 | 70-133 | |
| p-Isopropyltoluene | 250 | 282 | 113 | 1 | 20 | 70-130 | |
| sec-Butylbenzene | 250 | 279 | 111 | 2 | 20 | 67-134 | |
| Styrene | 250 | 264 | 106 | 3 | 35 | 29-150 | |
| Tert-amyl-methyl ether (TAME) | 250 | 267 | 107 | 2 | 30 | 68-133 | |
| tert-Butyl alcohol (TBA) | 2500 | 2710 | 109 | 0 | 25 | 70-130 | |
| tert-Butylbenzene | 250 | 287 | 115 | 1 | 20 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 250 | 272 | 109 | 0 | 20 | 60-149 | |
| 1,1,2,2-Tetrachloroethane | 250 | 243 | 97 | 3 | 30 | 63-130 | |
| Tetrachloroethene | 250 | 267 | 107 | 0 | 20 | 70-137 | |
| Toluene | 250 | 265 | 106 | 1 | 20 | 70-130 | |
| trans-1,2-Dichloroethene | 250 | 274 | 110 | 1 | 20 | 70-130 | |
| trans-1,3-Dichloropropene | 250 | 282 | 113 | 4 | 25 | 70-138 | |
| 1,2,3-Trichlorobenzene | 250 | 272 | 109 | 2 | 20 | 60-140 | |
| 1,2,4-Trichlorobenzene | 250 | 272 | 109 | 0 | 20 | 60-140 | |
| 1,1,1-Trichloroethane | 250 | 256 | 102 | 2 | 20 | 70-130 | |
| 1,1,2-Trichloroethane | 250 | 266 | 106 | 1 | 25 | 70-130 | |
| Trichloroethene | 250 | 269 | 107 | 1 | 20 | 70-130 | |
| Trichlorofluoromethane | 250 | 241 | 96 | 8 | 25 | 60-150 | |
| 1,2,3-Trichloropropane | 250 | 234 | 94 | 5 | 30 | 60-130 | |
| 1,2,4-Trimethylbenzene | 250 | 290 | 116 | 1 | 25 | 70-130 | |
| 1,3,5-Trimethylbenzene | 250 | 289 | 116 | 1 | 20 | 70-130 | |
| Vinyl chloride | 250 | 245 | 98 | 0 | 30 | 50-137 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab File ID: XGA16034.D Lab Sample ID: MB 440-452052/4

Matrix: Water Heated Purge:(Y/N) Y

Instrument ID: GCMS59 Date Analyzed: 01/16/2018 19:11

GC Column: DB-VRX A ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 440-452052/5 | XGA16035.D | 01/16/2018 19:39 |
| VER-01I-C-BL | 440-200988-1 | XGA16036.D | 01/16/2018 20:06 |
| VER-01I-C-BL MS | 440-200988-1 MS | XGA16037.D | 01/16/2018 20:34 |
| VER-01I-C-BL MSD | 440-200988-1 MSD | XGA16038.D | 01/16/2018 21:01 |
| VER-01I-C-12 | 440-200988-3 | XGA16039.D | 01/16/2018 21:28 |
| Trip Blank | 440-200988-2 | XGA16040.D | 01/16/2018 21:56 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Lab File ID: XGA13001.D  BFB Injection Date: 01/13/2018

Instrument ID: GCMS59  BFB Injection Time: 14:13

Analysis Batch No.: 451572

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 22.0 | |
| 75 | 30.0 - 60.0 % of mass 95 | 49.2 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 6.9 | |
| 173 | Less than 2.0 % of mass 174 | 0.1 | (0.1) 1 |
| 174 | 50.0 - 120.00 % of mass 95 | 110.2 | |
| 175 | 5.0 - 9.0 % of mass 174 | 8.3 | (7.6) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 106.6 | (96.7) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 7.3 | (6.8) 2 |

1-Value is % mass 174  2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | STD02 440-451572/4 | XGA13004.D | 01/13/2018 | 15:49 |
| | STD04 440-451572/5 | XGA13005.D | 01/13/2018 | 16:17 |
| | STD05 440-451572/6 | XGA13006.D | 01/13/2018 | 16:44 |
| | STD1 440-451572/7 | XGA13007.D | 01/13/2018 | 17:12 |
| | STD2 440-451572/8 | XGA13008.D | 01/13/2018 | 17:39 |
| | STD5 440-451572/9 | XGA13009.D | 01/13/2018 | 18:06 |
| | STD10 440-451572/10 | XGA13010.D | 01/13/2018 | 18:34 |
| | ICIS 440-451572/11 | XGA13011.D | 01/13/2018 | 19:01 |
| | STD50 440-451572/12 | XGA13012.D | 01/13/2018 | 19:29 |
| | STD100 440-451572/13 | XGA13013.D | 01/13/2018 | 19:56 |
| | STD200 440-451572/14 | XGA13014.D | 01/13/2018 | 20:24 |
| | STD300 440-451572/15 | XGA13015.D | 01/13/2018 | 20:51 |
| | ICV 440-451572/18 | XGA13018.D | 01/13/2018 | 22:13 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Lab File ID: XGA16031.D  BFB Injection Date: 01/16/2018

Instrument ID: GCMS59  BFB Injection Time: 17:41

Analysis Batch No.: 452052

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 21.5 | |
| 75 | 30.0 - 60.0 % of mass 95 | 50.0 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 7.4 | |
| 173 | Less than 2.0 % of mass 174 | 0.0 | (0.0) 1 |
| 174 | 50.0 - 120.00 % of mass 95 | 111.3 | |
| 175 | 5.0 - 9.0 % of mass 174 | 8.6 | (7.8) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 108.0 | (97.1) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 7.4 | (6.9) 2 |

1-Value is % mass 174  2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | CCVIS 440-452052/2 | XGA16032.D | 01/16/2018 | 18:07 |
| | MB 440-452052/4 | XGA16034.D | 01/16/2018 | 19:11 |
| | LCS 440-452052/5 | XGA16035.D | 01/16/2018 | 19:39 |
| VER-01I-C-BL | 440-200988-1 | XGA16036.D | 01/16/2018 | 20:06 |
| VER-01I-C-BL MS | 440-200988-1 MS | XGA16037.D | 01/16/2018 | 20:34 |
| VER-01I-C-BL MSD | 440-200988-1 MSD | XGA16038.D | 01/16/2018 | 21:01 |
| VER-01I-C-12 | 440-200988-3 | XGA16039.D | 01/16/2018 | 21:28 |
| Trip Blank | 440-200988-2 | XGA16040.D | 01/16/2018 | 21:56 |

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Sample No.: ICIS 440-451572/11 Date Analyzed: 01/13/2018 19:01

Instrument ID: GCMS59 GC Column: DB-VRX A ID: 0.25(mm)

Lab File ID (Standard): XGA13011.D Heated Purge: (Y/N) Y

Calibration ID: 18402

| | | TBAd9 | | FB | | CBNZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 383870 | 3.53 | 1335441 | 6.72 | 1156436 | 9.99 |
| UPPER LIMIT | | 767740 | 3.83 | 2670882 | 7.02 | 2312872 | 10.29 |
| LOWER LIMIT | | 191935 | 3.23 | 667721 | 6.42 | 578218 | 9.69 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 440-451572/18 | | 483586 | 3.53 | 1500469 | 6.72 | 1300796 | 9.99 |
| CCVIS 440-452052/2 | | 350664 | 3.53 | 1252796 | 6.72 | 1105029 | 9.99 |

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Sample No.: ICIS 440-451572/11  Date Analyzed: 01/13/2018 19:01

Instrument ID: GCMS59  GC Column: DB-VRX A  ID: 0.25(mm)

Lab File ID (Standard): XGA13011.D  Heated Purge: (Y/N) Y

Calibration ID: 18402

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 793581 | 13.25 | | | | |
| UPPER LIMIT | | 1587162 | 13.55 | | | | |
| LOWER LIMIT | | 396791 | 12.95 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 440-451572/18 | | 851397 | 13.25 | | | | |
| CCVIS 440-452052/2 | | 717112 | 13.25 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Sample No.: CCVIS 440-452052/2 Date Analyzed: 01/16/2018 18:07

Instrument ID: GCMS59 GC Column: DB-VRX A ID: 0.25(mm)

Lab File ID (Standard): XGA16032.D Heated Purge: (Y/N) Y

Calibration ID: 18402

| | | TBAd9 | | FB | | CBNZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 350664 | 3.53 | 1252796 | 6.72 | 1105029 | 9.99 |
| UPPER LIMIT | | 701328 | 3.83 | 2505592 | 7.02 | 2210058 | 10.29 |
| LOWER LIMIT | | 175332 | 3.23 | 626398 | 6.42 | 552515 | 9.69 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 440-452052/4 | | 380247 | 3.53 | 1172047 | 6.72 | 902168 | 9.99 |
| LCS 440-452052/5 | | 368928 | 3.53 | 1155262 | 6.72 | 981138 | 9.99 |
| 440-200988-1 | VER-01I-C-BL | 344687 | 3.53 | 1274902 | 6.72 | 1060379 | 10.00 |
| 440-200988-1 MS | VER-01I-C-BL MS | 362129 | 3.53 | 1286732 | 6.72 | 1126601 | 9.99 |
| 440-200988-1 MSD | VER-01I-C-BL MSD | 337341 | 3.53 | 1341612 | 6.72 | 1156394 | 9.99 |
| 440-200988-3 | VER-01I-C-12 | 481365 | 3.53 | 1194022 | 6.72 | 968245 | 9.99 |
| 440-200988-2 | Trip Blank | 322434 | 3.53 | 1249304 | 6.72 | 1057430 | 9.99 |

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Sample No.: CCVIS 440-452052/2 Date Analyzed: 01/16/2018 18:07

Instrument ID: GCMS59 GC Column: DB-VRX A ID: 0.25(mm)

Lab File ID (Standard): XGA16032.D Heated Purge: (Y/N) Y

Calibration ID: 18402

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 717112 | 13.25 | | | | |
| UPPER LIMIT | | 1434224 | 13.55 | | | | |
| LOWER LIMIT | | 358556 | 12.95 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 440-452052/4 | | 585834 | 13.25 | | | | |
| LCS 440-452052/5 | | 667587 | 13.25 | | | | |
| 440-200988-1 | VER-01I-C-BL | 705195 | 13.25 | | | | |
| 440-200988-1 MS | VER-01I-C-BL MS | 759416 | 13.25 | | | | |
| 440-200988-1 MSD | VER-01I-C-BL MSD | 794804 | 13.25 | | | | |
| 440-200988-3 | VER-01I-C-12 | 627705 | 13.25 | | | | |
| 440-200988-2 | Trip Blank | 693394 | 13.25 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: VER-01I-C-BL | Lab Sample ID: 440-200988-1

Matrix: Water | Lab File ID: XGA16036.D

Analysis Method: 8260B | Date Collected: 01/15/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 20:06

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452052 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 200 | 100 |
| 71-43-2 | Benzene | ND | | 5.0 | 2.5 |
| 108-86-1 | Bromobenzene | ND | | 5.0 | 2.5 |
| 74-97-5 | Bromochloromethane | ND | | 5.0 | 2.5 |
| 75-27-4 | Bromodichloromethane | ND | | 5.0 | 2.5 |
| 75-25-2 | Bromoform | ND | | 10 | 4.0 |
| 74-83-9 | Bromomethane | ND | | 5.0 | 2.5 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 50 | 25 |
| 56-23-5 | Carbon tetrachloride | ND | | 5.0 | 2.5 |
| 108-90-7 | Chlorobenzene | ND | | 5.0 | 2.5 |
| 75-00-3 | Chloroethane | ND | | 10 | 4.0 |
| 67-66-3 | Chloroform | 470 | | 5.0 | 2.5 |
| 74-87-3 | Chloromethane | ND | | 5.0 | 2.5 |
| 95-49-8 | 2-Chlorotoluene | ND | | 5.0 | 2.5 |
| 106-43-4 | 4-Chlorotoluene | ND | | 5.0 | 2.5 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 5.0 | 2.5 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 5.0 | 2.5 |
| 124-48-1 | Dibromochloromethane | ND | | 5.0 | 2.5 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 10 | 5.0 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 5.0 | 2.5 |
| 74-95-3 | Dibromomethane | ND | | 5.0 | 2.5 |
| 95-50-1 | 1,2-Dichlorobenzene | 2.8 | J | 5.0 | 2.5 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 5.0 | 2.5 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 5.0 | 2.5 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 10 | 4.0 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 5.0 | 2.5 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 5.0 | 2.5 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 5.0 | 2.5 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 5.0 | 2.5 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 5.0 | 2.5 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 10 | 4.0 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 5.0 | 2.5 |
| 100-41-4 | Ethylbenzene | ND | | 5.0 | 2.5 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 5.0 | 2.5 |
| 87-68-3 | Hexachlorobutadiene | ND | | 5.0 | 2.5 |
| 591-78-6 | 2-Hexanone | ND | | 50 | 25 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: VER-01I-C-BL | Lab Sample ID: 440-200988-1

Matrix: Water | Lab File ID: XGA16036.D

Analysis Method: 8260B | Date Collected: 01/15/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 20:06

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452052 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 5.0 | 2.5 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 5.0 | 2.5 |
| 75-09-2 | Methylene Chloride | ND | | 20 | 8.8 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 50 | 25 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 5.0 | 2.5 |
| 179601-23-1 | m,p-Xylene | ND | | 10 | 5.0 |
| 91-20-3 | Naphthalene | ND | | 10 | 4.0 |
| 104-51-8 | n-Butylbenzene | ND | | 10 | 4.0 |
| 103-65-1 | N-Propylbenzene | ND | | 5.0 | 2.5 |
| 95-47-6 | o-Xylene | ND | | 5.0 | 2.5 |
| 99-87-6 | p-Isopropyltoluene | ND | | 5.0 | 2.5 |
| 135-98-8 | sec-Butylbenzene | ND | | 5.0 | 2.5 |
| 100-42-5 | Styrene | ND | | 5.0 | 2.5 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 5.0 | 2.5 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 100 | 50 |
| 98-06-6 | tert-Butylbenzene | ND | | 5.0 | 2.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 5.0 | 2.5 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 5.0 | 2.5 |
| 127-18-4 | Tetrachloroethene | ND | | 5.0 | 2.5 |
| 108-88-3 | Toluene | ND | | 5.0 | 2.5 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 5.0 | 2.5 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 5.0 | 2.5 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 10 | 4.0 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 10 | 4.0 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 5.0 | 2.5 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 5.0 | 2.5 |
| 79-01-6 | Trichloroethene | ND | | 5.0 | 2.5 |
| 75-69-4 | Trichlorofluoromethane | ND | | 5.0 | 2.5 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 10 | 4.0 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 5.0 | 2.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 5.0 | 2.5 |
| 75-01-4 | Vinyl chloride | ND | | 5.0 | 2.5 |
| 1330-20-7 | Xylenes, Total | ND | | 10 | 5.0 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Client Sample ID: VER-01I-C-BL Lab Sample ID: 440-200988-1

Matrix: Water Lab File ID: XGA16036.D

Analysis Method: 8260B Date Collected: 01/15/2018 03:30

Sample wt/vol: 10(mL) Date Analyzed: 01/16/2018 20:06

Soil Aliquot Vol: Dilution Factor: 10

Soil Extract Vol.: GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452052 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 100 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 104 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 111 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: Trip Blank | Lab Sample ID: 440-200988-2

Matrix: Water | Lab File ID: XGA16040.D

Analysis Method: 8260B | Date Collected: 01/15/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 21:56

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452052 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | ND | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: Trip Blank | Lab Sample ID: 440-200988-2

Matrix: Water | Lab File ID: XGA16040.D

Analysis Method: 8260B | Date Collected: 01/15/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 21:56

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452052 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Client Sample ID: Trip Blank Lab Sample ID: 440-200988-2

Matrix: Water Lab File ID: XGA16040.D

Analysis Method: 8260B Date Collected: 01/15/2018 03:30

Sample wt/vol: 10(mL) Date Analyzed: 01/16/2018 21:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452052 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 103 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 104 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 110 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: VER-01I-C-12 | Lab Sample ID: 440-200988-3

Matrix: Water | Lab File ID: XGA16039.D

Analysis Method: 8260B | Date Collected: 01/15/2018 15:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 21:28

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452052 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 200 | 100 |
| 71-43-2 | Benzene | ND | | 5.0 | 2.5 |
| 108-86-1 | Bromobenzene | ND | | 5.0 | 2.5 |
| 74-97-5 | Bromochloromethane | ND | | 5.0 | 2.5 |
| 75-27-4 | Bromodichloromethane | ND | | 5.0 | 2.5 |
| 75-25-2 | Bromoform | ND | | 10 | 4.0 |
| 74-83-9 | Bromomethane | ND | | 5.0 | 2.5 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 50 | 25 |
| 56-23-5 | Carbon tetrachloride | ND | | 5.0 | 2.5 |
| 108-90-7 | Chlorobenzene | ND | | 5.0 | 2.5 |
| 75-00-3 | Chloroethane | ND | | 10 | 4.0 |
| 67-66-3 | Chloroform | 710 | | 5.0 | 2.5 |
| 74-87-3 | Chloromethane | ND | | 5.0 | 2.5 |
| 95-49-8 | 2-Chlorotoluene | ND | | 5.0 | 2.5 |
| 106-43-4 | 4-Chlorotoluene | ND | | 5.0 | 2.5 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 5.0 | 2.5 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 5.0 | 2.5 |
| 124-48-1 | Dibromochloromethane | ND | | 5.0 | 2.5 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 10 | 5.0 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 5.0 | 2.5 |
| 74-95-3 | Dibromomethane | ND | | 5.0 | 2.5 |
| 95-50-1 | 1,2-Dichlorobenzene | 5.3 | | 5.0 | 2.5 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 5.0 | 2.5 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 5.0 | 2.5 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 10 | 4.0 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 5.0 | 2.5 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 5.0 | 2.5 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 5.0 | 2.5 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 5.0 | 2.5 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 5.0 | 2.5 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 10 | 4.0 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 5.0 | 2.5 |
| 100-41-4 | Ethylbenzene | ND | | 5.0 | 2.5 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 5.0 | 2.5 |
| 87-68-3 | Hexachlorobutadiene | ND | | 5.0 | 2.5 |
| 591-78-6 | 2-Hexanone | ND | | 50 | 25 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: VER-01I-C-12 | Lab Sample ID: 440-200988-3

Matrix: Water | Lab File ID: XGA16039.D

Analysis Method: 8260B | Date Collected: 01/15/2018 15:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 21:28

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452052 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 5.0 | 2.5 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 5.0 | 2.5 |
| 75-09-2 | Methylene Chloride | ND | | 20 | 8.8 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 50 | 25 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 5.0 | 2.5 |
| 179601-23-1 | m,p-Xylene | ND | | 10 | 5.0 |
| 91-20-3 | Naphthalene | ND | | 10 | 4.0 |
| 104-51-8 | n-Butylbenzene | ND | | 10 | 4.0 |
| 103-65-1 | N-Propylbenzene | ND | | 5.0 | 2.5 |
| 95-47-6 | o-Xylene | ND | | 5.0 | 2.5 |
| 99-87-6 | p-Isopropyltoluene | ND | | 5.0 | 2.5 |
| 135-98-8 | sec-Butylbenzene | ND | | 5.0 | 2.5 |
| 100-42-5 | Styrene | ND | | 5.0 | 2.5 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 5.0 | 2.5 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 100 | 50 |
| 98-06-6 | tert-Butylbenzene | ND | | 5.0 | 2.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 5.0 | 2.5 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 5.0 | 2.5 |
| 127-18-4 | Tetrachloroethene | ND | | 5.0 | 2.5 |
| 108-88-3 | Toluene | ND | | 5.0 | 2.5 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 5.0 | 2.5 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 5.0 | 2.5 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 10 | 4.0 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 10 | 4.0 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 5.0 | 2.5 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 5.0 | 2.5 |
| 79-01-6 | Trichloroethene | ND | | 5.0 | 2.5 |
| 75-69-4 | Trichlorofluoromethane | ND | | 5.0 | 2.5 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 10 | 4.0 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 5.0 | 2.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 5.0 | 2.5 |
| 75-01-4 | Vinyl chloride | ND | | 5.0 | 2.5 |
| 1330-20-7 | Xylenes, Total | ND | | 10 | 5.0 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Client Sample ID: VER-01I-C-12 Lab Sample ID: 440-200988-3

Matrix: Water Lab File ID: XGA16039.D

Analysis Method: 8260B Date Collected: 01/15/2018 15:30

Sample wt/vol: 10(mL) Date Analyzed: 01/16/2018 21:28

Soil Aliquot Vol: Dilution Factor: 10

Soil Extract Vol.: GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452052 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 104 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 106 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 111 | | 80-128 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 451572

SDG No.:

Instrument ID: GCMS59 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 01/13/2018 15:49 Calibration End Date: 01/13/2018 20:51 Calibration ID: 18402

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD02 440-451572/4 | XGA13004.D |
| Level 2 | STD04 440-451572/5 | XGA13005.D |
| Level 3 | STD05 440-451572/6 | XGA13006.D |
| Level 4 | STD1 440-451572/7 | XGA13007.D |
| Level 5 | STD2 440-451572/8 | XGA13008.D |
| Level 6 | STD5 440-451572/9 | XGA13009.D |
| Level 7 | STD10 440-451572/10 | XGA13010.D |
| Level 8 | ICIS 440-451572/11 | XGA13011.D |
| Level 9 | STD50 440-451572/12 | XGA13012.D |
| Level 10 | STD100 440-451572/13 | XGA13013.D |
| Level 11 | STD200 440-451572/14 | XGA13014.D |
| Level 12 | STD300 440-451572/15 | XGA13015.D |

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dichlorodifluoromethane | +++++<br>0.4453<br>0.4727 | +++++<br>0.4684<br>+++++ | 0.3873<br>0.4584 | 0.3546<br>0.4556 | 0.3801<br>0.4736 | Ave | | 0.4329 | | | | 10.6 | | 15.0 | | | |
| Chloromethane | +++++<br>0.6156<br>0.4914 | +++++<br>0.5732<br>+++++ | 0.6374<br>0.5456 | 0.5317<br>0.5306 | 0.5011<br>0.5087 | Ave | | 0.5484 | | | 0.1000 | 9.3 | | 15.0 | | | |
| Vinyl chloride | +++++<br>0.5911<br>0.4892 | 0.5838<br>0.5791<br>+++++ | 0.5639<br>0.5293 | 0.4977<br>0.5340 | 0.4779<br>0.5033 | Ave | | 0.5349 | | | | 7.9 | | 30.0 | | | |
| 1,3-Butadiene | +++++<br>0.5555<br>0.4529 | +++++<br>0.5524<br>+++++ | +++++<br>0.5435 | 0.5112<br>0.5148 | 0.5332<br>0.5076 | Ave | | 0.5214 | | | | 6.4 | | 15.0 | | | |
| Bromomethane | +++++<br>0.3079<br>0.3065 | +++++<br>0.3044<br>+++++ | 0.3054<br>0.3119 | 0.2828<br>0.2834 | 0.2899<br>0.3094 | Ave | | 0.3002 | | | | 3.8 | | 15.0 | | | |
| Chloroethane | +++++<br>0.2477<br>0.2501 | +++++<br>0.2464<br>+++++ | 0.2309<br>0.2482 | 0.2117<br>0.2312 | 0.2291<br>0.2486 | Ave | | 0.2382 | | | | 5.5 | | 15.0 | | | |
| Ethanol | +++++<br>0.1890<br>0.1727 | +++++<br>0.1635<br>0.1381 | +++++<br>0.1763 | +++++<br>0.1642 | 0.1888<br>0.1486 | Ave | | 0.1676 | | | | 10.7 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 451572

SDG No.:

Instrument ID: GCMS59 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 01/13/2018 15:49 Calibration End Date: 01/13/2018 20:51 Calibration ID: 18402

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dichlorofluoromethane | +++++<br>0.6048<br>0.5664 | +++++<br>0.6016<br>+++++ | 0.6177<br>0.6022 | 0.5670<br>0.5599 | 0.5704<br>0.5962 | Ave | | 0.5874 | | | | 3.6 | | 15.0 | | | |
| Acrolein | +++++<br>0.0234<br>+++++ | +++++<br>0.0203<br>+++++ | +++++<br>0.0228 | +++++<br>0.0244 | 0.0221<br>0.0333 | Qua2 | 0.0068 | 0.0191 | 0.0001336 | | | | | | 0.9960 | | 0.9900 |
| Trichlorofluoromethane | +++++<br>0.6221<br>0.5712 | +++++<br>0.5098<br>+++++ | 0.5862<br>0.5710 | 0.5429<br>0.5763 | 0.5850<br>0.6403 | Ave | | 0.5783 | | | | 6.7 | | 15.0 | | | |
| Acetonitrile | +++++<br>0.0418<br>0.0324 | +++++<br>0.0388<br>+++++ | +++++<br>0.0347 | 0.0412<br>0.0332 | 0.0426<br>0.0434 | Ave | | 0.0385 | | | | 11.6 | | 15.0 | | | |
| Acetone | +++++<br>0.0751<br>0.0704 | +++++<br>0.0852<br>+++++ | +++++<br>0.0630 | +++++<br>0.0652 | +++++<br>0.0858 | Ave | | 0.0741 | | | | 13.2 | | 15.0 | | | |
| Diethyl ether | +++++<br>0.1866<br>0.1846 | +++++<br>0.2208<br>+++++ | +++++<br>0.2007 | 0.1512<br>0.1790 | 0.1701<br>0.2264 | Ave | | 0.1899 | | | | 13.3 | | 15.0 | | | |
| 1,1-Dichloroethene | +++++<br>0.2660<br>0.2445 | +++++<br>0.2816<br>0.2297 | 0.2270<br>0.2545 | 0.2408<br>0.2492 | 0.2584<br>0.2953 | Ave | | 0.2547 | | | | 8.5 | | 30.0 | | | |
| Iodomethane | +++++<br>0.5848<br>0.5089 | +++++<br>0.6253<br>+++++ | +++++<br>0.5900 | 0.5713<br>0.5400 | 0.5381<br>0.6188 | Ave | | 0.5722 | | | | 7.1 | | 15.0 | | | |
| tert-Butyl alcohol (TBA) | +++++<br>1.1600<br>1.1135 | +++++<br>1.2121<br>1.0391 | +++++<br>1.1947 | 1.1327<br>1.0916 | 1.1073<br>1.1353 | Ave | | 1.1318 | | | | 4.7 | | 15.0 | | | |
| Acrylonitrile | 0.0720<br>0.0900<br>+++++ | 0.0927<br>0.1115<br>+++++ | 0.0918<br>0.0854 | 0.0957<br>0.0829 | 0.0983<br>0.0979 | Ave | | 0.0918 | | | | 11.5 | | 15.0 | | | |
| Methylene Chloride | +++++<br>0.2862<br>0.2394 | +++++<br>0.3223<br>+++++ | +++++<br>0.2734 | 0.3249<br>0.2416 | 0.3032<br>0.2970 | Ave | | 0.2860 | | | | 11.5 | | 15.0 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | +++++<br>0.3723<br>0.3190 | +++++<br>0.3845<br>0.2884 | 0.3945<br>0.3439 | 0.3326<br>0.3286 | 0.3441<br>0.3876 | Ave | | 0.3495 | | | | 9.8 | | 15.0 | | | |
| Methyl acetate | +++++<br>0.1826<br>+++++ | +++++<br>0.2135<br>+++++ | 0.1387<br>0.1683 | 0.1907<br>0.1628 | 0.1824<br>0.1943 | Ave | | 0.1792 | | | | 12.6 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 451572

SDG No.:

Instrument ID: GCMS59 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 01/13/2018 15:49 Calibration End Date: 01/13/2018 20:51 Calibration ID: 18402

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Allyl chloride | +++++<br>0.4332<br>0.3791 | +++++<br>0.5213<br>+++++ | +++++<br>0.4543 | 0.4180<br>0.4177 | 0.4508<br>0.5019 | Ave | | 0.4470 | | | | 10.4 | | 15.0 | | | |
| Carbon disulfide | +++++<br>0.8638<br>0.6897 | +++++<br>0.9744<br>+++++ | 0.8428<br>0.8392 | 0.8349<br>0.7878 | 0.8976<br>0.9003 | Ave | | 0.8478 | | | | 9.4 | | 15.0 | | | |
| trans-1,2-Dichloroethene | +++++<br>0.2600<br>0.2501 | 0.2072<br>0.2922<br>0.2308 | 0.2394<br>0.2703 | 0.2505<br>0.2527 | 0.2344<br>0.2558 | Ave | | 0.2494 | | | | 8.9 | | 15.0 | | | |
| Methyl-t-Butyl Ether (MTBE) | +++++<br>0.5946<br>0.5880 | +++++<br>0.6993<br>0.4832 | 0.5848<br>0.6663 | 0.5526<br>0.5912 | 0.5545<br>0.6387 | Ave | | 0.5953 | | | | 10.3 | | 15.0 | | | |
| 1,1-Dichloroethane | +++++<br>0.4657<br>0.4056 | +++++<br>0.5353<br>+++++ | 0.4460<br>0.4626 | 0.4389<br>0.4163 | 0.4425<br>0.4340 | Ave | | 0.4497 | | | 0.1000 | 8.3 | | 15.0 | | | |
| Propionitrile | +++++<br>0.0354<br>0.0340 | +++++<br>0.0433<br>0.0301 | +++++<br>0.0345 | 0.0320<br>0.0344 | 0.0341<br>0.0371 | Ave | | 0.0350 | | | | 10.5 | | 15.0 | | | |
| Vinyl acetate | +++++<br>0.4311<br>0.4463 | +++++<br>0.5633<br>0.3765 | +++++<br>0.5002 | +++++<br>0.4702 | 0.4062<br>0.4954 | Ave | | 0.4612 | | | | 12.8 | | 15.0 | | | |
| Hexane | +++++<br>0.4250<br>0.3997 | +++++<br>0.4902<br>0.3525 | +++++<br>0.4317 | 0.4040<br>0.4215 | 0.4145<br>0.4225 | Ave | | 0.4180 | | | | 8.6 | | 15.0 | | | |
| 2-Butanone (MEK) | +++++<br>0.0123<br>0.0296 | +++++<br>0.0245<br>0.0294 | +++++<br>0.0220 | +++++<br>0.0245 | +++++<br>0.0263 | Lin1 | -0.094 | 0.0291 | | | | | | | 0.9970 | | 0.9900 |
| Isopropyl Ether (DIPE) | +++++<br>0.7985<br>0.6738 | +++++<br>0.9922<br>+++++ | 0.6567<br>0.8760 | 0.7664<br>0.7556 | 0.7688<br>0.7660 | Ave | | 0.7838 | | | | 12.9 | | 15.0 | | | |
| cis-1,2-Dichloroethene | +++++<br>0.2857<br>0.2684 | 0.2449<br>0.3261<br>0.2464 | 0.2940<br>0.3038 | 0.2570<br>0.2715 | 0.2780<br>0.2795 | Ave | | 0.2777 | | | | 8.8 | | 15.0 | | | |
| Bromochloromethane | +++++<br>0.1520<br>0.1486 | +++++<br>0.1745<br>0.1418 | 0.1279<br>0.1638 | 0.1307<br>0.1442 | 0.1465<br>0.1532 | Ave | | 0.1483 | | | | 9.4 | | 15.0 | | | |
| Chloroform | +++++<br>0.4646<br>0.4083 | +++++<br>0.5214<br>+++++ | 0.4447<br>0.4756 | 0.4457<br>0.4277 | 0.4495<br>0.4415 | Ave | | 0.4532 | | | | 7.1 | | 30.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 451572

SDG No.:

Instrument ID: GCMS59 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 01/13/2018 15:49 Calibration End Date: 01/13/2018 20:51 Calibration ID: 18402

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| 2,2-Dichloropropane | +++++<br>0.4025<br>0.3638 | +++++<br>0.4074<br>0.3146 | 0.3571<br>0.3896 | 0.3542<br>0.3671 | 0.3616<br>0.3820 | Ave | | 0.3700 | | | | 7.3 | | 15.0 | | | |
| Ethyl-t-butyl ether (ETBE) | +++++<br>0.7116<br>0.6653 | +++++<br>0.8620<br>+++++ | 0.6027<br>0.8090 | 0.6147<br>0.7095 | 0.6283<br>0.7468 | Ave | | 0.7056 | | | | 12.6 | | 15.0 | | | |
| Isobutyl alcohol | +++++<br>0.4958<br>0.4763 | +++++<br>0.5484<br>0.4500 | 0.3834<br>0.5348 | 0.4428<br>0.4993 | 0.3951<br>0.4348 | Ave | | 0.4661 | | | | 11.8 | | 15.0 | | | |
| Tetrahydrofuran | +++++<br>0.0849<br>0.0784 | +++++<br>0.1027<br>0.0744 | +++++<br>0.0776 | +++++<br>0.0762 | 0.0999<br>0.0845 | Ave | | 0.0848 | | | | 12.8 | | 15.0 | | | |
| 1,2-Dichloroethane | +++++<br>0.3286<br>0.2955 | 0.3037<br>0.3531<br>0.2512 | 0.3142<br>0.3368 | 0.3120<br>0.2958 | 0.2926<br>0.3166 | Ave | | 0.3091 | | | | 8.7 | | 15.0 | | | |
| 1,1,1-Trichloroethane | +++++<br>0.4969<br>0.4547 | +++++<br>0.5075<br>+++++ | 0.4635<br>0.4870 | 0.4572<br>0.4615 | 0.4179<br>0.4793 | Ave | | 0.4695 | | | | 5.7 | | 15.0 | | | |
| 1,1-Dichloropropene | +++++<br>0.3302<br>0.3249 | +++++<br>0.3436<br>0.2853 | 0.2995<br>0.3367 | 0.2809<br>0.3302 | 0.3016<br>0.3383 | Ave | | 0.3171 | | | | 7.3 | | 15.0 | | | |
| Cyclohexane | +++++<br>0.4811<br>0.4591 | +++++<br>0.4986<br>0.3928 | +++++<br>0.4938 | 0.4221<br>0.4754 | 0.4383<br>0.4878 | Ave | | 0.4610 | | | | 7.9 | | 15.0 | | | |
| Carbon tetrachloride | +++++<br>0.5028<br>0.4547 | +++++<br>0.5003<br>+++++ | 0.4818<br>0.4860 | 0.4238<br>0.4670 | 0.4278<br>0.4840 | Ave | | 0.4698 | | | | 6.2 | | 15.0 | | | |
| Benzene | +++++<br>0.9263<br>+++++ | +++++<br>0.9745<br>+++++ | 0.8967<br>0.9362 | 0.9252<br>0.8513 | 0.9198<br>0.8316 | Ave | | 0.9077 | | | | 5.1 | | 15.0 | | | |
| Tert-amyl-methyl ether (TAME) | +++++<br>0.6523<br>0.5747 | +++++<br>0.7067<br>+++++ | 1.1942<br>0.6916 | 0.8418<br>0.6078 | 0.7096<br>0.6421 | Lin2 | 0.2710 | 0.6190 | | | | | | | 0.9930 | | 0.9900 |
| Dibromomethane | +++++<br>0.1565<br>0.1516 | +++++<br>0.1712<br>0.1462 | 0.1380<br>0.1635 | 0.1477<br>0.1456 | 0.1447<br>0.1565 | Ave | | 0.1521 | | | | 6.5 | | 15.0 | | | |
| n-Heptane | +++++<br>0.4382<br>0.3881 | +++++<br>0.4649<br>+++++ | +++++<br>0.4564 | 0.4084<br>0.4468 | 0.4244<br>0.4393 | Ave | | 0.4333 | | | | 5.9 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 451572

SDG No.:

Instrument ID: GCMS59 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 01/13/2018 15:49 Calibration End Date: 01/13/2018 20:51 Calibration ID: 18402

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| 1,2-Dichloropropane | +++++<br>0.2460<br>0.2246 | +++++<br>0.2594<br>0.2211 | 0.2138<br>0.2566 | 0.2290<br>0.2303 | 0.2509<br>0.2360 | Ave | | 0.2368 | | | | 6.6 | | 30.0 | | | |
| Trichloroethene | +++++<br>0.3516<br>0.3179 | +++++<br>0.3683<br>0.2740 | 0.3287<br>0.3535 | 0.3178<br>0.3270 | 0.3153<br>0.3372 | Ave | | 0.3291 | | | | 8.0 | | 15.0 | | | |
| Bromodichloromethane | +++++<br>0.3398<br>0.3269 | +++++<br>0.3716<br>0.2764 | 0.3185<br>0.3654 | 0.3340<br>0.3256 | 0.3184<br>0.3466 | Ave | | 0.3323 | | | | 8.1 | | 15.0 | | | |
| Methylcyclohexane | +++++<br>0.4465<br>0.4362 | +++++<br>0.4653<br>0.3687 | +++++<br>0.4698 | 0.3803<br>0.4572 | 0.3976<br>0.4672 | Ave | | 0.4321 | | | | 9.1 | | 15.0 | | | |
| 2-Chloroethyl vinyl ether | +++++<br>0.1496<br>0.1675 | +++++<br>0.1817<br>0.1759 | +++++<br>0.1772 | +++++<br>0.1655 | 0.1266<br>0.1640 | Ave | | 0.1635 | | | | 11.0 | | 15.0 | | | |
| cis-1,3-Dichloropropene | +++++<br>0.4321<br>0.3704 | +++++<br>0.4634<br>0.3388 | 0.3615<br>0.4552 | 0.4136<br>0.4041 | 0.4392<br>0.3840 | Ave | | 0.4062 | | | | 10.3 | | 15.0 | | | |
| 4-Methyl-2-pentanone (MIBK) | +++++<br>0.2483<br>0.2631 | +++++<br>0.2932<br>0.2589 | +++++<br>0.2680 | +++++<br>0.2626 | 0.2637<br>0.2634 | Ave | | 0.2652 | | | | 4.8 | | 15.0 | | | |
| trans-1,3-Dichloropropene | +++++<br>0.3845<br>0.3509 | +++++<br>0.4197<br>0.3159 | 0.3518<br>0.4211 | 0.3392<br>0.3717 | 0.3575<br>0.3589 | Ave | | 0.3671 | | | | 9.1 | | 15.0 | | | |
| 1,1,2-Trichloroethane | +++++<br>0.2027<br>0.1781 | +++++<br>0.2222<br>0.1878 | 0.1767<br>0.2063 | 0.1982<br>0.1805 | 0.2037<br>0.1748 | Ave | | 0.1931 | | | | 8.2 | | 15.0 | | | |
| Toluene | +++++<br>1.3077<br>+++++ | +++++<br>1.3590<br>+++++ | 1.1203<br>1.2973 | 1.1746<br>1.1330 | 1.1801<br>+++++ | Ave | | 1.2246 | | | | 7.7 | | 30.0 | | | |
| 1,3-Dichloropropane | +++++<br>0.4069<br>0.3337 | +++++<br>0.4311<br>0.3088 | 0.4091<br>0.4142 | 0.3654<br>0.3586 | 0.3924<br>0.3479 | Ave | | 0.3768 | | | | 10.6 | | 15.0 | | | |
| Ethyl methacrylate | +++++<br>0.2639<br>0.2852 | +++++<br>0.3129<br>0.2715 | +++++<br>0.3119 | +++++<br>0.2887 | 0.2189<br>0.2879 | Ave | | 0.2801 | | | | 10.7 | | 15.0 | | | |
| 2-Hexanone | +++++<br>0.1654<br>0.2028 | +++++<br>0.2145<br>0.1973 | +++++<br>0.1963 | +++++<br>0.2009 | +++++<br>0.2022 | Ave | | 0.1971 | | | | 7.7 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 451572

SDG No.:

Instrument ID: GCMS59 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 01/13/2018 15:49 Calibration End Date: 01/13/2018 20:51 Calibration ID: 18402

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dibromochloromethane | +++++<br>0.3830<br>0.3430 | +++++<br>0.4195<br>0.3038 | 0.3736<br>0.4046 | 0.3564<br>0.3558 | 0.3728<br>0.3500 | Ave | | 0.3663 | | | | 8.9 | | 15.0 | | | |
| 1,2-Dibromoethane (EDB) | +++++<br>0.2771<br>0.2515 | +++++<br>0.2976<br>0.2179 | 0.2532<br>0.2865 | 0.2801<br>0.2573 | 0.2732<br>0.2533 | Ave | | 0.2648 | | | | 8.6 | | 15.0 | | | |
| Tetrachloroethene | +++++<br>0.3842<br>0.3067 | +++++<br>0.3692<br>+++++ | 0.3364<br>0.3591 | 0.3380<br>0.3385 | 0.3512<br>0.3104 | Ave | | 0.3437 | | | | 7.4 | | 15.0 | | | |
| 1,1,1,2-Tetrachloroethane | +++++<br>0.4082<br>0.3542 | +++++<br>0.4266<br>+++++ | 0.3731<br>0.4191 | 0.4013<br>0.3704 | 0.3884<br>0.3556 | Ave | | 0.3885 | | | | 6.9 | | 15.0 | | | |
| Chlorobenzene | +++++<br>1.0134<br>+++++ | +++++<br>1.0353<br>+++++ | 1.0382<br>0.9864 | 1.0469<br>0.8629 | 1.0072<br>+++++ | Ave | | 0.9986 | | | 0.3000 | 6.4 | | 15.0 | | | |
| Ethylbenzene | +++++<br>1.4719<br>+++++ | +++++<br>1.5343<br>+++++ | 1.3607<br>1.5062 | 1.3308<br>1.3254 | 1.3596<br>+++++ | Ave | | 1.4127 | | | | 6.3 | | 30.0 | | | |
| m,p-Xylene | +++++<br>0.5862<br>0.5291 | +++++<br>0.6205<br>+++++ | 0.4937<br>0.6253 | 0.4766<br>0.5759 | 0.5260<br>0.5339 | Ave | | 0.5519 | | | | 9.6 | | 15.0 | | | |
| Bromoform | +++++<br>0.2938<br>0.2991 | +++++<br>0.3159<br>0.2489 | 0.2725<br>0.3096 | 0.2613<br>0.2845 | 0.2762<br>0.2922 | Ave | | 0.2854 | | | 0.1000 | 7.4 | | 15.0 | | | |
| Styrene | +++++<br>0.8536<br>+++++ | +++++<br>0.9689<br>+++++ | 0.6659<br>0.9899 | 0.6701<br>0.8810 | 0.7376<br>0.8050 | Lin2 | -0.139 | 0.8886 | | | | | | | 0.9900 | | 0.9900 |
| 1,1,2,2-Tetrachloroethane | +++++<br>0.5336<br>0.4948 | +++++<br>0.5718<br>0.4352 | 0.5280<br>0.5279 | 0.5927<br>0.4936 | 0.5276<br>0.5277 | Ave | | 0.5233 | | | 0.3000 | 8.3 | | 15.0 | | | |
| o-Xylene | +++++<br>0.6107<br>0.5356 | 0.4095<br>0.6487<br>+++++ | 0.5214<br>0.6244 | 0.5002<br>0.5570 | 0.5108<br>0.5229 | Ave | | 0.5441 | | | | 12.9 | | 15.0 | | | |
| 1,2,3-Trichloropropane | +++++<br>0.1884<br>0.1904 | +++++<br>0.1995<br>0.1874 | 0.1847<br>0.1781 | 0.1761<br>0.1749 | 0.1735<br>0.1945 | Ave | | 0.1848 | | | | 4.8 | | 15.0 | | | |
| trans-1,4-Dichloro-2-butene | +++++<br>0.1502<br>0.1793 | +++++<br>0.1698<br>0.1733 | +++++<br>0.1608 | +++++<br>0.1618 | +++++<br>0.1823 | Ave | | 0.1682 | | | | 6.7 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 451572

SDG No.:

Instrument ID: GCMS59 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 01/13/2018 15:49 Calibration End Date: 01/13/2018 20:51 Calibration ID: 18402

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Isopropylbenzene | +++++<br>1.6119<br>+++++ | +++++<br>1.6843<br>+++++ | 1.2869<br>1.6583 | 1.2320<br>1.4985 | 1.4214<br>1.2753 | Ave | | 1.4586 | | | | 12.5 | | 15.0 | | | |
| Bromobenzene | +++++<br>0.7341<br>0.6398 | +++++<br>0.7620<br>0.6058 | 0.6515<br>0.7608 | 0.6477<br>0.7092 | 0.6908<br>0.7373 | Ave | | 0.6939 | | | | 8.0 | | 15.0 | | | |
| N-Propylbenzene | +++++<br>2.5513<br>+++++ | +++++<br>2.7340<br>+++++ | 2.1356<br>2.6909 | 2.0970<br>2.5105 | 2.3097<br>2.1976 | Ave | | 2.4033 | | | | 10.5 | | 15.0 | | | |
| 2-Chlorotoluene | +++++<br>1.6743<br>+++++ | +++++<br>1.7213<br>+++++ | 1.4819<br>1.7009 | 1.4813<br>1.5882 | 1.6250<br>1.5175 | Ave | | 1.5988 | | | | 6.1 | | 15.0 | | | |
| 4-Chlorotoluene | +++++<br>1.7052<br>+++++ | +++++<br>1.7569<br>+++++ | 1.3818<br>1.7691 | 1.4459<br>1.6395 | 1.5401<br>1.5613 | Ave | | 1.6000 | | | | 8.9 | | 15.0 | | | |
| 1,3,5-Trimethylbenzene | +++++<br>2.0256<br>+++++ | +++++<br>2.1349<br>+++++ | 1.5579<br>2.1315 | 1.5680<br>2.0142 | 1.7342<br>1.8709 | Ave | | 1.8797 | | | | 12.6 | | 15.0 | | | |
| tert-Butylbenzene | +++++<br>1.8863<br>+++++ | +++++<br>2.0000<br>+++++ | 1.5065<br>2.0138 | 1.4786<br>1.9330 | 1.6740<br>1.8111 | Ave | | 1.7879 | | | | 11.9 | | 15.0 | | | |
| 1,2,4-Trimethylbenzene | +++++<br>2.0707<br>+++++ | +++++<br>2.2342<br>+++++ | 1.6285<br>2.2315 | 1.5968<br>2.0612 | 1.8005<br>1.8791 | Ave | | 1.9378 | | | | 13.0 | | 15.0 | | | |
| sec-Butylbenzene | +++++<br>2.9212<br>+++++ | +++++<br>2.9426<br>+++++ | 2.2929<br>2.8536 | 2.2741<br>2.6619 | 2.5856<br>2.2748 | Ave | | 2.6008 | | | | 11.2 | | 15.0 | | | |
| 1,3-Dichlorobenzene | +++++<br>1.5640<br>+++++ | +++++<br>1.6092<br>+++++ | 1.4877<br>1.5578 | 1.4845<br>1.4094 | 1.5046<br>1.3576 | Ave | | 1.4969 | | | | 5.5 | | 15.0 | | | |
| 1,4-Dichlorobenzene | +++++<br>1.6027<br>+++++ | +++++<br>1.6518<br>+++++ | 1.7101<br>1.5671 | 1.6040<br>1.4332 | 1.6281<br>1.3593 | Ave | | 1.5695 | | | | 7.4 | | 15.0 | | | |
| p-Isopropyltoluene | +++++<br>2.5620<br>+++++ | +++++<br>2.6643<br>+++++ | 2.1019<br>2.6186 | 2.0982<br>2.4621 | 2.2712<br>2.1209 | Ave | | 2.3624 | | | | 10.3 | | 15.0 | | | |
| 1,2-Dichlorobenzene | +++++<br>1.4267<br>+++++ | +++++<br>1.5032<br>+++++ | 1.4095<br>1.4819 | 1.4365<br>1.3433 | 1.3964<br>1.2946 | Ave | | 1.4115 | | | | 4.8 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 451572

SDG No.:

Instrument ID: GCMS59 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 01/13/2018 15:49 Calibration End Date: 01/13/2018 20:51 Calibration ID: 18402

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| n-Butylbenzene | +++++<br>2.1707<br>+++++ | +++++<br>2.3080<br>+++++ | 1.6560<br>2.2478 | 1.6906<br>2.1172 | 1.8961<br>1.8480 | Ave | | 1.9918 | | | | 12.7 | | 15.0 | | | |
| 1,2-Dibromo-3-Chloropropane | +++++<br>0.1211<br>0.1227 | +++++<br>0.1285<br>0.1222 | +++++<br>0.1204 | 0.1114<br>0.1229 | 0.1232<br>0.1349 | Ave | | 0.1230 | | | | 5.1 | | 15.0 | | | |
| 1,2,4-Trichlorobenzene | +++++<br>1.0899<br>+++++ | +++++<br>1.1514<br>+++++ | 1.0821<br>1.2067 | 0.9916<br>1.0737 | 1.0368<br>1.0209 | Ave | | 1.0816 | | | | 6.5 | | 15.0 | | | |
| Naphthalene | +++++<br>2.1155<br>+++++ | +++++<br>2.4082<br>+++++ | 1.7918<br>2.3247 | 1.7258<br>2.0585 | 1.8739<br>1.7330 | Ave | | 2.0039 | | | | 13.3 | | 15.0 | | | |
| Hexachlorobutadiene | +++++<br>0.7900<br>+++++ | +++++<br>0.7980<br>+++++ | 0.8954<br>0.7748 | 0.7418<br>0.7471 | 0.7719<br>0.7271 | Ave | | 0.7808 | | | | 6.7 | | 15.0 | | | |
| 1,2,3-Trichlorobenzene | +++++<br>1.0962<br>+++++ | +++++<br>1.1112<br>+++++ | 0.9802<br>1.1072 | 0.9612<br>1.0060 | 0.9869<br>0.9643 | Ave | | 1.0266 | | | | 6.5 | | 15.0 | | | |
| Dibromofluoromethane (Surr) | 0.2806 | 0.3258 | 0.3034 | 0.2766 | 0.2938 | Ave | | 0.2960 | | | | 6.7 | | 15.0 | | | |
| 1,2-Dichloroethane-d4 (Surr) | 0.2637 | 0.3071 | 0.2820 | 0.2601 | 0.2750 | Ave | | 0.2776 | | | | 6.7 | | 15.0 | | | |
| Toluene-d8 (Surr) | 1.0668 | 1.1373 | 1.1030 | 1.0098 | 0.8730 | Ave | | 1.0380 | | | | 10.0 | | 15.0 | | | |
| 4-Bromofluorobenzene (Surr) | 0.6480 | 0.7193 | 0.7175 | 0.6785 | 0.7197 | Ave | | 0.6966 | | | | 4.6 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 451572

SDG No.:

Instrument ID: GCMS59 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 01/13/2018 15:49 Calibration End Date: 01/13/2018 20:51 Calibration ID: 18402

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD02 440-451572/4 | XGA13004.D |
| Level 2 | STD04 440-451572/5 | XGA13005.D |
| Level 3 | STD05 440-451572/6 | XGA13006.D |
| Level 4 | STD1 440-451572/7 | XGA13007.D |
| Level 5 | STD2 440-451572/8 | XGA13008.D |
| Level 6 | STD5 440-451572/9 | XGA13009.D |
| Level 7 | STD10 440-451572/10 | XGA13010.D |
| Level 8 | ICIS 440-451572/11 | XGA13011.D |
| Level 9 | STD50 440-451572/12 | XGA13012.D |
| Level 10 | STD100 440-451572/13 | XGA13013.D |
| Level 11 | STD200 440-451572/14 | XGA13014.D |
| Level 12 | STD300 440-451572/15 | XGA13015.D |

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Dichlorodifluoromethane | FB | Ave | +++++<br>105378<br>4987890 | +++++<br>241451<br>+++++ | 9709<br>612173 | 18864<br>1142326 | 39332<br>2381994 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloromethane | FB | Ave | +++++<br>145698<br>5185344 | +++++<br>295487<br>+++++ | 15978<br>728605 | 28286<br>1330479 | 51847<br>2558388 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Vinyl chloride | FB | Ave | +++++<br>139898<br>5162807 | 10974<br>298530<br>+++++ | 14135<br>706900 | 26474<br>1338989 | 49450<br>2531057 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Butadiene | FB | Ave | +++++<br>131464<br>4779385 | +++++<br>284769<br>+++++ | +++++<br>725833 | 27192<br>1290748 | 55170<br>2552744 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromomethane | FB | Ave | +++++<br>72863<br>3234662 | +++++<br>156910<br>+++++ | 7656<br>416554 | 15042<br>710595 | 30001<br>1555828 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloroethane | FB | Ave | +++++<br>58613<br>2639652 | +++++<br>127002<br>+++++ | 5789<br>331456 | 11260<br>579637 | 23701<br>1250483 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethanol | TBAd 9 | Ave | +++++<br>53813<br>3020461 | +++++<br>122122<br>4609764 | +++++<br>270695 | +++++<br>654920 | 33541<br>1515452 | +++++<br>200<br>10000 | +++++<br>400<br>15000 | +++++<br>1000 | +++++<br>2500 | 100<br>5000 |
| Dichlorofluoromethane | FB | Ave | +++++<br>143128<br>5977567 | +++++<br>310149<br>+++++ | 15483<br>804200 | 30161<br>1403846 | 59024<br>2998699 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 451572

SDG No.:

Instrument ID: GCMS59 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 01/13/2018 15:49 Calibration End Date: 01/13/2018 20:51 Calibration ID: 18402

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Acrolein | FB | Qua2 | +++++<br>5538<br>+++++ | +++++<br>10482<br>+++++ | +++++<br>30478 | +++++<br>61167 | 2286<br>167498 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Trichlorofluoromethane | FB | Ave | +++++<br>147233<br>6027885 | +++++<br>262805<br>+++++ | 14693<br>762488 | 28881<br>1445109 | 60528<br>3220185 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Acetonitrile | FB | Ave | +++++<br>98833<br>3415154 | +++++<br>200042<br>+++++ | +++++<br>463645 | 21894<br>833583 | 44078<br>2184357 | +++++<br>50.0<br>2000 | +++++<br>100<br>+++++ | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Acetone | FB | Ave | +++++<br>17770<br>743138 | +++++<br>43925<br>+++++ | +++++<br>84186 | +++++<br>163590 | +++++<br>431496 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Diethyl ether | FB | Ave | +++++<br>44169<br>1948437 | +++++<br>113805<br>+++++ | +++++<br>268052 | 8044<br>448939 | 17603<br>1138656 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloroethene | FB | Ave | +++++<br>62942<br>2580501 | +++++<br>145189<br>4831274 | 5691<br>339870 | 12811<br>624986 | 26740<br>1484937 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Iodomethane | FB | Ave | +++++<br>138407<br>5370808 | +++++<br>322337<br>+++++ | +++++<br>787909 | 30389<br>1354137 | 55678<br>3112306 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| tert-Butyl alcohol (TBA) | TBAd9 | Ave | +++++<br>82552<br>3895796 | +++++<br>226341<br>6937233 | +++++<br>458627 | 21956<br>870898 | 39351<br>2316292 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Acrylonitrile | FB | Ave | 6853<br>213065<br>+++++ | 17421<br>574595<br>+++++ | 23019<br>1140792 | 50904<br>2079167 | 101691<br>4924441 | 2.00<br>50.0<br>+++++ | 4.00<br>100<br>+++++ | 5.00<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Methylene Chloride | FB | Ave | +++++<br>67744<br>2525915 | +++++<br>166137<br>+++++ | +++++<br>365165 | 17285<br>605835 | 31377<br>1493521 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | FB | Ave | +++++<br>88101<br>3366209 | +++++<br>198192<br>6064856 | 9889<br>459265 | 17693<br>823853 | 35607<br>1949451 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methyl acetate | FB | Ave | +++++<br>216073<br>+++++ | +++++<br>550209<br>+++++ | 17383<br>1123565 | 50727<br>2041246 | 94391<br>4887022 | +++++<br>25.0<br>+++++ | +++++<br>50.0<br>+++++ | 2.50<br>125 | 5.00<br>250 | 10.0<br>500 |
| Allyl chloride | FB | Ave | +++++<br>102534<br>4000107 | +++++<br>268752<br>+++++ | +++++<br>606691 | 22235<br>1047389 | 46648<br>2524475 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 451572

SDG No.:

Instrument ID: GCMS59 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 01/13/2018 15:49 Calibration End Date: 01/13/2018 20:51 Calibration ID: 18402

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Carbon disulfide | FB | Ave | +++++<br>204439<br>7278855 | +++++<br>502292<br>+++++ | 21126<br>1120703 | 44413<br>1975491 | 92876<br>4527814 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| trans-1,2-Dichloroethene | FB | Ave | +++++<br>61531<br>2638824 | 3895<br>150621<br>4853054 | 6001<br>361032 | 13324<br>633550 | 24255<br>1286670 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methyl-t-Butyl Ether (MTBE) | FB | Ave | +++++<br>140721<br>6205255 | +++++<br>360474<br>10161116 | 14659<br>889763 | 29396<br>1482362 | 57378<br>3211994 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloroethane | FB | Ave | +++++<br>110220<br>4280633 | +++++<br>275954<br>+++++ | 11180<br>617820 | 23350<br>1043802 | 45785<br>2182639 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Propionitrile | FB | Ave | +++++<br>83718<br>3592194 | +++++<br>223168<br>6339147 | +++++<br>461030 | 17015<br>862620 | 35310<br>1864584 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Vinyl acetate | FB | Ave | +++++<br>81619<br>4709741 | +++++<br>232299<br>7917214 | +++++<br>534435 | +++++<br>1178998 | 42029<br>2491662 | +++++<br>4.00<br>200 | +++++<br>8.00<br>300 | +++++<br>20.0 | +++++<br>50.0 | 2.00<br>100 |
| Hexane | FB | Ave | +++++<br>100582<br>4218497 | +++++<br>252692<br>7413553 | +++++<br>576557 | 21493<br>1056884 | 42886<br>2124919 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Butanone (MEK) | FB | Lin1 | +++++<br>2900<br>312542 | +++++<br>12608<br>617957 | +++++<br>29358 | +++++<br>61389 | +++++<br>132413 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Isopropyl Ether (DIPE) | FB | Ave | +++++<br>188975<br>7110169 | +++++<br>511493<br>+++++ | 16460<br>1169834 | 40771<br>1894642 | 79549<br>3852425 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| cis-1,2-Dichloroethene | FB | Ave | +++++<br>67611<br>2832118 | 4603<br>168081<br>5181331 | 7370<br>405695 | 13672<br>680702 | 28761<br>1405889 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromochloromethane | FB | Ave | +++++<br>35981<br>1568137 | +++++<br>89959<br>2982511 | 3205<br>218719 | 6955<br>361688 | 15156<br>770686 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloroform | FB | Ave | +++++<br>109965<br>4308966 | +++++<br>268768<br>+++++ | 11146<br>635144 | 23710<br>1072423 | 46508<br>2220484 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2,2-Dichloropropane | FB | Ave | +++++<br>95251<br>3839155 | +++++<br>210002<br>6615920 | 8952<br>520222 | 18842<br>920517 | 37412<br>1921169 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 451572

SDG No.:

Instrument ID: GCMS59 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 01/13/2018 15:49 Calibration End Date: 01/13/2018 20:51 Calibration ID: 18402

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Ethyl-t-butyl ether (ETBE) | FB | Ave | +++++<br>168418<br>7021025 | +++++<br>444378<br>+++++ | 15108<br>1080351 | 32701<br>1778970 | 65011<br>3755922 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Isobutyl alcohol | TBAd 9 | Ave | +++++<br>88207<br>4165627 | +++++<br>256003<br>7511058 | 8824<br>513266 | 21456<br>995847 | 35102<br>2217637 | +++++<br>125<br>5000 | +++++<br>250<br>7500 | 12.5<br>625 | 25.0<br>1250 | 50.0<br>2500 |
| Tetrahydrofuran | FB | Ave | +++++<br>40193<br>1654635 | +++++<br>105892<br>3127839 | +++++<br>207246 | +++++<br>382038 | 20671<br>849616 | +++++<br>10.0<br>400 | +++++<br>20.0<br>600 | +++++<br>50.0 | +++++<br>100 | 4.00<br>200 |
| 1,2-Dichloroethane | FB | Ave | +++++<br>77769<br>3118751 | 5708<br>182041<br>5281613 | 7877<br>449841 | 16595<br>741685 | 30273<br>1592458 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,1-Trichloroethane | FB | Ave | +++++<br>117607<br>4798501 | +++++<br>261621<br>+++++ | 11618<br>650342 | 24321<br>1157276 | 43246<br>2410796 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloropropene | FB | Ave | +++++<br>78144<br>3428316 | +++++<br>177131<br>5998502 | 7507<br>449610 | 14944<br>828005 | 31205<br>1701273 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Cyclohexane | FB | Ave | +++++<br>113867<br>4845138 | +++++<br>257032<br>8261132 | +++++<br>659387 | 22455<br>1191959 | 45355<br>2453509 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Carbon tetrachloride | FB | Ave | +++++<br>118999<br>4798386 | +++++<br>257889<br>+++++ | 12077<br>649010 | 22546<br>1171091 | 44271<br>2434296 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Benzene | FB | Ave | +++++<br>219215<br>+++++ | +++++<br>502354<br>+++++ | 22476<br>1250258 | 49217<br>2134636 | 95179<br>4182154 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Tert-amyl-methyl ether (TAME) | FB | Lin2 | +++++<br>154373<br>6064876 | +++++<br>364326<br>+++++ | 29934<br>923585 | 44781<br>1524109 | 73430<br>3229154 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Dibromomethane | FB | Ave | +++++<br>37028<br>1599583 | +++++<br>88247<br>3073526 | 3460<br>218363 | 7859<br>365023 | 14973<br>787272 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Heptane | FB | Ave | +++++<br>103704<br>4095768 | +++++<br>239673<br>+++++ | +++++<br>609511 | 21727<br>1120236 | 43917<br>2209362 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2-Dichloropropane | FB | Ave | +++++<br>58214<br>2370576 | +++++<br>133699<br>4650228 | 5360<br>342668 | 12181<br>577360 | 25965<br>1186992 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 451572

SDG No.:

Instrument ID: GCMS59 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 01/13/2018 15:49 Calibration End Date: 01/13/2018 20:51 Calibration ID: 18402

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Trichloroethene | FB | Ave | +++++<br>83203<br>3354280 | +++++<br>189861<br>5761589 | 8239<br>472057 | 16908<br>820042 | 32628<br>1695824 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromodichloromethane | FB | Ave | +++++<br>80414<br>3450178 | +++++<br>191580<br>5812495 | 7984<br>487989 | 17768<br>816332 | 32942<br>1743303 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methylcyclohexane | FB | Ave | +++++<br>105662<br>4602788 | +++++<br>239841<br>7752612 | +++++<br>627419 | 20231<br>1146319 | 41144<br>2349520 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Chloroethyl vinyl ether | CBNZ d5 | Ave | +++++<br>29236<br>1666674 | +++++<br>79294<br>3234972 | +++++<br>204938 | +++++<br>364425 | 9968<br>807945 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| cis-1,3-Dichloropropene | CBNZ d5 | Ave | +++++<br>84471<br>3685827 | +++++<br>202248<br>6231149 | 7486<br>526413 | 17664<br>889980 | 34585<br>1892042 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 4-Methyl-2-pentanone (MIBK) | CBNZ d5 | Ave | +++++<br>48543<br>2618500 | +++++<br>127940<br>4761641 | +++++<br>309948 | +++++<br>578471 | 20764<br>1298027 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| trans-1,3-Dichloropropene | CBNZ d5 | Ave | +++++<br>75156<br>3492144 | +++++<br>183153<br>5809481 | 7285<br>487009 | 14486<br>818728 | 28154<br>1768365 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2-Trichloroethane | CBNZ d5 | Ave | +++++<br>39631<br>1771962 | +++++<br>96968<br>3454171 | 3658<br>238517 | 8467<br>397506 | 16040<br>861135 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Toluene | CBNZ d5 | Ave | +++++<br>255624<br>+++++ | +++++<br>593119<br>+++++ | 23199<br>1500241 | 50169<br>2495450 | 92927<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>+++++ |
| 1,3-Dichloropropane | CBNZ d5 | Ave | +++++<br>79535<br>3320300 | +++++<br>188152<br>5680009 | 8471<br>479012 | 15606<br>789844 | 30900<br>1714274 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethyl methacrylate | CBNZ d5 | Ave | +++++<br>51584<br>2837780 | +++++<br>136577<br>4992833 | +++++<br>360684 | +++++<br>635895 | 17239<br>1418891 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| 2-Hexanone | CBNZ d5 | Ave | +++++<br>32333<br>2018567 | +++++<br>93621<br>3628025 | +++++<br>226975 | +++++<br>442444 | +++++<br>996288 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Dibromochloromethane | CBNZ d5 | Ave | +++++<br>74871<br>3413643 | +++++<br>183093<br>5587076 | 7736<br>467920 | 15223<br>783593 | 29360<br>1724681 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 451572

SDG No.:

Instrument ID: GCMS59 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 01/13/2018 15:49 Calibration End Date: 01/13/2018 20:51 Calibration ID: 18402

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 1,2-Dibromoethane (EDB) | CBNZ d5 | Ave | +++++<br>54170<br>2502335 | +++++<br>129900<br>4008083 | 5243<br>331299 | 11962<br>566597 | 21512<br>1248182 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Tetrachloroethene | CBNZ d5 | Ave | +++++<br>75111<br>3052203 | +++++<br>161145<br>+++++ | 6966<br>415231 | 14436<br>745449 | 27654<br>1529458 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,1,2-Tetrachloroethane | CBNZ d5 | Ave | +++++<br>79801<br>3524809 | +++++<br>186169<br>+++++ | 7726<br>484701 | 17138<br>815687 | 30586<br>1752511 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chlorobenzene | CBNZ d5 | Ave | +++++<br>198099<br>+++++ | +++++<br>451857<br>+++++ | 21499<br>1140700 | 44715<br>1900387 | 79317<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>+++++ |
| Ethylbenzene | CBNZ d5 | Ave | +++++<br>287714<br>+++++ | +++++<br>669626<br>+++++ | 28175<br>1741878 | 56838<br>2919178 | 107063<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>+++++ |
| m,p-Xylene | CBNZ d5 | Ave | +++++<br>114587<br>5265223 | +++++<br>270818<br>+++++ | 10223<br>723087 | 20356<br>1268323 | 41419<br>2630857 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromoform | CBNZ d5 | Ave | +++++<br>57423<br>2976035 | +++++<br>137882<br>4577339 | 5642<br>357995 | 11161<br>626559 | 21754<br>1439964 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Styrene | CBNZ d5 | Lin2 | +++++<br>166865<br>+++++ | +++++<br>422867<br>+++++ | 13788<br>1144710 | 28619<br>1940315 | 58088<br>3966957 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2,2-Tetrachloroethane | DCBd 4 | Ave | +++++<br>71540<br>3372256 | +++++<br>172579<br>4541727 | 7317<br>418908 | 16612<br>711209 | 28237<br>1586516 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| o-Xylene | CBNZ d5 | Ave | +++++<br>119376<br>5329826 | 6344<br>283120<br>+++++ | 10797<br>722079 | 21366<br>1226857 | 40225<br>2576564 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,3-Trichloropropane | DCBd 4 | Ave | +++++<br>25264<br>1297804 | +++++<br>60221<br>1955343 | 2559<br>141310 | 4937<br>252070 | 9285<br>584671 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| trans-1,4-Dichloro-2-butene | DCBd 4 | Ave | +++++<br>20135<br>1222020 | +++++<br>51245<br>1808736 | +++++<br>127603 | +++++<br>233158 | +++++<br>548163 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Isopropylbenzene | CBNZ d5 | Ave | +++++<br>315079<br>+++++ | +++++<br>735067<br>+++++ | 26648<br>1917680 | 52618<br>3300473 | 111930<br>6284245 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 451572

SDG No.:

Instrument ID: GCMS59 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 01/13/2018 15:49 Calibration End Date: 01/13/2018 20:51 Calibration ID: 18402

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Bromobenzene | DCBd 4 | Ave | +++++<br>98425<br>4360209 | +++++<br>229986<br>6322565 | 9028<br>603769 | 18154<br>1021841 | 36972<br>2216655 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| N-Propylbenzene | DCBd 4 | Ave | +++++<br>342084<br>+++++ | +++++<br>825174<br>+++++ | 29595<br>2135464 | 58774<br>3617299 | 123620<br>6607233 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Chlorotoluene | DCBd 4 | Ave | +++++<br>224491<br>+++++ | +++++<br>519521<br>+++++ | 20536<br>1349807 | 41516<br>2288299 | 86974<br>4562537 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 4-Chlorotoluene | DCBd 4 | Ave | +++++<br>228642<br>+++++ | +++++<br>530283<br>+++++ | 19149<br>1403915 | 40525<br>2362244 | 82433<br>4694203 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3,5-Trimethylbenzene | DCBd 4 | Ave | +++++<br>271602<br>+++++ | +++++<br>644372<br>+++++ | 21589<br>1691535 | 43948<br>2902081 | 92821<br>5625022 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| tert-Butylbenzene | DCBd 4 | Ave | +++++<br>252921<br>+++++ | +++++<br>603641<br>+++++ | 20876<br>1598106 | 41442<br>2785151 | 89596<br>5445169 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,4-Trimethylbenzene | DCBd 4 | Ave | +++++<br>277637<br>+++++ | +++++<br>674345<br>+++++ | 22567<br>1770879 | 44755<br>2969805 | 96366<br>5649511 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| sec-Butylbenzene | DCBd 4 | Ave | +++++<br>391678<br>+++++ | +++++<br>888148<br>+++++ | 31775<br>2264564 | 63738<br>3835365 | 138386<br>6839299 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Dichlorobenzene | DCBd 4 | Ave | +++++<br>209700<br>+++++ | +++++<br>485695<br>+++++ | 20616<br>1236265 | 41608<br>2030699 | 80529<br>4081732 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,4-Dichlorobenzene | DCBd 4 | Ave | +++++<br>214886<br>+++++ | +++++<br>498537<br>+++++ | 23698<br>1243599 | 44955<br>2065006 | 87143<br>4086644 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| p-Isopropyltoluene | DCBd 4 | Ave | +++++<br>343523<br>+++++ | +++++<br>804150<br>+++++ | 29128<br>2078092 | 58808<br>3547465 | 121561<br>6376678 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2-Dichlorobenzene | DCBd 4 | Ave | +++++<br>191299<br>+++++ | +++++<br>453706<br>+++++ | 19532<br>1175992 | 40262<br>1935452 | 74740<br>3892350 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Butylbenzene | DCBd 4 | Ave | +++++<br>291045<br>+++++ | +++++<br>696599<br>+++++ | 22948<br>1783843 | 47382<br>3050554 | 101486<br>5556006 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 451572

SDG No.:

Instrument ID: GCMS59 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 01/13/2018 15:49 Calibration End Date: 01/13/2018 20:51 Calibration ID: 18402

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 1,2-Dibromo-3-Chloropropane | DCBd 4 | Ave | +++++<br>16231<br>835891 | +++++<br>38780<br>1275139 | +++++<br>95546 | 3122<br>177106 | 6595<br>405648 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,4-Trichlorobenzene | DCBd 4 | Ave | +++++<br>146137<br>+++++ | +++++<br>347508<br>+++++ | 14995<br>957606 | 27791<br>1547005 | 55493<br>3069344 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Naphthalene | DCBd 4 | Ave | +++++<br>283650<br>+++++ | +++++<br>726846<br>+++++ | 24830<br>1844801 | 48371<br>2966021 | 100294<br>5210402 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Hexachlorobutadiene | DCBd 4 | Ave | +++++<br>105923<br>+++++ | +++++<br>240853<br>+++++ | 12408<br>614845 | 20791<br>1076381 | 41312<br>2186171 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,3-Trichlorobenzene | DCBd 4 | Ave | +++++<br>146974<br>+++++ | +++++<br>335385<br>+++++ | 13583<br>878638 | 26940<br>1449434 | 52819<br>2899119 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Dibromofluoromethane (Surr) | FB | Ave | 66399 | 167945 | 405192 | 693469 | 1477714 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| 1,2-Dichloroethane-d4 (Surr) | FB | Ave | 62412 | 158320 | 376601 | 652198 | 1383186 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| Toluene-d8 (Surr) | CBNZ d5 | Ave | 208535 | 496333 | 1275526 | 2224004 | 4301822 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| 4-Bromofluorobenzene (Surr) | DCBd 4 | Ave | 86886 | 217102 | 569376 | 977582 | 2163841 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |

Curve Type Legend:

| |
|---|
| Ave = Average ISTD |
| Lin1 = Linear 1/conc ISTD |
| Lin2 = Linear 1/conc^2 ISTD |
| Qua2 = Quadratic 1/conc^2 ISTD |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: ICV 440-451572/18 Calibration Date: 01/13/2018 22:13

Instrument ID: GCMS59 Calib Start Date: 01/13/2018 15:49

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 01/13/2018 20:51

Lab File ID: XGA13018.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.4329 | 0.3991 | | 23.0 | 25.0 | -7.8 | 40.0 |
| Chloromethane | Ave | 0.5484 | 0.4447 | 0.1000 | 20.3 | 25.0 | -18.9 | 40.0 |
| Vinyl chloride | Ave | 0.5349 | 0.4400 | | 20.6 | 25.0 | -17.8 | 30.0 |
| 1,3-Butadiene | Ave | 0.5214 | 0.4055 | | 19.4 | 25.0 | -22.2 | 30.0 |
| Bromomethane | Ave | 0.3002 | 0.2414 | | 20.1 | 25.0 | -19.6 | 30.0 |
| Chloroethane | Ave | 0.2382 | 0.1984 | | 20.8 | 25.0 | -16.7 | 30.0 |
| Ethanol | Ave | 0.1676 | 0.1389 | | 828 | 1000 | -17.2 | 40.0 |
| Dichlorofluoromethane | Ave | 0.5874 | 0.5278 | | 22.5 | 25.0 | -10.1 | 40.0 |
| Acrolein | Qua2 | | 0.0306 | | 32.3 | 25.0 | 29.4 | 40.0 |
| Acetonitrile | Ave | 0.0385 | 0.0352 | | 229 | 250 | -8.5 | 40.0 |
| Trichlorofluoromethane | Ave | 0.5783 | 0.5198 | | 22.5 | 25.0 | -10.1 | 40.0 |
| Acetone | Ave | 0.0741 | 0.0688 | | 23.2 | 25.0 | -7.2 | 40.0 |
| Diethyl ether | Ave | 0.1899 | 0.1959 | | 25.8 | 25.0 | 3.1 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.2547 | 0.2386 | | 23.4 | 25.0 | -6.3 | 30.0 |
| Iodomethane | Ave | 0.5722 | 0.5280 | | 23.1 | 25.0 | -7.7 | 40.0 |
| tert-Butyl alcohol (TBA) | Ave | 1.132 | 1.127 | | 249 | 250 | -0.4 | 30.0 |
| Acrylonitrile | Ave | 0.0918 | 0.0913 | | 249 | 250 | -0.6 | 40.0 |
| Methylene Chloride | Ave | 0.2860 | 0.2668 | | 23.3 | 25.0 | -6.7 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.3495 | 0.3198 | | 22.9 | 25.0 | -8.5 | 40.0 |
| Methyl acetate | Ave | 0.1792 | 0.1732 | | 121 | 125 | -3.3 | 30.0 |
| Allyl chloride | Ave | 0.4470 | 0.4305 | | 24.1 | 25.0 | -3.7 | 40.0 |
| Carbon disulfide | Ave | 0.8478 | 0.7975 | | 23.5 | 25.0 | -5.9 | 40.0 |
| trans-1,2-Dichloroethene | Ave | 0.2494 | 0.2505 | | 25.1 | 25.0 | 0.4 | 30.0 |
| Methyl-t-Butyl Ether (MTBE) | Ave | 0.5953 | 0.6114 | | 25.7 | 25.0 | 2.7 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.4497 | 0.4151 | 0.1000 | 23.1 | 25.0 | -7.7 | 30.0 |
| Propionitrile | Ave | 0.0350 | 0.0347 | | 248 | 250 | -0.9 | 40.0 |
| Vinyl acetate | Ave | 0.4612 | 0.4152 | | 22.5 | 25.0 | -10.0 | 40.0 |
| Hexane | Ave | 0.4180 | 0.3986 | | 23.8 | 25.0 | -4.6 | 40.0 |
| 2-Butanone (MEK) | Lin1 | | 0.0233 | | 23.2 | 25.0 | -7.1 | 40.0 |
| Isopropyl Ether (DIPE) | Ave | 0.7838 | 0.7836 | | 25.0 | 25.0 | -0.0 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.2777 | 0.2747 | | 24.7 | 25.0 | -1.1 | 30.0 |
| Bromochloromethane | Ave | 0.1483 | 0.1478 | | 24.9 | 25.0 | -0.4 | 30.0 |
| Chloroform | Ave | 0.4532 | 0.4189 | | 23.1 | 25.0 | -7.6 | 30.0 |
| 2,2-Dichloropropane | Ave | 0.3700 | 0.3318 | | 22.4 | 25.0 | -10.3 | 30.0 |
| Ethyl-t-butyl ether (ETBE) | Ave | 0.7056 | 0.7289 | | 25.8 | 25.0 | 3.3 | 30.0 |
| Isobutyl alcohol | Ave | 0.4661 | 0.4646 | | 623 | 625 | -0.3 | 40.0 |
| Tetrahydrofuran | Ave | 0.0848 | 0.0773 | | 45.6 | 50.0 | -8.8 | 40.0 |
| 1,2-Dichloroethane | Ave | 0.3091 | 0.2867 | | 23.2 | 25.0 | -7.2 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.4695 | 0.4272 | | 22.7 | 25.0 | -9.0 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.3171 | 0.3278 | | 25.8 | 25.0 | 3.4 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Lab Sample ID: ICV 440-451572/18  Calibration Date: 01/13/2018 22:13

Instrument ID: GCMS59  Calib Start Date: 01/13/2018 15:49

GC Column: DB-VRX A  ID: 0.25(mm)  Calib End Date: 01/13/2018 20:51

Lab File ID: XGA13018.D  Conc. Units: ug/L  Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Cyclohexane | Ave | 0.4610 | 0.4617 | | 25.0 | 25.0 | 0.1 | 30.0 |
| Carbon tetrachloride | Ave | 0.4698 | 0.4220 | | 22.5 | 25.0 | -10.2 | 40.0 |
| Benzene | Ave | 0.9077 | 0.8777 | | 24.2 | 25.0 | -3.3 | 30.0 |
| Tert-amyl-methyl ether (TAME) | Lin2 | | 0.6320 | | 25.1 | 25.0 | 0.3 | 30.0 |
| Dibromomethane | Ave | 0.1521 | 0.1451 | | 23.8 | 25.0 | -4.6 | 30.0 |
| n-Heptane | Ave | 0.4333 | 0.4178 | | 24.1 | 25.0 | -3.6 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.2368 | 0.2353 | | 24.8 | 25.0 | -0.6 | 30.0 |
| Trichloroethene | Ave | 0.3291 | 0.3280 | | 24.9 | 25.0 | -0.4 | 30.0 |
| Bromodichloromethane | Ave | 0.3323 | 0.3319 | | 25.0 | 25.0 | -0.1 | 30.0 |
| Methylcyclohexane | Ave | 0.4321 | 0.4464 | | 25.8 | 25.0 | 3.3 | 30.0 |
| 2-Chloroethyl vinyl ether | Ave | 0.1635 | 0.1626 | | 24.9 | 25.0 | -0.5 | 40.0 |
| cis-1,3-Dichloropropene | Ave | 0.4062 | 0.4200 | | 25.8 | 25.0 | 3.4 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.2652 | 0.2687 | | 25.3 | 25.0 | 1.3 | 40.0 |
| trans-1,3-Dichloropropene | Ave | 0.3671 | 0.3733 | | 25.4 | 25.0 | 1.7 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.1931 | 0.1954 | | 25.3 | 25.0 | 1.2 | 30.0 |
| Toluene | Ave | 1.225 | 1.197 | | 24.4 | 25.0 | -2.2 | 30.0 |
| 1,3-Dichloropropane | Ave | 0.3768 | 0.3717 | | 24.7 | 25.0 | -1.4 | 30.0 |
| Ethyl methacrylate | Ave | 0.2801 | 0.3038 | | 27.1 | 25.0 | 8.5 | 40.0 |
| 2-Hexanone | Ave | 0.1971 | 0.1967 | | 25.0 | 25.0 | -0.2 | 40.0 |
| Dibromochloromethane | Ave | 0.3663 | 0.3588 | | 24.5 | 25.0 | -2.0 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2648 | 0.2675 | | 25.3 | 25.0 | 1.0 | 30.0 |
| Tetrachloroethene | Ave | 0.3437 | 0.3321 | | 24.2 | 25.0 | -3.4 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.3885 | 0.3869 | | 24.9 | 25.0 | -0.4 | 40.0 |
| Chlorobenzene | Ave | 0.999 | 0.9163 | 0.3000 | 22.9 | 25.0 | -8.2 | 30.0 |
| Ethylbenzene | Ave | 1.413 | 1.388 | | 24.6 | 25.0 | -1.7 | 30.0 |
| m,p-Xylene | Ave | 0.5519 | 0.5816 | | 26.3 | 25.0 | 5.4 | 30.0 |
| Bromoform | Ave | 0.2854 | 0.2780 | 0.1000 | 24.4 | 25.0 | -2.6 | 40.0 |
| Styrene | Lin2 | | 0.9136 | | 25.9 | 25.0 | 3.4 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5233 | 0.5117 | 0.3000 | 24.4 | 25.0 | -2.2 | 30.0 |
| o-Xylene | Ave | 0.5441 | 0.5735 | | 26.3 | 25.0 | 5.4 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.1848 | 0.1816 | | 24.6 | 25.0 | -1.7 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.1682 | 0.1566 | | 23.3 | 25.0 | -6.9 | 40.0 |
| Isopropylbenzene | Ave | 1.459 | 1.523 | | 26.1 | 25.0 | 4.4 | 30.0 |
| Bromobenzene | Ave | 0.6939 | 0.7266 | | 26.2 | 25.0 | 4.7 | 30.0 |
| N-Propylbenzene | Ave | 2.403 | 2.588 | | 26.9 | 25.0 | 7.7 | 30.0 |
| 2-Chlorotoluene | Ave | 1.599 | 1.601 | | 25.0 | 25.0 | 0.2 | 30.0 |
| 4-Chlorotoluene | Ave | 1.600 | 1.652 | | 25.8 | 25.0 | 3.2 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 1.880 | 2.028 | | 27.0 | 25.0 | 7.9 | 30.0 |
| tert-Butylbenzene | Ave | 1.788 | 1.926 | | 26.9 | 25.0 | 7.7 | 30.0 |
| 1,2,4-Trimethylbenzene | Ave | 1.938 | 2.074 | | 26.8 | 25.0 | 7.1 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Lab Sample ID: ICV 440-451572/18  Calibration Date: 01/13/2018 22:13

Instrument ID: GCMS59  Calib Start Date: 01/13/2018 15:49

GC Column: DB-VRX A  ID: 0.25(mm)  Calib End Date: 01/13/2018 20:51

Lab File ID: XGA13018.D  Conc. Units: ug/L  Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | Ave | 2.601 | 2.674 | | 25.7 | 25.0 | 2.8 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.497 | 1.436 | | 24.0 | 25.0 | -4.1 | 30.0 |
| 1,4-Dichlorobenzene | Ave | 1.570 | 1.478 | | 23.5 | 25.0 | -5.9 | 30.0 |
| p-Isopropyltoluene | Ave | 2.362 | 2.437 | | 25.8 | 25.0 | 3.1 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.412 | 1.395 | | 24.7 | 25.0 | -1.2 | 30.0 |
| n-Butylbenzene | Ave | 1.992 | 2.081 | | 26.1 | 25.0 | 4.5 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Ave | 0.1230 | 0.1189 | | 24.2 | 25.0 | -3.4 | 40.0 |
| 1,2,4-Trichlorobenzene | Ave | 1.082 | 1.142 | | 26.4 | 25.0 | 5.5 | 40.0 |
| Naphthalene | Ave | 2.004 | 2.329 | | 29.1 | 25.0 | 16.2 | 40.0 |
| Hexachlorobutadiene | Ave | 0.7808 | 0.7388 | | 23.7 | 25.0 | -5.4 | 40.0 |
| 1,2,3-Trichlorobenzene | Ave | 1.027 | 1.082 | | 26.4 | 25.0 | 5.4 | 40.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2960 | 0.2901 | | 24.5 | 25.0 | -2.0 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.2776 | 0.2711 | | 24.4 | 25.0 | -2.4 | |
| Toluene-d8 (Surr) | Ave | 1.038 | 1.115 | | 26.8 | 25.0 | 7.4 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.6966 | 0.7200 | | 25.8 | 25.0 | 3.4 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCVIS 440-452052/2 Calibration Date: 01/16/2018 18:07

Instrument ID: GCMS59 Calib Start Date: 01/13/2018 15:49

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 01/13/2018 20:51

Lab File ID: XGA16032.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.4329 | 0.4590 | | 26.5 | 25.0 | 6.0 | 40.0 |
| Chloromethane | Ave | 0.5484 | 0.5598 | 0.1000 | 25.5 | 25.0 | 2.1 | 40.0 |
| Vinyl chloride | Ave | 0.5349 | 0.5707 | | 26.7 | 25.0 | 6.7 | 20.0 |
| 1,3-Butadiene | Ave | 0.5214 | 0.5426 | | 26.0 | 25.0 | 4.1 | 30.0 |
| Bromomethane | Ave | 0.3002 | 0.2918 | | 24.3 | 25.0 | -2.8 | 30.0 |
| Chloroethane | Ave | 0.2382 | 0.2327 | | 24.4 | 25.0 | -2.3 | 30.0 |
| Ethanol | Ave | 0.1676 | 0.1703 | | 1020 | 1000 | 1.6 | 40.0 |
| Dichlorofluoromethane | Ave | 0.5874 | 0.5612 | | 23.9 | 25.0 | -4.5 | 40.0 |
| Trichlorofluoromethane | Ave | 0.5783 | 0.6070 | | 26.2 | 25.0 | 5.0 | 40.0 |
| Acrolein | Qua2 | | 0.0221 | | 24.4 | 25.0 | -2.3 | 40.0 |
| Acetonitrile | Ave | 0.0385 | 0.0333 | | 216 | 250 | -13.6 | 40.0 |
| Acetone | Ave | 0.0741 | 0.0601 | | 20.3 | 25.0 | -18.9 | 40.0 |
| Diethyl ether | Ave | 0.1899 | 0.1887 | | 24.8 | 25.0 | -0.7 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.2547 | 0.2572 | | 25.2 | 25.0 | 1.0 | 20.0 |
| Iodomethane | Ave | 0.5722 | 0.5755 | | 25.1 | 25.0 | 0.6 | 40.0 |
| tert-Butyl alcohol (TBA) | Ave | 1.132 | 1.223 | | 270 | 250 | 8.1 | 30.0 |
| Acrylonitrile | Ave | 0.0918 | 0.0860 | | 234 | 250 | -6.3 | 40.0 |
| Methylene Chloride | Ave | 0.2860 | 0.2614 | | 22.9 | 25.0 | -8.6 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.3495 | 0.3495 | | 25.0 | 25.0 | 0.0 | 40.0 |
| Methyl acetate | Ave | 0.1792 | 0.1676 | | 117 | 125 | -6.5 | 30.0 |
| Allyl chloride | Ave | 0.4470 | 0.4435 | | 24.8 | 25.0 | -0.8 | 40.0 |
| Carbon disulfide | Ave | 0.8478 | 0.8180 | | 24.1 | 25.0 | -3.5 | 40.0 |
| trans-1,2-Dichloroethene | Ave | 0.2494 | 0.2629 | | 26.4 | 25.0 | 5.4 | 30.0 |
| Methyl-t-Butyl Ether (MTBE) | Ave | 0.5953 | 0.6228 | | 26.2 | 25.0 | 4.6 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.4497 | 0.4557 | 0.1000 | 25.3 | 25.0 | 1.3 | 30.0 |
| Propionitrile | Ave | 0.0350 | 0.0343 | | 245 | 250 | -2.0 | 40.0 |
| Vinyl acetate | Ave | 0.4612 | 0.4783 | | 20.7 | 20.0 | 3.7 | 40.0 |
| Hexane | Ave | 0.4180 | 0.4345 | | 26.0 | 25.0 | 3.9 | 40.0 |
| 2-Butanone (MEK) | Lin1 | | 0.0205 | | 20.8 | 25.0 | -16.7 | 40.0 |
| Isopropyl Ether (DIPE) | Ave | 0.7838 | 0.8033 | | 25.6 | 25.0 | 2.5 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.2777 | 0.2905 | | 26.2 | 25.0 | 4.6 | 30.0 |
| Bromochloromethane | Ave | 0.1483 | 0.1549 | | 26.1 | 25.0 | 4.4 | 30.0 |
| Chloroform | Ave | 0.4532 | 0.4648 | | 25.6 | 25.0 | 2.6 | 20.0 |
| 2,2-Dichloropropane | Ave | 0.3700 | 0.4054 | | 27.4 | 25.0 | 9.6 | 30.0 |
| Ethyl-t-butyl ether (ETBE) | Ave | 0.7056 | 0.7447 | | 26.4 | 25.0 | 5.6 | 30.0 |
| Isobutyl alcohol | Ave | 0.4661 | 0.5362 | | 719 | 625 | 15.0 | 40.0 |
| Tetrahydrofuran | Ave | 0.0848 | 0.0772 | | 45.5 | 50.0 | -9.0 | 40.0 |
| 1,2-Dichloroethane | Ave | 0.3091 | 0.3195 | | 25.8 | 25.0 | 3.4 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.4695 | 0.4799 | | 25.6 | 25.0 | 2.2 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.3171 | 0.3442 | | 27.1 | 25.0 | 8.6 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCVIS 440-452052/2  Calibration Date: 01/16/2018 18:07

Instrument ID: GCMS59  Calib Start Date: 01/13/2018 15:49

GC Column: DB-VRX A  ID: 0.25(mm)  Calib End Date: 01/13/2018 20:51

Lab File ID: XGA16032.D  Conc. Units: ug/L  Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Cyclohexane | Ave | 0.4610 | 0.4955 | | 26.9 | 25.0 | 7.5 | 30.0 |
| Carbon tetrachloride | Ave | 0.4698 | 0.4921 | | 26.2 | 25.0 | 4.7 | 40.0 |
| Benzene | Ave | 0.9077 | 0.9282 | | 25.6 | 25.0 | 2.3 | 30.0 |
| Tert-amyl-methyl ether (TAME) | Lin2 | | 0.6302 | | 25.0 | 25.0 | 0.0 | 30.0 |
| Dibromomethane | Ave | 0.1521 | 0.1540 | | 25.3 | 25.0 | 1.2 | 30.0 |
| n-Heptane | Ave | 0.4333 | 0.4570 | | 26.4 | 25.0 | 5.5 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.2368 | 0.2483 | | 26.2 | 25.0 | 4.9 | 20.0 |
| Trichloroethene | Ave | 0.3291 | 0.3438 | | 26.1 | 25.0 | 4.5 | 30.0 |
| Bromodichloromethane | Ave | 0.3323 | 0.3498 | | 26.3 | 25.0 | 5.3 | 30.0 |
| Methylcyclohexane | Ave | 0.4321 | 0.4719 | | 27.3 | 25.0 | 9.2 | 30.0 |
| 2-Chloroethyl vinyl ether | Ave | 0.1635 | 0.1661 | | 25.4 | 25.0 | 1.6 | 40.0 |
| cis-1,3-Dichloropropene | Ave | 0.4062 | 0.4309 | | 26.5 | 25.0 | 6.1 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.2652 | 0.2409 | | 22.7 | 25.0 | -9.2 | 40.0 |
| trans-1,3-Dichloropropene | Ave | 0.3671 | 0.3946 | | 26.9 | 25.0 | 7.5 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.1931 | 0.1926 | | 24.9 | 25.0 | -0.2 | 30.0 |
| Toluene | Ave | 1.225 | 1.241 | | 25.3 | 25.0 | 1.4 | 20.0 |
| 1,3-Dichloropropane | Ave | 0.3768 | 0.3844 | | 25.5 | 25.0 | 2.0 | 30.0 |
| Ethyl methacrylate | Ave | 0.2801 | 0.2905 | | 25.9 | 25.0 | 3.7 | 40.0 |
| 2-Hexanone | Ave | 0.1971 | 0.1720 | | 21.8 | 25.0 | -12.7 | 40.0 |
| Dibromochloromethane | Ave | 0.3663 | 0.3803 | | 26.0 | 25.0 | 3.8 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2648 | 0.2675 | | 25.3 | 25.0 | 1.0 | 30.0 |
| Tetrachloroethene | Ave | 0.3437 | 0.3594 | | 26.1 | 25.0 | 4.6 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.3885 | 0.3885 | | 25.0 | 25.0 | 0.0 | 40.0 |
| Chlorobenzene | Ave | 0.999 | 0.997 | 0.3000 | 25.0 | 25.0 | -0.2 | 30.0 |
| Ethylbenzene | Ave | 1.413 | 1.472 | | 26.0 | 25.0 | 4.2 | 20.0 |
| m,p-Xylene | Ave | 0.5519 | 0.6095 | | 27.6 | 25.0 | 10.4 | 30.0 |
| Bromoform | Ave | 0.2854 | 0.2927 | 0.1000 | 25.6 | 25.0 | 2.6 | 40.0 |
| Styrene | Lin2 | | 0.9320 | | 26.4 | 25.0 | 5.5 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5233 | 0.5316 | 0.3000 | 25.4 | 25.0 | 1.6 | 30.0 |
| o-Xylene | Ave | 0.5441 | 0.5958 | | 27.4 | 25.0 | 9.5 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.1848 | 0.1818 | | 24.6 | 25.0 | -1.6 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.1682 | 0.1656 | | 24.6 | 25.0 | -1.6 | 40.0 |
| Isopropylbenzene | Ave | 1.459 | 1.614 | | 27.7 | 25.0 | 10.6 | 30.0 |
| Bromobenzene | Ave | 0.6939 | 0.7631 | | 27.5 | 25.0 | 10.0 | 30.0 |
| N-Propylbenzene | Ave | 2.403 | 2.769 | | 28.8 | 25.0 | 15.2 | 30.0 |
| 2-Chlorotoluene | Ave | 1.599 | 1.710 | | 26.7 | 25.0 | 7.0 | 30.0 |
| 4-Chlorotoluene | Ave | 1.600 | 1.758 | | 27.5 | 25.0 | 9.8 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 1.880 | 2.163 | | 28.8 | 25.0 | 15.1 | 30.0 |
| tert-Butylbenzene | Ave | 1.788 | 2.045 | | 28.6 | 25.0 | 14.4 | 30.0 |
| 1,2,4-Trimethylbenzene | Ave | 1.938 | 2.259 | | 29.1 | 25.0 | 16.6 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCVIS 440-452052/2 Calibration Date: 01/16/2018 18:07

Instrument ID: GCMS59 Calib Start Date: 01/13/2018 15:49

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 01/13/2018 20:51

Lab File ID: XGA16032.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | Ave | 2.601 | 2.949 | | 28.3 | 25.0 | 13.4 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.497 | 1.565 | | 26.1 | 25.0 | 4.6 | 30.0 |
| 1,4-Dichlorobenzene | Ave | 1.570 | 1.579 | | 25.1 | 25.0 | 0.6 | 30.0 |
| p-Isopropyltoluene | Ave | 2.362 | 2.718 | | 28.8 | 25.0 | 15.1 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.412 | 1.484 | | 26.3 | 25.0 | 5.1 | 30.0 |
| n-Butylbenzene | Ave | 1.992 | 2.342 | | 29.4 | 25.0 | 17.6 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Ave | 0.1230 | 0.1187 | | 24.1 | 25.0 | -3.5 | 40.0 |
| 1,2,4-Trichlorobenzene | Ave | 1.082 | 1.195 | | 27.6 | 25.0 | 10.5 | 40.0 |
| Naphthalene | Ave | 2.004 | 2.327 | | 29.0 | 25.0 | 16.1 | 40.0 |
| Hexachlorobutadiene | Ave | 0.7808 | 0.7897 | | 25.3 | 25.0 | 1.1 | 40.0 |
| 1,2,3-Trichlorobenzene | Ave | 1.027 | 1.101 | | 26.8 | 25.0 | 7.2 | 40.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2960 | 0.2959 | | 25.0 | 25.0 | -0.0 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.2776 | 0.2763 | | 24.9 | 25.0 | -0.5 | |
| Toluene-d8 (Surr) | Ave | 1.038 | 1.072 | | 25.8 | 25.0 | 3.3 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.6966 | 0.7092 | | 25.5 | 25.0 | 1.8 | 20.0 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452052/4

Matrix: Water | Lab File ID: XGA16034.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 19:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452052 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | ND | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452052/4

Matrix: Water | Lab File ID: XGA16034.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 19:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452052 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 440-452052/4

Matrix: Water  Lab File ID: XGA16034.D

Analysis Method: 8260B  Date Collected:

Sample wt/vol: 10(mL)  Date Analyzed: 01/16/2018 19:11

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX A  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 452052  Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 101 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 96 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 113 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-452052/5

Matrix: Water | Lab File ID: XGA16035.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 19:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452052 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 24.4 | | 20 | 10 |
| 71-43-2 | Benzene | 25.8 | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | 28.2 | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | 26.7 | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 27.1 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 27.0 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | 23.2 | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | 24.7 | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 26.4 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | 24.7 | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | 24.7 | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 25.6 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | 24.1 | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | 27.2 | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | 28.1 | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | 26.5 | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | 28.2 | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 26.9 | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 26.9 | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 27.2 | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | 26.0 | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 26.2 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 25.9 | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 25.5 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | 25.2 | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | 25.1 | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | 25.8 | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | 24.4 | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | 26.2 | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | 26.4 | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | 26.6 | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | 28.1 | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | 26.9 | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 27.0 | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | 25.8 | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | 28.5 | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-452052/5

Matrix: Water | Lab File ID: XGA16035.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 19:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452052 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 29.3 | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | 26.8 | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 22.7 | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 28.2 | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 27.1 | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | 28.7 | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | 30.0 | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | 29.2 | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | 29.3 | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | 29.2 | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | 28.8 | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | 28.7 | | 0.50 | 0.25 |
| 100-42-5 | Styrene | 27.8 | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 26.0 | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 271 | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | 29.3 | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 26.8 | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 26.4 | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 27.3 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | 26.8 | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | 27.7 | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | 27.7 | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 27.4 | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 27.4 | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | 26.1 | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | 27.4 | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 27.4 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | 26.2 | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | 25.9 | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 28.9 | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 29.4 | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | 24.6 | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | 57.9 | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 440-452052/5

Matrix: Water  Lab File ID: XGA16035.D

Analysis Method: 8260B  Date Collected:

Sample wt/vol: 10(mL)  Date Analyzed: 01/16/2018 19:39

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX A  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 452052  Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 100 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 101 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 108 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: VER-01I-C-BL MS | Lab Sample ID: 440-200988-1 MS

Matrix: Water | Lab File ID: XGA16037.D

Analysis Method: 8260B | Date Collected: 01/15/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 20:34

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452052 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 219 | | 200 | 100 |
| 71-43-2 | Benzene | 259 | | 5.0 | 2.5 |
| 108-86-1 | Bromobenzene | 275 | | 5.0 | 2.5 |
| 74-97-5 | Bromochloromethane | 268 | | 5.0 | 2.5 |
| 75-27-4 | Bromodichloromethane | 276 | | 5.0 | 2.5 |
| 75-25-2 | Bromoform | 262 | | 10 | 4.0 |
| 74-83-9 | Bromomethane | 234 | | 5.0 | 2.5 |
| 78-93-3 | 2-Butanone (MEK) | 231 | | 50 | 25 |
| 56-23-5 | Carbon tetrachloride | 261 | | 5.0 | 2.5 |
| 108-90-7 | Chlorobenzene | 247 | | 5.0 | 2.5 |
| 75-00-3 | Chloroethane | 245 | | 10 | 4.0 |
| 67-66-3 | Chloroform | 702 | | 5.0 | 2.5 |
| 74-87-3 | Chloromethane | 238 | | 5.0 | 2.5 |
| 95-49-8 | 2-Chlorotoluene | 271 | | 5.0 | 2.5 |
| 106-43-4 | 4-Chlorotoluene | 284 | | 5.0 | 2.5 |
| 156-59-2 | cis-1,2-Dichloroethene | 267 | | 5.0 | 2.5 |
| 10061-01-5 | cis-1,3-Dichloropropene | 272 | | 5.0 | 2.5 |
| 124-48-1 | Dibromochloromethane | 261 | | 5.0 | 2.5 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 242 | | 10 | 5.0 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 263 | | 5.0 | 2.5 |
| 74-95-3 | Dibromomethane | 261 | | 5.0 | 2.5 |
| 95-50-1 | 1,2-Dichlorobenzene | 266 | | 5.0 | 2.5 |
| 541-73-1 | 1,3-Dichlorobenzene | 260 | | 5.0 | 2.5 |
| 106-46-7 | 1,4-Dichlorobenzene | 257 | | 5.0 | 2.5 |
| 75-71-8 | Dichlorodifluoromethane | 245 | | 10 | 4.0 |
| 75-34-3 | 1,1-Dichloroethane | 247 | | 5.0 | 2.5 |
| 107-06-2 | 1,2-Dichloroethane | 262 | | 5.0 | 2.5 |
| 75-35-4 | 1,1-Dichloroethene | 247 | | 5.0 | 2.5 |
| 78-87-5 | 1,2-Dichloropropane | 265 | | 5.0 | 2.5 |
| 142-28-9 | 1,3-Dichloropropane | 260 | | 5.0 | 2.5 |
| 594-20-7 | 2,2-Dichloropropane | 269 | | 10 | 4.0 |
| 563-58-6 | 1,1-Dichloropropene | 283 | | 5.0 | 2.5 |
| 100-41-4 | Ethylbenzene | 263 | | 5.0 | 2.5 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 276 | | 5.0 | 2.5 |
| 87-68-3 | Hexachlorobutadiene | 257 | | 5.0 | 2.5 |
| 591-78-6 | 2-Hexanone | 264 | | 50 | 25 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: VER-01I-C-BL MS | Lab Sample ID: 440-200988-1 MS

Matrix: Water | Lab File ID: XGA16037.D

Analysis Method: 8260B | Date Collected: 01/15/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 20:34

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452052 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 287 | | 5.0 | 2.5 |
| 108-20-3 | Isopropyl Ether (DIPE) | 273 | | 5.0 | 2.5 |
| 75-09-2 | Methylene Chloride | 231 | | 20 | 8.8 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 264 | | 50 | 25 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 273 | | 5.0 | 2.5 |
| 179601-23-1 | m,p-Xylene | 282 | | 10 | 5.0 |
| 91-20-3 | Naphthalene | 282 | | 10 | 4.0 |
| 104-51-8 | n-Butylbenzene | 292 | | 10 | 4.0 |
| 103-65-1 | N-Propylbenzene | 290 | | 5.0 | 2.5 |
| 95-47-6 | o-Xylene | 287 | | 5.0 | 2.5 |
| 99-87-6 | p-Isopropyltoluene | 284 | | 5.0 | 2.5 |
| 135-98-8 | sec-Butylbenzene | 284 | | 5.0 | 2.5 |
| 100-42-5 | Styrene | 257 | | 5.0 | 2.5 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 263 | | 5.0 | 2.5 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 2700 | | 100 | 50 |
| 98-06-6 | tert-Butylbenzene | 290 | | 5.0 | 2.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 273 | | 5.0 | 2.5 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 250 | | 5.0 | 2.5 |
| 127-18-4 | Tetrachloroethene | 267 | | 5.0 | 2.5 |
| 108-88-3 | Toluene | 263 | | 5.0 | 2.5 |
| 156-60-5 | trans-1,2-Dichloroethene | 277 | | 5.0 | 2.5 |
| 10061-02-6 | trans-1,3-Dichloropropene | 272 | | 5.0 | 2.5 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 276 | | 10 | 4.0 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 273 | | 10 | 4.0 |
| 71-55-6 | 1,1,1-Trichloroethane | 261 | | 5.0 | 2.5 |
| 79-00-5 | 1,1,2-Trichloroethane | 263 | | 5.0 | 2.5 |
| 79-01-6 | Trichloroethene | 271 | | 5.0 | 2.5 |
| 75-69-4 | Trichlorofluoromethane | 260 | | 5.0 | 2.5 |
| 96-18-4 | 1,2,3-Trichloropropane | 247 | | 10 | 4.0 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 288 | | 5.0 | 2.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 287 | | 5.0 | 2.5 |
| 75-01-4 | Vinyl chloride | 244 | | 5.0 | 2.5 |
| 1330-20-7 | Xylenes, Total | 569 | | 10 | 5.0 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Client Sample ID: VER-01I-C-BL MS Lab Sample ID: 440-200988-1 MS

Matrix: Water Lab File ID: XGA16037.D

Analysis Method: 8260B Date Collected: 01/15/2018 03:30

Sample wt/vol: 10(mL) Date Analyzed: 01/16/2018 20:34

Soil Aliquot Vol: Dilution Factor: 10

Soil Extract Vol.: GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452052 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 101 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 107 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: VER-01I-C-BL MSD | Lab Sample ID: 440-200988-1 MSD

Matrix: Water | Lab File ID: XGA16038.D

Analysis Method: 8260B | Date Collected: 01/15/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 21:01

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452052 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 232 | | 200 | 100 |
| 71-43-2 | Benzene | 262 | | 5.0 | 2.5 |
| 108-86-1 | Bromobenzene | 277 | | 5.0 | 2.5 |
| 74-97-5 | Bromochloromethane | 269 | | 5.0 | 2.5 |
| 75-27-4 | Bromodichloromethane | 278 | | 5.0 | 2.5 |
| 75-25-2 | Bromoform | 260 | | 10 | 4.0 |
| 74-83-9 | Bromomethane | 233 | | 5.0 | 2.5 |
| 78-93-3 | 2-Butanone (MEK) | 216 | | 50 | 25 |
| 56-23-5 | Carbon tetrachloride | 259 | | 5.0 | 2.5 |
| 108-90-7 | Chlorobenzene | 250 | | 5.0 | 2.5 |
| 75-00-3 | Chloroethane | 245 | | 10 | 4.0 |
| 67-66-3 | Chloroform | 704 | | 5.0 | 2.5 |
| 74-87-3 | Chloromethane | 237 | | 5.0 | 2.5 |
| 95-49-8 | 2-Chlorotoluene | 272 | | 5.0 | 2.5 |
| 106-43-4 | 4-Chlorotoluene | 282 | | 5.0 | 2.5 |
| 156-59-2 | cis-1,2-Dichloroethene | 269 | | 5.0 | 2.5 |
| 10061-01-5 | cis-1,3-Dichloropropene | 279 | | 5.0 | 2.5 |
| 124-48-1 | Dibromochloromethane | 272 | | 5.0 | 2.5 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 228 | | 10 | 5.0 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 264 | | 5.0 | 2.5 |
| 74-95-3 | Dibromomethane | 254 | | 5.0 | 2.5 |
| 95-50-1 | 1,2-Dichlorobenzene | 265 | | 5.0 | 2.5 |
| 541-73-1 | 1,3-Dichlorobenzene | 259 | | 5.0 | 2.5 |
| 106-46-7 | 1,4-Dichlorobenzene | 254 | | 5.0 | 2.5 |
| 75-71-8 | Dichlorodifluoromethane | 254 | | 10 | 4.0 |
| 75-34-3 | 1,1-Dichloroethane | 256 | | 5.0 | 2.5 |
| 107-06-2 | 1,2-Dichloroethane | 261 | | 5.0 | 2.5 |
| 75-35-4 | 1,1-Dichloroethene | 239 | | 5.0 | 2.5 |
| 78-87-5 | 1,2-Dichloropropane | 270 | | 5.0 | 2.5 |
| 142-28-9 | 1,3-Dichloropropane | 263 | | 5.0 | 2.5 |
| 594-20-7 | 2,2-Dichloropropane | 269 | | 10 | 4.0 |
| 563-58-6 | 1,1-Dichloropropene | 281 | | 5.0 | 2.5 |
| 100-41-4 | Ethylbenzene | 270 | | 5.0 | 2.5 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 285 | | 5.0 | 2.5 |
| 87-68-3 | Hexachlorobutadiene | 248 | | 5.0 | 2.5 |
| 591-78-6 | 2-Hexanone | 240 | | 50 | 25 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: VER-01I-C-BL MSD | Lab Sample ID: 440-200988-1 MSD

Matrix: Water | Lab File ID: XGA16038.D

Analysis Method: 8260B | Date Collected: 01/15/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 21:01

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452052 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 292 | | 5.0 | 2.5 |
| 108-20-3 | Isopropyl Ether (DIPE) | 279 | | 5.0 | 2.5 |
| 75-09-2 | Methylene Chloride | 233 | | 20 | 8.8 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 244 | | 50 | 25 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 275 | | 5.0 | 2.5 |
| 179601-23-1 | m,p-Xylene | 290 | | 10 | 5.0 |
| 91-20-3 | Naphthalene | 275 | | 10 | 4.0 |
| 104-51-8 | n-Butylbenzene | 290 | | 10 | 4.0 |
| 103-65-1 | N-Propylbenzene | 289 | | 5.0 | 2.5 |
| 95-47-6 | o-Xylene | 297 | | 5.0 | 2.5 |
| 99-87-6 | p-Isopropyltoluene | 282 | | 5.0 | 2.5 |
| 135-98-8 | sec-Butylbenzene | 279 | | 5.0 | 2.5 |
| 100-42-5 | Styrene | 264 | | 5.0 | 2.5 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 267 | | 5.0 | 2.5 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 2710 | | 100 | 50 |
| 98-06-6 | tert-Butylbenzene | 287 | | 5.0 | 2.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 272 | | 5.0 | 2.5 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 243 | | 5.0 | 2.5 |
| 127-18-4 | Tetrachloroethene | 267 | | 5.0 | 2.5 |
| 108-88-3 | Toluene | 265 | | 5.0 | 2.5 |
| 156-60-5 | trans-1,2-Dichloroethene | 274 | | 5.0 | 2.5 |
| 10061-02-6 | trans-1,3-Dichloropropene | 282 | | 5.0 | 2.5 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 272 | | 10 | 4.0 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 272 | | 10 | 4.0 |
| 71-55-6 | 1,1,1-Trichloroethane | 256 | | 5.0 | 2.5 |
| 79-00-5 | 1,1,2-Trichloroethane | 266 | | 5.0 | 2.5 |
| 79-01-6 | Trichloroethene | 269 | | 5.0 | 2.5 |
| 75-69-4 | Trichlorofluoromethane | 241 | | 5.0 | 2.5 |
| 96-18-4 | 1,2,3-Trichloropropane | 234 | | 10 | 4.0 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 290 | | 5.0 | 2.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 289 | | 5.0 | 2.5 |
| 75-01-4 | Vinyl chloride | 245 | | 5.0 | 2.5 |
| 1330-20-7 | Xylenes, Total | 587 | | 10 | 5.0 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Client Sample ID: VER-01I-C-BL MSD Lab Sample ID: 440-200988-1 MSD

Matrix: Water Lab File ID: XGA16038.D

Analysis Method: 8260B Date Collected: 01/15/2018 03:30

Sample wt/vol: 10(mL) Date Analyzed: 01/16/2018 21:01

Soil Aliquot Vol: Dilution Factor: 10

Soil Extract Vol.: GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452052 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 101 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 101 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 108 | | 80-128 |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: GCMS59 Start Date: 01/13/2018 14:13

Analysis Batch Number: 451572 End Date: 01/13/2018 22:13

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-451572/1 | | 01/13/2018 14:13 | 1 | XGA13001.D | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/13/2018 14:54 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/13/2018 15:22 | 1 | | DB-VRX A 0.25(mm) |
| STD02 440-451572/4 IC | | 01/13/2018 15:49 | 1 | XGA13004.D | DB-VRX A 0.25(mm) |
| STD04 440-451572/5 IC | | 01/13/2018 16:17 | 1 | XGA13005.D | DB-VRX A 0.25(mm) |
| STD05 440-451572/6 IC | | 01/13/2018 16:44 | 1 | XGA13006.D | DB-VRX A 0.25(mm) |
| STD1 440-451572/7 IC | | 01/13/2018 17:12 | 1 | XGA13007.D | DB-VRX A 0.25(mm) |
| STD2 440-451572/8 IC | | 01/13/2018 17:39 | 1 | XGA13008.D | DB-VRX A 0.25(mm) |
| STD5 440-451572/9 IC | | 01/13/2018 18:06 | 1 | XGA13009.D | DB-VRX A 0.25(mm) |
| STD10 440-451572/10 IC | | 01/13/2018 18:34 | 1 | XGA13010.D | DB-VRX A 0.25(mm) |
| ICIS 440-451572/11 | | 01/13/2018 19:01 | 1 | XGA13011.D | DB-VRX A 0.25(mm) |
| STD50 440-451572/12 IC | | 01/13/2018 19:29 | 1 | XGA13012.D | DB-VRX A 0.25(mm) |
| STD100 440-451572/13 IC | | 01/13/2018 19:56 | 1 | XGA13013.D | DB-VRX A 0.25(mm) |
| STD200 440-451572/14 IC | | 01/13/2018 20:24 | 1 | XGA13014.D | DB-VRX A 0.25(mm) |
| STD300 440-451572/15 IC | | 01/13/2018 20:51 | 1 | XGA13015.D | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/13/2018 21:19 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/13/2018 21:46 | 1 | | DB-VRX A 0.25(mm) |
| ICV 440-451572/18 | | 01/13/2018 22:13 | 1 | XGA13018.D | DB-VRX A 0.25(mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: GCMS59 Start Date: 01/16/2018 17:41

Analysis Batch Number: 452052 End Date: 01/17/2018 00:41

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-452052/1 | | 01/16/2018 17:41 | 1 | XGA16031.D | DB-VRX A 0.25(mm) |
| CCVIS 440-452052/2 | | 01/16/2018 18:07 | 1 | XGA16032.D | DB-VRX A 0.25(mm) |
| CCV 440-452052/3 | | 01/16/2018 18:43 | 1 | | DB-VRX A 0.25(mm) |
| MB 440-452052/4 | | 01/16/2018 19:11 | 1 | XGA16034.D | DB-VRX A 0.25(mm) |
| LCS 440-452052/5 | | 01/16/2018 19:39 | 1 | XGA16035.D | DB-VRX A 0.25(mm) |
| 440-200988-1 | | 01/16/2018 20:06 | 10 | XGA16036.D | DB-VRX A 0.25(mm) |
| 440-200988-1 MS | | 01/16/2018 20:34 | 10 | XGA16037.D | DB-VRX A 0.25(mm) |
| 440-200988-1 MSD | | 01/16/2018 21:01 | 10 | XGA16038.D | DB-VRX A 0.25(mm) |
| 440-200988-3 | | 01/16/2018 21:28 | 10 | XGA16039.D | DB-VRX A 0.25(mm) |
| 440-200988-2 | | 01/16/2018 21:56 | 1 | XGA16040.D | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/16/2018 22:23 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/16/2018 22:51 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/16/2018 23:18 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/16/2018 23:46 | 25 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/17/2018 00:13 | 25 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/17/2018 00:41 | 2.5 | | DB-VRX A 0.25(mm) |

# GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Batch Number: 452052  Batch Start Date: 01/16/18 17:41  Batch Analyst: Saetia, Kriangsak 1

Batch Method: 8260B  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | Initial pH | VMW8260TUNE1 00415 | VMWNU8260CCV1 00883 | VMWNU8260ISS 00135 |
|---|---|---|---|---|---|---|---|---|---|
| BFB 440-452052/1 | | 8260B | | 10 mL | 10 mL | | 2 uL | | |
| CCVIS 440-452052/2 | | 8260B | | 10 mL | 10 mL | | | 5 uL | 5 uL |
| MB 440-452052/4 | | 8260B | | 10 mL | 10 mL | | | | 5 uL |
| LCS 440-452052/5 | | 8260B | | 10 mL | 10 mL | | | | 5 uL |
| 440-200988-B-1 | VER-01I-C-BL | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-200988-B-1 MS | VER-01I-C-BL | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-200988-B-1 MSD | VER-01I-C-BL | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-200988-C-3 | VER-01I-C-12 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-200988-A-2 | Trip Blank | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | VMWNU8260LCS2 00173 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BFB 440-452052/1 | | 8260B | | | | | | | |
| CCVIS 440-452052/2 | | 8260B | | | | | | | |
| MB 440-452052/4 | | 8260B | | | | | | | |
| LCS 440-452052/5 | | 8260B | | 5 uL | | | | | |
| 440-200988-B-1 | VER-01I-C-BL | 8260B | T | | | | | | |
| 440-200988-B-1 MS | VER-01I-C-BL | 8260B | T | 5 uL | | | | | |
| 440-200988-B-1 MSD | VER-01I-C-BL | 8260B | T | 5 uL | | | | | |
| 440-200988-C-3 | VER-01I-C-12 | 8260B | T | | | | | | |
| 440-200988-A-2 | Trip Blank | 8260B | T | | | | | | |

| Batch Notes | |
|---|---|
| | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Batch Number: 452052  Batch Start Date: 01/16/18 17:41  Batch Analyst: Saetia, Kriangsak 1

Batch Method: 8260B  Batch End Date:

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# 314.0_LL

## Perchlorate (IC)

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098658-006_6_ECD_1.d

Lab ID: LCS 440-451680/6 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 10.0 | 9.06 | 91 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098658-004_4_ECD_1.d

Lab ID: MRL 440-451680/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 1.00 | 0.903 J | 90 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098658-099_99_ECD_1.d

Lab ID: 440-200984-A-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Perchlorate | 500 | 530 | 952 | 84 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098658-100_100_ECD_1.d

Lab ID: 440-200984-A-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Perchlorate | 500 | 986 | 91 | 4 | 20 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098658-008_8_ECD_1.d

Lab ID: INF 440-451680/8 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | INF CONCENTRATION (ug/L) | INF % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 10.0 | 9.90 | 99 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab File ID: 440-0098658-007_7_ECD_1.d Lab Sample ID: MB 440-451680/7

Matrix: Water Date Extracted:

Instrument ID: IC-25 Date Analyzed: 01/15/2018 11:07

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-451680/3 | 440-0098658-003_3_ECD_1.d | 01/15/2018 09:51 |
| | LCS 440-451680/6 | 440-0098658-006_6_ECD_1.d | 01/15/2018 10:49 |
| | CCB 440-451680/15 | 440-0098658-015_15_ECD 1.d | 01/15/2018 13:41 |
| | CCB 440-451680/91 | 440-0098658-091_91_ECD 1.d | 01/16/2018 14:01 |
| | 440-200984-A-1 MS | 440-0098658-099_99_ECD_1.d | 01/16/2018 17:30 |
| | 440-200984-A-1 MSD | 440-0098658-100_100_ECD_1.d | 01/16/2018 17:48 |
| | CCB 440-451680/103 | 440-0098658-103_103_ECD_1.d | 01/16/2018 18:43 |
| VER-01I-C-BL | 440-200988-1 | 440-0098658-110_110_ECD_1.d | 01/16/2018 20:52 |
| VER-01I-C-12 | 440-200988-3 | 440-0098658-111_111_ECD_1.d | 01/16/2018 21:10 |
| | CCB 440-451680/115 | 440-0098658-115_115_ECD_1.d | 01/16/2018 22:23 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: VER-01I-C-BL | Lab Sample ID: 440-200988-1

Matrix: Water | Lab File ID: 440-0098658-110_110_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/15/2018 03:30

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/16/2018 20:52

Con. Extract Vol.: | Dilution Factor: 100000

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1200000 | | 100000 | 50000 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: VER-01I-C-12 | Lab Sample ID: 440-200988-3

Matrix: Water | Lab File ID: 440-0098658-111_111_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/15/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/16/2018 21:10

Con. Extract Vol.: | Dilution Factor: 100000

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1100000 | | 100000 | 50000 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 447839

SDG No.:

Instrument ID: IC-25 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/20/2017 11:10 Calibration End Date: 12/20/2017 13:16 Calibration ID: 18248

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-447839/1 | 440-0097758-001_1_ECD_1.d |
| Level 2 | STD1 440-447839/2 | 440-0097758-002_2_ECD_1.d |
| Level 3 | STD2 440-447839/3 | 440-0097758-003_3_ECD_1.d |
| Level 4 | STD3 440-447839/4 | 440-0097758-004_4_ECD_1.d |
| Level 5 | STD4 440-447839/5 | 440-0097758-005_5_ECD_1.d |
| Level 6 | STD5 440-447839/6 | 440-0097758-006_6_ECD_1.d |
| Level 7 | STD6 440-447839/7 | 440-0097758-007_7_ECD_1.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | | 11.814 | 11.814 | 11.804 | 11.804 | 11.804 | 11.810 | | | | 0.000 - 0.000 | 11.808 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1  Analy Batch No.: 447839

SDG No.:

Instrument ID: IC-25  GC Column: AS7 A  ID: 4(mm)  Heated Purge: (Y/N) N

Calibration Start Date: 12/20/2017 11:10  Calibration End Date: 12/20/2017 13:16  Calibration ID: 18248

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-447839/1 | 440-0097758-001_1_ECD_1.d |
| Level 2 | STD1 440-447839/2 | 440-0097758-002_2_ECD_1.d |
| Level 3 | STD2 440-447839/3 | 440-0097758-003_3_ECD_1.d |
| Level 4 | STD3 440-447839/4 | 440-0097758-004_4_ECD_1.d |
| Level 5 | STD4 440-447839/5 | 440-0097758-005_5_ECD_1.d |
| Level 6 | STD5 440-447839/6 | 440-0097758-006_6_ECD_1.d |
| Level 7 | STD6 440-447839/7 | 440-0097758-007_7_ECD_1.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Perchlorate | 137199 | 193691<br>140806 | 172072<br>133109 | 150105 | Lin | 57064.1722 | 132466.839 | | | | | | | 0.9990 | | 0.9950 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 447839

SDG No.:

Instrument ID: IC-25 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/20/2017 11:10 Calibration End Date: 12/20/2017 13:16 Calibration ID: 18248

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-447839/1 | 440-0097758-001_1_ECD_1.d |
| Level 2 | STD1 440-447839/2 | 440-0097758-002_2_ECD_1.d |
| Level 3 | STD2 440-447839/3 | 440-0097758-003_3_ECD_1.d |
| Level 4 | STD3 440-447839/4 | 440-0097758-004_4_ECD_1.d |
| Level 5 | STD4 440-447839/5 | 440-0097758-005_5_ECD_1.d |
| Level 6 | STD5 440-447839/6 | 440-0097758-006_6_ECD_1.d |
| Level 7 | STD6 440-447839/7 | 440-0097758-007_7_ECD_1.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| Perchlorate | Lin | 2112096 | 193691<br>3327719 | 344144 | 600421 | 1371988 | 0.000000<br>15.0 | 1.00<br>25.0 | 2.00 | 4.00 | 10.0 |

Curve Type Legend:
Lin = Linear

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: ICV 440-447839/8 Calibration Date: 12/20/2017 13:40

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0097758-008_8_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 10.1 | 10.0 | 101 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: ICV 440-447839/8 Calibration Date: 12/20/2017 13:40

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0097758-008_8_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.81 | 11.22 | 12.41 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451680/2  Calibration Date: 01/15/2018 09:25

Instrument ID: IC-25  Calib Start Date: 12/20/2017 11:10

GC Column: AS16  ID: 4.00(mm)  Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098658-002_2_ECD_1.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 8.78 | 10.0 | 88 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451680/2 Calibration Date: 01/15/2018 09:25

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098658-002_2_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.39 | 11.77 | 13.01 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451680/14 Calibration Date: 01/15/2018 13:22

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098658-014_14_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 8.97 | 10.0 | 90 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451680/14 Calibration Date: 01/15/2018 13:22

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098658-014_14_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.38 | 11.76 | 13.00 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451680/90 Calibration Date: 01/16/2018 13:42

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098658-090_90_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 19.0 | 20.0 | 95 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451680/90 Calibration Date: 01/16/2018 13:42

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098658-090_90_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.40 | 11.78 | 13.02 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451680/102 Calibration Date: 01/16/2018 18:25

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098658-102_102_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 8.55 | 10.0 | 86 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451680/102 Calibration Date: 01/16/2018 18:25

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098658-102_102_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.41 | 11.79 | 13.03 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451680/114 Calibration Date: 01/16/2018 22:05

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098658-114_114_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 19.0 | 20.0 | 95 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451680/114 Calibration Date: 01/16/2018 22:05

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098658-114_114_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.41 | 11.79 | 13.04 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-451680/7

Matrix: Water | Lab File ID: 440-0098658-007_7_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/15/2018 11:07

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451680/3

Matrix: Water | Lab File ID: 440-0098658-003_3_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/15/2018 09:51

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451680/15

Matrix: Water | Lab File ID: 440-0098658-015_15_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/15/2018 13:41

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451680/91

Matrix: Water | Lab File ID: 440-0098658-091_91_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/16/2018 14:01

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451680/103

Matrix: Water | Lab File ID: 440-0098658-103_103_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/16/2018 18:43

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451680/115

Matrix: Water | Lab File ID: 440-0098658-115_115_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/16/2018 22:23

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-451680/6

Matrix: Water | Lab File ID: 440-0098658-006_6_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/15/2018 10:49

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 9.06 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-451680/4

Matrix: Water | Lab File ID: 440-0098658-004_4_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/15/2018 10:09

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 0.903 | J | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: INF 440-451680/8

Matrix: Water | Lab File ID: 440-0098658-008_8_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/15/2018 11:26

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 9.90 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-200984-A-1 MS

Matrix: Water | Lab File ID: 440-0098658-099_99_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/13/2018 10:00

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/16/2018 17:30

Con. Extract Vol.: | Dilution Factor: 50

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 952 | | 50 | 25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-200984-A-1 MSD

Matrix: Water | Lab File ID: 440-0098658-100_100_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/13/2018 10:00

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/16/2018 17:48

Con. Extract Vol.: | Dilution Factor: 50

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451680 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 986 | | 50 | 25 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-25 Start Date: 12/20/2017 11:10

Analysis Batch Number: 447839 End Date: 12/20/2017 19:55

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| STD0 440-447839/1 IC | | 12/20/2017 11:10 | 1 | 440-0097758-001 1 ECD 1.d | AS7 A 4(mm) |
| STD1 440-447839/2 IC | | 12/20/2017 11:28 | 1 | 440-0097758-002 2 ECD 1.d | AS7 A 4(mm) |
| STD2 440-447839/3 IC | | 12/20/2017 12:02 | 1 | 440-0097758-003 3 ECD 1.d | AS7 A 4(mm) |
| STD3 440-447839/4 IC | | 12/20/2017 12:21 | 1 | 440-0097758-004 4 ECD 1.d | AS7 A 4(mm) |
| STD4 440-447839/5 IC | | 12/20/2017 12:39 | 1 | 440-0097758-005 5 ECD 1.d | AS7 A 4(mm) |
| STD5 440-447839/6 IC | | 12/20/2017 12:57 | 1 | 440-0097758-006 6 ECD 1.d | AS7 A 4(mm) |
| STD6 440-447839/7 IC | | 12/20/2017 13:16 | 1 | 440-0097758-007 7 ECD 1.d | AS7 A 4(mm) |
| ICV 440-447839/8 | | 12/20/2017 13:40 | 1 | 440-0097758-008 8 ECD 1.d | AS7 A 4(mm) |
| ICB 440-447839/9 | | 12/20/2017 13:58 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 14:16 | 1 | | AS7 A 4(mm) |
| CCV 440-447839/11 | | 12/20/2017 14:34 | 1 | | AS7 A 4(mm) |
| CCB 440-447839/12 | | 12/20/2017 14:58 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 15:17 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 15:35 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 15:53 | 1 | | AS7 A 4(mm) |
| INF 440-447839/16 | | 12/20/2017 16:12 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 16:38 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 16:55 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 17:14 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 17:46 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 18:04 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 18:23 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 18:41 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 18:59 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 19:18 | 1 | | AS7 A 4(mm) |
| CCV 440-447839/26 | | 12/20/2017 19:36 | 1 | | AS7 A 4(mm) |
| CCB 440-447839/27 | | 12/20/2017 19:55 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-25 Start Date: 01/15/2018 09:07

Analysis Batch Number: 451680 End Date: 01/16/2018 22:23

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/15/2018 09:07 | 1 | | AS16 4(mm) |
| CCV 440-451680/2 | | 01/15/2018 09:25 | 1 | 440-0098658-002 2 ECD 1.d | AS16 4(mm) |
| CCB 440-451680/3 | | 01/15/2018 09:51 | 1 | 440-0098658-003 3 ECD 1.d | AS16 4(mm) |
| MRL 440-451680/4 | | 01/15/2018 10:09 | 1 | 440-0098658-004 4 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 10:28 | 1 | | AS16 4(mm) |
| LCS 440-451680/6 | | 01/15/2018 10:49 | 1 | 440-0098658-006 6 ECD 1.d | AS16 4(mm) |
| MB 440-451680/7 | | 01/15/2018 11:07 | 1 | 440-0098658-007 7 ECD 1.d | AS16 4(mm) |
| INF 440-451680/8 | | 01/15/2018 11:26 | 1 | 440-0098658-008 8 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 11:51 | 10 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 12:09 | 10 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 12:27 | 20 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 12:46 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 13:04 | 1 | | AS16 4(mm) |
| CCV 440-451680/14 | | 01/15/2018 13:22 | 1 | 440-0098658-014 14 ECD 1.d | AS16 4(mm) |
| CCB 440-451680/15 | | 01/15/2018 13:41 | 1 | 440-0098658-015 15 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 14:03 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 14:21 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 14:39 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 14:58 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 15:16 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 15:34 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 15:53 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 16:11 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 16:29 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 16:48 | 1 | | AS16 4(mm) |
| CCV 440-451680/26 | | 01/15/2018 17:06 | 1 | | AS16 4(mm) |
| CCB 440-451680/27 | | 01/15/2018 17:25 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 17:48 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 18:06 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 18:24 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 18:43 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 19:01 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 19:19 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 19:38 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 19:56 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 20:14 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 20:33 | 1 | | AS16 4(mm) |
| CCV 440-451680/38 | | 01/15/2018 20:51 | 1 | | AS16 4(mm) |
| CCB 440-451680/39 | | 01/15/2018 21:09 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 21:28 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 21:46 | 1 | | AS16 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-25 Start Date: 01/15/2018 09:07

Analysis Batch Number: 451680 End Date: 01/16/2018 22:23

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/15/2018 22:04 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 22:23 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 22:41 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 23:00 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 23:18 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 23:36 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/15/2018 23:55 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 00:13 | 1 | | AS16 4(mm) |
| CCV 440-451680/50 | | 01/16/2018 00:31 | 1 | | AS16 4(mm) |
| CCB 440-451680/51 | | 01/16/2018 00:50 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 01:08 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 01:26 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 01:45 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 02:03 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 02:21 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 02:40 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 02:58 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 03:17 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 03:35 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 03:53 | 1 | | AS16 4(mm) |
| CCV 440-451680/62 | | 01/16/2018 04:12 | 1 | | AS16 4(mm) |
| CCB 440-451680/63 | | 01/16/2018 04:30 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 04:48 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 05:07 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 05:25 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 05:43 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 06:02 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 06:20 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 06:38 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 06:57 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 07:15 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 07:34 | 1 | | AS16 4(mm) |
| CCV 440-451680/74 | | 01/16/2018 07:52 | 1 | | AS16 4(mm) |
| CCB 440-451680/75 | | 01/16/2018 08:10 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 09:26 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 09:44 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 10:02 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 10:20 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 10:39 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 10:57 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 11:15 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 11:34 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 11:52 | 5 | | AS16 4(mm) |
| CCV 440-451680/85 | | 01/16/2018 12:11 | 1 | | AS16 4(mm) |
| CCB 440-451680/86 | | 01/16/2018 12:29 | 1 | | AS16 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-25 Start Date: 01/15/2018 09:07

Analysis Batch Number: 451680 End Date: 01/16/2018 22:23

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/16/2018 12:47 | 2 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 13:06 | 10 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 13:24 | 20 | | AS16 4(mm) |
| CCV 440-451680/90 | | 01/16/2018 13:42 | 1 | 440-0098658-090 90 ECD 1.d | AS16 4(mm) |
| CCB 440-451680/91 | | 01/16/2018 14:01 | 1 | 440-0098658-091 91 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 14:45 | 100 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 15:02 | 100 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 15:54 | 50 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 16:35 | 100000 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 16:53 | 100000 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 17:11 | 50 | | AS16 4(mm) |
| 440-200984-A-1 MS | | 01/16/2018 17:30 | 50 | 440-0098658-099 99 ECD 1.d | AS16 4(mm) |
| 440-200984-A-1 MSD | | 01/16/2018 17:48 | 50 | 440-0098658-100 100 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 18:07 | 1 | | AS16 4(mm) |
| CCV 440-451680/102 | | 01/16/2018 18:25 | 1 | 440-0098658-102 102 ECD 1.d | AS16 4(mm) |
| CCB 440-451680/103 | | 01/16/2018 18:43 | 1 | 440-0098658-103 103 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 19:02 | 2 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 19:20 | 10000 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 19:38 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 19:57 | 10000 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 20:15 | 20000 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 20:33 | 20000 | | AS16 4(mm) |
| 440-200988-1 | | 01/16/2018 20:52 | 100000 | 440-0098658-110 110 ECD 1.d | AS16 4(mm) |
| 440-200988-3 | | 01/16/2018 21:10 | 100000 | 440-0098658-111 111 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 21:28 | 100000 | | AS16 4(mm) |
| ZZZZZ | | 01/16/2018 21:47 | 100000 | | AS16 4(mm) |
| CCV 440-451680/114 | | 01/16/2018 22:05 | 1 | 440-0098658-114 114 ECD 1.d | AS16 4(mm) |
| CCB 440-451680/115 | | 01/16/2018 22:23 | 1 | 440-0098658-115 115 ECD 1.d | AS16 4(mm) |

# Method 7199

## Chromium, Hexavalent (IC) by Method 7199

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: LCS 440-451661/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 50.7 | 101 | 90-110 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: MRL 440-451661/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 1.00 | 1.01 J | 101 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water (Dissolved Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: 440-200993-F-9 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | ND | 49.7 | 99 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water (Dissolved Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: 440-200993-F-9 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 51.2 | 102 | 3 | 20 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2 Lab Sample ID: MB 440-451661/6

Matrix: Water Date Extracted:

Instrument ID: IC-16 Date Analyzed: 01/15/2018 08:10

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-451661/3 | Info 2_TAIIRV0066_Hex Chrom_20180115-074741.d | 01/15/2018 07:36 |
| | LCS 440-451661/5 | Info 2_TAIIRV0066_Hex Chrom_20180115-081056.d | 01/15/2018 07:59 |
| | CCB 440-451661/15 | Info 2_TAIIRV0066_Hex Chrom_20180115-102610.d | 01/15/2018 10:14 |
| | CCB 440-451661/18 | Info 2_TAIIRV0066_Hex Chrom_20180115-200757.d | 01/15/2018 19:56 |
| VER-01I-C-BL | 440-200988-1 | Info 2_TAIIRV0066_Hex Chrom_20180115-213912.d | 01/15/2018 21:27 |
| | CCB 440-451661/30 | Info 2_TAIIRV0066_Hex Chrom_20180115-234709.d | 01/15/2018 23:35 |
| | CCB 440-451661/51 | Info 2_TAIIRV0066_Hex Chrom_20180116-045456.d | 01/16/2018 04:43 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2 Lab Sample ID: MB 440-451661/6

Matrix: Water Date Extracted:

Instrument ID: IC-16 Date Analyzed: 01/15/2018 08:10

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | 440-200993-F-9 MS | Info 2_TAIIRV0066_Hex Chrom_20180116-064923.d | 01/16/2018 06:37 |
| | 440-200993-F-9 MSD | Info 2_TAIIRV0066_Hex Chrom_20180116-070101.d | 01/16/2018 06:49 |
| | CCB 440-451661/63 | Info 2_TAIIRV0066_Hex Chrom_20180116-074938.d | 01/16/2018 07:38 |
| | CCB 440-451661/75 | Info 2_TAIIRV0066_Hex Chrom_20180116-101223.d | 01/16/2018 10:00 |
| VER-01I-C-12 | 440-200988-3 | Info 2_TAIIRV0066_Hex Chrom_20180116-102400.d | 01/16/2018 10:12 |
| | CCB 440-451661/82 | Info 2_TAIIRV0066_Hex Chrom_20180116-113346.d | 01/16/2018 11:22 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: VER-01I-C-BL | Lab Sample ID: 440-200988-1

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/15/2018 03:30

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/15/2018 21:27

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451661 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 7700 | | 1000 | 130 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: VER-01I-C-12 | Lab Sample ID: 440-200988-3

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/15/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 10:12

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451661 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 12000 | | 1000 | 130 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 432478

SDG No.:

Instrument ID: IC-16 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2017 12:38 Calibration End Date: 10/02/2017 13:59 Calibration ID: 17606

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-432478/3 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d |
| Level 2 | STD2 440-432478/4 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d |
| Level 3 | STD3 440-432478/5 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d |
| Level 4 | STD4 440-432478/6 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d |
| Level 5 | STD5 440-432478/7 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d |
| Level 6 | STD6 440-432478/8 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d |
| Level 7 | STD7 440-432478/9 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 7.528 | 7.528 | 7.528 | 7.528 | 7.523 | 7.523 | 7.523 | | | | 7.151 - 7.904 | 7.526 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 432478

SDG No.:

Instrument ID: IC-16 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2017 12:38 Calibration End Date: 10/02/2017 13:59 Calibration ID: 17606

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-432478/3 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d |
| Level 2 | STD2 440-432478/4 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d |
| Level 3 | STD3 440-432478/5 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d |
| Level 4 | STD4 440-432478/6 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d |
| Level 5 | STD5 440-432478/7 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d |
| Level 6 | STD6 440-432478/8 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d |
| Level 7 | STD7 440-432478/9 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Chromium, hexavalent | 48520<br>43927 | 45274<br>44791 | 45566<br>44690 | 43498 | Lin1 | 1102.44248 | 44469.5021 | | | | | | | 1.0000 | | 0.9990 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 432478

SDG No.:

Instrument ID: IC-16 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2017 12:38 Calibration End Date: 10/02/2017 13:59 Calibration ID: 17606

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-432478/3 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d |
| Level 2 | STD2 440-432478/4 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d |
| Level 3 | STD3 440-432478/5 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d |
| Level 4 | STD4 440-432478/6 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d |
| Level 5 | STD5 440-432478/7 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d |
| Level 6 | STD6 440-432478/8 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d |
| Level 7 | STD7 440-432478/9 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| Chromium, hexavalent | Lin1 | 14556<br>3359349 | 45274<br>4468974 | 455662 | 1087448 | 2196335 | 0.300<br>75.0 | 1.00<br>100 | 10.0 | 25.0 | 50.0 |

Curve Type Legend:
Lin1 = Linear 1/conc

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: ICV 440-432478/10 Calibration Date: 10/02/2017 14:26

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20171 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 50.1 | 50.0 | 100 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: ICV 440-432478/10 Calibration Date: 10/02/2017 14:26

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20171

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.52 | 7.15 | 7.90 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451661/2 Calibration Date: 01/15/2018 07:07

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 50.4 | 50.0 | 101 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451661/2 Calibration Date: 01/15/2018 07:07

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 6.87 | 6.39 | 7.06 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451661/14 Calibration Date: 01/15/2018 10:02

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 50.9 | 50.0 | 102 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451661/14 Calibration Date: 01/15/2018 10:02

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 6.90 | 6.39 | 7.06 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451661/17 Calibration Date: 01/15/2018 19:44

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 48.1 | 50.0 | 96 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451661/17 Calibration Date: 01/15/2018 19:44

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.01 | 6.66 | 7.36 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451661/29 Calibration Date: 01/15/2018 23:23

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 49.8 | 50.0 | 100 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451661/29 Calibration Date: 01/15/2018 23:23

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 6.97 | 6.66 | 7.36 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451661/50 Calibration Date: 01/16/2018 04:31

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 50.0 | 50.0 | 100 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451661/50 Calibration Date: 01/16/2018 04:31

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.05 | 6.66 | 7.36 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451661/62 Calibration Date: 01/16/2018 07:24

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 49.5 | 50.0 | 99 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451661/62 Calibration Date: 01/16/2018 07:24

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.08 | 6.66 | 7.36 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451661/74 Calibration Date: 01/16/2018 09:45

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 50.2 | 50.0 | 100 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451661/74 Calibration Date: 01/16/2018 09:45

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 6.56 | 6.66 | 7.36 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451661/81 Calibration Date: 01/16/2018 11:10

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 50.4 | 50.0 | 101 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-451661/81 Calibration Date: 01/16/2018 11:10

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 6.54 | 6.66 | 7.36 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-451661/6

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/15/2018 08:10

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451661 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451661/3

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/15/2018 07:36

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451661 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 440-451661/15

Matrix: Water Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 10(mL) Date Analyzed: 01/15/2018 10:14

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1000(uL) GC Column: AS7 A ID: 4(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 451661 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451661/18

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/15/2018 19:56

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451661 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451661/30

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/15/2018 23:35

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451661 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451661/51

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 04:43

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451661 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451661/63

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 07:38

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451661 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 440-451661/75

Matrix: Water Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 10(mL) Date Analyzed: 01/16/2018 10:00

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1000(uL) GC Column: AS7 A ID: 4(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 451661 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 440-451661/82

Matrix: Water Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 10(mL) Date Analyzed: 01/16/2018 11:22

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1000(uL) GC Column: AS7 A ID: 4(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 451661 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-451661/5

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/15/2018 07:59

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451661 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 50.7 | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-451661/4

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/15/2018 07:47

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451661 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 1.01 | J | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-200993-F-9 MS

Matrix: Water (Dissolved) | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/15/2018 12:00

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 06:37

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451661 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 49.7 | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-200993-F-9 MSD

Matrix: Water (Dissolved) | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/15/2018 12:00

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 06:49

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451661 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 51.2 | | 2.0 | 0.25 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-16 Start Date: 10/02/2017 12:38

Analysis Batch Number: 432478 End Date: 10/03/2017 04:27

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| STD0 440-432478/2 IC | | 10/02/2017 12:38 | 1 | | AS7 A 4(mm) |
| STD1 440-432478/3 IC | | 10/02/2017 12:50 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d | AS7 A 4(mm) |
| STD2 440-432478/4 IC | | 10/02/2017 13:01 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d | AS7 A 4(mm) |
| STD3 440-432478/5 IC | | 10/02/2017 13:13 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d | AS7 A 4(mm) |
| STD4 440-432478/6 IC | | 10/02/2017 13:25 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d | AS7 A 4(mm) |
| STD5 440-432478/7 IC | | 10/02/2017 13:36 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d | AS7 A 4(mm) |
| STD6 440-432478/8 IC | | 10/02/2017 13:48 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d | AS7 A 4(mm) |
| STD7 440-432478/9 IC | | 10/02/2017 13:59 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d | AS7 A 4(mm) |
| ICV 440-432478/10 | | 10/02/2017 14:26 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-143755.d | AS7 A 4(mm) |
| ICB 440-432478/11 | | 10/02/2017 14:47 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 14:59 | 1 | | AS7 A 4(mm) |
| CCV 440-432478/1012 | | 10/02/2017 14:59 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 15:10 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/1013 | | 10/02/2017 15:10 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 15:22 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 15:34 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 20:53 | 1 | | AS7 A 4(mm) |
| CCV 440-432478/17 | | 10/02/2017 21:05 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/18 | | 10/02/2017 21:16 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:03 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:15 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:26 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:38 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:50 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-16 Start Date: 10/02/2017 12:38

Analysis Batch Number: 432478 End Date: 10/03/2017 04:27

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 10/02/2017 23:01 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:13 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:25 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:36 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:48 | 10 | | AS7 A 4(mm) |
| CCV 440-432478/29 | | 10/02/2017 23:59 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/30 | | 10/03/2017 00:11 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:23 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:34 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:46 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:58 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:09 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:21 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:32 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:44 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:56 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 02:07 | 1 | | AS7 A 4(mm) |
| CCV 440-432478/41 | | 10/03/2017 02:19 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/42 | | 10/03/2017 02:31 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 02:42 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 02:54 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 03:29 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 03:40 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 03:52 | 2 | | AS7 A 4(mm) |
| CCV 440-432478/51 | | 10/03/2017 04:15 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/52 | | 10/03/2017 04:27 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-16 Start Date: 01/15/2018 07:07

Analysis Batch Number: 451661 End Date: 01/16/2018 11:22

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-451661/2 | | 01/15/2018 07:07 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180115-071931.d | AS7 A 4(mm) |
| CCB 440-451661/3 | | 01/15/2018 07:36 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180115-074741.d | AS7 A 4(mm) |
| MRL 440-451661/4 | | 01/15/2018 07:47 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180115-075919.d | AS7 A 4(mm) |
| LCS 440-451661/5 | | 01/15/2018 07:59 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180115-081056.d | AS7 A 4(mm) |
| MB 440-451661/6 | | 01/15/2018 08:10 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180115-082234.d | AS7 A 4(mm) |
| ZZZZZ | | 01/15/2018 08:22 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/15/2018 08:39 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/15/2018 08:50 | 20 | | AS7 A 4(mm) |
| ZZZZZ | | 01/15/2018 09:02 | 20 | | AS7 A 4(mm) |
| ZZZZZ | | 01/15/2018 09:14 | 50 | | AS7 A 4(mm) |
| ZZZZZ | | 01/15/2018 09:36 | 100 | | AS7 A 4(mm) |
| ZZZZZ | | 01/15/2018 09:51 | 100 | | AS7 A 4(mm) |
| CCV 440-451661/14 | | 01/15/2018 10:02 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180115-101433.d | AS7 A 4(mm) |
| CCB 440-451661/15 | | 01/15/2018 10:14 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180115-102610.d | AS7 A 4(mm) |
| ZZZZZ | | 01/15/2018 19:33 | 1 | | AS7 A 4(mm) |
| CCV 440-451661/17 | | 01/15/2018 19:44 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180115-195619.d | AS7 A 4(mm) |
| CCB 440-451661/18 | | 01/15/2018 19:56 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180115-200757.d | AS7 A 4(mm) |
| 440-200988-1 | | 01/15/2018 21:27 | 500 | Info 2_TAIIRV0066_Hex Chrom_20180115-213912.d | AS7 A 4(mm) |

7199

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-16 Start Date: 01/15/2018 07:07

Analysis Batch Number: 451661 End Date: 01/16/2018 11:22

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| 440-200988-1 | | 01/15/2018 21:39 | 500 | Info 2_TAIIRV0066_Hex Chrom_20180115-215050.d | AS7 A 4(mm) |
| ZZZZZ | | 01/15/2018 21:50 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/15/2018 22:02 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/15/2018 22:14 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/15/2018 22:49 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/15/2018 23:00 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/15/2018 23:12 | 1 | | AS7 A 4(mm) |
| CCV 440-451661/29 | | 01/15/2018 23:23 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180115-233531.d | AS7 A 4(mm) |
| CCB 440-451661/30 | | 01/15/2018 23:35 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180115-234709.d | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 00:50 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 01:02 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 01:14 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 01:25 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 01:37 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 01:48 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 02:00 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 02:12 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 02:23 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 02:35 | 1 | | AS7 A 4(mm) |
| CCV 440-451661/41 | | 01/16/2018 02:47 | 1 | | AS7 A 4(mm) |
| CCB 440-451661/42 | | 01/16/2018 02:58 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 03:10 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 03:21 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 03:33 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 03:45 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 03:56 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 04:08 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 04:20 | 1 | | AS7 A 4(mm) |
| CCV 440-451661/50 | | 01/16/2018 04:31 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-044319.d | AS7 A 4(mm) |
| CCB 440-451661/51 | | 01/16/2018 04:43 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-045456.d | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 05:28 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 05:39 | 1 | | AS7 A 4(mm) |

7199

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-16 Start Date: 01/15/2018 07:07

Analysis Batch Number: 451661 End Date: 01/16/2018 11:22

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/16/2018 05:51 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 06:02 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 06:14 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 06:26 | 1 | | AS7 A 4(mm) |
| 440-200993-F-9 MS | | 01/16/2018 06:37 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-064923.d | AS7 A 4(mm) |
| 440-200993-F-9 MSD | | 01/16/2018 06:49 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-070101.d | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 07:01 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 07:12 | 1 | | AS7 A 4(mm) |
| CCV 440-451661/62 | | 01/16/2018 07:24 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-073554.d | AS7 A 4(mm) |
| CCB 440-451661/63 | | 01/16/2018 07:38 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-074938.d | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 07:49 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 08:01 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 08:12 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 08:24 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 08:36 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 08:47 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 08:59 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 09:11 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 09:22 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 09:34 | 10 | | AS7 A 4(mm) |
| CCV 440-451661/74 | | 01/16/2018 09:45 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-095732.d | AS7 A 4(mm) |
| CCB 440-451661/75 | | 01/16/2018 10:00 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-101223.d | AS7 A 4(mm) |
| 440-200988-3 | | 01/16/2018 10:12 | 500 | Info 2_TAIIRV0066_Hex Chrom_20180116-102400.d | AS7 A 4(mm) |
| 440-200988-3 | | 01/16/2018 10:24 | 500 | Info 2_TAIIRV0066_Hex Chrom_20180116-103538.d | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-16 Start Date: 01/15/2018 07:07

Analysis Batch Number: 451661 End Date: 01/16/2018 11:22

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/16/2018 10:35 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 10:47 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 10:58 | 1 | | AS7 A 4(mm) |
| CCV 440-451661/81 | | 01/16/2018 11:10 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-112208.d | AS7 A 4(mm) |
| CCB 440-451661/82 | | 01/16/2018 11:22 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-113346.d | AS7 A 4(mm) |

7199

# Method 300.1

## Disinfection By-Products (IC) by Method 300.1

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): AS9-HC ID: 4 (mm)

| Client Sample ID | Lab Sample ID | DCAA # |
|---|---|---|
| VER-01I-C-BL | 440-200988-1 | 101 |
| VER-01I-C-BL | 440-200988-1 | 100 |
| VER-01I-C-12 | 440-200988-3 | 100 |
| VER-01I-C-12 | 440-200988-3 | 100 |
| | MB 440-452345/5 | 102 |
| | MB 440-452346/5 | 102 |
| | LCS 440-452345/4 | 101 |
| | LCS 440-452346/4 | 101 |
| | MRL 440-452345/3 | 101 |
| | MRL 440-452346/3 | 101 |
| | 440-201039-A-1 MS | 100 |
| | 440-201200-A-1 MS | 98 |
| | 440-201039-A-1 MSD | 98 |
| | 440-201200-A-1 MSD | 100 |

| | QC LIMITS |
|---|---|
| DCAA = Dichloroacetic acid(Surr) | 90-115 |

# Column to be used to flag recovery values

FORM II 300.1B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-004.d

Lab ID: LCS 440-452345/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 100 | 99.0 | 99 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-004.d

Lab ID: LCS 440-452346/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorite | 100 | 101 | 101 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-003.d

Lab ID: MRL 440-452345/3 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 20.0 | 20.8 | 104 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-003.d

Lab ID: MRL 440-452346/3 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorite | 20.0 | 21.2 | 106 | 10-200 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-010.d

Lab ID: 440-201039-A-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorate | 200 | 3300 | 3180 | -80 | 75-125 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-017.d

Lab ID: 440-201200-A-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorite | 200 | ND | 190 | 95 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-011.d

Lab ID: 440-201039-A-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chlorate | 200 | 3510 | 86 | 10 | 25 | 75-125 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-018.d

Lab ID: 440-201200-A-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chlorite | 200 | 189 | 94 | 1 | 25 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab File ID: 440-0098772-005.d Lab Sample ID: MB 440-452345/5

Matrix: Water Date Extracted:

Instrument ID: IC-8 Date Analyzed: 01/18/2018 06:19

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-452345/2 | 440-0098772-002.d | 01/18/2018 04:18 |
| | LCS 440-452345/4 | 440-0098772-004.d | 01/18/2018 05:43 |
| VER-01I-C-BL | 440-200988-1 | 440-0098772-007.d | 01/18/2018 07:32 |
| | 440-201039-A-1 MS | 440-0098772-010.d | 01/18/2018 09:44 |
| | 440-201039-A-1 MSD | 440-0098772-011.d | 01/18/2018 10:31 |
| | CCB 440-452345/14 | 440-0098772-014.d | 01/18/2018 12:19 |
| | CCB 440-452345/38 | 440-0098772-038.d | 01/19/2018 02:52 |
| VER-01I-C-12 | 440-200988-3 | 440-0098772-043.d | 01/19/2018 05:53 |
| | CCB 440-452345/50 | 440-0098772-050.d | 01/19/2018 10:07 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab File ID: 440-0098772-005.d Lab Sample ID: MB 440-452346/5

Matrix: Water Date Extracted:

Instrument ID: IC-8 Date Analyzed: 01/18/2018 06:19

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-452346/2 | 440-0098772-002.d | 01/18/2018 04:18 |
| | LCS 440-452346/4 | 440-0098772-004.d | 01/18/2018 05:43 |
| | CCB 440-452346/14 | 440-0098772-014.d | 01/18/2018 12:19 |
| | 440-201200-A-1 MS | 440-0098772-017.d | 01/18/2018 14:11 |
| | 440-201200-A-1 MSD | 440-0098772-018.d | 01/18/2018 14:47 |
| | CCB 440-452346/26 | 440-0098772-026.d | 01/18/2018 19:37 |
| | CCB 440-452346/38 | 440-0098772-038.d | 01/19/2018 02:52 |
| VER-01I-C-BL | 440-200988-1 | 440-0098772-039.d | 01/19/2018 03:28 |
| VER-01I-C-12 | 440-200988-3 | 440-0098772-040.d | 01/19/2018 04:04 |
| | CCB 440-452346/50 | 440-0098772-050.d | 01/19/2018 10:07 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Client Sample ID: VER-01I-C-BL  Lab Sample ID: 440-200988-1

Matrix: Water  Lab File ID: 440-0098772-039.d

Analysis Method: 300.1B  Date Collected: 01/15/2018 03:30

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/19/2018 03:28

Con. Extract Vol.:  Dilution Factor: 1000

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20000 | 10000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: VER-01I-C-BL | Lab Sample ID: 440-200988-1

Matrix: Water | Lab File ID: 440-0098772-007.d

Analysis Method: 300.1B | Date Collected: 01/15/2018 03:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 07:32

Con. Extract Vol.: | Dilution Factor: 10000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 3000000 | | 200000 | 100000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Client Sample ID: VER-01I-C-12  Lab Sample ID: 440-200988-3

Matrix: Water  Lab File ID: 440-0098772-040.d

Analysis Method: 300.1B  Date Collected: 01/15/2018 15:30

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/19/2018 04:04

Con. Extract Vol.:  Dilution Factor: 1000

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20000 | 10000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: VER-01I-C-12 | Lab Sample ID: 440-200988-3

Matrix: Water | Lab File ID: 440-0098772-043.d

Analysis Method: 300.1B | Date Collected: 01/15/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/19/2018 05:53

Con. Extract Vol.: | Dilution Factor: 20000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 3100000 | | 400000 | 200000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 445955

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18157

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445955/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445955/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445955/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445955/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445955/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445955/7 | 440-0097300-007.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromate | | 8.809 | 8.800 | 8.800 | 8.800 | 8.800 | | | | | 0.000 - 0.000 | 8.802 |
| Bromide | | 18.375 | 18.334 | 18.325 | 18.358 | 18.275 | | | | | 0.000 - 0.000 | 18.333 |
| Chlorate | | 20.175 | 20.134 | 20.117 | 20.158 | 20.075 | | | | | 0.000 - 0.000 | 20.132 |
| Dichloroacetic acid(Surr) | 14.975 | 14.967 | 14.975 | 14.967 | 14.983 | 14.975 | | | | | 13.919 - 16.015 | 14.974 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 445955

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18157

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445955/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445955/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445955/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445955/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445955/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445955/7 | 440-0097300-007.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Bromate | 85030 | 84777<br>83932 | 83142 | 85924 | Lin | 13316.2536 | 84031.2285 | | | | | | | 1.0000 | | 0.9950 |
| Bromide | 155080 | 170331<br>157285 | 156910 | 155772 | Lin | 6334.71702 | 156810.286 | | | | | | | 1.0000 | | 0.9950 |
| Chlorate | 137286 | 122469<br>136488 | 132031 | 134495 | Lin | -163510.51 | 137057.039 | | | | | | | 1.0000 | | 0.9950 |
| Dichloroacetic acid(Surr) | 82131<br>81437 | 81949<br>82824 | 82576 | 83010 | Ave | | 82321.1870 | | | | 0.7 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1 | Analy Batch No.: 445955

SDG No.:

Instrument ID: IC-8 | GC Column: AS14 | ID: 4(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 | Calibration End Date: 12/11/2017 08:12 | Calibration ID: 18157

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445955/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445955/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445955/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445955/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445955/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445955/7 | 440-0097300-007.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Bromate | Lin | 8393172 | 423885 | 1039271 | 2148106 | 4251475 | 0.000000<br>100 | 5.00 | 12.5 | 25.0 | 50.0 |
| Bromide | Lin | 157284596 | 8516526 | 19613766 | 38942890 | 77540030 | 0.000000<br>1000 | 50.0 | 125 | 250 | 500 |
| Chlorate | Lin | 54595205 | 2449371 | 6601552 | 13449523 | 27457206 | 0.000000<br>400 | 20.0 | 50.0 | 100 | 200 |
| Dichloroacetic acid(Surr) | Ave | 81614796<br>82303494 | 81433893 | 82056259 | 82487538 | 80924785 | 994<br>994 | 994 | 994 | 994 | 994 |

Curve Type Legend:

Ave = Average
Lin = Linear

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 445956

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18158

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445956/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445956/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445956/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445956/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445956/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445956/7 | 440-0097300-007.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | 7.517 | 7.509 | 7.509 | 7.517 | 7.517 | | | | | 0.000 - 0.000 | 7.514 |
| Dichloroacetic acid(Surr) | 14.975 | 14.967 | 14.975 | 14.967 | 14.983 | 14.975 | | | | | 13.919 - 16.015 | 14.974 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 445956

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18158

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445956/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445956/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445956/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445956/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445956/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445956/7 | 440-0097300-007.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Chlorite | 159315 | 144620<br>163366 | 153703 | 157087 | Lin | -425656.25 | 163700.877 | | | | | | | 1.0000 | | 0.9950 |
| Dichloroacetic acid(Surr) | 82131<br>81437 | 81949<br>82824 | 82576 | 83010 | Ave | | 82321.1870 | | | | 0.7 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-200988-1 Analy Batch No.: 445956

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18158

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445956/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445956/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445956/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445956/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445956/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445956/7 | 440-0097300-007.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Chlorite | Lin | 65346431 | 2892398 | 7685136 | 15708703 | 31863070 | 0.000000<br>400 | 20.0 | 50.0 | 100 | 200 |
| Dichloroacetic acid(Surr) | Ave | 81614796<br>82303494 | 81433893 | 82056259 | 82487538 | 80924785 | 994<br>994 | 994 | 994 | 994 | 994 |

Curve Type Legend:

Ave = Average
Lin = Linear

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Lab Sample ID: ICV 440-445955/8  Calibration Date: 12/11/2017 09:01

Instrument ID: IC-8  Calib Start Date: 12/11/2017 05:11

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0097300-008.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 83178 | | 29.6 | 30.1 | -1.5 | 15.0 |
| Bromide | Lin | | 155600 | | 298 | 300 | -0.8 | 15.0 |
| Chlorate | Lin | | 134468 | | 119 | 120 | -0.9 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82190 | | 992 | 994 | -0.2 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: ICV 440-445955/8 Calibration Date: 12/11/2017 09:01

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS14 ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0097300-008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.77 | 8.19 | 9.43 |
| Bromide | 18.03 | 16.57 | 19.06 |
| Chlorate | 19.86 | 18.64 | 20.60 |
| Dichloroacetic acid(Surr) | 14.99 | 13.80 | 15.87 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Lab Sample ID: ICV 440-445956/8  Calibration Date: 12/11/2017 09:01

Instrument ID: IC-8  Calib Start Date: 12/11/2017 05:11

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0097300-008.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 155519 | | 117 | 120 | -2.8 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82190 | | 992 | 994 | -0.2 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: ICV 440-445956/8 Calibration Date: 12/11/2017 09:01

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS14 ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0097300-008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.50 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.99 | 13.80 | 15.87 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-452345/1  Calibration Date: 01/18/2018 03:43

Instrument ID: IC-8  Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC  ID: 4.00(mm)  Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-001.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 84694 | | 30.1 | 30.0 | 0.3 | 15.0 |
| Bromide | Lin | | 160520 | | 307 | 300 | 2.4 | 15.0 |
| Chlorate | Lin | | 140567 | | 124 | 120 | 3.6 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83505 | | 1010 | 994 | 1.4 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-452345/1 Calibration Date: 01/18/2018 03:43

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.75 | 8.07 | 9.28 |
| Bromide | 18.09 | 16.55 | 19.05 |
| Chlorate | 19.66 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.58 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-452346/1  Calibration Date: 01/18/2018 03:43

Instrument ID: IC-8  Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC  ID: 4.00(mm)  Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-001.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 157624 | | 118 | 120 | -1.5 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83505 | | 1010 | 994 | 1.4 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-452346/1 Calibration Date: 01/18/2018 03:43

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.48 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.58 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-452345/13  Calibration Date: 01/18/2018 11:43

Instrument ID: IC-8  Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC  ID: 4.00(mm)  Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-013.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 83991 | | 49.8 | 50.0 | -0.4 | 15.0 |
| Bromide | Lin | | 155749 | | 497 | 500 | -0.7 | 15.0 |
| Chlorate | Lin | | 138058 | | 203 | 200 | 1.3 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83097 | | 1000 | 994 | 0.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-452345/13 Calibration Date: 01/18/2018 11:43

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-013.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.66 | 8.07 | 9.28 |
| Bromide | 17.40 | 16.55 | 19.05 |
| Chlorate | 19.07 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.66 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-452346/13  Calibration Date: 01/18/2018 11:43

Instrument ID: IC-8  Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC  ID: 4.00(mm)  Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-013.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 164552 | | 204 | 200 | 1.8 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83097 | | 1000 | 994 | 0.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-452346/13 Calibration Date: 01/18/2018 11:43

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-013.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.47 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.66 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-452346/25 Calibration Date: 01/18/2018 19:01

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-025.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 173026 | | 108 | 100 | 8.3 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83023 | | 1000 | 994 | 0.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-452346/25 Calibration Date: 01/18/2018 19:01

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-025.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.48 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.67 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-452345/37 Calibration Date: 01/19/2018 02:16

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-037.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 84179 | | 49.9 | 50.0 | -0.1 | 15.0 |
| Bromide | Lin | | 158726 | | 506 | 500 | 1.2 | 15.0 |
| Chlorate | Lin | | 141762 | | 208 | 200 | 4.0 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82532 | | 996 | 994 | 0.3 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-452345/37 Calibration Date: 01/19/2018 02:16

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-037.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.71 | 8.07 | 9.28 |
| Bromide | 17.81 | 16.55 | 19.05 |
| Chlorate | 19.42 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.61 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-452346/37 Calibration Date: 01/19/2018 02:16

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-037.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 166143 | | 206 | 200 | 2.8 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82532 | | 996 | 994 | 0.3 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-452346/37 Calibration Date: 01/19/2018 02:16

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-037.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.48 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.61 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-452345/49 Calibration Date: 01/19/2018 09:31

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-049.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 85012 | | 25.1 | 25.0 | 0.5 | 15.0 |
| Bromide | Lin | | 154039 | | 246 | 250 | -1.8 | 15.0 |
| Chlorate | Lin | | 134697 | | 99.5 | 100 | -0.5 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82333 | | 994 | 994 | 0.0 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-452345/49 Calibration Date: 01/19/2018 09:31

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-049.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.68 | 8.07 | 9.28 |
| Bromide | 17.61 | 16.55 | 19.05 |
| Chlorate | 19.23 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.60 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-452346/49 Calibration Date: 01/19/2018 09:31

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-049.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 155435 | | 97.6 | 100 | -2.4 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82333 | | 994 | 994 | 0.0 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Lab Sample ID: CCV 440-452346/49 Calibration Date: 01/19/2018 09:31

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-049.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.46 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.60 | 13.75 | 15.82 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452345/5

Matrix: Water | Lab File ID: 440-0098772-005.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 06:19

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452346/5

Matrix: Water | Lab File ID: 440-0098772-005.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 06:19

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452345/2

Matrix: Water | Lab File ID: 440-0098772-002.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 04:18

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-452345/14

Matrix: Water  Lab File ID: 440-0098772-014.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/18/2018 12:19

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452345/38

Matrix: Water | Lab File ID: 440-0098772-038.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/19/2018 02:52

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-452345/50

Matrix: Water  Lab File ID: 440-0098772-050.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/19/2018 10:07

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452346/2

Matrix: Water | Lab File ID: 440-0098772-002.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 04:18

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-452346/14

Matrix: Water  Lab File ID: 440-0098772-014.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/18/2018 12:19

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452346/26

Matrix: Water | Lab File ID: 440-0098772-026.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 19:37

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-452346/38

Matrix: Water  Lab File ID: 440-0098772-038.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/19/2018 02:52

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-452346/50

Matrix: Water  Lab File ID: 440-0098772-050.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/19/2018 10:07

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 440-452345/4

Matrix: Water  Lab File ID: 440-0098772-004.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/18/2018 05:43

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 99.0 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-452346/4

Matrix: Water | Lab File ID: 440-0098772-004.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 05:43

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 101 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-452345/3

Matrix: Water | Lab File ID: 440-0098772-003.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 04:55

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 20.8 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-452346/3

Matrix: Water | Lab File ID: 440-0098772-003.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 04:55

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 21.2 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201039-A-1 MS

Matrix: Water | Lab File ID: 440-0098772-010.d

Analysis Method: 300.1B | Date Collected: 01/12/2018 10:37

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 09:44

Con. Extract Vol.: | Dilution Factor: 20

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 3180 | | 400 | 200 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201200-A-1 MS

Matrix: Water | Lab File ID: 440-0098772-017.d

Analysis Method: 300.1B | Date Collected: 01/13/2018 08:50

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 14:11

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 190 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 98 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Client Sample ID:  Lab Sample ID: 440-201039-A-1 MSD

Matrix: Water  Lab File ID: 440-0098772-011.d

Analysis Method: 300.1B  Date Collected: 01/12/2018 10:37

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/18/2018 10:31

Con. Extract Vol.:  Dilution Factor: 20

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 3510 | | 400 | 200 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 98 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201200-A-1 MSD

Matrix: Water | Lab File ID: 440-0098772-018.d

Analysis Method: 300.1B | Date Collected: 01/13/2018 08:50

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 14:47

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 189 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-8 Start Date: 12/11/2017 04:35

Analysis Batch Number: 445955 End Date: 12/12/2017 11:51

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 12/11/2017 04:35 | 1 | | AS14 4(mm) |
| STD0 440-445955/2 IC | | 12/11/2017 05:11 | 1 | 440-0097300-002.d | AS14 4(mm) |
| STD1 440-445955/3 IC | | 12/11/2017 05:47 | 1 | 440-0097300-003.d | AS14 4(mm) |
| STD2 440-445955/4 IC | | 12/11/2017 06:24 | 1 | 440-0097300-004.d | AS14 4(mm) |
| STD3 440-445955/5 IC | | 12/11/2017 07:00 | 1 | 440-0097300-005.d | AS14 4(mm) |
| STD4 440-445955/6 IC | | 12/11/2017 07:36 | 1 | 440-0097300-006.d | AS14 4(mm) |
| STD5 440-445955/7 IC | | 12/11/2017 08:12 | 1 | 440-0097300-007.d | AS14 4(mm) |
| ICV 440-445955/8 | | 12/11/2017 09:01 | 1 | 440-0097300-008.d | AS14 4(mm) |
| ICB 440-445955/9 | | 12/11/2017 09:37 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 10:14 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 10:50 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 11:26 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 12:39 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 13:15 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 13:51 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 15:40 | 1 | | AS14 4(mm) |
| CCV 440-445955/20 | | 12/11/2017 16:16 | 1 | | AS14 4(mm) |
| CCB 440-445955/21 | | 12/11/2017 16:52 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 18:05 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 18:41 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 19:17 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 22:55 | 10 | | AS14 4(mm) |
| CCV 440-445955/32 | | 12/11/2017 23:31 | 1 | | AS14 4(mm) |
| CCB 440-445955/33 | | 12/12/2017 00:07 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 01:20 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 01:56 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 02:32 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 03:08 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 03:45 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 04:33 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 05:09 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 05:45 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 06:21 | 1 | | AS14 4(mm) |
| CCV 440-445955/44 | | 12/12/2017 06:58 | 1 | | AS14 4(mm) |
| CCB 440-445955/45 | | 12/12/2017 07:34 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 08:14 | 2 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 08:49 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 09:26 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 10:02 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 10:38 | 5 | | AS14 4(mm) |
| CCV 440-445955/51 | | 12/12/2017 11:14 | 1 | | AS14 4(mm) |
| CCB 440-445955/52 | | 12/12/2017 11:51 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-8 Start Date: 12/11/2017 04:35

Analysis Batch Number: 445956 End Date: 12/12/2017 07:34

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 12/11/2017 04:35 | 1 | | AS14 4(mm) |
| STD0 440-445956/2 IC | | 12/11/2017 05:11 | 1 | 440-0097300-002.d | AS14 4(mm) |
| STD1 440-445956/3 IC | | 12/11/2017 05:47 | 1 | 440-0097300-003.d | AS14 4(mm) |
| STD2 440-445956/4 IC | | 12/11/2017 06:24 | 1 | 440-0097300-004.d | AS14 4(mm) |
| STD3 440-445956/5 IC | | 12/11/2017 07:00 | 1 | 440-0097300-005.d | AS14 4(mm) |
| STD4 440-445956/6 IC | | 12/11/2017 07:36 | 1 | 440-0097300-006.d | AS14 4(mm) |
| STD5 440-445956/7 IC | | 12/11/2017 08:12 | 1 | 440-0097300-007.d | AS14 4(mm) |
| ICV 440-445956/8 | | 12/11/2017 09:01 | 1 | 440-0097300-008.d | AS14 4(mm) |
| ICB 440-445956/9 | | 12/11/2017 09:37 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 10:14 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 10:50 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 11:26 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 12:02 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 12:39 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 13:15 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 13:51 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 14:27 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 15:04 | 5 | | AS14 4(mm) |
| CCV 440-445956/20 | | 12/11/2017 16:16 | 1 | | AS14 4(mm) |
| CCB 440-445956/21 | | 12/11/2017 16:52 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 17:29 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 18:05 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 18:41 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 19:17 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 19:54 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 20:30 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 21:06 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 21:42 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 22:19 | 5 | | AS14 4(mm) |
| CCV 440-445956/32 | | 12/11/2017 23:31 | 1 | | AS14 4(mm) |
| CCB 440-445956/33 | | 12/12/2017 00:07 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 00:44 | 1 | | AS14 4(mm) |
| CCV 440-445956/44 | | 12/12/2017 06:58 | 1 | | AS14 4(mm) |
| CCB 440-445956/45 | | 12/12/2017 07:34 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-8 Start Date: 01/18/2018 03:43

Analysis Batch Number: 452345 End Date: 01/19/2018 15:07

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-452345/1 | | 01/18/2018 03:43 | 1 | 440-0098772-001.d | AS9-HC 4(mm) |
| CCB 440-452345/2 | | 01/18/2018 04:18 | 1 | 440-0098772-002.d | AS9-HC 4(mm) |
| MRL 440-452345/3 | | 01/18/2018 04:55 | 1 | 440-0098772-003.d | AS9-HC 4(mm) |
| LCS 440-452345/4 | | 01/18/2018 05:43 | 1 | 440-0098772-004.d | AS9-HC 4(mm) |
| MB 440-452345/5 | | 01/18/2018 06:19 | 1 | 440-0098772-005.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 06:56 | 10 | | AS9-HC 4(mm) |
| 440-200988-1 | | 01/18/2018 07:32 | 10000 | 440-0098772-007.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 08:16 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 09:08 | 100 | | AS9-HC 4(mm) |
| 440-201039-A-1 MS | | 01/18/2018 09:44 | 20 | 440-0098772-010.d | AS9-HC 4(mm) |
| 440-201039-A-1 MSD | | 01/18/2018 10:31 | 20 | 440-0098772-011.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 11:07 | 20 | | AS9-HC 4(mm) |
| CCV 440-452345/13 | | 01/18/2018 11:43 | 1 | 440-0098772-013.d | AS9-HC 4(mm) |
| CCB 440-452345/14 | | 01/18/2018 12:19 | 1 | 440-0098772-014.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 12:59 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 13:35 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 14:11 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 14:47 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 15:23 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 16:00 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 16:36 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 17:12 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 17:48 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 18:25 | 1 | | AS9-HC 4(mm) |
| CCV 440-452345/25 | | 01/18/2018 19:01 | 1 | | AS9-HC 4(mm) |
| CCB 440-452345/26 | | 01/18/2018 19:37 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 20:13 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 20:50 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 21:26 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 23:14 | 50 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 23:51 | 50 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 00:27 | 50 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 01:03 | 50 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 01:39 | 10000 | | AS9-HC 4(mm) |
| CCV 440-452345/37 | | 01/19/2018 02:16 | 1 | 440-0098772-037.d | AS9-HC 4(mm) |
| CCB 440-452345/38 | | 01/19/2018 02:52 | 1 | 440-0098772-038.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 04:41 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 05:17 | 5 | | AS9-HC 4(mm) |
| 440-200988-3 | | 01/19/2018 05:53 | 20000 | 440-0098772-043.d | AS9-HC 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-8 Start Date: 01/18/2018 03:43

Analysis Batch Number: 452345 End Date: 01/19/2018 15:07

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-452345/49 | | 01/19/2018 09:31 | 1 | 440-0098772-049.d | AS9-HC 4(mm) |
| CCB 440-452345/50 | | 01/19/2018 10:07 | 1 | 440-0098772-050.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 10:47 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 11:23 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 12:07 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 12:43 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 13:19 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 13:55 | 500 | | AS9-HC 4(mm) |
| CCV 440-452345/57 | | 01/19/2018 14:31 | 1 | | AS9-HC 4(mm) |
| CCB 440-452345/58 | | 01/19/2018 15:07 | 1 | | AS9-HC 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-8 Start Date: 01/18/2018 03:43

Analysis Batch Number: 452346 End Date: 01/19/2018 15:07

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-452346/1 | | 01/18/2018 03:43 | 1 | 440-0098772-001.d | AS9-HC 4(mm) |
| CCB 440-452346/2 | | 01/18/2018 04:18 | 1 | 440-0098772-002.d | AS9-HC 4(mm) |
| MRL 440-452346/3 | | 01/18/2018 04:55 | 1 | 440-0098772-003.d | AS9-HC 4(mm) |
| LCS 440-452346/4 | | 01/18/2018 05:43 | 1 | 440-0098772-004.d | AS9-HC 4(mm) |
| MB 440-452346/5 | | 01/18/2018 06:19 | 1 | 440-0098772-005.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 08:16 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 09:08 | 100 | | AS9-HC 4(mm) |
| CCV 440-452346/13 | | 01/18/2018 11:43 | 1 | 440-0098772-013.d | AS9-HC 4(mm) |
| CCB 440-452346/14 | | 01/18/2018 12:19 | 1 | 440-0098772-014.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 13:35 | 1 | | AS9-HC 4(mm) |
| 440-201200-A-1 MS | | 01/18/2018 14:11 | 1 | 440-0098772-017.d | AS9-HC 4(mm) |
| 440-201200-A-1 MSD | | 01/18/2018 14:47 | 1 | 440-0098772-018.d | AS9-HC 4(mm) |
| CCV 440-452346/25 | | 01/18/2018 19:01 | 1 | 440-0098772-025.d | AS9-HC 4(mm) |
| CCB 440-452346/26 | | 01/18/2018 19:37 | 1 | 440-0098772-026.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 22:02 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 22:38 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 23:14 | 50 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 23:51 | 50 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 00:27 | 50 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 01:03 | 50 | | AS9-HC 4(mm) |
| CCV 440-452346/37 | | 01/19/2018 02:16 | 1 | 440-0098772-037.d | AS9-HC 4(mm) |
| CCB 440-452346/38 | | 01/19/2018 02:52 | 1 | 440-0098772-038.d | AS9-HC 4(mm) |
| 440-200988-1 | | 01/19/2018 03:28 | 1000 | 440-0098772-039.d | AS9-HC 4(mm) |
| 440-200988-3 | | 01/19/2018 04:04 | 1000 | 440-0098772-040.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 06:29 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 07:06 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 07:42 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 08:18 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 08:54 | 1000 | | AS9-HC 4(mm) |
| CCV 440-452346/49 | | 01/19/2018 09:31 | 1 | 440-0098772-049.d | AS9-HC 4(mm) |
| CCB 440-452346/50 | | 01/19/2018 10:07 | 1 | 440-0098772-050.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 10:47 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 11:23 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 12:07 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 12:43 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 13:19 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 13:55 | 500 | | AS9-HC 4(mm) |
| CCV 440-452346/57 | | 01/19/2018 14:31 | 1 | | AS9-HC 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Instrument ID: IC-8 Start Date: 01/18/2018 03:43

Analysis Batch Number: 452346 End Date: 01/19/2018 15:07

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCB 440-452346/58 | | 01/19/2018 15:07 | 1 | | AS9-HC 4(mm) |

300.1B

# METALS

COVER PAGE
METALS

Lab Name: TestAmerica Irvine Job Number: 440-200988-1

SDG No.:

Project: NERT VER Treatability Study

| Client Sample ID | Lab Sample ID |
|---|---|
| VER-01I-C-BL | 440-200988-1 |
| VER-01I-C-12 | 440-200988-3 |

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: VER-01I-C-BL
Lab Sample ID: 440-200988-1
Lab Name: TestAmerica Irvine
Job No.: 440-200988-1
SDG ID.:
Matrix: Water
Date Sampled: 01/15/2018 03:30
Reporting Basis: WET
Date Received: 01/15/2018 18:15

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 8.7 | 0.025 | 0.013 | mg/L | | | 5 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: VER-01I-C-12 Lab Sample ID: 440-200988-3

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG ID.:

Matrix: Water Date Sampled: 01/15/2018 15:30

Reporting Basis: WET Date Received: 01/15/2018 18:15

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 12 | 0.025 | 0.013 | mg/L | | | 5 | 6010B |

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

ICV Source: ME ICP ICV2_01766  Concentration Units: mg/L

CCV Source: ME ICP STD3_01851

| Analyte | ICV 440-452846/5 01/19/2018 09:26 | | | | CCV 440-452846/26 01/19/2018 18:38 | | | | CCV 440-452846/38 01/19/2018 19:29 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Found | C | True | %R | Found | C | True | %R | Found | C | True | %R |
| **Chromium** | 1.02 | | 1.00 | 102 | 0.971 | | 1.00 | 97 | 0.980 | | 1.00 | 98 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Method: 6010B Instrument ID: ICP8

Lab Sample ID: CRI 440-452846/15 Concentration Units: mg/L

CRQL Check Standard Source: ME ICP 2X RL_00055

| Analyte | CRQL Check Standard | | | | |
|---|---|---|---|---|---|
| | True | Found | Qualifiers | %R(1) | Limits |
| Chromium | 0.0100 | 0.0106 | | 106 | 50-150 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Concentration Units: mg/L

| Analyte | RL | ICB 440-452846/8 01/19/2018 09:38 | | CCB 440-452846/27 01/19/2018 18:41 | | CCB 440-452846/39 01/19/2018 19:31 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Found | C | Found | C | Found | C | Found | C |
| **Chromium** | 0.0050 | ND | | ND | | ND | | | |

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 440-452668/1-A

Instrument Code: ICP8 Batch No.: 452846

| CAS No. | Analyte | Concentration | C | Q | Method |
|---|---|---|---|---|---|
| 7440-47-3 | Chromium | ND | | | 6010B |

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Lab Sample ID: ICSA 440-452846/9  Instrument ID: ICP8

Lab File ID: 180119-2F.csv  ICS Source: ME ICP IFA_01792

Concentration Units: mg/L

| Analyte | True Solution A | Found Solution A | Percent Recovery |
|---|---|---|---|
| **Chromium** | | **0.0017** | |
| *Aluminum* | *600* | *622* | *104* |
| *Antimony* | | *-0.0013* | |
| *Arsenic* | | *-0.0050* | |
| *Barium* | | *0.0047* | |
| *Beryllium* | | *-0.0008* | |
| *Boron* | | *-0.0132* | |
| *Cadmium* | | *0.0035* | |
| *Calcium* | *600* | *623* | *104* |
| *Cobalt* | | *-0.0021* | |
| *Copper* | | *-0.0070* | |
| *Iron* | *600* | *575* | *96* |
| *Lead* | | *-0.0085* | |
| *Lithium* | | *-0.0540* | |
| *Magnesium* | *600* | *595* | *99* |
| *Manganese* | | *-0.0022* | |
| *Molybdenum* | | *0.0035* | |
| *Nickel* | | *0.0005* | |
| *Phosphorus* | | *-0.0201* | |
| *Potassium* | | *0.116* | |
| *Selenium* | | *0.0039* | |
| *Silicon* | | *-0.0085* | |
| *Silver* | | *0.0002* | |
| *Sodium* | | *0.348* | |
| *Strontium* | | *-0.0134* | |
| *Thallium* | | *0.0022* | |
| *Tin* | | *-0.0097* | |
| *Titanium* | | *0.0007* | |
| *Tungsten* | | *-0.0054* | |
| *Vanadium* | | *0.0038* | |
| *Zinc* | | *0.0135* | |
| *Zirconium* | | *0.0019* | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Lab Sample ID: ICSAB 440-452846/11  Instrument ID: ICP8

Lab File ID: 180119-2F.csv  ICS Source: ME ICP IFB_01811

Concentration Units: mg/L

| Analyte | True Solution AB | Found Solution AB | Percent Recovery |
|---|---|---|---|
| **Chromium** | **0.500** | **0.485** | **97** |
| *Aluminum* | *601* | *604* | *101* |
| *Antimony* | *0.500* | *0.495* | *99* |
| *Arsenic* | *0.500* | *0.495* | *99* |
| *Barium* | *0.500* | *0.466* | *93* |
| *Beryllium* | *0.500* | *0.514* | *103* |
| *Boron* | *0.500* | *0.492* | *98* |
| *Cadmium* | *0.500* | *0.457* | *91* |
| *Calcium* | *603* | *610* | *101* |
| *Cobalt* | *0.500* | *0.448* | *90* |
| *Copper* | *0.500* | *0.527* | *105* |
| *Iron* | *601* | *562* | *94* |
| *Lead* | *0.500* | *0.452* | *90* |
| *Lithium* | *0.500* | *0.485* | *97* |
| *Magnesium* | *603* | *581* | *96* |
| *Manganese* | *0.500* | *0.464* | *93* |
| *Molybdenum* | *0.500* | *0.510* | *102* |
| *Nickel* | *0.500* | *0.448* | *90* |
| *Phosphorus* | *0.500* | *0.492* | *98* |
| *Potassium* | *10.0* | *10.8* | *108* |
| *Selenium* | *0.500* | *0.458* | *92* |
| *Silicon* | *2.50* | *2.41* | *96* |
| *Silver* | *0.250* | *0.269* | *108* |
| *Sodium* | *10.0* | *10.5* | *105* |
| *Strontium* | *0.500* | *0.487* | *97* |
| *Thallium* | *0.500* | *0.426* | *85* |
| *Tin* | *0.500* | *0.460* | *92* |
| *Titanium* | *0.500* | *0.511* | *102* |
| *Tungsten* | *0.500* | *0.459* | *92* |
| *Vanadium* | *0.500* | *0.503* | *101* |
| *Zinc* | *0.500* | *0.471* | *94* |
| *Zirconium* | *0.500* | *0.407* | *81* |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: VER-01I-C-BL MS | Lab ID: 440-200988-1 MS

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Matrix: Water | Concentration Units: mg/L

% Solids:

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 8.76 | | 8.7 | | 1.00 | 5 | 75-125 | 4 | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: VER-01I-C-BL MSD | Lab ID: 440-200988-1 MSD

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Matrix: Water | Concentration Units: mg/L

% Solids:

| Analyte | (SDR) C | | Spike Added (SA) | %R | Control Limit %R | RPD | RPD Limit | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 8.91 | | 1.00 | 20 | 75-125 | 2 | 20 | 4 | 6010B |

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: VER-01I-C-BL PDS | Lab ID: 440-200988-1 PDS

Lab Name: TestAmerica Irvine | Job No.: 440-200988-1

SDG No.:

Matrix: Water | Concentration Units: mg/L

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 8.94 | | 8.7 | | 1.00 | 23 | 80-120 | W | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 440-452668/2-A

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

Sample Matrix: Water  LCS Source: ME ICP2 ICV1A_00051

| Analyte | Water(mg/L) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | True | Found | C | %R | Limits | | Q | Method |
| Chromium | 1.00 | 0.949 | | 95 | 80 | 120 | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 440-200988-1

SDG No:

Lab Name: TestAmerica Irvine Job No: 440-200988-1

Matrix: Water Concentration Units: mg/L

| Analyte | Initial Sample Result (I) | C | Serial Dilution Result (S) | C | % Difference | Q | Method |
|---|---|---|---|---|---|---|---|
| Chromium | 8.7 | | 8.67 | | 0.46 | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine Job Number: 440-200988-1

SDG Number:

Matrix: Water Instrument ID: ICP8

Method: 6010B MDL Date: 06/15/2017 17:45

Prep Method: 3005A

| Analyte | Wavelength/ Mass | RL (mg/L) | MDL (mg/L) |
|---|---|---|---|
| Chromium | 205.552 | 0.005 | 0.0025 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine Job Number: 440-200988-1

SDG Number:

Matrix: Water Instrument ID: ICP8

Method: 6010B XMDL Date: 06/15/2017 17:46

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Chromium | 205.552 | 0.005 | 0.0025 |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-200988-1

SDG No.:

ICP-AES Instrument ID: ICP8 Date: 01/19/2018

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 396.152 | | 0.000013 | -0.000018 | 0.000025 | 0.000008 | -0.000036 | 0.000046 | 0 | 0.02689 | -0.000079 | -0.000019 | -0.000203 | 0.000009 | 0.001073 |
| Antimony | 206.834 | 0.000009 | 0.000003 | 0.000006 | 0.010395 | 0.000062 | -0.00006 | -0.000002 | -0.000075 | -0.01878 | -0.000037 | 0.000237 | 0.000208 | 0.00005 | -0.000369 |
| Arsenic | 188.980 | 0.000011 | -0.000005 | -0.000018 | -0.012816 | 0.00004 | 0.000016 | 0.000008 | -0.000015 | 0.000025 | 0.000095 | -0.000094 | -0.000062 | -0.000062 | 0.000903 |
| Barium | 233.527 | 0 | 0 | -0.000006 | -0.000002 | 0.000001 | 0.000001 | 0.000001 | 0 | -0.000191 | -0.000007 | -0.000001 | 0.000003 | -0.000164 | 0.000137 |
| Beryllium | 234.861 | 0 | 0 | 0.000004 | 0 | 0 | 0.0000181 | 0 | -0.000003 | -0.000013 | -0.000018 | 0.000001 | 0.000003 | 0.000001 | 0.000004 |
| Boron | 249.678 | 0 | 0.000001 | 0.00088 | 0.000452 | -0.00002 | -0.000089 | 0 | -0.00007 | -0.000017 | -0.000005 | -0.000014 | -0.00003 | -0.000018 | -0.010398 |
| Cadmium | 214.439 | -0.000001 | 0 | 0.000002 | -0.000009 | -0.000003 | 0.000011 | 0 | 0.000001 | -0.000006 | 0.000004 | 0.000001 | 0.000005 | 0.000002 | -0.000056 |
| Calcium | 422.673 | -0.000006 | | 0.000876 | 0.000377 | -0.000272 | -0.000064 | 0.000039 | -0.000053 | -0.000524 | -0.000396 | -0.000114 | -0.000132 | 0.000387 | -0.000193 |
| Chromium | 205.560 | 0.000001 | 0.000003 | -0.000007 | | 0.000042 | 0.000004 | 0 | 0.000025 | -0.000681 | -0.000317 | 0.000014 | 0.000028 | -0.000018 | 0.000386 |
| Cobalt | 228.615 | 0 | 0.000001 | | 0.000085 | 0.000016 | 0.000008 | 0.000002 | -0.000003 | 0.000019 | 0.000157 | 0.000002 | 0.001777 | -0.000007 | 0.000113 |
| Copper | 324.754 | 0.000001 | -0.000019 | 0.000014 | 0.000019 | | 0.000022 | 0.000002 | 0.000013 | 0.000217 | 0.000018 | 0.000014 | 0.000206 | -0.000092 | 0.00002 |
| Iron | 238.204 | -0.000007 | 0.000002 | -0.000338 | -0.000187 | -0.00013 | | 0.000024 | 0.000002 | -0.000162 | -0.000109 | -0.000119 | -0.000132 | -0.000188 | -0.000132 |
| Lead | 220.353 | -0.000039 | 0.000003 | -0.000498 | 0 | 0.000033 | -0.000033 | 0.000011 | 0.000209 | -0.000819 | -0.000019 | 0.000021 | -0.000428 | -0.000038 | -0.000096 |
| Lithium | 670.783 | 0.000054 | 0.000021 | -0.000148 | -0.00023 | -0.001097 | -0.000003 | 0.000057 | -0.000518 | -0.000367 | -0.000358 | -0.001101 | 0.000381 | -0.001377 | -0.000136 |
| Magnesium | 279.078 | -0.00001 | 0.000007 | -0.000382 | -0.000435 | -0.0001 | -0.000217 | | 0.000627 | -0.000188 | -0.000014 | -0.000068 | -0.000188 | 0.000112 | -0.00038 |
| Manganese | 259.372 | 0 | 0.000001 | 0.00001 | -0.000007 | -0.000001 | 0.00171 | 0.000036 | | 0.004715 | 0.000013 | 0.000005 | 0.000019 | 0.00001 | 0.000005 |
| Molybdenum | 204.598 | 0.000025 | 0 | 0.000039 | 0.000067 | 0.000001 | 0.000004 | 0 | 0.000022 | | 0.000085 | -0.000008 | 0.00005 | -0.000031 | 0.000033 |
| Nickel | 231.604 | 0.000001 | -0.000003 | -0.000756 | 0.000004 | -0.000028 | 0.000004 | -0.000002 | -0.000049 | -0.000042 | | 0.00006 | 0.000011 | -0.000001 | -0.000013 |
| Phosphorus | 213.618 | 0.000001 | -0.000013 | 0.000141 | 0.000127 | -0.03762 | -0.000018 | 0.000004 | -0.000139 | -0.020778 | 0.000094 | -0.000098 | 0.000151 | 0.00024 | -0.000573 |
| Potassium | 744.491 | 0.000095 | 0.000087 | 0.002408 | 0.001429 | -0.000339 | 0.000196 | 0.000277 | -0.000372 | -0.001987 | 0.001312 | 0.001861 | 0.001852 | 0.001103 | 0.001579 |
| Selenium | 196.026 | -0.000006 | -0.000007 | -0.00066 | -0.000051 | -0.000107 | -0.00019 | -0.000001 | 0.000565 | -0.000003 | -0.000241 | 0 | -0.000066 | -0.000483 | 0.009364 |
| Silicon | 251.611 | 0.000013 | 0.00002 | 0.000136 | 0.000095 | 0.000162 | -0.000038 | 0.000048 | 0.000255 | 0.010982 | 0.000192 | 0.000679 | 0.004127 | 0.000213 | 0.053502 |
| Silver | 328.068 | 0 | -0.000003 | -0.000013 | -0.000026 | -0.000003 | -0.000007 | -0.000002 | 0.000075 | 0.000029 | 0.000003 | -0.000009 | -0.000107 | 0.000009 | 0.000009 |
| Sodium | 589.592 | 0.00003 | 0.000041 | 0.000558 | 0.000239 | 0.000428 | 0.000025 | 0.000018 | 0.000127 | 0.002128 | 0.000479 | 0.000076 | 0.000228 | -0.00004 | 0.006467 |
| Strontium | 421.552 | 0 | 0.00003 | 0.000002 | 0.000003 | -0.000001 | 0.00000 | 0 | 0 | 0.000001 | 0.000002 | 0.000002 | 0.000001 | 0 | 0.000017 |
| Thallium | 190.794 | -0.000001 | -0.000005 | 0.003078 | 0.000156 | -0.000039 | 0 | 0.000005 | 0.001388 | 0.000096 | -0.000005 | -0.000043 | -0.010982 | -0.02142 | 0.000265 |
| Tin | 189.925 | 0.000001 | 0 | 0.000083 | 0.000021 | 0.000021 | 0.000006 | 0.000003 | 0.000047 | 0.000038 | 0.000039 | | -0.000119 | 0.000028 | 0.000028 |
| Titanium | 336.122 | 0 | -0.000008 | -0.000017 | -0.000029 | 0.000002 | 0.000001 | 0 | 0.000005 | -0.00012 | -0.000039 | 0.000005 | | -0.000364 | 0.000399 |
| Tungsten | 207.912 | -0.000006 | -0.000009 | -0.000082 | -0.000001 | -0.000042 | 0 | -0.000001 | -0.000021 | 0.000144 | -0.000024 | -0.000005 | -0.000009 | -0.000019 | |
| Vanadium | 292.401 | 0.000004 | 0.000038 | 0.000001 | 0.000214 | 0.000012 | 0.000007 | 0.000002 | 0.000014 | -0.008504 | 0.000003 | 0.000009 | 0.000907 | | 0.000183 |

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-200988-1

SDG No.:

ICP-AES Instrument ID: ICP8 Date: 01/19/2018

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | 0 | 0 | 0 | 0 | 0 | -0.000005 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Zinc | 202.548 | 0.000003 | 0.000003 | 0.000013 | -0.001604 | 0.0078 | -0.00000167 | 0.000028 | 0.000044 | 0.00007 | -0.000062 | 0.000012 | 0.000048 | 0.000036 | 0.000339 |
| Zirconium | 343.823 | 0 | 0.000002 | -0.000097 | 0.000005 | 0.000002 | 0.000012 | 0 | -0.000025 | -0.000012 | -0.000009 | 0.000007 | -0.000025 | 0.000005 | 0.000085 |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-200988-1

SDG No.:

ICP-AES Instrument ID: ICP8 Date: 01/19/2018

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 396.152 | -0.00005 | 0.008541 | | | | | | | | | | | | |
| Antimony | 206.834 | 0.000096 | -0.000086 | | | | | | | | | | | | |
| Arsenic | 188.980 | -0.000075 | 0.000125 | | | | | | | | | | | | |
| Barium | 233.527 | 0.000001 | -0.000001 | | | | | | | | | | | | |
| Beryllium | 234.861 | 0.000001 | 0.000006 | | | | | | | | | | | | |
| Boron | 249.678 | 0.00002 | 0.000445 | | | | | | | | | | | | |
| Cadmium | 214.439 | 0.000005 | 0.000001 | | | | | | | | | | | | |
| Calcium | 422.673 | -0.000066 | -0.000488 | | | | | | | | | | | | |
| Chromium | 205.560 | 0.000037 | 0.000101 | | | | | | | | | | | | |
| Cobalt | 228.615 | -0.000013 | -0.000003 | | | | | | | | | | | | |
| Copper | 324.754 | 0.000016 | 0.00004 | | | | | | | | | | | | |
| Iron | 238.204 | 0.00011 | 0.000622 | | | | | | | | | | | | |
| Lead | 220.353 | -0.000028 | -0.000005 | | | | | | | | | | | | |
| Lithium | 670.783 | -0.00073 | -0.000634 | | | | | | | | | | | | |
| Magnesium | 279.078 | -0.000119 | -0.000067 | | | | | | | | | | | | |
| Manganese | 259.372 | 0.000005 | 0.000048 | | | | | | | | | | | | |
| Molybdenum | 204.598 | 0.000052 | 0.000002 | | | | | | | | | | | | |
| Nickel | 231.604 | 0.000023 | 0.000028 | | | | | | | | | | | | |
| Phosphorus | 213.618 | -0.00009 | 0.000028 | | | | | | | | | | | | |
| Potassium | 744.491 | -0.001412 | 0.000491 | | | | | | | | | | | | |
| Selenium | 196.026 | -0.000101 | -0.000166 | | | | | | | | | | | | |
| Silicon | 251.611 | 0.001039 | 0.006759 | | | | | | | | | | | | |
| Silver | 328.068 | 0.000001 | 0.003947 | | | | | | | | | | | | |
| Sodium | 589.592 | -0.000112 | 0.000318 | | | | | | | | | | | | |
| Strontium | 421.552 | 0 | -0.00002 | | | | | | | | | | | | |
| Thallium | 190.794 | -0.000027 | 0.000028 | | | | | | | | | | | | |
| Tin | 189.925 | 0.000048 | 0.000557 | | | | | | | | | | | | |
| Titanium | 336.122 | 0.000006 | 0.000122 | | | | | | | | | | | | |
| Tungsten | 207.912 | 0.008281 | 0.000004 | | | | | | | | | | | | |
| Vanadium | 292.401 | 0.000024 | -0.000008 | | | | | | | | | | | | |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-200988-1

SDG No.:

ICP-AES Instrument ID: ICP8 Date: 01/19/2018

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | 0 | 0 | | | | | | | | | | | | |
| Zinc | 202.548 | | 0.000117 | | | | | | | | | | | | |
| Zirconium | 343.823 | 0.000003 | | | | | | | | | | | | | |

X-IN

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Irvine Job No: 440-200988-1

SDG No.:

Instrument ID: ICP8 Date: 06/15/2017 18:16

| Analyte | Integ. Time (Sec.) | Concentration (mg/L) | Method |
|---|---|---|---|
| Chromium | | 30 | 6010B |

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Irvine Job No.: 440-200988-1

SDG No.:

Prep Method: 3005A

| Lab Sample ID | Preparation Date | Prep Batch | Initial Weight | Initial Volume (mL) | Final Volume (mL) |
|---|---|---|---|---|---|
| MB 440-452668/1-A | 01/19/2018 10:59 | 452668 | | 25 | 25 |
| LCS 440-452668/2-A | 01/19/2018 10:59 | 452668 | | 25 | 25 |
| 440-200988-1 | 01/19/2018 10:59 | 452668 | | 25 | 25 |
| 440-200988-1 MS | 01/19/2018 10:59 | 452668 | | 25 | 25 |
| 440-200988-1 MSD | 01/19/2018 10:59 | 452668 | | 25 | 25 |
| 440-200988-3 | 01/19/2018 10:59 | 452668 | | 25 | 25 |

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Instrument ID: ICP8  Analysis Method: 6010B

Start Date: 01/19/2018 09:18  End Date: 01/19/2018 20:24

| Lab Sample Id | D/F | Type | Time | Analytes |
|---|---|---|---|---|
| | | | | Cr |
| ICIS 440-452846/1 | 1 | | 09:18 | X |
| STD1 440-452846/2 IC | | | 09:20 | X |
| STD2 440-452846/3 IC | | | 09:22 | X |
| STD3 440-452846/4 IC | | | 09:24 | X |
| ICV 440-452846/5 | 1 | | 09:26 | X |
| ZZZZZZ | | | 09:29 | |
| ZZZZZZ | | | 09:33 | |
| ICB 440-452846/8 | 1 | | 09:38 | X |
| ICSA 440-452846/9 | 1 | | 09:40 | X |
| ZZZZZZ | | | 09:42 | |
| ICSAB 440-452846/11 | 1 | | 09:46 | X |
| ZZZZZZ | | | 09:48 | |
| RINSE 440-452846/13 | | | 09:50 | |
| ZZZZZZ | | | 09:54 | |
| CRI 440-452846/15 | 1 | | 09:56 | X |
| CCV 440-452846/16 | | | 17:39 | |
| CCB 440-452846/17 | | | 17:41 | |
| ZZZZZZ | | | 17:52 | |
| ZZZZZZ | | | 17:55 | |
| ZZZZZZ | | | 17:57 | |
| ZZZZZZ | | | 18:00 | |
| ZZZZZZ | | | 18:02 | |
| ZZZZZZ | | | 18:05 | |
| ZZZZZZ | | | 18:08 | |
| ZZZZZZ | | | 18:10 | |
| CCV 440-452846/26 | 1 | | 18:38 | X |
| CCB 440-452846/27 | 1 | | 18:41 | X |
| MB 440-452668/1-A | 1 | R | 19:03 | X |
| LCS 440-452668/2-A | 1 | R | 19:05 | X |
| 440-200988-1 | 5 | R | 19:08 | X |
| 440-200988-1 MS | 5 | R | 19:11 | X |
| 440-200988-1 MSD | 5 | R | 19:13 | X |
| 440-200988-1 PDS | 5 | R | 19:16 | X |
| 440-200988-1 SD | 25 | R | 19:18 | X |
| 440-200988-3 | 5 | R | 19:21 | X |
| ZZZZZZ | | | 19:24 | |
| ZZZZZZ | | | 19:26 | |
| CCV 440-452846/38 | 1 | | 19:29 | X |
| CCB 440-452846/39 | 1 | | 19:31 | X |
| ZZZZZZ | | | 19:34 | |
| ZZZZZZ | | | 19:37 | |
| ZZZZZZ | | | 19:39 | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Instrument ID: ICP8  Analysis Method: 6010B

Start Date: 01/19/2018 09:18  End Date: 01/19/2018 20:24

| Lab Sample Id | D/F | Type | Time | Analytes |
|---|---|---|---|---|
| | | | | Cr |
| ZZZZZZ | | | 19:42 | |
| ZZZZZZ | | | 19:44 | |
| ZZZZZZ | | | 19:47 | |
| ZZZZZZ | | | 19:50 | |
| ZZZZZZ | | | 19:52 | |
| ZZZZZZ | | | 19:55 | |
| ZZZZZZ | | | 19:57 | |
| CCV 440-452846/50 | | | 20:00 | |
| CCB 440-452846/51 | | | 20:03 | |
| ZZZZZZ | | | 20:05 | |
| ZZZZZZ | | | 20:08 | |
| ZZZZZZ | | | 20:10 | |
| ZZZZZZ | | | 20:13 | |
| ZZZZZZ | | | 20:16 | |
| ZZZZZZ | | | 20:18 | |
| CCV 440-452846/58 | | | 20:21 | |
| CCB 440-452846/59 | | | 20:24 | |

Prep Types:
R = Total Recoverable

FORM XIII-IN

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Batch Number: 452668  Batch Start Date: 01/19/18 10:59  Batch Analyst: Nakhaei, Mahmoud

Batch Method: 3005A  Batch End Date: 01/19/18 16:52

| Lab Sample ID | Client Sample ID | Method Chain | Basis | Initial pH | InitialAmount | FinalAmount | ME HCl 00393 | ME HNO3 00412 | ME ICP2 ICV1A 00051 |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-452668/1 | | 3005A, 6010B | | | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| LCS 440-452668/2 | | 3005A, 6010B | | | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 0.25 mL |
| 440-200988-G-1 | VER-01I-C-BL | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| 440-200988-G-1 MS | VER-01I-C-BL | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 0.25 mL |
| 440-200988-G-1 MSD | VER-01I-C-BL | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 0.25 mL |
| 440-200988-G-3 | VER-01I-C-12 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| 440-200988-G-1 PDS | VER-01I-C-BL | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 0.25 mL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | ME ICP2 ICV1B 00045 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-452668/1 | | 3005A, 6010B | | | | | | | |
| LCS 440-452668/2 | | 3005A, 6010B | | 0.25 mL | | | | | |
| 440-200988-G-1 | VER-01I-C-BL | 3005A, 6010B | R | | | | | | |
| 440-200988-G-1 MS | VER-01I-C-BL | 3005A, 6010B | R | 0.25 mL | | | | | |
| 440-200988-G-1 MSD | VER-01I-C-BL | 3005A, 6010B | R | 0.25 mL | | | | | |
| 440-200988-G-3 | VER-01I-C-12 | 3005A, 6010B | R | | | | | | |
| 440-200988-G-1 PDS | VER-01I-C-BL | 3005A, 6010B | R | 0.25 mL | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-200988-1

SDG No.:

Batch Number: 452668  Batch Start Date: 01/19/18 10:59  Batch Analyst: Nakhaei, Mahmoud

Batch Method: 3005A  Batch End Date: 01/19/18 16:52

| Batch Notes | |
|---|---|
| Temperature - Corrected - End | 93 Degrees C |
| Temperature - Corrected - Start | 95 Degrees C |
| Digestion End Time | 01/19/2018 16:20 |
| Digestion Start Time | 01/19/2018 12:05 |
| Digestion Unit ID | 9 |
| Hydrochloric Acid ID | 0000183197 |
| Nitric Acid ID | 0000185595 |
| Pipette/Syringe/Dispenser ID | 201 |
| Thermometer ID | P-112, Loc A4, CF=-1 |
| Digestion Tube/Cup ID | 1707186 |
| Temperature - Uncorrected - End | 94 Degrees C |
| Temperature - Uncorrected - Start | 96 Degrees C |

| Basis | Basis Description |
|---|---|
| R | Total Recoverable |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Shipping and Receiving Documents

**TestAmerica Irvine**
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information | Sampler: Jeff Richeson | Lab PM: Mata, Patty | Carrier Tracking No(s): 526 6064 0086 | COC No: |
|---|---|---|---|---|
| Client Contact: Carl Lenker | Phone: (805) 660-1774 | E-Mail: patty.mata@testamericainc.com | | Page: 1 of 2 |
| Company: Tetra Tech, Inc. | | | | Job #: |
| Address: 17885 Von Karman Ave, Ste 500 | Due Date Requested: | | | |
| City: Irvine | TAT Requested (days): | | | |
| State, Zip: CA, 92614 | | | | |
| Phone: 949-809-5000(Tel) | PO # | | | |
| Email: Carl Lenker@tetratech com | WO #: | | | |
| Project Name: NERT VER Treatability Study | Project #: M16 | | | |
| Site | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

| | |
|---|---|
| A - HCL | M - Hexane |
| B - NaOH | N - None |
| C - Zn Acetate | O - AsNaO2 |
| D - Nitric Acid | P - Na2O4S |
| E - NaHSO4 | Q - Na2SO3 |
| F - MeOH | R - Na2S2O3 |
| G - Amchlor | S - H2SO4 |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice | U - Acetone |
| J - DI Water | V - MCAA |
| K - EDTA | W - pH 4-5 |
| L - EDA | Z - other (specify) |

Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 7199_ORGFM - Chromium, hexavalent | 314.0_LL - Perchlorate | E300.1 Chlorate and Chlorite | SW846 8260B VOCs | Total Chromium 6010B | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | N | N | L | A | D | | |
| VER-01I-C-BL | 1/15/18 | 0335 | G | W | Y | | X | X | X | X | X | 7 | |
| Trip Blank | ↓ | 0330 | ↓ | ↓ | | | | | | X | | 3 | |

440-200988 Chain of Custody

AS 1-17-18

***Possible Hazard Identification***
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

***Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)***
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | Relinquished by | Date/Time | Company | Received by | Date/Time | Company |
|---|---|---|---|---|---|---|
| 1 | | 1/15/18 1215 | Tetra Tech | TALVS | 1-15-18 1215 | TALVS |
| 2 | | 1-15-18 1400 | TALVS | SWA | 1/15/18 18:15 | TA - IRV |
| 3 | | Date/Time: | Company | Received by | Date/Time | Company |

Custody Seals Intact: ☑ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: TALVS 17.6 2.8/25

**TestAmerica Irvine**
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information | Sampler: Jeff Richeson | Lab PM: Mata, Patty | Carrier Tracking No(s): 526064 0015 | COC No: |
|---|---|---|---|---|
| Client Contact: Carl Lenker | Phone: (805) 660-1774 | E-Mail: patty.mata@testamericainc.com | | Page: 2 of 2 |
| Company: Tetra Tech, Inc. | | | | Job # |

| Address: 17885 Von Karman Ave, Ste 500 | Due Date Requested: |
|---|---|
| City: Irvine | TAT Requested (days): |
| State, Zip: CA, 92614 | |
| Phone: 949-809-5000(Tel) | PO # |
| Email: Carl.Lenker@tetratech.com | WO # |
| Project Name: NERT VER Treatability Study | Project #: M16 |
| Site: | SSOW#: |

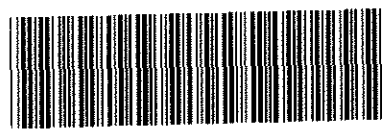
**Analysis Requested**

**Preservation Codes:**

| | |
|---|---|
| A - HCL | M - Hexane |
| B - NaOH | N - None |
| C - Zn Acetate | O - AsNaO2 |
| D - Nitric Acid | P - Na2O4S |
| E - NaHSO4 | Q - Na2SO3 |
| F - MeOH | R - Na2S2O3 |
| G - Amchlor | S - H2SO4 |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice | U - Acetone |
| J - DI Water | V - MCAA |
| K - EDTA | W - pH 4-5 |
| L - EDA | Z - other (specify) |

Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 7199_ORGFM - Chromium, hexavalent | 314.0_LL - Perchlorate | E300.1 Chlorate and Chlorite | SW846 [redacted] VOCs 8260B | Total Chromium 6010B | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | X | X | N | N | L | A | D | X | |
| VER-01I-C-12 | 1/15/18 | 1530 | G | W | X | | X | X | X | X | X | | |




| Possible Hazard Identification | Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) |
|---|---|
| ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological | ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months |
| Deliverable Requested: I, II, III, IV, Other (specify) | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| Relinquished by: | Date/Time: 1/15/18 1545 | Company: TtTechTech | Received by: | Date/Time: 1-15-18 1545 | Company: TALVS |
|---|---|---|---|---|---|
| Relinquished by: | Date/Time: 1-15-18 1700 | Company: TALVS | Received by: SWA | Date/Time: 1/16/18 7.00 | Company: TA-IRV |
| Relinquished by | Date/Time: | Company | Received by | Date/Time | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: TALVS 21.3 1.4/1.1 |
|---|---|---|

# Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 440-200988-1

**Login Number: 200988**
**List Number: 1**
**Creator: Soderblom, Tim**

**List Source: TestAmerica Irvine**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | N/A | Not present |
| Sample custody seals, if present, are intact. | N/A | Not Present |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

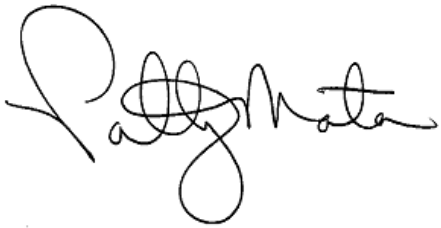
# ANALYTICAL REPORT

Job Number: 440-201049-1

Job Description: NERT VER Treatability Study

For:
Tetra Tech, Inc.
17885 Von Karman Ave, Ste 500
Irvine, CA 92614

Attention: Jeff Richeson



Approved for release.
Patty Mata
Senior Project Manager
1/26/2018 12:12 PM

Patty Mata, Senior Project Manager
17461 Derian Ave, Irvine, CA, 92614-5817
patty.mata@testamericainc.com
01/26/2018

# Table of Contents


Cover Title Page . . . . . 1

Data Summaries . . . . . 6

Definitions . . . . . 6

Case Narrative . . . . . 7

Detection Summary . . . . . 8

Client Sample Results . . . . . 9

Default Detection Limits . . . . . 15

Surrogate Summary . . . . . 17

QC Sample Results . . . . . 18

QC Association . . . . . 39

Chronicle . . . . . 42

Certification Summary . . . . . 43

Method Summary . . . . . 44

Sample Summary . . . . . 45

Manual Integration Summary . . . . . 46

Reagent Traceability . . . . . 56

Organic Sample Data . . . . . 100

GC/MS VOA . . . . . 100

Method 8260B Low Level . . . . . 100

Method 8260B Low Level QC Summary . . . . . 101

Method 8260B Low Level Sample Data . . . . . 130

Standards Data . . . . . 139

Method 8260B Low Level ICAL Data . . . . . 139

Method 8260B Low Level CCAL Data . . . . . 171

Raw QC Data . . . . . 183

Method 8260B Low Level Blank Data . . . . . 183

# Table of Contents


Method 8260B Low Level LCS/LCSD Data . . . . . 189

Method 8260B Low Level MS/MSD Data . . . . . 198

Method 8260B Low Level Run Logs . . . . . 210

Method 8260B Low Level Prep Data . . . . . 214

HPLC/IC . . . . . 217

314.0_LL . . . . . 217

314.0_LL QC Summary . . . . . 218

314.0_LL Sample Data . . . . . 225

Standards Data . . . . . 227

314.0_LL ICAL Data . . . . . 227

314.0_LL CCAL Data . . . . . 230

Raw QC Data . . . . . 240

314.0_LL Blank Data . . . . . 240

314.0_LL LCS/LCSD Data . . . . . 245

314.0_LL MS/MSD Data . . . . . 249

314.0_LL Duplicate/Triplicate Data . . . . . 251

314.0_LL Run Logs . . . . . 252

Method 7199 . . . . . 254

Method 7199 QC Summary . . . . . 255

Method 7199 Sample Data . . . . . 266

Standards Data . . . . . 268

Method 7199 ICAL Data . . . . . 268

Method 7199 CCAL Data . . . . . 271

Raw QC Data . . . . . 285

Method 7199 Blank Data . . . . . 285

Method 7199 LCS/LCSD Data . . . . . 293

# Table of Contents


Method 7199 MS/MSD Data . . . . . 297

Method 7199 Run Logs . . . . . 301

Method 300.1 . . . . . 309

Method 300.1 QC Summary . . . . . 310

Method 300.1 Sample Data . . . . . 323

Standards Data . . . . . 327

Method 300.1 ICAL Data . . . . . 327

Method 300.1 CCAL Data . . . . . 333

Raw QC Data . . . . . 355

Method 300.1 Blank Data . . . . . 355

Method 300.1 LCS/LCSD Data . . . . . 366

Method 300.1 MS/MSD Data . . . . . 370

Method 300.1 Run Logs . . . . . 376

Inorganic Sample Data . . . . . 382

Metals Data . . . . . 382

Met Cover Page . . . . . 383

Met Sample Data . . . . . 384

Met QC Data . . . . . 386

Met ICV/CCV . . . . . 386

Met CRQL . . . . . 388

Met Blanks . . . . . 389

Met ICSA/ICSAB . . . . . 393

Met MS/MSD/PDS . . . . . 397

Met LCS/LCSD . . . . . 403

Met Serial Dilution . . . . . 405

Met MDL . . . . . 407

# Table of Contents


Met IECF . . . . . 409

Met Linear Ranges . . . . . 413

Met Preparation Log . . . . . 414

Met Analysis Run Log . . . . . 416

Met Prep Data . . . . . 420

Shipping and Receiving Documents . . . . . 424

Client Chain of Custody . . . . . 425

Sample Receipt Checklist . . . . . 427

## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| F1 | MS and/or MSD Recovery is outside acceptance limits. |

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| W | PS: Post-digestion spike was outside control limits |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| PQL | Practical Quantitation Limit |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

**Job Narrative**
**440-201049-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 1/16/2018 7:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.1º C and 3.3º C. The following sample was received on 1/17/18 at 7:00 AM but was included in this report with samples received at an earlier date/time per client request: VER-01I-C-36 (440-201049-3).

**GC/MS VOA**
Method(s) 8260B: The continuing calibration verification (CCV) associated with batch 440-452744 recovered above the upper control limit for 2,2-Dichloropropane. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: TB-011618 (440-201049-2), VER-01I-C-36 (440-201049-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**HPLC/IC**
Method(s) 300.1B: The following samples were diluted for the chlorite analyte due to the nature of the sample matrix: VER-01I-C-24 (440-201049-1) and VER-01I-C-36 (440-201049-3). Elevated reporting limits (RLs) are provided.

Method(s) 300.1B: The following batch QC samples were diluted due to the nature of the sample matrix: VER-01I-C-36 (440-201049-3[MS]) and VER-01I-C-36 (440-201049-3[MSD]). Because of the dilutions, the matrix spike concentrations were reduced to levels where the recovery calculations do not provide useful information. Chlorite MS/MSD recoveries were reported as "NC", for not calculated due to the dilutions.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**Metals**
No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**VOA Prep**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-201049-1

## Client Sample ID: VER-01I-C-24 — Lab Sample ID: 440-201049-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloroform | 700 | | 2.5 | 1.3 | ug/L | 5 | | 8260B | Total/NA |
| 1,2-Dichlorobenzene | 5.2 | | 2.5 | 1.3 | ug/L | 5 | | 8260B | Total/NA |
| Trichloroethene | 1.3 | J | 2.5 | 1.3 | ug/L | 5 | | 8260B | Total/NA |
| Chlorate | 3100000 | | 200000 | 100000 | ug/L | 10000 | | 300.1B | Total/NA |
| Perchlorate | 1200000 | | 100000 | 50000 | ug/L | 100000 | | 314.0 LL | Total/NA |
| Chromium, hexavalent | 11000 | | 1000 | 130 | ug/L | 500 | | 7199 | Total/NA |
| Chromium | 12 | | 0.025 | 0.013 | mg/L | 5 | | 6010B | Total Recoverable |

## Client Sample ID: TB-011618 — Lab Sample ID: 440-201049-2

No Detections.

## Client Sample ID: VER-01I-C-36 — Lab Sample ID: 440-201049-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chloroform | 730 | | 5.0 | 2.5 | ug/L | 10 | | 8260B | Total/NA |
| 1,2-Dichlorobenzene | 5.7 | | 5.0 | 2.5 | ug/L | 10 | | 8260B | Total/NA |
| Chlorate | 3300000 | | 200000 | 100000 | ug/L | 10000 | | 300.1B | Total/NA |
| Perchlorate | 1100000 | | 100000 | 50000 | ug/L | 100000 | | 314.0 LL | Total/NA |
| Chromium, hexavalent | 13000 | | 1000 | 130 | ug/L | 500 | | 7199 | Total/NA |
| Chromium | 12 | | 0.025 | 0.013 | mg/L | 5 | | 6010B | Total Recoverable |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: VER-01I-C-24

**Date Collected: 01/16/18 03:30**
**Date Received: 01/16/18 19:15**

## Lab Sample ID: 440-201049-1

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 100 | 50 | ug/L | | | 01/22/18 15:05 | 5 |
| Benzene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| Bromobenzene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| Bromochloromethane | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| Bromodichloromethane | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| Bromoform | ND | | 5.0 | 2.0 | ug/L | | | 01/22/18 15:05 | 5 |
| Bromomethane | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| 2-Butanone (MEK) | ND | | 25 | 13 | ug/L | | | 01/22/18 15:05 | 5 |
| Carbon tetrachloride | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| Chlorobenzene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| Chloroethane | ND | | 5.0 | 2.0 | ug/L | | | 01/22/18 15:05 | 5 |
| **Chloroform** | **700** | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| Chloromethane | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| 2-Chlorotoluene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| 4-Chlorotoluene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| cis-1,2-Dichloroethene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| cis-1,3-Dichloropropene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| Dibromochloromethane | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| 1,2-Dibromo-3-Chloropropane | ND | | 5.0 | 2.5 | ug/L | | | 01/22/18 15:05 | 5 |
| 1,2-Dibromoethane (EDB) | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| Dibromomethane | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| **1,2-Dichlorobenzene** | **5.2** | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| 1,3-Dichlorobenzene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| 1,4-Dichlorobenzene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| Dichlorodifluoromethane | ND | | 5.0 | 2.0 | ug/L | | | 01/22/18 15:05 | 5 |
| 1,1-Dichloroethane | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| 1,2-Dichloroethane | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| 1,1-Dichloroethene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| 1,2-Dichloropropane | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| 1,3-Dichloropropane | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| 2,2-Dichloropropane | ND | | 5.0 | 2.0 | ug/L | | | 01/22/18 15:05 | 5 |
| 1,1-Dichloropropene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| Ethylbenzene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| Ethyl-t-butyl ether (ETBE) | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| Hexachlorobutadiene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| 2-Hexanone | ND | | 25 | 13 | ug/L | | | 01/22/18 15:05 | 5 |
| Isopropylbenzene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| Isopropyl Ether (DIPE) | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| Methylene Chloride | ND | | 10 | 4.4 | ug/L | | | 01/22/18 15:05 | 5 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 25 | 13 | ug/L | | | 01/22/18 15:05 | 5 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| m,p-Xylene | ND | | 5.0 | 2.5 | ug/L | | | 01/22/18 15:05 | 5 |
| Naphthalene | ND | | 5.0 | 2.0 | ug/L | | | 01/22/18 15:05 | 5 |
| n-Butylbenzene | ND | | 5.0 | 2.0 | ug/L | | | 01/22/18 15:05 | 5 |
| N-Propylbenzene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| o-Xylene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| p-Isopropyltoluene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| sec-Butylbenzene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| Styrene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |

**Client Sample ID: VER-01I-C-24** **Lab Sample ID: 440-201049-1**
**Date Collected: 01/16/18 03:30** **Matrix: Water**
**Date Received: 01/16/18 19:15**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Tert-amyl-methyl ether (TAME) | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| tert-Butyl alcohol (TBA) | ND | | 50 | 25 | ug/L | | | 01/22/18 15:05 | 5 |
| tert-Butylbenzene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| 1,1,1,2-Tetrachloroethane | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| 1,1,2,2-Tetrachloroethane | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| Tetrachloroethene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| Toluene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| trans-1,2-Dichloroethene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| trans-1,3-Dichloropropene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| 1,2,3-Trichlorobenzene | ND | | 5.0 | 2.0 | ug/L | | | 01/22/18 15:05 | 5 |
| 1,2,4-Trichlorobenzene | ND | | 5.0 | 2.0 | ug/L | | | 01/22/18 15:05 | 5 |
| 1,1,1-Trichloroethane | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| 1,1,2-Trichloroethane | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| **Trichloroethene** | **1.3** | **J** | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| Trichlorofluoromethane | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| 1,2,3-Trichloropropane | ND | | 5.0 | 2.0 | ug/L | | | 01/22/18 15:05 | 5 |
| 1,2,4-Trimethylbenzene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| 1,3,5-Trimethylbenzene | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| Vinyl chloride | ND | | 2.5 | 1.3 | ug/L | | | 01/22/18 15:05 | 5 |
| Xylenes, Total | ND | | 5.0 | 2.5 | ug/L | | | 01/22/18 15:05 | 5 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *90* | | *80 - 120* | | *01/22/18 15:05* | *5* |
| *Dibromofluoromethane (Surr)* | *109* | | *76 - 132* | | *01/22/18 15:05* | *5* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 128* | | *01/22/18 15:05* | *5* |

## Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 20000 | 10000 | ug/L | | | 01/19/18 10:47 | 1000 |
| **Chlorate** | **3100000** | | 200000 | 100000 | ug/L | | | 01/18/18 16:00 | 10000 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *102* | | *90 - 115* | | *01/18/18 16:00* | *10000* |
| *Dichloroacetic acid(Surr)* | *99* | | *90 - 115* | | *01/19/18 10:47* | *1000* |

## Method: 314.0 LL - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perchlorate** | **1200000** | | 100000 | 50000 | ug/L | | | 01/17/18 15:21 | 100000 |

## Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium, hexavalent** | **11000** | | 1000 | 130 | ug/L | | | 01/16/18 21:12 | 500 |

## Method: 6010B - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **12** | | 0.025 | 0.013 | mg/L | | 01/19/18 10:59 | 01/19/18 19:24 | 5 |

## Client Sample ID: TB-011618 Lab Sample ID: 440-201049-2

**Date Collected: 01/16/18 03:34** **Matrix: Water**
**Date Received: 01/16/18 19:15**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 01/19/18 21:15 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 01/19/18 21:15 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 21:15 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 01/19/18 21:15 | 1 |
| Chloroform | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 01/19/18 21:15 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 01/19/18 21:15 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/19/18 21:15 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 21:15 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 01/19/18 21:15 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 21:15 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 01/19/18 21:15 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 01/19/18 21:15 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/19/18 21:15 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |

## Client Sample ID: TB-011618 — Lab Sample ID: 440-201049-2

**Date Collected: 01/16/18 03:34** — **Matrix: Water**
**Date Received: 01/16/18 19:15**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 01/19/18 21:15 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/19/18 21:15 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/19/18 21:15 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/19/18 21:15 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 21:15 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 01/19/18 21:15 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *108* | | *80 - 120* | | *01/19/18 21:15* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *76 - 132* | | *01/19/18 21:15* | *1* |
| *Toluene-d8 (Surr)* | *108* | | *80 - 128* | | *01/19/18 21:15* | *1* |

## Client Sample ID: VER-01I-C-36 — Lab Sample ID: 440-201049-3

**Date Collected: 01/16/18 15:30** — **Matrix: Water**
**Date Received: 01/16/18 19:15**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 200 | 100 | ug/L | | | 01/19/18 19:24 | 10 |
| Benzene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| Bromobenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| Bromochloromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| Bromodichloromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| Bromoform | ND | | 10 | 4.0 | ug/L | | | 01/19/18 19:24 | 10 |
| Bromomethane | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| 2-Butanone (MEK) | ND | | 50 | 25 | ug/L | | | 01/19/18 19:24 | 10 |
| Carbon tetrachloride | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| Chlorobenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| Chloroethane | ND | | 10 | 4.0 | ug/L | | | 01/19/18 19:24 | 10 |
| **Chloroform** | **730** | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| Chloromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| 2-Chlorotoluene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| 4-Chlorotoluene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| cis-1,2-Dichloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| cis-1,3-Dichloropropene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| Dibromochloromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |

## Client Sample ID: VER-01I-C-36 Lab Sample ID: 440-201049-3

**Date Collected: 01/16/18 15:30** **Matrix: Water**
**Date Received: 01/16/18 19:15**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromo-3-Chloropropane | ND | | 10 | 5.0 | ug/L | | | 01/19/18 19:24 | 10 |
| 1,2-Dibromoethane (EDB) | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| Dibromomethane | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| **1,2-Dichlorobenzene** | **5.7** | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| 1,3-Dichlorobenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| 1,4-Dichlorobenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| Dichlorodifluoromethane | ND | | 10 | 4.0 | ug/L | | | 01/19/18 19:24 | 10 |
| 1,1-Dichloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| 1,2-Dichloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| 1,1-Dichloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| 1,2-Dichloropropane | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| 1,3-Dichloropropane | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| 2,2-Dichloropropane | ND | F1 | 10 | 4.0 | ug/L | | | 01/19/18 19:24 | 10 |
| 1,1-Dichloropropene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| Ethylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| Ethyl-t-butyl ether (ETBE) | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| Hexachlorobutadiene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| 2-Hexanone | ND | | 50 | 25 | ug/L | | | 01/19/18 19:24 | 10 |
| Isopropylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| Isopropyl Ether (DIPE) | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| Methylene Chloride | ND | | 20 | 8.8 | ug/L | | | 01/19/18 19:24 | 10 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 50 | 25 | ug/L | | | 01/19/18 19:24 | 10 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| m,p-Xylene | ND | | 10 | 5.0 | ug/L | | | 01/19/18 19:24 | 10 |
| Naphthalene | ND | | 10 | 4.0 | ug/L | | | 01/19/18 19:24 | 10 |
| n-Butylbenzene | ND | | 10 | 4.0 | ug/L | | | 01/19/18 19:24 | 10 |
| N-Propylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| o-Xylene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| p-Isopropyltoluene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| sec-Butylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| Styrene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| Tert-amyl-methyl ether (TAME) | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| tert-Butyl alcohol (TBA) | ND | | 100 | 50 | ug/L | | | 01/19/18 19:24 | 10 |
| tert-Butylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| 1,1,1,2-Tetrachloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| 1,1,2,2-Tetrachloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| Tetrachloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| Toluene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| trans-1,2-Dichloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| trans-1,3-Dichloropropene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| 1,2,3-Trichlorobenzene | ND | | 10 | 4.0 | ug/L | | | 01/19/18 19:24 | 10 |
| 1,2,4-Trichlorobenzene | ND | | 10 | 4.0 | ug/L | | | 01/19/18 19:24 | 10 |
| 1,1,1-Trichloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| 1,1,2-Trichloroethane | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| Trichloroethene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| Trichlorofluoromethane | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| 1,2,3-Trichloropropane | ND | | 10 | 4.0 | ug/L | | | 01/19/18 19:24 | 10 |
| 1,2,4-Trimethylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| 1,3,5-Trimethylbenzene | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |

**Client Sample ID: VER-01I-C-36** **Lab Sample ID: 440-201049-3**
**Date Collected: 01/16/18 15:30** **Matrix: Water**
**Date Received: 01/16/18 19:15**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl chloride | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 19:24 | 10 |
| Xylenes, Total | ND | | 10 | 5.0 | ug/L | | | 01/19/18 19:24 | 10 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *107* | | *80 - 120* | | *01/19/18 19:24* | *10* |
| *Dibromofluoromethane (Surr)* | *99* | | *76 - 132* | | *01/19/18 19:24* | *10* |
| *Toluene-d8 (Surr)* | *109* | | *80 - 128* | | *01/19/18 19:24* | *10* |

## Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 20000 | 10000 | ug/L | | | 01/19/18 06:29 | 1000 |
| **Chlorate** | **3300000** | | 200000 | 100000 | ug/L | | | 01/18/18 20:13 | 10000 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *99* | | *90 - 115* | | *01/18/18 20:13* | *10000* |
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* | | *01/19/18 06:29* | *1000* |

## Method: 314.0 LL - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perchlorate** | **1100000** | | 100000 | 50000 | ug/L | | | 01/17/18 17:29 | 100000 |

## Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium, hexavalent** | **13000** | | 1000 | 130 | ug/L | | | 01/17/18 08:01 | 500 |

## Method: 6010B - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **12** | | 0.025 | 0.013 | mg/L | | 01/22/18 10:36 | 01/23/18 19:04 | 5 |

# Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-201049-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,1-Trichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,2,2-Tetrachloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,2-Trichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2,3-Trichlorobenzene | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,3-Trichloropropane | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,4-Trichlorobenzene | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,4-Trimethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dibromo-3-Chloropropane | 1.0 | 0.50 | ug/L | 8260B |
| 1,2-Dibromoethane (EDB) | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichloropropane | 0.50 | 0.25 | ug/L | 8260B |
| 1,3,5-Trimethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,3-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,3-Dichloropropane | 0.50 | 0.25 | ug/L | 8260B |
| 1,4-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 2,2-Dichloropropane | 1.0 | 0.40 | ug/L | 8260B |
| 2-Butanone (MEK) | 5.0 | 2.5 | ug/L | 8260B |
| 2-Chlorotoluene | 0.50 | 0.25 | ug/L | 8260B |
| 2-Hexanone | 5.0 | 2.5 | ug/L | 8260B |
| 4-Chlorotoluene | 0.50 | 0.25 | ug/L | 8260B |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | 2.5 | ug/L | 8260B |
| Acetone | 20 | 10 | ug/L | 8260B |
| Benzene | 0.50 | 0.25 | ug/L | 8260B |
| Bromobenzene | 0.50 | 0.25 | ug/L | 8260B |
| Bromochloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Bromodichloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Bromoform | 1.0 | 0.40 | ug/L | 8260B |
| Bromomethane | 0.50 | 0.25 | ug/L | 8260B |
| Carbon tetrachloride | 0.50 | 0.25 | ug/L | 8260B |
| Chlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| Chloroethane | 1.0 | 0.40 | ug/L | 8260B |
| Chloroform | 0.50 | 0.25 | ug/L | 8260B |
| Chloromethane | 0.50 | 0.25 | ug/L | 8260B |
| cis-1,2-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| cis-1,3-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| Dibromochloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Dibromomethane | 0.50 | 0.25 | ug/L | 8260B |
| Dichlorodifluoromethane | 1.0 | 0.40 | ug/L | 8260B |
| Ethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Ethyl-t-butyl ether (ETBE) | 0.50 | 0.25 | ug/L | 8260B |
| Hexachlorobutadiene | 0.50 | 0.25 | ug/L | 8260B |
| Isopropyl Ether (DIPE) | 0.50 | 0.25 | ug/L | 8260B |
| Isopropylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| m,p-Xylene | 1.0 | 0.50 | ug/L | 8260B |
| Methylene Chloride | 2.0 | 0.88 | ug/L | 8260B |
| Methyl-t-Butyl Ether (MTBE) | 0.50 | 0.25 | ug/L | 8260B |
| Naphthalene | 1.0 | 0.40 | ug/L | 8260B |

# Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-201049-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| n-Butylbenzene | 1.0 | 0.40 | ug/L | 8260B |
| N-Propylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| o-Xylene | 0.50 | 0.25 | ug/L | 8260B |
| p-Isopropyltoluene | 0.50 | 0.25 | ug/L | 8260B |
| sec-Butylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Styrene | 0.50 | 0.25 | ug/L | 8260B |
| Tert-amyl-methyl ether (TAME) | 0.50 | 0.25 | ug/L | 8260B |
| tert-Butyl alcohol (TBA) | 10 | 5.0 | ug/L | 8260B |
| tert-Butylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Tetrachloroethene | 0.50 | 0.25 | ug/L | 8260B |
| Toluene | 0.50 | 0.25 | ug/L | 8260B |
| trans-1,2-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| trans-1,3-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| Trichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| Trichlorofluoromethane | 0.50 | 0.25 | ug/L | 8260B |
| Vinyl chloride | 0.50 | 0.25 | ug/L | 8260B |
| Xylenes, Total | 1.0 | 0.50 | ug/L | 8260B |

## Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chlorate | 20 | 10 | ug/L | 300.1B |
| Chlorite | 20 | 10 | ug/L | 300.1B |

## Method: 314.0 LL - Perchlorate (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Perchlorate | 1.0 | 0.50 | ug/L | 314.0 LL |

## Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chromium, hexavalent | 2.0 | 0.25 | ug/L | 7199 |

## Method: 6010B - Metals (ICP) - Total Recoverable

### Prep: 3005A

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chromium | 0.0050 | 0.0025 | mg/L | 6010B |

# Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-201049-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Matrix: Water**

**Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | |
|---|---|---|---|---|
| | | BFB | DBFM | TOL |
| Lab Sample ID | Client Sample ID | (80-120) | (76-132) | (80-128) |
| 440-201049-1 | VER-01I-C-24 | 90 | 109 | 98 |
| 440-201049-2 | TB-011618 | 108 | 100 | 108 |
| 440-201049-3 | VER-01I-C-36 | 107 | 99 | 109 |
| 440-201049-3 MS | VER-01I-C-36 | 110 | 98 | 104 |
| 440-201049-3 MSD | VER-01I-C-36 | 109 | 97 | 102 |
| 440-201302-D-8 MS | Matrix Spike | 87 | 108 | 95 |
| 440-201302-D-8 MSD | Matrix Spike Duplicate | 87 | 105 | 96 |
| LCS 440-452744/5 | Lab Control Sample | 108 | 96 | 105 |
| LCS 440-452941/5 | Lab Control Sample | 88 | 109 | 98 |
| LCSD 440-452744/18 | Lab Control Sample Dup | 111 | 98 | 106 |
| MB 440-452744/4 | Method Blank | 110 | 99 | 111 |
| MB 440-452941/4 | Method Blank | 88 | 116 | 96 |

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

## Method: 300.1B - Disinfection By-Products, (IC)

**Matrix: Water**

**Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) |
|---|---|---|
| | | DCAA |
| Lab Sample ID | Client Sample ID | (90-115) |
| 440-201049-1 | VER-01I-C-24 | 102 |
| 440-201049-1 | VER-01I-C-24 | 99 |
| 440-201049-3 | VER-01I-C-36 | 99 |
| 440-201049-3 | VER-01I-C-36 | 100 |
| 440-201049-3 MS | VER-01I-C-36 | 100 |
| 440-201049-3 MS | VER-01I-C-36 | 101 |
| 440-201049-3 MSD | VER-01I-C-36 | 99 |
| 440-201049-3 MSD | VER-01I-C-36 | 100 |
| 440-201200-A-1 MS | Matrix Spike | 98 |
| 440-201200-A-1 MSD | Matrix Spike Duplicate | 100 |
| LCS 440-452345/4 | Lab Control Sample | 101 |
| LCS 440-452346/4 | Lab Control Sample | 101 |
| MB 440-452345/5 | Method Blank | 102 |
| MB 440-452346/5 | Method Blank | 102 |
| MRL 440-452345/3 | Lab Control Sample | 101 |
| MRL 440-452346/3 | Lab Control Sample | 101 |

**Surrogate Legend**

DCAA = Dichloroacetic acid(Surr)

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 440-452744/4**
**Matrix: Water**
**Analysis Batch: 452744**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 01/19/18 17:32 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 01/19/18 17:32 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 17:32 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 01/19/18 17:32 | 1 |
| Chloroform | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 01/19/18 17:32 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 01/19/18 17:32 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/19/18 17:32 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 17:32 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 01/19/18 17:32 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 01/19/18 17:32 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 01/19/18 17:32 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 01/19/18 17:32 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/19/18 17:32 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 440-452744/4**
**Matrix: Water**
**Analysis Batch: 452744**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 01/19/18 17:32 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/19/18 17:32 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/19/18 17:32 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/19/18 17:32 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 01/19/18 17:32 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 01/19/18 17:32 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *110* | | *80 - 120* | | *01/19/18 17:32* | *1* |
| *Dibromofluoromethane (Surr)* | *99* | | *76 - 132* | | *01/19/18 17:32* | *1* |
| *Toluene-d8 (Surr)* | *111* | | *80 - 128* | | *01/19/18 17:32* | *1* |

**Lab Sample ID: LCS 440-452744/5**
**Matrix: Water**
**Analysis Batch: 452744**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acetone | 25.0 | 27.8 | | ug/L | | 111 | 10 - 150 |
| Benzene | 25.0 | 23.1 | | ug/L | | 93 | 68 - 130 |
| Bromobenzene | 25.0 | 28.2 | | ug/L | | 113 | 70 - 130 |
| Bromochloromethane | 25.0 | 24.1 | | ug/L | | 96 | 70 - 130 |
| Bromodichloromethane | 25.0 | 26.6 | | ug/L | | 106 | 70 - 132 |
| Bromoform | 25.0 | 28.4 | | ug/L | | 113 | 60 - 148 |
| Bromomethane | 25.0 | 23.7 | | ug/L | | 95 | 64 - 139 |
| 2-Butanone (MEK) | 25.0 | 22.9 | | ug/L | | 91 | 44 - 150 |
| Carbon tetrachloride | 25.0 | 28.2 | | ug/L | | 113 | 60 - 150 |
| Chlorobenzene | 25.0 | 26.9 | | ug/L | | 108 | 70 - 130 |
| Chloroethane | 25.0 | 22.7 | | ug/L | | 91 | 64 - 135 |
| Chloroform | 25.0 | 26.1 | | ug/L | | 104 | 70 - 130 |
| Chloromethane | 25.0 | 23.9 | | ug/L | | 96 | 47 - 140 |
| 2-Chlorotoluene | 25.0 | 27.9 | | ug/L | | 112 | 70 - 130 |
| 4-Chlorotoluene | 25.0 | 28.8 | | ug/L | | 115 | 70 - 130 |
| cis-1,2-Dichloroethene | 25.0 | 24.2 | | ug/L | | 97 | 70 - 133 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 440-452744/5**
**Matrix: Water**
**Analysis Batch: 452744**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| cis-1,3-Dichloropropene | 25.0 | 28.8 | | ug/L | | 115 | 70 - 133 |
| Dibromochloromethane | 25.0 | 31.4 | | ug/L | | 126 | 69 - 145 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 30.7 | | ug/L | | 123 | 52 - 140 |
| 1,2-Dibromoethane (EDB) | 25.0 | 29.5 | | ug/L | | 118 | 70 - 130 |
| Dibromomethane | 25.0 | 26.0 | | ug/L | | 104 | 70 - 130 |
| 1,2-Dichlorobenzene | 25.0 | 28.5 | | ug/L | | 114 | 70 - 130 |
| 1,3-Dichlorobenzene | 25.0 | 27.6 | | ug/L | | 110 | 70 - 130 |
| 1,4-Dichlorobenzene | 25.0 | 28.1 | | ug/L | | 112 | 70 - 130 |
| Dichlorodifluoromethane | 25.0 | 25.2 | | ug/L | | 101 | 29 - 150 |
| 1,1-Dichloroethane | 25.0 | 25.4 | | ug/L | | 102 | 64 - 130 |
| 1,2-Dichloroethane | 25.0 | 27.3 | | ug/L | | 109 | 57 - 138 |
| 1,1-Dichloroethene | 25.0 | 20.3 | | ug/L | | 81 | 70 - 130 |
| 1,2-Dichloropropane | 25.0 | 26.6 | | ug/L | | 106 | 67 - 130 |
| 1,3-Dichloropropane | 25.0 | 28.3 | | ug/L | | 113 | 70 - 130 |
| 2,2-Dichloropropane | 25.0 | 32.5 | | ug/L | | 130 | 68 - 141 |
| 1,1-Dichloropropene | 25.0 | 26.9 | | ug/L | | 108 | 70 - 130 |
| Ethylbenzene | 25.0 | 27.1 | | ug/L | | 108 | 70 - 130 |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 25.6 | | ug/L | | 102 | 60 - 136 |
| Hexachlorobutadiene | 25.0 | 31.0 | | ug/L | | 124 | 10 - 150 |
| 2-Hexanone | 25.0 | 33.8 | | ug/L | | 135 | 10 - 150 |
| Isopropylbenzene | 25.0 | 27.1 | | ug/L | | 108 | 70 - 136 |
| Isopropyl Ether (DIPE) | 25.0 | 27.7 | | ug/L | | 111 | 58 - 139 |
| Methylene Chloride | 25.0 | 19.9 | | ug/L | | 80 | 52 - 130 |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 33.7 | | ug/L | | 135 | 59 - 149 |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 23.9 | | ug/L | | 95 | 63 - 131 |
| m,p-Xylene | 25.0 | 27.6 | | ug/L | | 110 | 70 - 130 |
| Naphthalene | 25.0 | 30.1 | | ug/L | | 120 | 60 - 140 |
| n-Butylbenzene | 25.0 | 29.5 | | ug/L | | 118 | 65 - 150 |
| N-Propylbenzene | 25.0 | 29.5 | | ug/L | | 118 | 67 - 139 |
| o-Xylene | 25.0 | 26.2 | | ug/L | | 105 | 70 - 130 |
| p-Isopropyltoluene | 25.0 | 29.0 | | ug/L | | 116 | 70 - 132 |
| sec-Butylbenzene | 25.0 | 28.2 | | ug/L | | 113 | 70 - 138 |
| Styrene | 25.0 | 26.5 | | ug/L | | 106 | 70 - 134 |
| Tert-amyl-methyl ether (TAME) | 25.0 | 22.6 | | ug/L | | 91 | 57 - 139 |
| tert-Butyl alcohol (TBA) | 250 | 312 | | ug/L | | 125 | 70 - 130 |
| tert-Butylbenzene | 25.0 | 28.6 | | ug/L | | 114 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 30.7 | | ug/L | | 123 | 60 - 141 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 28.1 | | ug/L | | 113 | 63 - 130 |
| Tetrachloroethene | 25.0 | 27.8 | | ug/L | | 111 | 70 - 130 |
| Toluene | 25.0 | 26.9 | | ug/L | | 107 | 70 - 130 |
| trans-1,2-Dichloroethene | 25.0 | 25.1 | | ug/L | | 101 | 70 - 130 |
| trans-1,3-Dichloropropene | 25.0 | 30.3 | | ug/L | | 121 | 70 - 132 |
| 1,2,3-Trichlorobenzene | 25.0 | 31.5 | | ug/L | | 126 | 60 - 140 |
| 1,2,4-Trichlorobenzene | 25.0 | 30.6 | | ug/L | | 122 | 60 - 140 |
| 1,1,1-Trichloroethane | 25.0 | 26.5 | | ug/L | | 106 | 70 - 130 |
| 1,1,2-Trichloroethane | 25.0 | 28.9 | | ug/L | | 116 | 70 - 130 |
| Trichloroethene | 25.0 | 24.6 | | ug/L | | 99 | 70 - 130 |
| Trichlorofluoromethane | 25.0 | 26.7 | | ug/L | | 107 | 60 - 150 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 440-452744/5**
**Matrix: Water**
**Analysis Batch: 452744**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,2,3-Trichloropropane | 25.0 | 28.8 | | ug/L | | 115 | 63 - 130 |
| 1,2,4-Trimethylbenzene | 25.0 | 28.4 | | ug/L | | 114 | 70 - 135 |
| 1,3,5-Trimethylbenzene | 25.0 | 28.5 | | ug/L | | 114 | 70 - 136 |
| Vinyl chloride | 25.0 | 25.2 | | ug/L | | 101 | 59 - 133 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *108* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *96* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *105* | | *80 - 128* |

**Lab Sample ID: LCSD 440-452744/18**
**Matrix: Water**
**Analysis Batch: 452744**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25.0 | 30.5 | | ug/L | | 122 | 10 - 150 | 9 | 30 |
| Benzene | 25.0 | 24.4 | | ug/L | | 97 | 68 - 130 | 5 | 20 |
| Bromobenzene | 25.0 | 28.2 | | ug/L | | 113 | 70 - 130 | 0 | 20 |
| Bromochloromethane | 25.0 | 25.2 | | ug/L | | 101 | 70 - 130 | 4 | 20 |
| Bromodichloromethane | 25.0 | 27.1 | | ug/L | | 108 | 70 - 132 | 2 | 20 |
| Bromoform | 25.0 | 28.0 | | ug/L | | 112 | 60 - 148 | 1 | 25 |
| Bromomethane | 25.0 | 24.3 | | ug/L | | 97 | 64 - 139 | 2 | 20 |
| 2-Butanone (MEK) | 25.0 | 22.7 | | ug/L | | 91 | 44 - 150 | 1 | 35 |
| Carbon tetrachloride | 25.0 | 29.7 | | ug/L | | 119 | 60 - 150 | 5 | 25 |
| Chlorobenzene | 25.0 | 26.5 | | ug/L | | 106 | 70 - 130 | 1 | 20 |
| Chloroethane | 25.0 | 24.4 | | ug/L | | 98 | 64 - 135 | 7 | 20 |
| Chloroform | 25.0 | 26.4 | | ug/L | | 106 | 70 - 130 | 1 | 20 |
| Chloromethane | 25.0 | 25.2 | | ug/L | | 101 | 47 - 140 | 5 | 25 |
| 2-Chlorotoluene | 25.0 | 29.0 | | ug/L | | 116 | 70 - 130 | 4 | 20 |
| 4-Chlorotoluene | 25.0 | 29.6 | | ug/L | | 119 | 70 - 130 | 3 | 20 |
| cis-1,2-Dichloroethene | 25.0 | 25.1 | | ug/L | | 100 | 70 - 133 | 4 | 20 |
| cis-1,3-Dichloropropene | 25.0 | 29.0 | | ug/L | | 116 | 70 - 133 | 0 | 25 |
| Dibromochloromethane | 25.0 | 31.1 | | ug/L | | 124 | 69 - 145 | 1 | 20 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 31.4 | | ug/L | | 126 | 52 - 140 | 2 | 30 |
| 1,2-Dibromoethane (EDB) | 25.0 | 28.7 | | ug/L | | 115 | 70 - 130 | 3 | 20 |
| Dibromomethane | 25.0 | 25.8 | | ug/L | | 103 | 70 - 130 | 1 | 20 |
| 1,2-Dichlorobenzene | 25.0 | 28.4 | | ug/L | | 114 | 70 - 130 | 1 | 20 |
| 1,3-Dichlorobenzene | 25.0 | 28.7 | | ug/L | | 115 | 70 - 130 | 4 | 20 |
| 1,4-Dichlorobenzene | 25.0 | 28.9 | | ug/L | | 116 | 70 - 130 | 3 | 20 |
| Dichlorodifluoromethane | 25.0 | 27.8 | | ug/L | | 111 | 29 - 150 | 10 | 30 |
| 1,1-Dichloroethane | 25.0 | 25.5 | | ug/L | | 102 | 64 - 130 | 0 | 20 |
| 1,2-Dichloroethane | 25.0 | 28.1 | | ug/L | | 112 | 57 - 138 | 3 | 20 |
| 1,1-Dichloroethene | 25.0 | 22.9 | | ug/L | | 91 | 70 - 130 | 12 | 20 |
| 1,2-Dichloropropane | 25.0 | 25.7 | | ug/L | | 103 | 67 - 130 | 3 | 20 |
| 1,3-Dichloropropane | 25.0 | 27.2 | | ug/L | | 109 | 70 - 130 | 4 | 20 |
| 2,2-Dichloropropane | 25.0 | 33.3 | | ug/L | | 133 | 68 - 141 | 2 | 25 |
| 1,1-Dichloropropene | 25.0 | 27.3 | | ug/L | | 109 | 70 - 130 | 2 | 20 |
| Ethylbenzene | 25.0 | 27.5 | | ug/L | | 110 | 70 - 130 | 1 | 20 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 440-452744/18**
**Matrix: Water**
**Analysis Batch: 452744**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Ethyl-t-butyl ether (ETBE) | 25.0 | 25.0 | | ug/L | | 100 | 60 - 136 | 2 | 20 |
| Hexachlorobutadiene | 25.0 | 32.6 | | ug/L | | 130 | 10 - 150 | 5 | 20 |
| 2-Hexanone | 25.0 | 33.6 | | ug/L | | 134 | 10 - 150 | 1 | 30 |
| Isopropylbenzene | 25.0 | 27.9 | | ug/L | | 111 | 70 - 136 | 3 | 20 |
| Isopropyl Ether (DIPE) | 25.0 | 27.9 | | ug/L | | 112 | 58 - 139 | 1 | 20 |
| Methylene Chloride | 25.0 | 20.5 | | ug/L | | 82 | 52 - 130 | 3 | 20 |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 34.7 | | ug/L | | 139 | 59 - 149 | 3 | 30 |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 23.8 | | ug/L | | 95 | 63 - 131 | 0 | 25 |
| m,p-Xylene | 25.0 | 27.6 | | ug/L | | 111 | 70 - 130 | 0 | 20 |
| Naphthalene | 25.0 | 31.1 | | ug/L | | 124 | 60 - 140 | 3 | 25 |
| n-Butylbenzene | 25.0 | 30.7 | | ug/L | | 123 | 65 - 150 | 4 | 20 |
| N-Propylbenzene | 25.0 | 30.7 | | ug/L | | 123 | 67 - 139 | 4 | 20 |
| o-Xylene | 25.0 | 26.7 | | ug/L | | 107 | 70 - 130 | 2 | 20 |
| p-Isopropyltoluene | 25.0 | 30.2 | | ug/L | | 121 | 70 - 132 | 4 | 20 |
| sec-Butylbenzene | 25.0 | 29.1 | | ug/L | | 116 | 70 - 138 | 3 | 20 |
| Styrene | 25.0 | 26.7 | | ug/L | | 107 | 70 - 134 | 1 | 20 |
| Tert-amyl-methyl ether (TAME) | 25.0 | 21.9 | | ug/L | | 88 | 57 - 139 | 3 | 25 |
| tert-Butyl alcohol (TBA) | 250 | 317 | | ug/L | | 127 | 70 - 130 | 2 | 20 |
| tert-Butylbenzene | 25.0 | 30.6 | | ug/L | | 122 | 70 - 130 | 7 | 20 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 30.4 | | ug/L | | 122 | 60 - 141 | 1 | 20 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 29.5 | | ug/L | | 118 | 63 - 130 | 5 | 25 |
| Tetrachloroethene | 25.0 | 28.4 | | ug/L | | 114 | 70 - 130 | 2 | 20 |
| Toluene | 25.0 | 26.9 | | ug/L | | 107 | 70 - 130 | 0 | 20 |
| trans-1,2-Dichloroethene | 25.0 | 25.5 | | ug/L | | 102 | 70 - 130 | 1 | 20 |
| trans-1,3-Dichloropropene | 25.0 | 30.3 | | ug/L | | 121 | 70 - 132 | 0 | 20 |
| 1,2,3-Trichlorobenzene | 25.0 | 32.9 | | ug/L | | 132 | 60 - 140 | 5 | 20 |
| 1,2,4-Trichlorobenzene | 25.0 | 31.3 | | ug/L | | 125 | 60 - 140 | 2 | 20 |
| 1,1,1-Trichloroethane | 25.0 | 27.9 | | ug/L | | 112 | 70 - 130 | 5 | 20 |
| 1,1,2-Trichloroethane | 25.0 | 28.3 | | ug/L | | 113 | 70 - 130 | 2 | 20 |
| Trichloroethene | 25.0 | 26.5 | | ug/L | | 106 | 70 - 130 | 7 | 20 |
| Trichlorofluoromethane | 25.0 | 29.2 | | ug/L | | 117 | 60 - 150 | 9 | 20 |
| 1,2,3-Trichloropropane | 25.0 | 30.1 | | ug/L | | 120 | 63 - 130 | 4 | 20 |
| 1,2,4-Trimethylbenzene | 25.0 | 29.6 | | ug/L | | 118 | 70 - 135 | 4 | 20 |
| 1,3,5-Trimethylbenzene | 25.0 | 29.7 | | ug/L | | 119 | 70 - 136 | 4 | 20 |
| Vinyl chloride | 25.0 | 26.6 | | ug/L | | 106 | 59 - 133 | 5 | 30 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *111* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *98* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *106* | | *80 - 128* |

**Lab Sample ID: 440-201049-3 MS**
**Matrix: Water**
**Analysis Batch: 452744**

**Client Sample ID: VER-01I-C-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 250 | 275 | | ug/L | | 110 | 10 - 150 |
| Benzene | ND | | 250 | 238 | | ug/L | | 95 | 66 - 130 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-201049-3 MS**
**Matrix: Water**
**Analysis Batch: 452744**

**Client Sample ID: VER-01I-C-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Bromobenzene | ND | | 250 | 284 | | ug/L | | 114 | 70 - 130 |
| Bromochloromethane | ND | | 250 | 246 | | ug/L | | 98 | 70 - 130 |
| Bromodichloromethane | ND | | 250 | 270 | | ug/L | | 108 | 70 - 138 |
| Bromoform | ND | | 250 | 282 | | ug/L | | 113 | 59 - 150 |
| Bromomethane | ND | | 250 | 237 | | ug/L | | 95 | 62 - 131 |
| 2-Butanone (MEK) | ND | | 250 | 225 | | ug/L | | 90 | 48 - 140 |
| Carbon tetrachloride | ND | | 250 | 281 | | ug/L | | 112 | 60 - 150 |
| Chlorobenzene | ND | | 250 | 260 | | ug/L | | 104 | 70 - 130 |
| Chloroethane | ND | | 250 | 233 | | ug/L | | 93 | 68 - 130 |
| Chloroform | 730 | | 250 | 966 | | ug/L | | 95 | 70 - 130 |
| Chloromethane | ND | | 250 | 237 | | ug/L | | 95 | 39 - 144 |
| 2-Chlorotoluene | ND | | 250 | 281 | | ug/L | | 112 | 70 - 130 |
| 4-Chlorotoluene | ND | | 250 | 285 | | ug/L | | 114 | 70 - 130 |
| cis-1,2-Dichloroethene | ND | | 250 | 243 | | ug/L | | 97 | 70 - 130 |
| cis-1,3-Dichloropropene | ND | | 250 | 288 | | ug/L | | 115 | 70 - 133 |
| Dibromochloromethane | ND | | 250 | 305 | | ug/L | | 122 | 70 - 148 |
| 1,2-Dibromo-3-Chloropropane | ND | | 250 | 297 | | ug/L | | 119 | 48 - 140 |
| 1,2-Dibromoethane (EDB) | ND | | 250 | 285 | | ug/L | | 114 | 70 - 131 |
| Dibromomethane | ND | | 250 | 251 | | ug/L | | 100 | 70 - 130 |
| 1,2-Dichlorobenzene | 5.7 | | 250 | 290 | | ug/L | | 114 | 70 - 130 |
| 1,3-Dichlorobenzene | ND | | 250 | 277 | | ug/L | | 111 | 70 - 130 |
| 1,4-Dichlorobenzene | ND | | 250 | 289 | | ug/L | | 116 | 70 - 130 |
| Dichlorodifluoromethane | ND | | 250 | 252 | | ug/L | | 101 | 25 - 142 |
| 1,1-Dichloroethane | ND | | 250 | 252 | | ug/L | | 101 | 65 - 130 |
| 1,2-Dichloroethane | ND | | 250 | 283 | | ug/L | | 113 | 56 - 146 |
| 1,1-Dichloroethene | ND | | 250 | 213 | | ug/L | | 85 | 70 - 130 |
| 1,2-Dichloropropane | ND | | 250 | 256 | | ug/L | | 103 | 69 - 130 |
| 1,3-Dichloropropane | ND | | 250 | 279 | | ug/L | | 112 | 70 - 130 |
| 2,2-Dichloropropane | ND | F1 | 250 | 314 | | ug/L | | 126 | 69 - 138 |
| 1,1-Dichloropropene | ND | | 250 | 269 | | ug/L | | 108 | 64 - 130 |
| Ethylbenzene | ND | | 250 | 262 | | ug/L | | 105 | 70 - 130 |
| Ethyl-t-butyl ether (ETBE) | ND | | 250 | 249 | | ug/L | | 100 | 70 - 130 |
| Hexachlorobutadiene | ND | | 250 | 307 | | ug/L | | 123 | 10 - 150 |
| 2-Hexanone | ND | | 250 | 333 | | ug/L | | 133 | 10 - 150 |
| Isopropylbenzene | ND | | 250 | 265 | | ug/L | | 106 | 70 - 132 |
| Isopropyl Ether (DIPE) | ND | | 250 | 270 | | ug/L | | 108 | 64 - 138 |
| Methylene Chloride | ND | | 250 | 206 | | ug/L | | 82 | 52 - 130 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 250 | 330 | | ug/L | | 132 | 52 - 150 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 250 | 234 | | ug/L | | 94 | 70 - 130 |
| m,p-Xylene | ND | | 250 | 269 | | ug/L | | 108 | 70 - 133 |
| Naphthalene | ND | | 250 | 298 | | ug/L | | 119 | 60 - 140 |
| n-Butylbenzene | ND | | 250 | 288 | | ug/L | | 115 | 61 - 149 |
| N-Propylbenzene | ND | | 250 | 293 | | ug/L | | 117 | 66 - 135 |
| o-Xylene | ND | | 250 | 256 | | ug/L | | 102 | 70 - 133 |
| p-Isopropyltoluene | ND | | 250 | 288 | | ug/L | | 115 | 70 - 130 |
| sec-Butylbenzene | ND | | 250 | 277 | | ug/L | | 111 | 67 - 134 |
| Styrene | ND | | 250 | 250 | | ug/L | | 100 | 29 - 150 |
| Tert-amyl-methyl ether (TAME) | ND | | 250 | 223 | | ug/L | | 89 | 68 - 133 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-201049-3 MS**
**Matrix: Water**
**Analysis Batch: 452744**

**Client Sample ID: VER-01I-C-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butyl alcohol (TBA) | ND | | 2500 | 3210 | | ug/L | | 128 | 70 - 130 |
| tert-Butylbenzene | ND | | 250 | 290 | | ug/L | | 116 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | ND | | 250 | 298 | | ug/L | | 119 | 60 - 149 |
| 1,1,2,2-Tetrachloroethane | ND | | 250 | 283 | | ug/L | | 113 | 63 - 130 |
| Tetrachloroethene | ND | | 250 | 263 | | ug/L | | 105 | 70 - 137 |
| Toluene | ND | | 250 | 263 | | ug/L | | 105 | 70 - 130 |
| trans-1,2-Dichloroethene | ND | | 250 | 239 | | ug/L | | 96 | 70 - 130 |
| trans-1,3-Dichloropropene | ND | | 250 | 291 | | ug/L | | 116 | 70 - 138 |
| 1,2,3-Trichlorobenzene | ND | | 250 | 317 | | ug/L | | 127 | 60 - 140 |
| 1,2,4-Trichlorobenzene | ND | | 250 | 312 | | ug/L | | 125 | 60 - 140 |
| 1,1,1-Trichloroethane | ND | | 250 | 265 | | ug/L | | 106 | 70 - 130 |
| 1,1,2-Trichloroethane | ND | | 250 | 278 | | ug/L | | 111 | 70 - 130 |
| Trichloroethene | ND | | 250 | 245 | | ug/L | | 98 | 70 - 130 |
| Trichlorofluoromethane | ND | | 250 | 272 | | ug/L | | 109 | 60 - 150 |
| 1,2,3-Trichloropropane | ND | | 250 | 289 | | ug/L | | 116 | 60 - 130 |
| 1,2,4-Trimethylbenzene | ND | | 250 | 285 | | ug/L | | 114 | 70 - 130 |
| 1,3,5-Trimethylbenzene | ND | | 250 | 287 | | ug/L | | 115 | 70 - 130 |
| Vinyl chloride | ND | | 250 | 249 | | ug/L | | 100 | 50 - 137 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *110* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *98* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *104* | | *80 - 128* |

**Lab Sample ID: 440-201049-3 MSD**
**Matrix: Water**
**Analysis Batch: 452744**

**Client Sample ID: VER-01I-C-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 250 | 282 | | ug/L | | 113 | 10 - 150 | 3 | 35 |
| Benzene | ND | | 250 | 242 | | ug/L | | 97 | 66 - 130 | 2 | 20 |
| Bromobenzene | ND | | 250 | 285 | | ug/L | | 114 | 70 - 130 | 0 | 20 |
| Bromochloromethane | ND | | 250 | 252 | | ug/L | | 101 | 70 - 130 | 2 | 25 |
| Bromodichloromethane | ND | | 250 | 274 | | ug/L | | 109 | 70 - 138 | 1 | 20 |
| Bromoform | ND | | 250 | 278 | | ug/L | | 111 | 59 - 150 | 1 | 25 |
| Bromomethane | ND | | 250 | 241 | | ug/L | | 96 | 62 - 131 | 2 | 25 |
| 2-Butanone (MEK) | ND | | 250 | 254 | | ug/L | | 102 | 48 - 140 | 12 | 40 |
| Carbon tetrachloride | ND | | 250 | 289 | | ug/L | | 115 | 60 - 150 | 3 | 25 |
| Chlorobenzene | ND | | 250 | 261 | | ug/L | | 104 | 70 - 130 | 0 | 20 |
| Chloroethane | ND | | 250 | 234 | | ug/L | | 94 | 68 - 130 | 1 | 25 |
| Chloroform | 730 | | 250 | 1000 | | ug/L | | 110 | 70 - 130 | 4 | 20 |
| Chloromethane | ND | | 250 | 240 | | ug/L | | 96 | 39 - 144 | 1 | 25 |
| 2-Chlorotoluene | ND | | 250 | 282 | | ug/L | | 113 | 70 - 130 | 0 | 20 |
| 4-Chlorotoluene | ND | | 250 | 289 | | ug/L | | 116 | 70 - 130 | 1 | 20 |
| cis-1,2-Dichloroethene | ND | | 250 | 265 | | ug/L | | 106 | 70 - 130 | 9 | 20 |
| cis-1,3-Dichloropropene | ND | | 250 | 289 | | ug/L | | 116 | 70 - 133 | 1 | 20 |
| Dibromochloromethane | ND | | 250 | 308 | | ug/L | | 123 | 70 - 148 | 1 | 25 |
| 1,2-Dibromo-3-Chloropropane | ND | | 250 | 296 | | ug/L | | 119 | 48 - 140 | 0 | 30 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-201049-3 MSD**
**Matrix: Water**
**Analysis Batch: 452744**

**Client Sample ID: VER-01I-C-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane (EDB) | ND | | 250 | 286 | | ug/L | | 114 | 70 - 131 | 0 | 25 |
| Dibromomethane | ND | | 250 | 265 | | ug/L | | 106 | 70 - 130 | 5 | 25 |
| 1,2-Dichlorobenzene | 5.7 | | 250 | 296 | | ug/L | | 116 | 70 - 130 | 2 | 20 |
| 1,3-Dichlorobenzene | ND | | 250 | 280 | | ug/L | | 112 | 70 - 130 | 1 | 20 |
| 1,4-Dichlorobenzene | ND | | 250 | 292 | | ug/L | | 117 | 70 - 130 | 1 | 20 |
| Dichlorodifluoromethane | ND | | 250 | 257 | | ug/L | | 103 | 25 - 142 | 2 | 30 |
| 1,1-Dichloroethane | ND | | 250 | 264 | | ug/L | | 106 | 65 - 130 | 5 | 20 |
| 1,2-Dichloroethane | ND | | 250 | 290 | | ug/L | | 116 | 56 - 146 | 2 | 20 |
| 1,1-Dichloroethene | ND | | 250 | 209 | | ug/L | | 84 | 70 - 130 | 2 | 20 |
| 1,2-Dichloropropane | ND | | 250 | 271 | | ug/L | | 108 | 69 - 130 | 5 | 20 |
| 1,3-Dichloropropane | ND | | 250 | 275 | | ug/L | | 110 | 70 - 130 | 1 | 25 |
| 2,2-Dichloropropane | ND | F1 | 250 | 348 | F1 | ug/L | | 139 | 69 - 138 | 10 | 25 |
| 1,1-Dichloropropene | ND | | 250 | 272 | | ug/L | | 109 | 64 - 130 | 1 | 20 |
| Ethylbenzene | ND | | 250 | 270 | | ug/L | | 108 | 70 - 130 | 3 | 20 |
| Ethyl-t-butyl ether (ETBE) | ND | | 250 | 262 | | ug/L | | 105 | 70 - 130 | 5 | 25 |
| Hexachlorobutadiene | ND | | 250 | 309 | | ug/L | | 124 | 10 - 150 | 1 | 20 |
| 2-Hexanone | ND | | 250 | 318 | | ug/L | | 127 | 10 - 150 | 5 | 35 |
| Isopropylbenzene | ND | | 250 | 267 | | ug/L | | 107 | 70 - 132 | 1 | 20 |
| Isopropyl Ether (DIPE) | ND | | 250 | 288 | | ug/L | | 115 | 64 - 138 | 6 | 25 |
| Methylene Chloride | ND | | 250 | 201 | | ug/L | | 80 | 52 - 130 | 2 | 20 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 250 | 328 | | ug/L | | 131 | 52 - 150 | 0 | 35 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 250 | 250 | | ug/L | | 100 | 70 - 130 | 6 | 25 |
| m,p-Xylene | ND | | 250 | 273 | | ug/L | | 109 | 70 - 133 | 1 | 25 |
| Naphthalene | ND | | 250 | 299 | | ug/L | | 120 | 60 - 140 | 0 | 30 |
| n-Butylbenzene | ND | | 250 | 296 | | ug/L | | 118 | 61 - 149 | 3 | 20 |
| N-Propylbenzene | ND | | 250 | 297 | | ug/L | | 119 | 66 - 135 | 1 | 20 |
| o-Xylene | ND | | 250 | 264 | | ug/L | | 105 | 70 - 133 | 3 | 20 |
| p-Isopropyltoluene | ND | | 250 | 295 | | ug/L | | 118 | 70 - 130 | 2 | 20 |
| sec-Butylbenzene | ND | | 250 | 285 | | ug/L | | 114 | 67 - 134 | 3 | 20 |
| Styrene | ND | | 250 | 251 | | ug/L | | 100 | 29 - 150 | 0 | 35 |
| Tert-amyl-methyl ether (TAME) | ND | | 250 | 229 | | ug/L | | 92 | 68 - 133 | 3 | 30 |
| tert-Butyl alcohol (TBA) | ND | | 2500 | 3210 | | ug/L | | 128 | 70 - 130 | 0 | 25 |
| tert-Butylbenzene | ND | | 250 | 293 | | ug/L | | 117 | 70 - 130 | 1 | 20 |
| 1,1,1,2-Tetrachloroethane | ND | | 250 | 307 | | ug/L | | 123 | 60 - 149 | 3 | 20 |
| 1,1,2,2-Tetrachloroethane | ND | | 250 | 290 | | ug/L | | 116 | 63 - 130 | 2 | 30 |
| Tetrachloroethene | ND | | 250 | 272 | | ug/L | | 109 | 70 - 137 | 3 | 20 |
| Toluene | ND | | 250 | 264 | | ug/L | | 105 | 70 - 130 | 0 | 20 |
| trans-1,2-Dichloroethene | ND | | 250 | 258 | | ug/L | | 103 | 70 - 130 | 8 | 20 |
| trans-1,3-Dichloropropene | ND | | 250 | 303 | | ug/L | | 121 | 70 - 138 | 4 | 25 |
| 1,2,3-Trichlorobenzene | ND | | 250 | 318 | | ug/L | | 127 | 60 - 140 | 0 | 20 |
| 1,2,4-Trichlorobenzene | ND | | 250 | 306 | | ug/L | | 122 | 60 - 140 | 2 | 20 |
| 1,1,1-Trichloroethane | ND | | 250 | 275 | | ug/L | | 110 | 70 - 130 | 3 | 20 |
| 1,1,2-Trichloroethane | ND | | 250 | 278 | | ug/L | | 111 | 70 - 130 | 0 | 25 |
| Trichloroethene | ND | | 250 | 255 | | ug/L | | 102 | 70 - 130 | 4 | 20 |
| Trichlorofluoromethane | ND | | 250 | 276 | | ug/L | | 110 | 60 - 150 | 2 | 25 |
| 1,2,3-Trichloropropane | ND | | 250 | 290 | | ug/L | | 116 | 60 - 130 | 0 | 30 |
| 1,2,4-Trimethylbenzene | ND | | 250 | 294 | | ug/L | | 118 | 70 - 130 | 3 | 25 |
| 1,3,5-Trimethylbenzene | ND | | 250 | 292 | | ug/L | | 117 | 70 - 130 | 2 | 20 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-201049-3 MSD**
**Matrix: Water**
**Analysis Batch: 452744**

**Client Sample ID: VER-01I-C-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl chloride | ND | | 250 | 255 | | ug/L | | 102 | 50 - 137 | 3 | 30 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *109* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *97* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *102* | | *80 - 128* |

**Lab Sample ID: MB 440-452941/4**
**Matrix: Water**
**Analysis Batch: 452941**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 01/22/18 08:12 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 01/22/18 08:12 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 01/22/18 08:12 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 01/22/18 08:12 | 1 |
| Chloroform | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 01/22/18 08:12 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 01/22/18 08:12 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/22/18 08:12 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 01/22/18 08:12 | 1 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 440-452941/4**
**Matrix: Water**
**Analysis Batch: 452941**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 01/22/18 08:12 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 01/22/18 08:12 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 01/22/18 08:12 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 01/22/18 08:12 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/22/18 08:12 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 01/22/18 08:12 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/22/18 08:12 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/22/18 08:12 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/22/18 08:12 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:12 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 01/22/18 08:12 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *88* | | *80 - 120* | | *01/22/18 08:12* | *1* |
| *Dibromofluoromethane (Surr)* | *116* | | *76 - 132* | | *01/22/18 08:12* | *1* |
| *Toluene-d8 (Surr)* | *96* | | *80 - 128* | | *01/22/18 08:12* | *1* |

**Lab Sample ID: LCS 440-452941/5**
**Matrix: Water**
**Analysis Batch: 452941**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acetone | 25.0 | 21.6 | | ug/L | | 86 | 10 - 150 |
| Benzene | 25.0 | 22.9 | | ug/L | | 92 | 68 - 130 |
| Bromobenzene | 25.0 | 25.6 | | ug/L | | 103 | 70 - 130 |
| Bromochloromethane | 25.0 | 29.9 | | ug/L | | 120 | 70 - 130 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 440-452941/5**
**Matrix: Water**
**Analysis Batch: 452941**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Bromodichloromethane | 25.0 | 25.7 | | ug/L | | 103 | 70 - 132 |
| Bromoform | 25.0 | 30.1 | | ug/L | | 120 | 60 - 148 |
| Bromomethane | 25.0 | 29.5 | | ug/L | | 118 | 64 - 139 |
| 2-Butanone (MEK) | 25.0 | 23.1 | | ug/L | | 92 | 44 - 150 |
| Carbon tetrachloride | 25.0 | 29.6 | | ug/L | | 118 | 60 - 150 |
| Chlorobenzene | 25.0 | 25.3 | | ug/L | | 101 | 70 - 130 |
| Chloroethane | 25.0 | 23.4 | | ug/L | | 94 | 64 - 135 |
| Chloroform | 25.0 | 24.3 | | ug/L | | 97 | 70 - 130 |
| Chloromethane | 25.0 | 20.6 | | ug/L | | 82 | 47 - 140 |
| 2-Chlorotoluene | 25.0 | 22.2 | | ug/L | | 89 | 70 - 130 |
| 4-Chlorotoluene | 25.0 | 23.0 | | ug/L | | 92 | 70 - 130 |
| cis-1,2-Dichloroethene | 25.0 | 24.9 | | ug/L | | 99 | 70 - 133 |
| cis-1,3-Dichloropropene | 25.0 | 22.5 | | ug/L | | 90 | 70 - 133 |
| Dibromochloromethane | 25.0 | 27.6 | | ug/L | | 110 | 69 - 145 |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 22.2 | | ug/L | | 89 | 52 - 140 |
| 1,2-Dibromoethane (EDB) | 25.0 | 24.9 | | ug/L | | 100 | 70 - 130 |
| Dibromomethane | 25.0 | 25.2 | | ug/L | | 101 | 70 - 130 |
| 1,2-Dichlorobenzene | 25.0 | 26.1 | | ug/L | | 105 | 70 - 130 |
| 1,3-Dichlorobenzene | 25.0 | 25.4 | | ug/L | | 102 | 70 - 130 |
| 1,4-Dichlorobenzene | 25.0 | 25.3 | | ug/L | | 101 | 70 - 130 |
| Dichlorodifluoromethane | 25.0 | 27.6 | | ug/L | | 111 | 29 - 150 |
| 1,1-Dichloroethane | 25.0 | 22.1 | | ug/L | | 88 | 64 - 130 |
| 1,2-Dichloroethane | 25.0 | 25.3 | | ug/L | | 101 | 57 - 138 |
| 1,1-Dichloroethene | 25.0 | 25.6 | | ug/L | | 102 | 70 - 130 |
| 1,2-Dichloropropane | 25.0 | 21.0 | | ug/L | | 84 | 67 - 130 |
| 1,3-Dichloropropane | 25.0 | 21.5 | | ug/L | | 86 | 70 - 130 |
| 2,2-Dichloropropane | 25.0 | 26.7 | | ug/L | | 107 | 68 - 141 |
| 1,1-Dichloropropene | 25.0 | 25.4 | | ug/L | | 101 | 70 - 130 |
| Ethylbenzene | 25.0 | 24.9 | | ug/L | | 99 | 70 - 130 |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 23.9 | | ug/L | | 96 | 60 - 136 |
| Hexachlorobutadiene | 25.0 | 29.6 | | ug/L | | 118 | 10 - 150 |
| 2-Hexanone | 25.0 | 20.6 | | ug/L | | 82 | 10 - 150 |
| Isopropylbenzene | 25.0 | 28.7 | | ug/L | | 115 | 70 - 136 |
| Isopropyl Ether (DIPE) | 25.0 | 20.1 | | ug/L | | 80 | 58 - 139 |
| Methylene Chloride | 25.0 | 20.1 | | ug/L | | 80 | 52 - 130 |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 19.6 | | ug/L | | 78 | 59 - 149 |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 25.2 | | ug/L | | 101 | 63 - 131 |
| m,p-Xylene | 25.0 | 26.7 | | ug/L | | 107 | 70 - 130 |
| Naphthalene | 25.0 | 26.1 | | ug/L | | 105 | 60 - 140 |
| n-Butylbenzene | 25.0 | 25.0 | | ug/L | | 100 | 65 - 150 |
| N-Propylbenzene | 25.0 | 23.8 | | ug/L | | 95 | 67 - 139 |
| o-Xylene | 25.0 | 27.4 | | ug/L | | 110 | 70 - 130 |
| p-Isopropyltoluene | 25.0 | 26.5 | | ug/L | | 106 | 70 - 132 |
| sec-Butylbenzene | 25.0 | 25.5 | | ug/L | | 102 | 70 - 138 |
| Styrene | 25.0 | 25.9 | | ug/L | | 103 | 70 - 134 |
| Tert-amyl-methyl ether (TAME) | 25.0 | 24.1 | | ug/L | | 96 | 57 - 139 |
| tert-Butyl alcohol (TBA) | 250 | 258 | | ug/L | | 103 | 70 - 130 |
| tert-Butylbenzene | 25.0 | 26.4 | | ug/L | | 106 | 70 - 130 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 440-452941/5**
**Matrix: Water**
**Analysis Batch: 452941**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 25.0 | 28.0 | | ug/L | | 112 | 60 - 141 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 19.6 | | ug/L | | 78 | 63 - 130 |
| Tetrachloroethene | 25.0 | 29.1 | | ug/L | | 116 | 70 - 130 |
| Toluene | 25.0 | 24.7 | | ug/L | | 99 | 70 - 130 |
| trans-1,2-Dichloroethene | 25.0 | 26.2 | | ug/L | | 105 | 70 - 130 |
| trans-1,3-Dichloropropene | 25.0 | 23.4 | | ug/L | | 94 | 70 - 132 |
| 1,2,3-Trichlorobenzene | 25.0 | 28.4 | | ug/L | | 114 | 60 - 140 |
| 1,2,4-Trichlorobenzene | 25.0 | 27.5 | | ug/L | | 110 | 60 - 140 |
| 1,1,1-Trichloroethane | 25.0 | 28.2 | | ug/L | | 113 | 70 - 130 |
| 1,1,2-Trichloroethane | 25.0 | 22.4 | | ug/L | | 89 | 70 - 130 |
| Trichloroethene | 25.0 | 29.6 | | ug/L | | 118 | 70 - 130 |
| Trichlorofluoromethane | 25.0 | 32.3 | | ug/L | | 129 | 60 - 150 |
| 1,2,3-Trichloropropane | 25.0 | 23.1 | | ug/L | | 92 | 63 - 130 |
| 1,2,4-Trimethylbenzene | 25.0 | 23.8 | | ug/L | | 95 | 70 - 135 |
| 1,3,5-Trimethylbenzene | 25.0 | 25.6 | | ug/L | | 102 | 70 - 136 |
| Vinyl chloride | 25.0 | 24.5 | | ug/L | | 98 | 59 - 133 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *88* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *109* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 128* |

**Lab Sample ID: 440-201302-D-8 MS**
**Matrix: Water**
**Analysis Batch: 452941**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | | 25.0 | 42.7 | | ug/L | | 73 | 10 - 150 |
| Benzene | 0.40 | J | 25.0 | 23.4 | | ug/L | | 92 | 66 - 130 |
| Bromobenzene | ND | | 25.0 | 25.8 | | ug/L | | 103 | 70 - 130 |
| Bromochloromethane | ND | | 25.0 | 29.0 | | ug/L | | 116 | 70 - 130 |
| Bromodichloromethane | ND | | 25.0 | 26.0 | | ug/L | | 104 | 70 - 138 |
| Bromoform | ND | | 25.0 | 30.2 | | ug/L | | 121 | 59 - 150 |
| Bromomethane | ND | | 25.0 | 29.3 | | ug/L | | 117 | 62 - 131 |
| 2-Butanone (MEK) | 9.1 | | 25.0 | 32.7 | | ug/L | | 95 | 48 - 140 |
| Carbon tetrachloride | ND | | 25.0 | 29.2 | | ug/L | | 117 | 60 - 150 |
| Chlorobenzene | 0.36 | J | 25.0 | 24.9 | | ug/L | | 98 | 70 - 130 |
| Chloroethane | ND | | 25.0 | 23.1 | | ug/L | | 92 | 68 - 130 |
| Chloroform | ND | | 25.0 | 24.5 | | ug/L | | 98 | 70 - 130 |
| Chloromethane | ND | | 25.0 | 21.6 | | ug/L | | 87 | 39 - 144 |
| 2-Chlorotoluene | ND | | 25.0 | 22.9 | | ug/L | | 92 | 70 - 130 |
| 4-Chlorotoluene | ND | | 25.0 | 23.4 | | ug/L | | 94 | 70 - 130 |
| cis-1,2-Dichloroethene | 1.5 | | 25.0 | 27.2 | | ug/L | | 103 | 70 - 130 |
| cis-1,3-Dichloropropene | ND | | 25.0 | 22.0 | | ug/L | | 88 | 70 - 133 |
| Dibromochloromethane | ND | | 25.0 | 26.1 | | ug/L | | 105 | 70 - 148 |
| 1,2-Dibromo-3-Chloropropane | ND | | 25.0 | 23.8 | | ug/L | | 95 | 48 - 140 |
| 1,2-Dibromoethane (EDB) | ND | | 25.0 | 24.7 | | ug/L | | 99 | 70 - 131 |
| Dibromomethane | ND | | 25.0 | 25.1 | | ug/L | | 100 | 70 - 130 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-201302-D-8 MS**
**Matrix: Water**
**Analysis Batch: 452941**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | ND | | 25.0 | 26.1 | | ug/L | | 104 | 70 - 130 |
| 1,3-Dichlorobenzene | ND | | 25.0 | 25.6 | | ug/L | | 103 | 70 - 130 |
| 1,4-Dichlorobenzene | ND | | 25.0 | 25.5 | | ug/L | | 102 | 70 - 130 |
| Dichlorodifluoromethane | ND | | 25.0 | 27.6 | | ug/L | | 110 | 25 - 142 |
| 1,1-Dichloroethane | 1.5 | | 25.0 | 23.7 | | ug/L | | 89 | 65 - 130 |
| 1,2-Dichloroethane | 2.9 | | 25.0 | 28.2 | | ug/L | | 101 | 56 - 146 |
| 1,1-Dichloroethene | 6.6 | | 25.0 | 32.2 | | ug/L | | 102 | 70 - 130 |
| 1,2-Dichloropropane | ND | | 25.0 | 21.6 | | ug/L | | 86 | 69 - 130 |
| 1,3-Dichloropropane | ND | | 25.0 | 20.8 | | ug/L | | 83 | 70 - 130 |
| 2,2-Dichloropropane | ND | | 25.0 | 28.0 | | ug/L | | 112 | 69 - 138 |
| 1,1-Dichloropropene | ND | | 25.0 | 25.9 | | ug/L | | 103 | 64 - 130 |
| Ethylbenzene | ND | | 25.0 | 24.5 | | ug/L | | 98 | 70 - 130 |
| Ethyl-t-butyl ether (ETBE) | ND | | 25.0 | 24.4 | | ug/L | | 98 | 70 - 130 |
| Hexachlorobutadiene | ND | | 25.0 | 30.0 | | ug/L | | 120 | 10 - 150 |
| 2-Hexanone | ND | | 25.0 | 20.1 | | ug/L | | 81 | 10 - 150 |
| Isopropylbenzene | ND | | 25.0 | 28.1 | | ug/L | | 112 | 70 - 132 |
| Isopropyl Ether (DIPE) | 65 | | 25.0 | 84.5 | | ug/L | | 79 | 64 - 138 |
| Methylene Chloride | ND | | 25.0 | 20.0 | | ug/L | | 80 | 52 - 130 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 25.0 | 20.2 | | ug/L | | 81 | 52 - 150 |
| Methyl-t-Butyl Ether (MTBE) | 30 | | 25.0 | 57.8 | | ug/L | | 112 | 70 - 130 |
| m,p-Xylene | ND | | 25.0 | 26.7 | | ug/L | | 107 | 70 - 133 |
| Naphthalene | ND | | 25.0 | 27.2 | | ug/L | | 109 | 60 - 140 |
| n-Butylbenzene | ND | | 25.0 | 25.2 | | ug/L | | 101 | 61 - 149 |
| N-Propylbenzene | ND | | 25.0 | 24.1 | | ug/L | | 96 | 66 - 135 |
| o-Xylene | ND | | 25.0 | 26.7 | | ug/L | | 107 | 70 - 133 |
| p-Isopropyltoluene | ND | | 25.0 | 26.6 | | ug/L | | 106 | 70 - 130 |
| sec-Butylbenzene | ND | | 25.0 | 25.4 | | ug/L | | 102 | 67 - 134 |
| Styrene | ND | | 25.0 | 25.2 | | ug/L | | 101 | 29 - 150 |
| Tert-amyl-methyl ether (TAME) | ND | | 25.0 | 24.6 | | ug/L | | 98 | 68 - 133 |
| tert-Butyl alcohol (TBA) | 300 | | 250 | 557 | | ug/L | | 105 | 70 - 130 |
| tert-Butylbenzene | ND | | 25.0 | 26.8 | | ug/L | | 107 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | ND | | 25.0 | 27.3 | | ug/L | | 109 | 60 - 149 |
| 1,1,2,2-Tetrachloroethane | ND | | 25.0 | 20.1 | | ug/L | | 80 | 63 - 130 |
| Tetrachloroethene | ND | | 25.0 | 28.3 | | ug/L | | 113 | 70 - 137 |
| Toluene | ND | | 25.0 | 24.3 | | ug/L | | 97 | 70 - 130 |
| trans-1,2-Dichloroethene | ND | | 25.0 | 27.6 | | ug/L | | 110 | 70 - 130 |
| trans-1,3-Dichloropropene | ND | | 25.0 | 23.1 | | ug/L | | 92 | 70 - 138 |
| 1,2,3-Trichlorobenzene | ND | | 25.0 | 29.1 | | ug/L | | 116 | 60 - 140 |
| 1,2,4-Trichlorobenzene | ND | | 25.0 | 28.7 | | ug/L | | 115 | 60 - 140 |
| 1,1,1-Trichloroethane | ND | | 25.0 | 27.9 | | ug/L | | 112 | 70 - 130 |
| 1,1,2-Trichloroethane | ND | | 25.0 | 22.0 | | ug/L | | 88 | 70 - 130 |
| Trichloroethene | 1.6 | | 25.0 | 30.7 | | ug/L | | 116 | 70 - 130 |
| Trichlorofluoromethane | ND | | 25.0 | 31.8 | | ug/L | | 127 | 60 - 150 |
| 1,2,3-Trichloropropane | ND | | 25.0 | 23.7 | | ug/L | | 95 | 60 - 130 |
| 1,2,4-Trimethylbenzene | ND | | 25.0 | 23.9 | | ug/L | | 96 | 70 - 130 |
| 1,3,5-Trimethylbenzene | ND | | 25.0 | 25.9 | | ug/L | | 103 | 70 - 130 |
| Vinyl chloride | 16 | | 25.0 | 40.1 | | ug/L | | 95 | 50 - 137 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-201302-D-8 MS**
**Matrix: Water**
**Analysis Batch: 452941**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *87* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *108* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *95* | | *80 - 128* |

**Lab Sample ID: 440-201302-D-8 MSD**
**Matrix: Water**
**Analysis Batch: 452941**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | | 25.0 | 42.1 | | ug/L | | 70 | 10 - 150 | 1 | 35 |
| Benzene | 0.40 | J | 25.0 | 23.5 | | ug/L | | 92 | 66 - 130 | 0 | 20 |
| Bromobenzene | ND | | 25.0 | 26.1 | | ug/L | | 105 | 70 - 130 | 1 | 20 |
| Bromochloromethane | ND | | 25.0 | 30.1 | | ug/L | | 120 | 70 - 130 | 3 | 25 |
| Bromodichloromethane | ND | | 25.0 | 26.0 | | ug/L | | 104 | 70 - 138 | 0 | 20 |
| Bromoform | ND | | 25.0 | 30.7 | | ug/L | | 123 | 59 - 150 | 2 | 25 |
| Bromomethane | ND | | 25.0 | 30.0 | | ug/L | | 120 | 62 - 131 | 2 | 25 |
| 2-Butanone (MEK) | 9.1 | | 25.0 | 33.1 | | ug/L | | 96 | 48 - 140 | 1 | 40 |
| Carbon tetrachloride | ND | | 25.0 | 29.2 | | ug/L | | 117 | 60 - 150 | 0 | 25 |
| Chlorobenzene | 0.36 | J | 25.0 | 25.6 | | ug/L | | 101 | 70 - 130 | 3 | 20 |
| Chloroethane | ND | | 25.0 | 23.7 | | ug/L | | 95 | 68 - 130 | 3 | 25 |
| Chloroform | ND | | 25.0 | 24.8 | | ug/L | | 99 | 70 - 130 | 1 | 20 |
| Chloromethane | ND | | 25.0 | 21.3 | | ug/L | | 85 | 39 - 144 | 2 | 25 |
| 2-Chlorotoluene | ND | | 25.0 | 22.9 | | ug/L | | 91 | 70 - 130 | 0 | 20 |
| 4-Chlorotoluene | ND | | 25.0 | 23.7 | | ug/L | | 95 | 70 - 130 | 1 | 20 |
| cis-1,2-Dichloroethene | 1.5 | | 25.0 | 27.3 | | ug/L | | 103 | 70 - 130 | 0 | 20 |
| cis-1,3-Dichloropropene | ND | | 25.0 | 22.7 | | ug/L | | 91 | 70 - 133 | 3 | 20 |
| Dibromochloromethane | ND | | 25.0 | 26.9 | | ug/L | | 107 | 70 - 148 | 3 | 25 |
| 1,2-Dibromo-3-Chloropropane | ND | | 25.0 | 24.1 | | ug/L | | 96 | 48 - 140 | 1 | 30 |
| 1,2-Dibromoethane (EDB) | ND | | 25.0 | 25.1 | | ug/L | | 101 | 70 - 131 | 2 | 25 |
| Dibromomethane | ND | | 25.0 | 25.5 | | ug/L | | 102 | 70 - 130 | 2 | 25 |
| 1,2-Dichlorobenzene | ND | | 25.0 | 26.6 | | ug/L | | 107 | 70 - 130 | 2 | 20 |
| 1,3-Dichlorobenzene | ND | | 25.0 | 25.7 | | ug/L | | 103 | 70 - 130 | 0 | 20 |
| 1,4-Dichlorobenzene | ND | | 25.0 | 25.8 | | ug/L | | 103 | 70 - 130 | 1 | 20 |
| Dichlorodifluoromethane | ND | | 25.0 | 27.9 | | ug/L | | 112 | 25 - 142 | 1 | 30 |
| 1,1-Dichloroethane | 1.5 | | 25.0 | 24.4 | | ug/L | | 91 | 65 - 130 | 3 | 20 |
| 1,2-Dichloroethane | 2.9 | | 25.0 | 28.2 | | ug/L | | 101 | 56 - 146 | 0 | 20 |
| 1,1-Dichloroethene | 6.6 | | 25.0 | 32.0 | | ug/L | | 102 | 70 - 130 | 1 | 20 |
| 1,2-Dichloropropane | ND | | 25.0 | 21.4 | | ug/L | | 86 | 69 - 130 | 1 | 20 |
| 1,3-Dichloropropane | ND | | 25.0 | 21.7 | | ug/L | | 87 | 70 - 130 | 4 | 25 |
| 2,2-Dichloropropane | ND | | 25.0 | 28.0 | | ug/L | | 112 | 69 - 138 | 0 | 25 |
| 1,1-Dichloropropene | ND | | 25.0 | 25.8 | | ug/L | | 103 | 64 - 130 | 0 | 20 |
| Ethylbenzene | ND | | 25.0 | 25.0 | | ug/L | | 100 | 70 - 130 | 2 | 20 |
| Ethyl-t-butyl ether (ETBE) | ND | | 25.0 | 25.0 | | ug/L | | 100 | 70 - 130 | 2 | 25 |
| Hexachlorobutadiene | ND | | 25.0 | 30.6 | | ug/L | | 122 | 10 - 150 | 2 | 20 |
| 2-Hexanone | ND | | 25.0 | 20.4 | | ug/L | | 82 | 10 - 150 | 1 | 35 |
| Isopropylbenzene | ND | | 25.0 | 28.8 | | ug/L | | 115 | 70 - 132 | 2 | 20 |
| Isopropyl Ether (DIPE) | 65 | | 25.0 | 84.2 | | ug/L | | 78 | 64 - 138 | 0 | 25 |
| Methylene Chloride | ND | | 25.0 | 22.1 | | ug/L | | 88 | 52 - 130 | 10 | 20 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-201302-D-8 MSD**
**Matrix: Water**
**Analysis Batch: 452941**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4-Methyl-2-pentanone (MIBK) | ND | | 25.0 | 21.0 | | ug/L | | 84 | 52 - 150 | 4 | 35 |
| Methyl-t-Butyl Ether (MTBE) | 30 | | 25.0 | 58.7 | | ug/L | | 115 | 70 - 130 | 2 | 25 |
| m,p-Xylene | ND | | 25.0 | 27.4 | | ug/L | | 110 | 70 - 133 | 3 | 25 |
| Naphthalene | ND | | 25.0 | 28.0 | | ug/L | | 112 | 60 - 140 | 3 | 30 |
| n-Butylbenzene | ND | | 25.0 | 25.5 | | ug/L | | 102 | 61 - 149 | 1 | 20 |
| N-Propylbenzene | ND | | 25.0 | 24.4 | | ug/L | | 98 | 66 - 135 | 1 | 20 |
| o-Xylene | ND | | 25.0 | 27.5 | | ug/L | | 110 | 70 - 133 | 3 | 20 |
| p-Isopropyltoluene | ND | | 25.0 | 26.9 | | ug/L | | 108 | 70 - 130 | 1 | 20 |
| sec-Butylbenzene | ND | | 25.0 | 25.9 | | ug/L | | 103 | 67 - 134 | 2 | 20 |
| Styrene | ND | | 25.0 | 26.2 | | ug/L | | 105 | 29 - 150 | 4 | 35 |
| Tert-amyl-methyl ether (TAME) | ND | | 25.0 | 24.9 | | ug/L | | 99 | 68 - 133 | 1 | 30 |
| tert-Butyl alcohol (TBA) | 300 | | 250 | 563 | | ug/L | | 107 | 70 - 130 | 1 | 25 |
| tert-Butylbenzene | ND | | 25.0 | 27.0 | | ug/L | | 108 | 70 - 130 | 1 | 20 |
| 1,1,1,2-Tetrachloroethane | ND | | 25.0 | 27.8 | | ug/L | | 111 | 60 - 149 | 2 | 20 |
| 1,1,2,2-Tetrachloroethane | ND | | 25.0 | 20.2 | | ug/L | | 81 | 63 - 130 | 1 | 30 |
| Tetrachloroethene | ND | | 25.0 | 29.4 | | ug/L | | 118 | 70 - 137 | 4 | 20 |
| Toluene | ND | | 25.0 | 24.7 | | ug/L | | 99 | 70 - 130 | 2 | 20 |
| trans-1,2-Dichloroethene | ND | | 25.0 | 27.4 | | ug/L | | 109 | 70 - 130 | 1 | 20 |
| trans-1,3-Dichloropropene | ND | | 25.0 | 24.2 | | ug/L | | 97 | 70 - 138 | 5 | 25 |
| 1,2,3-Trichlorobenzene | ND | | 25.0 | 29.6 | | ug/L | | 119 | 60 - 140 | 2 | 20 |
| 1,2,4-Trichlorobenzene | ND | | 25.0 | 29.4 | | ug/L | | 117 | 60 - 140 | 2 | 20 |
| 1,1,1-Trichloroethane | ND | | 25.0 | 28.3 | | ug/L | | 113 | 70 - 130 | 1 | 20 |
| 1,1,2-Trichloroethane | ND | | 25.0 | 23.0 | | ug/L | | 92 | 70 - 130 | 5 | 25 |
| Trichloroethene | 1.6 | | 25.0 | 31.0 | | ug/L | | 118 | 70 - 130 | 1 | 20 |
| Trichlorofluoromethane | ND | | 25.0 | 31.7 | | ug/L | | 127 | 60 - 150 | 0 | 25 |
| 1,2,3-Trichloropropane | ND | | 25.0 | 23.9 | | ug/L | | 96 | 60 - 130 | 1 | 30 |
| 1,2,4-Trimethylbenzene | ND | | 25.0 | 24.1 | | ug/L | | 97 | 70 - 130 | 1 | 25 |
| 1,3,5-Trimethylbenzene | ND | | 25.0 | 26.0 | | ug/L | | 104 | 70 - 130 | 0 | 20 |
| Vinyl chloride | 16 | | 25.0 | 41.6 | | ug/L | | 100 | 50 - 137 | 4 | 30 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *87* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *105* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *96* | | *80 - 128* |

## Method: 300.1B - Disinfection By-Products, (IC)

**Lab Sample ID: MB 440-452345/5**
**Matrix: Water**
**Analysis Batch: 452345**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorate | ND | | 20 | 10 | ug/L | | | 01/18/18 06:19 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *102* | | *90 - 115* | | *01/18/18 06:19* | *1* |

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

**Lab Sample ID: LCS 440-452345/4**
**Matrix: Water**
**Analysis Batch: 452345**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 100 | 99.0 | | ug/L | | 99 | 75 - 125 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

**Lab Sample ID: MRL 440-452345/3**
**Matrix: Water**
**Analysis Batch: 452345**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 20.0 | 20.8 | | ug/L | | 104 | 50 - 150 | | |

| *Surrogate* | *MRL %Recovery* | *MRL Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

**Lab Sample ID: 440-201049-3 MS**
**Matrix: Water**
**Analysis Batch: 452345**

**Client Sample ID: VER-01I-C-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 3300000 | | 200 | 3170000 | 4 | ug/L | | -5470 4 | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

**Lab Sample ID: 440-201049-3 MSD**
**Matrix: Water**
**Analysis Batch: 452345**

**Client Sample ID: VER-01I-C-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 3300000 | | 200 | 3320000 | 4 | ug/L | | 19576 | 75 - 125 | 5 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *99* | | *90 - 115* |

**Lab Sample ID: 440-201200-A-1 MS**
**Matrix: Water**
**Analysis Batch: 452345**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 190 | | 200 | 398 | | ug/L | | 104 | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *98* | | *90 - 115* |

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

**Lab Sample ID: 440-201200-A-1 MSD**
**Matrix: Water**
**Analysis Batch: 452345**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 190 | | 200 | 394 | | ug/L | | 102 | 75 - 125 | 1 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

**Lab Sample ID: MB 440-452346/5**
**Matrix: Water**
**Analysis Batch: 452346**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 20 | 10 | ug/L | | | 01/18/18 06:19 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *102* | | *90 - 115* | | *01/18/18 06:19* | *1* |

**Lab Sample ID: LCS 440-452346/4**
**Matrix: Water**
**Analysis Batch: 452346**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | | 100 | 101 | | ug/L | | 101 | 85 - 115 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

**Lab Sample ID: MRL 440-452346/3**
**Matrix: Water**
**Analysis Batch: 452346**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | | 20.0 | 21.2 | | ug/L | | 106 | 10 - 200 | | |

| *Surrogate* | *MRL %Recovery* | *MRL Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

**Lab Sample ID: 440-201049-3 MS**
**Matrix: Water**
**Analysis Batch: 452346**

**Client Sample ID: VER-01I-C-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 200 | ND | | ug/L | | NC | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

**Lab Sample ID: 440-201049-3 MSD**
**Matrix: Water**
**Analysis Batch: 452346**

**Client Sample ID: VER-01I-C-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 200 | ND | | ug/L | | NC | 75 - 125 | NC | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

## Method: 314.0 LL - Perchlorate (IC)

**Lab Sample ID: MB 440-452147/6**
**Matrix: Water**
**Analysis Batch: 452147**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 1.0 | 0.50 | ug/L | | | 01/17/18 10:00 | 1 |

**Lab Sample ID: LCS 440-452147/5**
**Matrix: Water**
**Analysis Batch: 452147**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 9.10 | | ug/L | | 91 | 85 - 115 |

**Lab Sample ID: MRL 440-452147/12**
**Matrix: Water**
**Analysis Batch: 452147**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 1.00 | 1.03 | | ug/L | | 103 | 75 - 125 |

**Lab Sample ID: MRL 440-452147/4**
**Matrix: Water**
**Analysis Batch: 452147**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 1.00 | 0.973 | J | ug/L | | 97 | 75 - 125 |

**Lab Sample ID: 440-201049-3 MS**
**Matrix: Water**
**Analysis Batch: 452147**

**Client Sample ID: VER-01I-C-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 1100000 | | 1000 | 1150000 | 4 | ug/L | | 3096 | 80 - 120 |

**Lab Sample ID: 440-201049-3 MSD**
**Matrix: Water**
**Analysis Batch: 452147**

**Client Sample ID: VER-01I-C-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 1100000 | | 1000 | 1130000 | 4 | ug/L | | 1576 | 80 - 120 | 1 | 20 |

## Method: 314.0 LL - Perchlorate (IC) (Continued)

**Lab Sample ID: 440-200809-M-1 DU**
**Matrix: Water**
**Analysis Batch: 452147**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 0.71 | J | | 0.765 | J | ug/L | | | | 7 | 20 |

**Lab Sample ID: INF 440-452147/7**
**Matrix: Water**
**Analysis Batch: 452147**

**Client Sample ID: Lab Control Sample**

| Analyte | | | Spike Added | INF Result | INF Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | | | 10.0 | 9.57 | | ug/L | | 96 | 80 - 120 | | |

## Method: 7199 - Chromium, Hexavalent (IC)

**Lab Sample ID: MB 440-451869/6**
**Matrix: Water**
**Analysis Batch: 451869**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 2.0 | 0.25 | ug/L | | | 01/16/18 12:42 | 1 |

**Lab Sample ID: LCS 440-451869/5**
**Matrix: Water**
**Analysis Batch: 451869**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | | | 50.0 | 50.9 | | ug/L | | 102 | 90 - 110 | | |

**Lab Sample ID: MRL 440-451869/4**
**Matrix: Water**
**Analysis Batch: 451869**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | | | 1.00 | 0.986 | J | ug/L | | 99 | 50 - 150 | | |

**Lab Sample ID: 440-201118-N-2 MS**
**Matrix: Water**
**Analysis Batch: 451869**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 50.0 | 48.8 | | ug/L | | 98 | 85 - 115 | | |

**Lab Sample ID: 440-201118-N-2 MSD**
**Matrix: Water**
**Analysis Batch: 451869**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 50.0 | 49.1 | | ug/L | | 98 | 85 - 115 | 1 | 20 |

## Method: 7199 - Chromium, Hexavalent (IC) (Continued)

**Lab Sample ID: MB 440-452101/6**
**Matrix: Water**
**Analysis Batch: 452101**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 2.0 | 0.25 | ug/L | | | 01/17/18 06:55 | 1 |

**Lab Sample ID: LCS 440-452101/5**
**Matrix: Water**
**Analysis Batch: 452101**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 50.9 | | ug/L | | 102 | 90 - 110 |

**Lab Sample ID: MRL 440-452101/4**
**Matrix: Water**
**Analysis Batch: 452101**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 1.00 | 1.10 | J | ug/L | | 110 | 50 - 150 |

**Lab Sample ID: 440-201049-3 MS**
**Matrix: Water**
**Analysis Batch: 452101**

**Client Sample ID: VER-01I-C-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 13000 | | 1500 | 14100 | 4 | ug/L | | 81 | 85 - 115 |

**Lab Sample ID: 440-201049-3 MSD**
**Matrix: Water**
**Analysis Batch: 452101**

**Client Sample ID: VER-01I-C-36**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 13000 | | 1500 | 14200 | 4 | ug/L | | 84 | 85 - 115 | 0 | 20 |

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 440-452668/1-A**
**Matrix: Water**
**Analysis Batch: 452846**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 452668**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | ND | | 0.0050 | 0.0025 | mg/L | | 01/19/18 10:59 | 01/19/18 19:03 | 1 |

**Lab Sample ID: LCS 440-452668/2-A**
**Matrix: Water**
**Analysis Batch: 452846**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 452668**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium | 1.00 | 0.949 | | mg/L | | 95 | 80 - 120 |

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: 440-200988-G-1-B MS ^5**
**Matrix: Water**
**Analysis Batch: 452846**

**Client Sample ID: Matrix Spike**
**Prep Type: Total Recoverable**
**Prep Batch: 452668**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 8.7 | | 1.00 | 8.76 | 4 | mg/L | | 5 | 75 - 125 |

**Lab Sample ID: 440-200988-G-1-C MSD ^5**
**Matrix: Water**
**Analysis Batch: 452846**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total Recoverable**
**Prep Batch: 452668**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 8.7 | | 1.00 | 8.91 | 4 | mg/L | | 20 | 75 - 125 | 2 | 20 |

**Lab Sample ID: MB 440-452988/1-A**
**Matrix: Water**
**Analysis Batch: 453488**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 452988**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | ND | | 0.0050 | 0.0025 | mg/L | | 01/22/18 10:36 | 01/23/18 19:00 | 1 |

**Lab Sample ID: LCS 440-452988/2-A**
**Matrix: Water**
**Analysis Batch: 453488**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 452988**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium | 1.00 | 0.951 | | mg/L | | 95 | 80 - 120 |

**Lab Sample ID: 440-201049-3 MS**
**Matrix: Water**
**Analysis Batch: 453488**

**Client Sample ID: VER-01I-C-36**
**Prep Type: Total Recoverable**
**Prep Batch: 452988**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 12 | | 1.00 | 12.4 | 4 | mg/L | | 39 | 75 - 125 |

**Lab Sample ID: 440-201049-3 MSD**
**Matrix: Water**
**Analysis Batch: 453488**

**Client Sample ID: VER-01I-C-36**
**Prep Type: Total Recoverable**
**Prep Batch: 452988**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 12 | | 1.00 | 12.4 | 4 | mg/L | | 41 | 75 - 125 | 0 | 20 |

# QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-201049-1

## GC/MS VOA

### Analysis Batch: 452744

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201049-2 | TB-011618 | Total/NA | Water | 8260B | |
| 440-201049-3 | VER-01I-C-36 | Total/NA | Water | 8260B | |
| MB 440-452744/4 | Method Blank | Total/NA | Water | 8260B | |
| LCS 440-452744/5 | Lab Control Sample | Total/NA | Water | 8260B | |
| LCSD 440-452744/18 | Lab Control Sample Dup | Total/NA | Water | 8260B | |
| 440-201049-3 MS | VER-01I-C-36 | Total/NA | Water | 8260B | |
| 440-201049-3 MSD | VER-01I-C-36 | Total/NA | Water | 8260B | |

### Analysis Batch: 452941

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201049-1 | VER-01I-C-24 | Total/NA | Water | 8260B | |
| MB 440-452941/4 | Method Blank | Total/NA | Water | 8260B | |
| LCS 440-452941/5 | Lab Control Sample | Total/NA | Water | 8260B | |
| 440-201302-D-8 MS | Matrix Spike | Total/NA | Water | 8260B | |
| 440-201302-D-8 MSD | Matrix Spike Duplicate | Total/NA | Water | 8260B | |

## HPLC/IC

### Analysis Batch: 451869

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201049-1 | VER-01I-C-24 | Total/NA | Water | 7199 | |
| MB 440-451869/6 | Method Blank | Total/NA | Water | 7199 | |
| LCS 440-451869/5 | Lab Control Sample | Total/NA | Water | 7199 | |
| MRL 440-451869/4 | Lab Control Sample | Total/NA | Water | 7199 | |
| 440-201118-N-2 MS | Matrix Spike | Total/NA | Water | 7199 | |
| 440-201118-N-2 MSD | Matrix Spike Duplicate | Total/NA | Water | 7199 | |

### Analysis Batch: 452101

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201049-3 | VER-01I-C-36 | Total/NA | Water | 7199 | |
| MB 440-452101/6 | Method Blank | Total/NA | Water | 7199 | |
| LCS 440-452101/5 | Lab Control Sample | Total/NA | Water | 7199 | |
| MRL 440-452101/4 | Lab Control Sample | Total/NA | Water | 7199 | |
| 440-201049-3 MS | VER-01I-C-36 | Total/NA | Water | 7199 | |
| 440-201049-3 MSD | VER-01I-C-36 | Total/NA | Water | 7199 | |

### Analysis Batch: 452147

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201049-1 | VER-01I-C-24 | Total/NA | Water | 314.0 LL | |
| 440-201049-3 | VER-01I-C-36 | Total/NA | Water | 314.0 LL | |
| MB 440-452147/6 | Method Blank | Total/NA | Water | 314.0 LL | |
| INF 440-452147/7 | Lab Control Sample | | Water | 314.0 LL | |
| LCS 440-452147/5 | Lab Control Sample | Total/NA | Water | 314.0 LL | |
| MRL 440-452147/12 | Lab Control Sample | Total/NA | Water | 314.0 LL | |
| MRL 440-452147/4 | Lab Control Sample | Total/NA | Water | 314.0 LL | |
| 440-201049-3 MS | VER-01I-C-36 | Total/NA | Water | 314.0 LL | |
| 440-201049-3 MSD | VER-01I-C-36 | Total/NA | Water | 314.0 LL | |
| 440-200809-M-1 DU | Duplicate | Total/NA | Water | 314.0 LL | |

## HPLC/IC (Continued)

### Analysis Batch: 452345

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201049-1 | VER-01I-C-24 | Total/NA | Water | 300.1B | |
| 440-201049-3 | VER-01I-C-36 | Total/NA | Water | 300.1B | |
| MB 440-452345/5 | Method Blank | Total/NA | Water | 300.1B | |
| LCS 440-452345/4 | Lab Control Sample | Total/NA | Water | 300.1B | |
| MRL 440-452345/3 | Lab Control Sample | Total/NA | Water | 300.1B | |
| 440-201049-3 MS | VER-01I-C-36 | Total/NA | Water | 300.1B | |
| 440-201049-3 MSD | VER-01I-C-36 | Total/NA | Water | 300.1B | |
| 440-201200-A-1 MS | Matrix Spike | Total/NA | Water | 300.1B | |
| 440-201200-A-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.1B | |

### Analysis Batch: 452346

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201049-1 | VER-01I-C-24 | Total/NA | Water | 300.1B | |
| 440-201049-3 | VER-01I-C-36 | Total/NA | Water | 300.1B | |
| MB 440-452346/5 | Method Blank | Total/NA | Water | 300.1B | |
| LCS 440-452346/4 | Lab Control Sample | Total/NA | Water | 300.1B | |
| MRL 440-452346/3 | Lab Control Sample | Total/NA | Water | 300.1B | |
| 440-201049-3 MS | VER-01I-C-36 | Total/NA | Water | 300.1B | |
| 440-201049-3 MSD | VER-01I-C-36 | Total/NA | Water | 300.1B | |

## Metals

### Prep Batch: 452668

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201049-1 | VER-01I-C-24 | Total Recoverable | Water | 3005A | |
| MB 440-452668/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 440-452668/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 440-200988-G-1-B MS ^5 | Matrix Spike | Total Recoverable | Water | 3005A | |
| 440-200988-G-1-C MSD ^5 | Matrix Spike Duplicate | Total Recoverable | Water | 3005A | |

### Analysis Batch: 452846

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201049-1 | VER-01I-C-24 | Total Recoverable | Water | 6010B | 452668 |
| MB 440-452668/1-A | Method Blank | Total Recoverable | Water | 6010B | 452668 |
| LCS 440-452668/2-A | Lab Control Sample | Total Recoverable | Water | 6010B | 452668 |
| 440-200988-G-1-B MS ^5 | Matrix Spike | Total Recoverable | Water | 6010B | 452668 |
| 440-200988-G-1-C MSD ^5 | Matrix Spike Duplicate | Total Recoverable | Water | 6010B | 452668 |

### Prep Batch: 452988

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201049-3 | VER-01I-C-36 | Total Recoverable | Water | 3005A | |
| MB 440-452988/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 440-452988/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 440-201049-3 MS | VER-01I-C-36 | Total Recoverable | Water | 3005A | |
| 440-201049-3 MSD | VER-01I-C-36 | Total Recoverable | Water | 3005A | |

### Analysis Batch: 453488

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201049-3 | VER-01I-C-36 | Total Recoverable | Water | 6010B | 452988 |
| MB 440-452988/1-A | Method Blank | Total Recoverable | Water | 6010B | 452988 |

## Metals (Continued)

### Analysis Batch: 453488 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 440-452988/2-A | Lab Control Sample | Total Recoverable | Water | 6010B | 452988 |
| 440-201049-3 MS | VER-01I-C-36 | Total Recoverable | Water | 6010B | 452988 |
| 440-201049-3 MSD | VER-01I-C-36 | Total Recoverable | Water | 6010B | 452988 |

# Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-201049-1

## Client Sample ID: VER-01I-C-24

**Lab Sample ID: 440-201049-1**

**Date Collected: 01/16/18 03:30**

**Matrix: Water**

**Date Received: 01/16/18 19:15**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 5 | 452941 | 01/22/18 15:05 | WC | TAL IRV |
| Total/NA | Analysis | 300.1B | | 10000 | 452345 | 01/18/18 16:00 | YZ | TAL IRV |
| Total/NA | Analysis | 300.1B | | 1000 | 452346 | 01/19/18 10:47 | YZ | TAL IRV |
| Total/NA | Analysis | 314.0 LL | | 100000 | 452147 | 01/17/18 15:21 | CTH | TAL IRV |
| Total/NA | Analysis | 7199 | | 500 | 451869 | 01/16/18 21:12 | RW | TAL IRV |
| Total Recoverable | Prep | 3005A | | | 452668 | 01/19/18 10:59 | MN1 | TAL IRV |
| Total Recoverable | Analysis | 6010B | | 5 | 452846 | 01/19/18 19:24 | K1E | TAL IRV |

## Client Sample ID: TB-011618

**Lab Sample ID: 440-201049-2**

**Date Collected: 01/16/18 03:34**

**Matrix: Water**

**Date Received: 01/16/18 19:15**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 452744 | 01/19/18 21:15 | AYL | TAL IRV |

## Client Sample ID: VER-01I-C-36

**Lab Sample ID: 440-201049-3**

**Date Collected: 01/16/18 15:30**

**Matrix: Water**

**Date Received: 01/16/18 19:15**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 10 | 452744 | 01/19/18 19:24 | AYL | TAL IRV |
| Total/NA | Analysis | 300.1B | | 10000 | 452345 | 01/18/18 20:13 | YZ | TAL IRV |
| Total/NA | Analysis | 300.1B | | 1000 | 452346 | 01/19/18 06:29 | YZ | TAL IRV |
| Total/NA | Analysis | 314.0 LL | | 100000 | 452147 | 01/17/18 17:29 | CTH | TAL IRV |
| Total/NA | Analysis | 7199 | | 500 | 452101 | 01/17/18 08:01 | MN | TAL IRV |
| Total Recoverable | Prep | 3005A | | | 452988 | 01/22/18 10:36 | JL | TAL IRV |
| Total Recoverable | Analysis | 6010B | | 5 | 453488 | 01/23/18 19:04 | K1E | TAL IRV |

**Laboratory References:**

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

# Accreditation/Certification Summary

Client: Tetra Tech, Inc. TestAmerica Job ID: 440-201049-1
Project/Site: NERT VER Treatability Study

## Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|---|---|---|---|---|
| Alaska | State Program | 10 | CA01531 | 06-30-18 |
| Arizona | State Program | 9 | AZ0671 | 10-14-18 |
| California | LA Cty Sanitation Districts | 9 | 10256 | 06-30-18 |
| California | State Program | 9 | CA ELAP 2706 | 06-30-18 |
| Guam | State Program | 9 | Cert. No. 17-003R | 01-23-18 * |
| Hawaii | State Program | 9 | N/A | 01-29-18 * |
| Kansas | NELAP | 7 | E-10420 | 07-31-18 |
| Nevada | State Program | 9 | CA015312018-1 | 07-31-18 |
| New Mexico | State Program | 6 | N/A | 01-29-18 * |
| Northern Mariana Islands | State Program | 9 | MP0002 | 01-29-17 * |
| Oregon | NELAP | 10 | 4028 | 01-29-18 * |
| USDA | Federal | | P330-15-00184 | 07-08-18 |
| Washington | State Program | 10 | C900 | 09-03-18 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Method Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-201049-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL IRV |
| 300.1B | Disinfection By-Products, (IC) | EPA | TAL IRV |
| 314.0 LL | Perchlorate (IC) | EPA | TAL IRV |
| 7199 | Chromium, Hexavalent (IC) | SW846 | TAL IRV |
| 6010B | Metals (ICP) | SW846 | TAL IRV |

**Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

# Sample Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-201049-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 440-201049-1 | VER-01I-C-24 | Water | 01/16/18 03:30 | 01/16/18 19:15 |
| 440-201049-2 | TB-011618 | Water | 01/16/18 03:34 | 01/16/18 19:15 |
| 440-201049-3 | VER-01I-C-36 | Water | 01/16/18 15:30 | 01/16/18 19:15 |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: GCMS56 Analysis Batch Number: 447237

Lab Sample ID: STD05 440-447237/6 IC Client Sample ID:

Date Analyzed: 12/19/17 14:31 Lab File ID: GFL19006.D GC Column: DB-VRX B ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 2,2-Dichloropropane | 5.35 | Unspecified | | |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: GCMS58 Analysis Batch Number: 446571

Lab Sample ID: STD04 440-446571/5 IC Client Sample ID:

Date Analyzed: 12/13/17 18:44 Lab File ID: YFL13014.D GC Column: DB-VRX B ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Vinyl chloride | 2.46 | Unspecified | | |

Lab Sample ID: STD1 440-446571/7 IC Client Sample ID:

Date Analyzed: 12/13/17 19:43 Lab File ID: YFL13016.D GC Column: DB-VRX B ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,2-Dibromo-3-Chloropropane | 12.68 | Unspecified | | |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 445955

Lab Sample ID: STD1 440-445955/3 IC Client Sample ID:

Date Analyzed: 12/11/17 05:47 Lab File ID: 440-0097300-003.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.81 | Baseline Smoothing | zakhrabovy | 12/11/17 06:34 |

Lab Sample ID: STD2 440-445955/4 IC Client Sample ID:

Date Analyzed: 12/11/17 06:24 Lab File ID: 440-0097300-004.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 07:02 |

Lab Sample ID: STD3 440-445955/5 IC Client Sample ID:

Date Analyzed: 12/11/17 07:00 Lab File ID: 440-0097300-005.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 07:39 |

Lab Sample ID: STD4 440-445955/6 IC Client Sample ID:

Date Analyzed: 12/11/17 07:36 Lab File ID: 440-0097300-006.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 08:20 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 445955

Lab Sample ID: STD5 440-445955/7 IC Client Sample ID:

Date Analyzed: 12/11/17 08:12 Lab File ID: 440-0097300-007.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 08:53 |

Lab Sample ID: ICV 440-445955/8 Client Sample ID:

Date Analyzed: 12/11/17 09:01 Lab File ID: 440-0097300-008.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.77 | Baseline Smoothing | zakhrabovy | 12/12/17 03:14 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-8  Analysis Batch Number: 445956

Lab Sample ID: STD1 440-445956/3 IC  Client Sample ID:

Date Analyzed: 12/11/17 05:47  Lab File ID: 440-0097300-003.d  GC Column: AS14  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.52 | Baseline Smoothing | zakhrabovy | 12/11/17 06:34 |

Lab Sample ID: STD2 440-445956/4 IC  Client Sample ID:

Date Analyzed: 12/11/17 06:24  Lab File ID: 440-0097300-004.d  GC Column: AS14  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.51 | Baseline Smoothing | zakhrabovy | 12/11/17 07:02 |

Lab Sample ID: STD3 440-445956/5 IC  Client Sample ID:

Date Analyzed: 12/11/17 07:00  Lab File ID: 440-0097300-005.d  GC Column: AS14  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.51 | Baseline Smoothing | zakhrabovy | 12/11/17 07:39 |

Lab Sample ID: STD4 440-445956/6 IC  Client Sample ID:

Date Analyzed: 12/11/17 07:36  Lab File ID: 440-0097300-006.d  GC Column: AS14  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.52 | Baseline Smoothing | zakhrabovy | 12/11/17 08:20 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 445956

Lab Sample ID: STD5 440-445956/7 IC Client Sample ID:

Date Analyzed: 12/11/17 08:12 Lab File ID: 440-0097300-007.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.52 | Baseline Smoothing | zakhrabovy | 12/11/17 08:53 |

Lab Sample ID: ICV 440-445956/8 Client Sample ID:

Date Analyzed: 12/11/17 09:01 Lab File ID: 440-0097300-008.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.50 | Baseline Smoothing | zakhrabovy | 12/12/17 03:14 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 452345

Lab Sample ID: CCV 440-452345/1 Client Sample ID:

Date Analyzed: 01/18/18 03:43 Lab File ID: 440-0098772-001.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.75 | Baseline Smoothing | zakhrabovy | 01/18/18 04:57 |

Lab Sample ID: CCV 440-452345/13 Client Sample ID:

Date Analyzed: 01/18/18 11:43 Lab File ID: 440-0098772-013.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.66 | Baseline Smoothing | zakhrabovy | 01/18/18 12:22 |

Lab Sample ID: CCV 440-452345/25 Client Sample ID:

Date Analyzed: 01/18/18 19:01 Lab File ID: 440-0098772-025.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.66 | Baseline Smoothing | nguyennt | 01/18/18 20:21 |

Lab Sample ID: CCV 440-452345/37 Client Sample ID:

Date Analyzed: 01/19/18 02:16 Lab File ID: 440-0098772-037.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.71 | Baseline Smoothing | zakhrabovy | 01/19/18 03:51 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 452346

Lab Sample ID: CCV 440-452346/1 Client Sample ID:

Date Analyzed: 01/18/18 03:43 Lab File ID: 440-0098772-001.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.48 | Baseline Smoothing | zakhrabovy | 01/18/18 04:57 |

Lab Sample ID: MRL 440-452346/3 Client Sample ID:

Date Analyzed: 01/18/18 04:55 Lab File ID: 440-0098772-003.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.48 | Baseline Smoothing | zakhrabovy | 01/18/18 05:43 |

Lab Sample ID: LCS 440-452346/4 Client Sample ID:

Date Analyzed: 01/18/18 05:43 Lab File ID: 440-0098772-004.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.48 | Baseline Smoothing | zakhrabovy | 01/18/18 06:27 |

Lab Sample ID: CCV 440-452346/13 Client Sample ID:

Date Analyzed: 01/18/18 11:43 Lab File ID: 440-0098772-013.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.47 | Baseline Smoothing | zakhrabovy | 01/18/18 12:22 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 452346

Lab Sample ID: CCV 440-452346/37 Client Sample ID:

Date Analyzed: 01/19/18 02:16 Lab File ID: 440-0098772-037.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.48 | Baseline Smoothing | zakhrabovy | 01/19/18 03:51 |

Lab Sample ID: CCV 440-452346/49 Client Sample ID:

Date Analyzed: 01/19/18 09:31 Lab File ID: 440-0098772-049.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.46 | Baseline Smoothing | zakhrabovy | 01/19/18 10:10 |

Lab Sample ID: CCV 440-452346/57 Client Sample ID:

Date Analyzed: 01/19/18 14:31 Lab File ID: 440-0098772-057.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.48 | Baseline Smoothing | zakhrabovy | 01/20/18 09:27 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-16 Analysis Batch Number: 432478

Lab Sample ID: STD2 440-432478/4 IC Client Sample ID:

Date Analyzed: 10/02/17 13:01 Lab File ID: Info 2_TAIIRV0066_Hex Chr GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 7.53 | Incomplete Integration | nickloffn | 10/02/17 13:25 |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **ME HCl_00393** | 12/12/18 | Avantor Performance Materials, INc., Lot 0000183197 | | | (Purchased Reagent) | | Stock Chemical | 100 % |
| **ME HNO3_00412** | 01/12/19 | Macron Fine Chemicals, Lot 0000185595 | | | (Purchased Reagent) | | Stock Chemical | 1 % |
| **ME ICP 2X RL_00055** | 01/20/18 | 01/19/18 | 2%HNO3/2%HCl, Lot 211065110 | 100 mL | ME ICP STD3_01850 | 2 mL | Chromium | 0.01 ug/mL |
| .ME ICP STD3_01850 | 01/20/18 | 01/19/18 | 1%HNO3/2%HCL, Lot 211065110 | 100 mL | Custom mix A_00001 | 1 mL | Chromium | 0.5 ug/mL |
| ..Custom mix A_00001 | 10/26/20 | INORGANIC VENTURES, Lot M2-MEB662656 | | | (Purchased Reagent) | | Chromium | 50 mg/L |
| **ME ICP 2X RL_00057** | 01/24/18 | 01/23/18 | 2%HNO3/2%HCl, Lot 211065110 | 100 mL | ME ICP STD3_01854 | 2 mL | Chromium | 0.01 ug/mL |
| .ME ICP STD3_01854 | 01/24/18 | 01/23/18 | 1%HNO3/2%HCL, Lot 211065110 | 100 mL | Custom mix A_00001 | 1 mL | Chromium | 0.5 ug/mL |
| ..Custom mix A_00001 | 10/26/20 | INORGANIC VENTURES, Lot M2-MEB662656 | | | (Purchased Reagent) | | Chromium | 50 mg/L |
| **ME ICP ICV2_01766** | 01/20/18 | 01/19/18 | 1%HNO3/2%HCl, Lot N/A | 50 mL | ME ICP SPKE A_00029 | 0.5 mL | Chromium | 1 mg/L |
| .ME ICP SPKE A_00029 | 03/30/18 | ACCUSTANDARD, Lot 216035030 | | | (Purchased Reagent) | | Chromium | 100 ug/mL |
| **ME ICP ICV2_01768** | 01/24/18 | 01/23/18 | 1%HNO3/2%HCl, Lot N/A | 50 mL | ME ICP SPKE A_00029 | 0.5 mL | Chromium | 1 mg/L |
| .ME ICP SPKE A_00029 | 03/30/18 | ACCUSTANDARD, Lot 216035030 | | | (Purchased Reagent) | | Chromium | 100 ug/mL |
| **ME ICP IFA_01792** | 01/20/18 | 01/19/18 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Al | 600 mg/L |
| | | | | | | | Ca | 600 mg/L |
| | | | | | | | Fe | 600 mg/L |
| | | | | | | | Mg | 600 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | o2si, Lot 10064997-1 | | | (Purchased Reagent) | | Al | 6000 mg/L |
| | | | | | | | Ca | 6000 mg/L |
| | | | | | | | Fe | 6000 mg/L |
| | | | | | | | Mg | 6000 mg/L |
| **ME ICP IFA_01794** | 01/24/18 | 01/23/18 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Al | 600 mg/L |
| | | | | | | | Ca | 600 mg/L |
| | | | | | | | Fe | 600 mg/L |
| | | | | | | | Mg | 600 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | o2si, Lot 10064997-1 | | | (Purchased Reagent) | | Al | 6000 mg/L |
| | | | | | | | Ca | 6000 mg/L |
| | | | | | | | Fe | 6000 mg/L |
| | | | | | | | Mg | 6000 mg/L |
| **ME ICP IFB_01811** | 01/20/18 | 01/19/18 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Al | 600.5 mg/L |
| | | | | | | | Ca | 602.5 mg/L |
| | | | | | | | Fe | 600.5 mg/L |
| | | | | | | | Mg | 602.5 mg/L |
| | | | | | ME ICP2 ICV1A_00051 | 0.25 mL | Ag | 0.25 mg/L |
| | | | | | | | Al | 600.5 mg/L |
| | | | | | | | As | 0.5 mg/L |
| | | | | | | | B | 0.5 mg/L |
| | | | | | | | Ba | 0.5 mg/L |
| | | | | | | | Be | 0.5 mg/L |
| | | | | | | | Ca | 602.5 mg/L |
| | | | | | | | Cd | 0.5 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Chromium | 0.5 mg/L |
| | | | | | | | Co | 0.5 mg/L |
| | | | | | | | Cu | 0.5 mg/L |
| | | | | | | | Fe | 600.5 mg/L |
| | | | | | | | K | 10 mg/L |
| | | | | | | | Li | 0.5 mg/L |
| | | | | | | | Mg | 602.5 mg/L |
| | | | | | | | Mn | 0.5 mg/L |
| | | | | | | | Na | 10 mg/L |
| | | | | | | | Ni | 0.5 mg/L |
| | | | | | | | P | 0.5 mg/L |
| | | | | | | | Pb | 0.5 mg/L |
| | | | | | | | Se | 0.5 mg/L |
| | | | | | | | Sr | 0.5 mg/L |
| | | | | | | | Tl | 0.5 mg/L |
| | | | | | | | V | 0.5 mg/L |
| | | | | | | | Zn | 0.5 mg/L |
| | | | | | ME ICP2 ICV1B_00045 | 0.25 mL | Mo | 0.5 mg/L |
| | | | | | | | Sb | 0.5 mg/L |
| | | | | | | | Si | 2.5 mg/L |
| | | | | | | | Sn | 0.5 mg/L |
| | | | | | | | Ti | 0.5 mg/L |
| | | | | | | | W | 0.5 mg/L |
| | | | | | | | Zr | 0.5 mg/L |
| | | | | | ME K_00007 | 0.25 mL | K | 10 mg/L |
| | | | | | ME Na_00010 | 0.25 mL | Na | 10 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | o2si, Lot 10064997-1 | | | (Purchased Reagent) | | Al | 6000 mg/L |
| | | | | | | | Ca | 6000 mg/L |
| | | | | | | | Fe | 6000 mg/L |
| | | | | | | | Mg | 6000 mg/L |
| .ME ICP2 ICV1A_00051 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662245 | | | (Purchased Reagent) | | Ag | 50 mg/L |
| | | | | | | | Al | 100 mg/L |
| | | | | | | | As | 100 mg/L |
| | | | | | | | B | 100 mg/L |
| | | | | | | | Ba | 100 mg/L |
| | | | | | | | Be | 100 mg/L |
| | | | | | | | Ca | 500 mg/L |
| | | | | | | | Cd | 100 mg/L |
| | | | | | | | Chromium | 100 mg/L |
| | | | | | | | Co | 100 mg/L |
| | | | | | | | Cu | 100 mg/L |
| | | | | | | | Fe | 100 mg/L |
| | | | | | | | K | 1000 mg/L |
| | | | | | | | Li | 100 mg/L |
| | | | | | | | Mg | 500 mg/L |
| | | | | | | | Mn | 100 mg/L |
| | | | | | | | Na | 1000 mg/L |
| | | | | | | | Ni | 100 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | P | 100 mg/L |
| | | | | | | | Pb | 100 mg/L |
| | | | | | | | Se | 100 mg/L |
| | | | | | | | Sr | 100 mg/L |
| | | | | | | | Tl | 100 mg/L |
| | | | | | | | V | 100 mg/L |
| | | | | | | | Zn | 100 mg/L |
| .ME ICP2 ICV1B_00045 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662246 | | | (Purchased Reagent) | | Mo | 100 mg/L |
| | | | | | | | Sb | 100 mg/L |
| | | | | | | | Si | 500 mg/L |
| | | | | | | | Sn | 100 mg/L |
| | | | | | | | Ti | 100 mg/L |
| | | | | | | | W | 100 mg/L |
| | | | | | | | Zr | 100 mg/L |
| .ME K_00007 | 08/17/18 | O2SI, Lot 1103100 | | | (Purchased Reagent) | | K | 1000 mg/L |
| .ME Na_00010 | 08/17/18 | O2SI, Lot 1103103 | | | (Purchased Reagent) | | Na | 1000 mg/L |
| **ME ICP IFB_01813** | 01/24/18 | 01/23/18 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Al | 600.5 mg/L |
| | | | | | | | Ca | 602.5 mg/L |
| | | | | | | | Fe | 600.5 mg/L |
| | | | | | | | Mg | 602.5 mg/L |
| | | | | | ME ICP2 ICV1A_00051 | 0.25 mL | Ag | 0.25 mg/L |
| | | | | | | | Al | 600.5 mg/L |
| | | | | | | | As | 0.5 mg/L |
| | | | | | | | B | 0.5 mg/L |
| | | | | | | | Ba | 0.5 mg/L |
| | | | | | | | Be | 0.5 mg/L |
| | | | | | | | Ca | 602.5 mg/L |
| | | | | | | | Cd | 0.5 mg/L |
| | | | | | | | Chromium | 0.5 mg/L |
| | | | | | | | Co | 0.5 mg/L |
| | | | | | | | Cu | 0.5 mg/L |
| | | | | | | | Fe | 600.5 mg/L |
| | | | | | | | K | 10 mg/L |
| | | | | | | | Li | 0.5 mg/L |
| | | | | | | | Mg | 602.5 mg/L |
| | | | | | | | Mn | 0.5 mg/L |
| | | | | | | | Na | 10 mg/L |
| | | | | | | | Ni | 0.5 mg/L |
| | | | | | | | P | 0.5 mg/L |
| | | | | | | | Pb | 0.5 mg/L |
| | | | | | | | Se | 0.5 mg/L |
| | | | | | | | Sr | 0.5 mg/L |
| | | | | | | | Tl | 0.5 mg/L |
| | | | | | | | V | 0.5 mg/L |
| | | | | | | | Zn | 0.5 mg/L |
| | | | | | ME ICP2 ICV1B_00045 | 0.25 mL | Mo | 0.5 mg/L |
| | | | | | | | Sb | 0.5 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Si | 2.5 mg/L |
| | | | | | | | Sn | 0.5 mg/L |
| | | | | | | | Ti | 0.5 mg/L |
| | | | | | | | W | 0.5 mg/L |
| | | | | | ME K_00007 | 0.25 mL | K | 10 mg/L |
| | | | | | ME Na_00010 | 0.25 mL | Na | 10 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | o2si, Lot 10064997-1 | | | (Purchased Reagent) | | Al | 6000 mg/L |
| | | | | | | | Ca | 6000 mg/L |
| | | | | | | | Fe | 6000 mg/L |
| | | | | | | | Mg | 6000 mg/L |
| .ME ICP2 ICV1A_00051 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662245 | | | (Purchased Reagent) | | Ag | 50 mg/L |
| | | | | | | | Al | 100 mg/L |
| | | | | | | | As | 100 mg/L |
| | | | | | | | B | 100 mg/L |
| | | | | | | | Ba | 100 mg/L |
| | | | | | | | Be | 100 mg/L |
| | | | | | | | Ca | 500 mg/L |
| | | | | | | | Cd | 100 mg/L |
| | | | | | | | Chromium | 100 mg/L |
| | | | | | | | Co | 100 mg/L |
| | | | | | | | Cu | 100 mg/L |
| | | | | | | | Fe | 100 mg/L |
| | | | | | | | K | 1000 mg/L |
| | | | | | | | Li | 100 mg/L |
| | | | | | | | Mg | 500 mg/L |
| | | | | | | | Mn | 100 mg/L |
| | | | | | | | Na | 1000 mg/L |
| | | | | | | | Ni | 100 mg/L |
| | | | | | | | P | 100 mg/L |
| | | | | | | | Pb | 100 mg/L |
| | | | | | | | Se | 100 mg/L |
| | | | | | | | Sr | 100 mg/L |
| | | | | | | | Tl | 100 mg/L |
| | | | | | | | V | 100 mg/L |
| | | | | | | | Zn | 100 mg/L |
| .ME ICP2 ICV1B_00045 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662246 | | | (Purchased Reagent) | | Mo | 100 mg/L |
| | | | | | | | Sb | 100 mg/L |
| | | | | | | | Si | 500 mg/L |
| | | | | | | | Sn | 100 mg/L |
| | | | | | | | Ti | 100 mg/L |
| | | | | | | | W | 100 mg/L |
| .ME K_00007 | 08/17/18 | O2SI, Lot 1103100 | | | (Purchased Reagent) | | K | 1000 mg/L |
| .ME Na_00010 | 08/17/18 | O2SI, Lot 1103103 | | | (Purchased Reagent) | | Na | 1000 mg/L |
| **ME ICP STD3_01851** | 01/20/18 | 01/19/18 | 1%HNO3/2%HCL, Lot 211065110 | 100 mL | ME ICP2 ICV1A_00051 | 1 mL | Chromium | 1 ug/mL |
| .ME ICP2 ICV1A_00051 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662245 | | | (Purchased Reagent) | | Chromium | 100 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **ME ICP STD3_01855** | 01/24/18 | 01/23/18 | 1%HNO3/2%HCL, Lot 211065110 | 100 mL | ME ICP2 ICV1A_00051 | 1 mL | Chromium | 1 ug/mL |
| .ME ICP2 ICV1A_00051 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662245 | | | (Purchased Reagent) | | Chromium | 100 mg/L |
| | | | | | | | Ag | 50 mg/L |
| | | | | | | | Al | 100 mg/L |
| | | | | | | | As | 100 mg/L |
| | | | | | | | B | 100 mg/L |
| | | | | | | | Ba | 100 mg/L |
| | | | | | | | Be | 100 mg/L |
| | | | | | | | Ca | 500 mg/L |
| | | | | | | | Cd | 100 mg/L |
| | | | | | | | Chromium | 100 mg/L |
| | | | | | | | Co | 100 mg/L |
| | | | | | | | Cu | 100 mg/L |
| | | | | | | | Fe | 100 mg/L |
| | | | | | | | K | 1000 mg/L |
| | | | | | | | Li | 100 mg/L |
| | | | | | | | Mg | 500 mg/L |
| | | | | | | | Mn | 100 mg/L |
| | | | | | | | Na | 1000 mg/L |
| | | | | | | | Ni | 100 mg/L |
| | | | | | | | P | 100 mg/L |
| | | | | | | | Pb | 100 mg/L |
| | | | | | | | Se | 100 mg/L |
| | | | | | | | Sr | 100 mg/L |
| | | | | | | | Tl | 100 mg/L |
| | | | | | | | V | 100 mg/L |
| | | | | | | | Zn | 100 mg/L |
| **ME ICP2 ICV1B_00045** | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662246 | | | (Purchased Reagent) | | Mo | 100 mg/L |
| | | | | | | | Sb | 100 mg/L |
| | | | | | | | Si | 500 mg/L |
| | | | | | | | SiO2 | 1071.15 mg/L |
| | | | | | | | Sn | 100 mg/L |
| | | | | | | | Ti | 100 mg/L |
| | | | | | | | W | 100 mg/L |
| | | | | | | | Zr | 100 mg/L |
| **VMW8260TUNE1_00412** | | | | | | | 1,2-Dichloroethene, Total | |
| | | | | | | | 1,3-Dichloropropene, Total | |
| | | | | | | | Tentatively Identified Compound | |
| | | | | | | | Total Volatile Organic Compounds | |
| | | | | | | | Trihalomethanes, Total | |
| | | | | | | | Xylenes, Total | |
| | | | | | VMA8260BFB1_00040 | 10 uL | BFB | 25 ug/mL |
| .VMA8260BFB1_00040 | 06/08/18 | Absolute Standards, Lot 112514 | | | (Purchased Reagent) | | BFB | 2500 ug/mL |
| **VMW8260TUNE1_00415** | | | | | | | 1,2-Dichloroethene, Total | |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,3-Dichloropropene, Total | |
| | | | | | | | Tentatively Identified Compound | |
| | | | | | | | Total Volatile Organic Compounds | |
| | | | | | | | Trihalomethanes, Total | |
| | | | | | | | Xylenes, Total | |
| | | | | | VMA8260BFB1_00040 | 10 uL | BFB | 25 ug/mL |
| .VMA8260BFB1_00040 | 06/08/18 | Absolute Standards, Lot 112514 | | | (Purchased Reagent) | | BFB | 2500 ug/mL |
| **VMWNU8260002_00492** | 12/19/17 | 12/12/17 | Methanol, Lot 4506063 | 1 mL | VMWNU8260200_00174 | 10 uL | 2-Chloroethyl vinyl ether | 2 ug/mL |
| | | | | | | | Bromomethane | 2 ug/mL |
| | | | | | | | Butadiene | 2 ug/mL |
| | | | | | | | Chloroethane | 2 ug/mL |
| | | | | | | | Chloromethane | 2 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2 ug/mL |
| | | | | | | | Vinyl chloride | 2 ug/mL |
| | | | | | | | 2-Butanone (MEK) | 2 ug/mL |
| | | | | | | | 2-Hexanone | 2 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 2 ug/mL |
| | | | | | | | Acetone | 2 ug/mL |
| | | | | | | | 1,1,1,2-Tetrachloroethane | 2 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Acrylonitrile | 20 ug/mL |
| | | | | | | | Benzene | 2 ug/mL |
| | | | | | | | Bromobenzene | 2 ug/mL |
| | | | | | | | Bromochloromethane | 2 ug/mL |
| | | | | | | | Bromodichloromethane | 2 ug/mL |
| | | | | | | | Bromoform | 2 ug/mL |
| | | | | | | | Carbon disulfide | 2 ug/mL |
| | | | | | | | Carbon tetrachloride | 2 ug/mL |
| | | | | | | | Chlorobenzene | 2 ug/mL |
| | | | | | | | Chloroform | 2 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2 ug/mL |
| | | | | | | | Cyclohexane | 2 ug/mL |
| | | | | | | | Dibromochloromethane | 2 ug/mL |
| | | | | | | | Dibromomethane | 2 ug/mL |
| | | | | | | | Ethyl ether | 2 ug/mL |
| | | | | | | | Ethyl methacrylate | 2 ug/mL |
| | | | | | | | Ethylbenzene | 2 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2 ug/mL |
| | | | | | | | Hexane | 2 ug/mL |
| | | | | | | | Iodomethane | 2 ug/mL |
| | | | | | | | Isobutyl alcohol | 50 ug/mL |
| | | | | | | | Isopropylbenzene | 2 ug/mL |
| | | | | | | | m,p-Xylene | 2 ug/mL |
| | | | | | | | Methyl acetate | 10 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2 ug/mL |
| | | | | | | | Methylcyclohexane | 2 ug/mL |
| | | | | | | | Methylene Chloride | 2 ug/mL |
| | | | | | | | n-Butylbenzene | 2 ug/mL |
| | | | | | | | n-Heptane | 2 ug/mL |
| | | | | | | | N-Propylbenzene | 2 ug/mL |
| | | | | | | | Naphthalene | 2 ug/mL |
| | | | | | | | o-Xylene | 2 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2 ug/mL |
| | | | | | | | sec-Butylbenzene | 2 ug/mL |
| | | | | | | | Styrene | 2 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 20 ug/mL |
| | | | | | | | tert-Butylbenzene | 2 ug/mL |
| | | | | | | | Tetrachloroethene | 2 ug/mL |
| | | | | | | | Tetrahydrofuran | 4 ug/mL |
| | | | | | | | Toluene | 2 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2 ug/mL |
| | | | | | | | Trichloroethene | 2 ug/mL |
| | | | | | | | Vinyl acetate | 2 ug/mL |
| | | | | | | | Ethanol | 100 ug/mL |
| | | | | | | | Acetonitrile | 20 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2 ug/mL |
| | | | | | | | Propionitrile | 20 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2 ug/mL |
| | | | | | | | Acrolein | 2 ug/mL |
| .VMWNU8260200_00174 | 12/19/17 | 12/12/17 | Methanol, Lot 4506063 | 1 mL | VMA1582602CV1_00028 | 80 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |
| | | | | | VMA158260GAS1_00208 | 80 uL | Bromomethane | 200 ug/mL |
| | | | | | | | Butadiene | 200 ug/mL |
| | | | | | | | Chloroethane | 200 ug/mL |
| | | | | | | | Chloromethane | 200 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 200 ug/mL |
| | | | | | | | Dichlorofluoromethane | 200 ug/mL |
| | | | | | | | Trichlorofluoromethane | 200 ug/mL |
| | | | | | | | Vinyl chloride | 200 ug/mL |
| | | | | | VMA158260KET1_00042 | 16 uL | 2-Butanone (MEK) | 200 ug/mL |
| | | | | | | | 2-Hexanone | 200 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 200 ug/mL |
| | | | | | | | Acetone | 200 ug/mL |
| | | | | | VMA158260MEG1_00042 | 80 uL | 1,1,1,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 200 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 200 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 200 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 200 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 2-Chlorotoluene | 200 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 200 ug/mL |
| | | | | | | | 4-Chlorotoluene | 200 ug/mL |
| | | | | | | | Acrylonitrile | 2000 ug/mL |
| | | | | | | | Benzene | 200 ug/mL |
| | | | | | | | Bromobenzene | 200 ug/mL |
| | | | | | | | Bromochloromethane | 200 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Bromodichloromethane | 200 ug/mL |
| | | | | | | | Bromoform | 200 ug/mL |
| | | | | | | | Carbon disulfide | 200 ug/mL |
| | | | | | | | Carbon tetrachloride | 200 ug/mL |
| | | | | | | | Chlorobenzene | 200 ug/mL |
| | | | | | | | Chloroform | 200 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | Cyclohexane | 200 ug/mL |
| | | | | | | | Dibromochloromethane | 200 ug/mL |
| | | | | | | | Dibromomethane | 200 ug/mL |
| | | | | | | | Ethyl ether | 200 ug/mL |
| | | | | | | | Ethyl methacrylate | 200 ug/mL |
| | | | | | | | Ethylbenzene | 200 ug/mL |
| | | | | | | | Hexachlorobutadiene | 200 ug/mL |
| | | | | | | | Hexane | 200 ug/mL |
| | | | | | | | Iodomethane | 200 ug/mL |
| | | | | | | | Isobutyl alcohol | 5000 ug/mL |
| | | | | | | | Isopropylbenzene | 200 ug/mL |
| | | | | | | | m,p-Xylene | 200 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 200 ug/mL |
| | | | | | | | Methylcyclohexane | 200 ug/mL |
| | | | | | | | Methylene Chloride | 200 ug/mL |
| | | | | | | | n-Butylbenzene | 200 ug/mL |
| | | | | | | | n-Heptane | 200 ug/mL |
| | | | | | | | N-Propylbenzene | 200 ug/mL |
| | | | | | | | Naphthalene | 200 ug/mL |
| | | | | | | | o-Xylene | 200 ug/mL |
| | | | | | | | p-Isopropyltoluene | 200 ug/mL |
| | | | | | | | sec-Butylbenzene | 200 ug/mL |
| | | | | | | | Styrene | 200 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 2000 ug/mL |
| | | | | | | | tert-Butylbenzene | 200 ug/mL |
| | | | | | | | Tetrachloroethene | 200 ug/mL |
| | | | | | | | Tetrahydrofuran | 400 ug/mL |
| | | | | | | | Toluene | 200 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 200 ug/mL |
| | | | | | | | Trichloroethene | 200 ug/mL |
| | | | | | VMA158260VA1_00045 | 40 uL | Vinyl acetate | 200 ug/mL |
| | | | | | VMA178260ETH1_00008 | 100 uL | Ethanol | 10000 ug/mL |
| | | | | | VMA178260POL1_00008 | 80 uL | Acetonitrile | 2000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 200 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 200 ug/mL |
| | | | | | | | Propionitrile | 2000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | VMANU8260ACR1_00101 | 10 uL | Acrolein | 200 ug/mL |
| ..VMA1582602CV1_00028 | 06/04/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| ..VMA158260GAS1_00208 | 06/12/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| ..VMA158260KET1_00042 | 06/04/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| ..VMA158260MEG1_00042 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| ..VMA158260VA1_00045 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| ..VMA178260ETH1_00008 | 06/04/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| ..VMA178260POL1_00008 | 06/04/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| ..VMANU8260ACR1_00101 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260002_00495** | 12/26/17 | 12/19/17 | Methanol, Lot 4506060 | 1 mL | VMWNU8260200_00175 | 10 uL | 2-Chloroethyl vinyl ether | 2 ug/mL |
| | | | | | | | Bromomethane | 2 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Butadiene | 2 ug/mL |
| | | | | | | | Chloroethane | 2 ug/mL |
| | | | | | | | Chloromethane | 2 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2 ug/mL |
| | | | | | | | Vinyl chloride | 2 ug/mL |
| | | | | | | | 2-Butanone (MEK) | 2 ug/mL |
| | | | | | | | 2-Hexanone | 2 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 2 ug/mL |
| | | | | | | | Acetone | 2 ug/mL |
| | | | | | | | 1,1,1,2-Tetrachloroethane | 2 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2 ug/mL |
| | | | | | | | Acrylonitrile | 20 ug/mL |
| | | | | | | | Benzene | 2 ug/mL |
| | | | | | | | Bromobenzene | 2 ug/mL |
| | | | | | | | Bromochloromethane | 2 ug/mL |
| | | | | | | | Bromodichloromethane | 2 ug/mL |
| | | | | | | | Bromoform | 2 ug/mL |
| | | | | | | | Carbon disulfide | 2 ug/mL |
| | | | | | | | Carbon tetrachloride | 2 ug/mL |
| | | | | | | | Chlorobenzene | 2 ug/mL |
| | | | | | | | Chloroform | 2 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | cis-1,3-Dichloropropene | 2 ug/mL |
| | | | | | | | Cyclohexane | 2 ug/mL |
| | | | | | | | Dibromochloromethane | 2 ug/mL |
| | | | | | | | Dibromomethane | 2 ug/mL |
| | | | | | | | Ethyl ether | 2 ug/mL |
| | | | | | | | Ethyl methacrylate | 2 ug/mL |
| | | | | | | | Ethylbenzene | 2 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2 ug/mL |
| | | | | | | | Hexane | 2 ug/mL |
| | | | | | | | Iodomethane | 2 ug/mL |
| | | | | | | | Isobutyl alcohol | 50 ug/mL |
| | | | | | | | Isopropylbenzene | 2 ug/mL |
| | | | | | | | m,p-Xylene | 2 ug/mL |
| | | | | | | | Methyl acetate | 10 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2 ug/mL |
| | | | | | | | Methylcyclohexane | 2 ug/mL |
| | | | | | | | Methylene Chloride | 2 ug/mL |
| | | | | | | | n-Butylbenzene | 2 ug/mL |
| | | | | | | | n-Heptane | 2 ug/mL |
| | | | | | | | N-Propylbenzene | 2 ug/mL |
| | | | | | | | Naphthalene | 2 ug/mL |
| | | | | | | | o-Xylene | 2 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2 ug/mL |
| | | | | | | | sec-Butylbenzene | 2 ug/mL |
| | | | | | | | Styrene | 2 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 20 ug/mL |
| | | | | | | | tert-Butylbenzene | 2 ug/mL |
| | | | | | | | Tetrachloroethene | 2 ug/mL |
| | | | | | | | Tetrahydrofuran | 4 ug/mL |
| | | | | | | | Toluene | 2 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2 ug/mL |
| | | | | | | | Trichloroethene | 2 ug/mL |
| | | | | | | | Vinyl acetate | 2 ug/mL |
| | | | | | | | Ethanol | 100 ug/mL |
| | | | | | | | Acetonitrile | 20 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2 ug/mL |
| | | | | | | | Propionitrile | 20 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2 ug/mL |
| | | | | | | | Acrolein | 2 ug/mL |
| .VMWNU8260200_00175 | 12/26/17 | 12/19/17 | Methanol, Lot 4506060 | 1 mL | VMA1582602CV1_00028 | 80 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |
| | | | | | VMA158260GAS1_00203 | 80 uL | Bromomethane | 200 ug/mL |
| | | | | | | | Butadiene | 200 ug/mL |
| | | | | | | | Chloroethane | 200 ug/mL |
| | | | | | | | Chloromethane | 200 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Dichlorofluoromethane | 200 ug/mL |
| | | | | | | | Trichlorofluoromethane | 200 ug/mL |
| | | | | | | | Vinyl chloride | 200 ug/mL |
| | | | | | VMA158260KET1_00042 | 16 uL | 2-Butanone (MEK) | 200 ug/mL |
| | | | | | | | 2-Hexanone | 200 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 200 ug/mL |
| | | | | | | | Acetone | 200 ug/mL |
| | | | | | VMA158260MEG1_00042 | 80 uL | 1,1,1,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 200 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 200 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 200 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 200 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 2-Chlorotoluene | 200 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 200 ug/mL |
| | | | | | | | 4-Chlorotoluene | 200 ug/mL |
| | | | | | | | Acrylonitrile | 2000 ug/mL |
| | | | | | | | Benzene | 200 ug/mL |
| | | | | | | | Bromobenzene | 200 ug/mL |
| | | | | | | | Bromochloromethane | 200 ug/mL |
| | | | | | | | Bromodichloromethane | 200 ug/mL |
| | | | | | | | Bromoform | 200 ug/mL |
| | | | | | | | Carbon disulfide | 200 ug/mL |
| | | | | | | | Carbon tetrachloride | 200 ug/mL |
| | | | | | | | Chlorobenzene | 200 ug/mL |
| | | | | | | | Chloroform | 200 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | Cyclohexane | 200 ug/mL |
| | | | | | | | Dibromochloromethane | 200 ug/mL |
| | | | | | | | Dibromomethane | 200 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Ethyl ether | 200 ug/mL |
| | | | | | | | Ethyl methacrylate | 200 ug/mL |
| | | | | | | | Ethylbenzene | 200 ug/mL |
| | | | | | | | Hexachlorobutadiene | 200 ug/mL |
| | | | | | | | Hexane | 200 ug/mL |
| | | | | | | | Iodomethane | 200 ug/mL |
| | | | | | | | Isobutyl alcohol | 5000 ug/mL |
| | | | | | | | Isopropylbenzene | 200 ug/mL |
| | | | | | | | m,p-Xylene | 200 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 200 ug/mL |
| | | | | | | | Methylcyclohexane | 200 ug/mL |
| | | | | | | | Methylene Chloride | 200 ug/mL |
| | | | | | | | n-Butylbenzene | 200 ug/mL |
| | | | | | | | n-Heptane | 200 ug/mL |
| | | | | | | | N-Propylbenzene | 200 ug/mL |
| | | | | | | | Naphthalene | 200 ug/mL |
| | | | | | | | o-Xylene | 200 ug/mL |
| | | | | | | | p-Isopropyltoluene | 200 ug/mL |
| | | | | | | | sec-Butylbenzene | 200 ug/mL |
| | | | | | | | Styrene | 200 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 2000 ug/mL |
| | | | | | | | tert-Butylbenzene | 200 ug/mL |
| | | | | | | | Tetrachloroethene | 200 ug/mL |
| | | | | | | | Tetrahydrofuran | 400 ug/mL |
| | | | | | | | Toluene | 200 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 200 ug/mL |
| | | | | | | | Trichloroethene | 200 ug/mL |
| | | | | | VMA158260VA1_00045 | 40 uL | Vinyl acetate | 200 ug/mL |
| | | | | | VMA178260ETH1_00008 | 100 uL | Ethanol | 10000 ug/mL |
| | | | | | VMA178260POL1_00008 | 80 uL | Acetonitrile | 2000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 200 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 200 ug/mL |
| | | | | | | | Propionitrile | 2000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 200 ug/mL |
| | | | | | VMANU8260ACR1_00101 | 10 uL | Acrolein | 200 ug/mL |
| ..VMA1582602CV1_00028 | 06/04/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| ..VMA158260GAS1_00203 | 06/19/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| ..VMA158260KET1_00042 | 06/04/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| ..VMA158260MEG1_00042 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| ..VMA158260VA1_00045 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| ..VMA178260ETH1_00008 | 06/04/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| ..VMA178260POL1_00008 | 06/04/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| ..VMANU8260ACR1_00101 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260200_00174** | 12/19/17 | 12/12/17 | Methanol, Lot 4506063 | 1 mL | VMA1582602CV1_00028 | 80 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |
| | | | | | VMA158260GAS1_00208 | 80 uL | Bromomethane | 200 ug/mL |
| | | | | | | | Butadiene | 200 ug/mL |
| | | | | | | | Chloroethane | 200 ug/mL |
| | | | | | | | Chloromethane | 200 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 200 ug/mL |
| | | | | | | | Dichlorofluoromethane | 200 ug/mL |
| | | | | | | | Trichlorofluoromethane | 200 ug/mL |
| | | | | | | | Vinyl chloride | 200 ug/mL |
| | | | | | VMA158260KET1_00042 | 16 uL | 2-Butanone (MEK) | 200 ug/mL |
| | | | | | | | 2-Hexanone | 200 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 200 ug/mL |
| | | | | | | | Acetone | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | VMA158260MEG1_00042 | 80 uL | 1,1,1,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 200 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 200 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 200 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 200 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 2-Chlorotoluene | 200 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 200 ug/mL |
| | | | | | | | 4-Chlorotoluene | 200 ug/mL |
| | | | | | | | Acrylonitrile | 2000 ug/mL |
| | | | | | | | Benzene | 200 ug/mL |
| | | | | | | | Bromobenzene | 200 ug/mL |
| | | | | | | | Bromochloromethane | 200 ug/mL |
| | | | | | | | Bromodichloromethane | 200 ug/mL |
| | | | | | | | Bromoform | 200 ug/mL |
| | | | | | | | Carbon disulfide | 200 ug/mL |
| | | | | | | | Carbon tetrachloride | 200 ug/mL |
| | | | | | | | Chlorobenzene | 200 ug/mL |
| | | | | | | | Chloroform | 200 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | Cyclohexane | 200 ug/mL |
| | | | | | | | Dibromochloromethane | 200 ug/mL |
| | | | | | | | Dibromomethane | 200 ug/mL |
| | | | | | | | Ethyl ether | 200 ug/mL |
| | | | | | | | Ethyl methacrylate | 200 ug/mL |
| | | | | | | | Ethylbenzene | 200 ug/mL |
| | | | | | | | Hexachlorobutadiene | 200 ug/mL |
| | | | | | | | Hexane | 200 ug/mL |
| | | | | | | | Iodomethane | 200 ug/mL |
| | | | | | | | Isobutyl alcohol | 5000 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Isopropylbenzene | 200 ug/mL |
| | | | | | | | m,p-Xylene | 200 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 200 ug/mL |
| | | | | | | | Methylcyclohexane | 200 ug/mL |
| | | | | | | | Methylene Chloride | 200 ug/mL |
| | | | | | | | n-Butylbenzene | 200 ug/mL |
| | | | | | | | n-Heptane | 200 ug/mL |
| | | | | | | | N-Propylbenzene | 200 ug/mL |
| | | | | | | | Naphthalene | 200 ug/mL |
| | | | | | | | o-Xylene | 200 ug/mL |
| | | | | | | | p-Isopropyltoluene | 200 ug/mL |
| | | | | | | | sec-Butylbenzene | 200 ug/mL |
| | | | | | | | Styrene | 200 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 2000 ug/mL |
| | | | | | | | tert-Butylbenzene | 200 ug/mL |
| | | | | | | | Tetrachloroethene | 200 ug/mL |
| | | | | | | | Tetrahydrofuran | 400 ug/mL |
| | | | | | | | Toluene | 200 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 200 ug/mL |
| | | | | | | | Trichloroethene | 200 ug/mL |
| | | | | | VMA158260VA1_00045 | 40 uL | Vinyl acetate | 200 ug/mL |
| | | | | | VMA178260ETH1_00008 | 100 uL | Ethanol | 10000 ug/mL |
| | | | | | VMA178260POL1_00008 | 80 uL | Acetonitrile | 2000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 200 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 200 ug/mL |
| | | | | | | | Propionitrile | 2000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 200 ug/mL |
| | | | | | VMANU8260ACR1_00101 | 10 uL | Acrolein | 200 ug/mL |
| .VMA1582602CV1_00028 | 06/04/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| .VMA158260GAS1_00208 | 06/12/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00042 | 06/04/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00042 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA158260VA1_00045 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| .VMA178260ETH1_00008 | 06/04/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| .VMA178260POL1_00008 | 06/04/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| .VMANU8260ACR1_00101 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260200_00175** | 12/26/17 | 12/19/17 | Methanol, Lot 4506060 | 1 mL | VMA1582602CV1_00028 | 80 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |
| | | | | | VMA158260GAS1_00203 | 80 uL | Bromomethane | 200 ug/mL |
| | | | | | | | Butadiene | 200 ug/mL |
| | | | | | | | Chloroethane | 200 ug/mL |
| | | | | | | | Chloromethane | 200 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 200 ug/mL |
| | | | | | | | Dichlorofluoromethane | 200 ug/mL |
| | | | | | | | Trichlorofluoromethane | 200 ug/mL |
| | | | | | | | Vinyl chloride | 200 ug/mL |
| | | | | | VMA158260KET1_00042 | 16 uL | 2-Butanone (MEK) | 200 ug/mL |
| | | | | | | | 2-Hexanone | 200 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 200 ug/mL |
| | | | | | | | Acetone | 200 ug/mL |
| | | | | | VMA158260MEG1_00042 | 80 uL | 1,1,1,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,1-Dichloroethene | 200 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 200 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 200 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 200 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 2-Chlorotoluene | 200 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 200 ug/mL |
| | | | | | | | 4-Chlorotoluene | 200 ug/mL |
| | | | | | | | Acrylonitrile | 2000 ug/mL |
| | | | | | | | Benzene | 200 ug/mL |
| | | | | | | | Bromobenzene | 200 ug/mL |
| | | | | | | | Bromochloromethane | 200 ug/mL |
| | | | | | | | Bromodichloromethane | 200 ug/mL |
| | | | | | | | Bromoform | 200 ug/mL |
| | | | | | | | Carbon disulfide | 200 ug/mL |
| | | | | | | | Carbon tetrachloride | 200 ug/mL |
| | | | | | | | Chlorobenzene | 200 ug/mL |
| | | | | | | | Chloroform | 200 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | Cyclohexane | 200 ug/mL |
| | | | | | | | Dibromochloromethane | 200 ug/mL |
| | | | | | | | Dibromomethane | 200 ug/mL |
| | | | | | | | Ethyl ether | 200 ug/mL |
| | | | | | | | Ethyl methacrylate | 200 ug/mL |
| | | | | | | | Ethylbenzene | 200 ug/mL |
| | | | | | | | Hexachlorobutadiene | 200 ug/mL |
| | | | | | | | Hexane | 200 ug/mL |
| | | | | | | | Iodomethane | 200 ug/mL |
| | | | | | | | Isobutyl alcohol | 5000 ug/mL |
| | | | | | | | Isopropylbenzene | 200 ug/mL |
| | | | | | | | m,p-Xylene | 200 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 200 ug/mL |
| | | | | | | | Methylcyclohexane | 200 ug/mL |
| | | | | | | | Methylene Chloride | 200 ug/mL |
| | | | | | | | n-Butylbenzene | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | n-Heptane | 200 ug/mL |
| | | | | | | | N-Propylbenzene | 200 ug/mL |
| | | | | | | | Naphthalene | 200 ug/mL |
| | | | | | | | o-Xylene | 200 ug/mL |
| | | | | | | | p-Isopropyltoluene | 200 ug/mL |
| | | | | | | | sec-Butylbenzene | 200 ug/mL |
| | | | | | | | Styrene | 200 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 2000 ug/mL |
| | | | | | | | tert-Butylbenzene | 200 ug/mL |
| | | | | | | | Tetrachloroethene | 200 ug/mL |
| | | | | | | | Tetrahydrofuran | 400 ug/mL |
| | | | | | | | Toluene | 200 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 200 ug/mL |
| | | | | | | | Trichloroethene | 200 ug/mL |
| | | | | | VMA158260VA1_00045 | 40 uL | Vinyl acetate | 200 ug/mL |
| | | | | | VMA178260ETH1_00008 | 100 uL | Ethanol | 10000 ug/mL |
| | | | | | VMA178260POL1_00008 | 80 uL | Acetonitrile | 2000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 200 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 200 ug/mL |
| | | | | | | | Propionitrile | 2000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 200 ug/mL |
| | | | | | VMANU8260ACR1_00101 | 10 uL | Acrolein | 200 ug/mL |
| .VMA1582602CV1_00028 | 06/04/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| .VMA158260GAS1_00203 | 06/19/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00042 | 06/04/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00042 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA158260VA1_00045 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| .VMA178260ETH1_00008 | 06/04/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| .VMA178260POL1_00008 | 06/04/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| .VMANU8260ACR1_00101 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260CCV1_00855** | 12/19/17 | 12/12/17 | Methanol, Lot 4506063 | 1 mL | VMA1582602CV1_00028 | 20 uL | 2-Chloroethyl vinyl ether | 50 ug/mL |
| | | | | | VMA158260GAS1_00208 | 20 uL | Bromomethane | 50 ug/mL |
| | | | | | | | Butadiene | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 50 ug/mL |
| | | | | | | | Dichlorofluoromethane | 50 ug/mL |
| | | | | | | | Trichlorofluoromethane | 50 ug/mL |
| | | | | | | | Vinyl chloride | 50 ug/mL |
| | | | | | VMA158260KET1_00042 | 4 uL | 2-Butanone (MEK) | 50 ug/mL |
| | | | | | | | 2-Hexanone | 50 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ug/mL |
| | | | | | | | Acetone | 50 ug/mL |
| | | | | | VMA158260MEG1_00042 | 20 uL | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | Acrylonitrile | 500 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromochloromethane | 50 ug/mL |
| | | | | | | | Bromodichloromethane | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon disulfide | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Cyclohexane | 50 ug/mL |
| | | | | | | | Dibromochloromethane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Ethyl ether | 50 ug/mL |
| | | | | | | | Ethyl methacrylate | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Hexane | 50 ug/mL |
| | | | | | | | Iodomethane | 50 ug/mL |
| | | | | | | | Isobutyl alcohol | 1250 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m,p-Xylene | 50 ug/mL |
| | | | | | | | Methyl acetate | 250 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ug/mL |
| | | | | | | | Methylcyclohexane | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | n-Heptane | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | p-Isopropyltoluene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Tetrahydrofuran | 100 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | VMA158260VA1_00045 | 8 uL | Vinyl acetate | 40 ug/mL |
| | | | | | VMA178260ETH1_00008 | 20 uL | Ethanol | 2000 ug/mL |
| | | | | | VMA178260POL1_00008 | 20 uL | Acetonitrile | 500 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 50 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ug/mL |
| | | | | | | | Propionitrile | 500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ug/mL |
| | | | | | VMANU8260ACR1_00101 | 2.5 uL | Acrolein | 50 ug/mL |
| .VMA1582602CV1_00028 | 06/04/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| .VMA158260GAS1_00208 | 06/12/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00042 | 06/04/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00042 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA158260VA1_00045 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| .VMA178260ETH1_00008 | 06/04/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| .VMA178260POL1_00008 | 06/04/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| .VMANU8260ACR1_00101 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260CCV1_00860** | 12/26/17 | 12/19/17 | Methanol, Lot 4506060 | 1 mL | VMA1582602CV1_00028 | 20 uL | 2-Chloroethyl vinyl ether | 50 ug/mL |
| | | | | | VMA158260GAS1_00203 | 20 uL | Bromomethane | 50 ug/mL |
| | | | | | | | Butadiene | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 50 ug/mL |
| | | | | | | | Dichlorofluoromethane | 50 ug/mL |
| | | | | | | | Trichlorofluoromethane | 50 ug/mL |
| | | | | | | | Vinyl chloride | 50 ug/mL |
| | | | | | VMA158260KET1_00042 | 4 uL | 2-Butanone (MEK) | 50 ug/mL |
| | | | | | | | 2-Hexanone | 50 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ug/mL |
| | | | | | | | Acetone | 50 ug/mL |
| | | | | | VMA158260MEG1_00042 | 20 uL | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | Acrylonitrile | 500 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromochloromethane | 50 ug/mL |
| | | | | | | | Bromodichloromethane | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon disulfide | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Cyclohexane | 50 ug/mL |
| | | | | | | | Dibromochloromethane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Ethyl ether | 50 ug/mL |
| | | | | | | | Ethyl methacrylate | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Hexane | 50 ug/mL |
| | | | | | | | Iodomethane | 50 ug/mL |
| | | | | | | | Isobutyl alcohol | 1250 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m,p-Xylene | 50 ug/mL |
| | | | | | | | Methyl acetate | 250 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ug/mL |
| | | | | | | | Methylcyclohexane | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | n-Heptane | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | p-Isopropyltoluene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Tetrahydrofuran | 100 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | VMA158260VA1_00045 | 8 uL | Vinyl acetate | 40 ug/mL |
| | | | | | VMA178260ETH1_00008 | 20 uL | Ethanol | 2000 ug/mL |
| | | | | | VMA178260POL1_00008 | 20 uL | Acetonitrile | 500 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 50 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ug/mL |
| | | | | | | | Propionitrile | 500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ug/mL |
| | | | | | VMANU8260ACR1_00101 | 2.5 uL | Acrolein | 50 ug/mL |
| .VMA1582602CV1_00028 | 06/04/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| .VMA158260GAS1_00203 | 06/19/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00042 | 06/04/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00042 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA158260VA1_00045 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| .VMA178260ETH1_00008 | 06/04/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| .VMA178260POL1_00008 | 06/04/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| .VMANU8260ACR1_00101 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260CCV1_00883** | 01/23/18 | 01/16/18 | Methanol, Lot 4506057 | 1 mL | VMA158260GAS1_00213 | 20 uL | Bromomethane | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 50 ug/mL |
| | | | | | | | Trichlorofluoromethane | 50 ug/mL |
| | | | | | | | Vinyl chloride | 50 ug/mL |
| | | | | | VMA158260KET1_00046 | 4 uL | 2-Butanone (MEK) | 50 ug/mL |
| | | | | | | | 2-Hexanone | 50 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ug/mL |
| | | | | | | | Acetone | 50 ug/mL |
| | | | | | VMA158260MEG1_00043 | 20 uL | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromochloromethane | 50 ug/mL |
| | | | | | | | Bromodichloromethane | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Dibromochloromethane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m,p-Xylene | 50 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | p-Isopropyltoluene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | VMA178260POL1_00009 | 20 uL | Ethyl-t-butyl ether (ETBE) | 50 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ug/mL |
| .VMA158260GAS1_00213 | 07/16/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00046 | 06/26/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00043 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL1_00009 | 06/26/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNU8260IS_00172** | 12/28/17 | 11/28/17 | Methanol, Lot 4506064 | 1 mL | VMANU8260ISD1_00185 | 20 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00201 | 25 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00185 | 05/09/18 | | Restek, Lot A0128916 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00201 | 05/09/18 | | Restek, Lot A0128685 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260IS_00173** | 01/12/18 | 12/12/17 | Methanol, Lot 4506063 | 1 mL | VMANU8260ISD1_00189 | 20 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00198 | 25 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00189 | 06/12/18 | | Restek, Lot A0128916 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00198 | 06/12/18 | | Restek, Lot A0128685 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00134** | 01/12/18 | 12/12/17 | Methanol, Lot 4506056 | 40 mL | VMANU8260ISD1_00188 | 800 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00200 | 1000 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00188 | 06/12/18 | | Restek, Lot A0128916 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00200 | 06/12/18 | | Restek, Lot A0128685 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00134** | 01/12/18 | 12/12/17 | Methanol, Lot 4506056 | 40 mL | VMANU8260SUR2_00036 | 800 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR2_00036 | 05/08/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNU8260ISS_00135** | 01/27/18 | 12/27/17 | Methanol, Lot 4506063 | 40 mL | VMANU8260ISD1_00191 | 800 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00202 | 1000 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00191 | 06/27/18 | | Restek, Lot A0128916 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00202 | 06/27/18 | | Restek, Lot A0128685 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00135** | 01/27/18 | 12/27/17 | Methanol, Lot 4506063 | 40 mL | VMANU8260SUR2_00036 | 800 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR2_00036 | 05/08/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **VMWNU8260LCS2_00169** | 12/20/17 | 12/13/17 | Methanol, Lot 4506064 | 10 mL | VMA158260GAS2_00224 | 200 uL | Bromomethane | 50 ppm |
| | | | | | | | Chloroethane | 50 ppm |
| | | | | | | | Chloromethane | 50 ppm |
| | | | | | | | Dichlorodifluoromethane | 50 ppm |
| | | | | | | | Trichlorofluoromethane | 50 ppm |
| | | | | | | | Vinyl chloride | 50 ppm |
| | | | | | VMA158260KET2_00041 | 40 uL | 2-Butanone (MEK) | 50 ppm |
| | | | | | | | 2-Hexanone | 50 ppm |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ppm |
| | | | | | | | Acetone | 50 ppm |
| | | | | | VMA158260MEG2_00052 | 200 uL | 1,1,1,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,1-Trichloroethane | 50 ppm |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,2-Trichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethene | 50 ppm |
| | | | | | | | 1,1-Dichloropropene | 50 ppm |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,3-Trichloropropane | 50 ppm |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ppm |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ppm |
| | | | | | | | 1,2-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,2-Dichloroethane | 50 ppm |
| | | | | | | | 1,2-Dichloropropane | 50 ppm |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,3-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,3-Dichloropropane | 50 ppm |
| | | | | | | | 1,4-Dichlorobenzene | 50 ppm |
| | | | | | | | 2,2-Dichloropropane | 50 ppm |
| | | | | | | | 2-Chlorotoluene | 50 ppm |
| | | | | | | | 4-Chlorotoluene | 50 ppm |
| | | | | | | | Benzene | 50 ppm |
| | | | | | | | Bromobenzene | 50 ppm |
| | | | | | | | Bromochloromethane | 50 ppm |
| | | | | | | | Bromodichloromethane | 50 ppm |
| | | | | | | | Bromoform | 50 ppm |
| | | | | | | | Carbon tetrachloride | 50 ppm |
| | | | | | | | Chlorobenzene | 50 ppm |
| | | | | | | | Chloroform | 50 ppm |
| | | | | | | | cis-1,2-Dichloroethene | 50 ppm |
| | | | | | | | cis-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Dibromochloromethane | 50 ppm |
| | | | | | | | Dibromomethane | 50 ppm |
| | | | | | | | Ethylbenzene | 50 ppm |
| | | | | | | | Hexachlorobutadiene | 50 ppm |
| | | | | | | | Isopropylbenzene | 50 ppm |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | m,p-Xylene | 50 ppm |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ppm |
| | | | | | | | Methylene Chloride | 50 ppm |
| | | | | | | | n-Butylbenzene | 50 ppm |
| | | | | | | | N-Propylbenzene | 50 ppm |
| | | | | | | | Naphthalene | 50 ppm |
| | | | | | | | o-Xylene | 50 ppm |
| | | | | | | | p-Isopropyltoluene | 50 ppm |
| | | | | | | | sec-Butylbenzene | 50 ppm |
| | | | | | | | Styrene | 50 ppm |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ppm |
| | | | | | | | tert-Butylbenzene | 50 ppm |
| | | | | | | | Tetrachloroethene | 50 ppm |
| | | | | | | | Toluene | 50 ppm |
| | | | | | | | trans-1,2-Dichloroethene | 50 ppm |
| | | | | | | | trans-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Trichloroethene | 50 ppm |
| | | | | | VMA178260POL2_00010 | 200 uL | Ethyl-t-butyl ether (ETBE) | 50 ppm |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ppm |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ppm |
| .VMA158260GAS2_00224 | 06/13/18 | | Restek, Lot A0128832 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET2_00041 | 05/29/18 | | Restek, Lot A0123880 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG2_00052 | 05/29/18 | | Restek, Lot A0120604 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL2_00010 | 05/29/18 | | Restek, Lot A0126826 | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNU8260LCS2_00174** | 01/24/18 | 01/17/18 | Methanol, Lot 4506057 | 10 mL | VMA158260GAS2_00232 | 200 uL | Bromomethane | 50 ppm |
| | | | | | | | Chloroethane | 50 ppm |
| | | | | | | | Chloromethane | 50 ppm |
| | | | | | | | Dichlorodifluoromethane | 50 ppm |
| | | | | | | | Trichlorofluoromethane | 50 ppm |
| | | | | | | | Vinyl chloride | 50 ppm |
| | | | | | VMA158260KET2_00042 | 40 uL | 2-Butanone (MEK) | 50 ppm |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 2-Hexanone | 50 ppm |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ppm |
| | | | | | | | Acetone | 50 ppm |
| | | | | | VMA158260MEG2_00053 | 200 uL | 1,1,1,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,1-Trichloroethane | 50 ppm |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,2-Trichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethene | 50 ppm |
| | | | | | | | 1,1-Dichloropropene | 50 ppm |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,3-Trichloropropane | 50 ppm |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ppm |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ppm |
| | | | | | | | 1,2-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,2-Dichloroethane | 50 ppm |
| | | | | | | | 1,2-Dichloropropane | 50 ppm |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,3-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,3-Dichloropropane | 50 ppm |
| | | | | | | | 1,4-Dichlorobenzene | 50 ppm |
| | | | | | | | 2,2-Dichloropropane | 50 ppm |
| | | | | | | | 2-Chlorotoluene | 50 ppm |
| | | | | | | | 4-Chlorotoluene | 50 ppm |
| | | | | | | | Benzene | 50 ppm |
| | | | | | | | Bromobenzene | 50 ppm |
| | | | | | | | Bromochloromethane | 50 ppm |
| | | | | | | | Bromodichloromethane | 50 ppm |
| | | | | | | | Bromoform | 50 ppm |
| | | | | | | | Carbon tetrachloride | 50 ppm |
| | | | | | | | Chlorobenzene | 50 ppm |
| | | | | | | | Chloroform | 50 ppm |
| | | | | | | | cis-1,2-Dichloroethene | 50 ppm |
| | | | | | | | cis-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Dibromochloromethane | 50 ppm |
| | | | | | | | Dibromomethane | 50 ppm |
| | | | | | | | Ethylbenzene | 50 ppm |
| | | | | | | | Hexachlorobutadiene | 50 ppm |
| | | | | | | | Isopropylbenzene | 50 ppm |
| | | | | | | | m,p-Xylene | 50 ppm |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ppm |
| | | | | | | | Methylene Chloride | 50 ppm |
| | | | | | | | n-Butylbenzene | 50 ppm |
| | | | | | | | N-Propylbenzene | 50 ppm |
| | | | | | | | Naphthalene | 50 ppm |
| | | | | | | | o-Xylene | 50 ppm |

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | p-Isopropyltoluene | 50 ppm |
| | | | | | | | sec-Butylbenzene | 50 ppm |
| | | | | | | | Styrene | 50 ppm |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ppm |
| | | | | | | | tert-Butylbenzene | 50 ppm |
| | | | | | | | Tetrachloroethene | 50 ppm |
| | | | | | | | Toluene | 50 ppm |
| | | | | | | | trans-1,2-Dichloroethene | 50 ppm |
| | | | | | | | trans-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Trichloroethene | 50 ppm |
| | | | | | VMA178260POL2_00011 | 200 uL | Ethyl-t-butyl ether (ETBE) | 50 ppm |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ppm |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ppm |
| .VMA158260GAS2_00232 | 07/17/18 | | Restek, Lot A0132373 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET2_00042 | 06/27/18 | | Restek, Lot A0123880 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG2_00053 | 06/27/18 | | Restek, Lot A0120604 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL2_00011 | 06/27/18 | | Restek, Lot A0126826 | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNUSURR200_00172** | 01/12/18 | 12/12/17 | Methanol, Lot 4506063 | 1 mL | VMANU8260SUR1_00064 | 80 uL | 1,2-Dichloroethane-d4 (Surr) | 200 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 200 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 200 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 200 ug/mL |
| .VMANU8260SUR1_00064 | 05/28/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNUSURR200_00173** | 01/19/18 | 12/19/17 | Methanol, Lot 4506060 | 1 mL | VMANU8260SUR1_00065 | 80 uL | 1,2-Dichloroethane-d4 (Surr) | 200 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 200 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 200 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 200 ug/mL |
| .VMANU8260SUR1_00065 | 06/19/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNUSURR50_00172** | 01/12/18 | 12/12/17 | Methanol, Lot 4506063 | 1 mL | VMANU8260SUR1_00064 | 20 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR1_00064 | 05/28/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNUSURR50_00173** | 01/19/18 | 12/19/17 | Methanol, Lot 4506060 | 1 mL | VMANU8260SUR1_00065 | 20 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR1_00065 | 06/19/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **WC3001ICV_00036** | 05/31/18 | 12/08/17 | Di Water, Lot 20171208 | 100 mL | WC2CHLORATE_00004 | 0.4 mL | Chlorate | 4.004 mg/L |
| | | | | | WC2CHLORITE_00019 | 0.4 mL | Chlorite | 4 mg/L |
| .WC2CHLORATE_00004 | 11/30/20 | | Ultra Scientific, Lot CP-5286 | | (Purchased Reagent) | | Chlorate | 1001 mg/L |
| .WC2CHLORITE_00019 | 05/31/18 | | Ultra Scientific, Lot CR-24923 | | (Purchased Reagent) | | Chlorite | 1000 mg/L |
| **WC3001LCS_00059** | 06/08/18 | 12/08/17 | Di Water, Lot 20171208 | 100 mL | WC1BROMATE_00008 | 0.1 mL | Bromate | 1 mg/L |
| | | | | | WC1CHLORATE_00009 | 0.4 mL | Chlorate | 4 mg/L |
| | | | | | WC1CHLORITE_00008 | 0.4 mL | Chlorite | 4 mg/L |
| | | | | | wcbromide_00014 | 0.1 mL | Bromide | 10 mg/L |
| .WC1BROMATE_00008 | 01/01/19 | | O2Si, Lot 131599-4 | | (Purchased Reagent) | | Bromate | 1000 mg/L |
| .WC1CHLORATE_00009 | 01/01/19 | | O2Si, Lot 142627-2 | | (Purchased Reagent) | | Chlorate | 1000 mg/L |
| .WC1CHLORITE_00008 | 11/27/19 | | O2Si, Lot 146667-16 | | (Purchased Reagent) | | Chlorite | 1000 mg/L |
| .wcbromide_00014 | 09/28/18 | | Hgh Purity Standards, Lot 1615819 | | (Purchased Reagent) | | Bromide | 10000 ug/mL |
| **WC314.INF10_00020** | 01/18/18 | 01/17/18 | DI water, Lot 20180117 | 50 mL | WCCLO41st-10_00013 | 0.05 mL | Perchlorate | 10 ppb |
| .WCCLO41st-10_00013 | 01/29/18 | 11/30/17 | Di Water, Lot 20171130 | 100 mL | WCCLO4-1st_00002 | 1 mL | Perchlorate | 10 mg/L |
| ..WCCLO4-1st_00002 | 01/30/18 | | SPEX CERTIPREP, Lot 3-149CLO4-2Y | | (Purchased Reagent) | | Perchlorate | 1000 mg/L |
| **WCCLO41st-10_00012** | 01/29/18 | 11/29/17 | Di Water, Lot 20171129 | 100 mL | WCCLO4-1st_00002 | 1 mL | Perchlorate | 10 mg/L |
| .WCCLO4-1st_00002 | 01/30/18 | | SPEX CERTIPREP, Lot 3-149CLO4-2Y | | (Purchased Reagent) | | Perchlorate | 1000 mg/L |
| **WCCLO4ICV10_00029** | 03/10/18 | 12/08/17 | Di Water, Lot 12/10/2017 | 100 mL | WCCLO4ICV_00016 | 1 mL | Perchlorate | 10.0002 mg/L |
| .WCCLO4ICV_00016 | 12/10/18 | 12/08/17 | Di Water, Lot 12/10/2017 | 250 mL | WCCLO4ICVSOLI_00002 | 0.3078 g | Perchlorate | 1000.02 mg/L |
| ..WCCLO4ICVSOLI_00002 | 06/01/22 | | SPECTRUM, Lot 2FH0070 | | (Purchased Reagent) | | Perchlorate | 0.81223 g/g |
| **WCCR6ICV5PPM_00051** | 11/02/17 | 10/02/17 | Di Water, Lot 20171002 | 50 mL | WCCR6ICV_00023 | 5 mL | Chromium, hexavalent | 4.99849 mg/L |
| .WCCR6ICV_00023 | 04/02/18 | 10/02/17 | Di Water, Lot 20170323 | 1000 mL | WCK2CR2O7_00003 | 0.1414 g | Chromium, hexavalent | 49.9849 mg/L |
| ..WCK2CR2O7_00003 | 03/22/22 | | FISHER, Lot 166724 | | (Purchased Reagent) | | Chromium, hexavalent | 0.3535 g/g |
| **WCCR6LCS50PPM_00038** | 05/21/18 | 11/21/17 | Di Water, Lot 20171121 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| .WCCr6 K2Cr2O4_00009 | 04/30/19 | | ERA, Lot 040416 | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **WCCR6LCS5PPM_00098** | 10/21/17 | 09/21/17 | Di Water, Lot 201709021 | 50 mL | WCCR6LCS50PPM_00037 | 5 mL | Chromium, hexavalent | 5 mg/L |
| .WCCR6LCS50PPM_00037 | 12/03/17 | 06/05/17 | Di Water, Lot 20170605 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| ..WCCr6 K2Cr2O4_00009 | 04/30/19 | ERA, Lot 040416 | | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCCR6LCS5PPM_00103** | 01/26/18 | 12/26/17 | Di Water, Lot 20171226 | 50 mL | WCCR6LCS50PPM_00038 | 5 mL | Chromium, hexavalent | 5 mg/L |
| .WCCR6LCS50PPM_00038 | 05/21/18 | 11/21/17 | Di Water, Lot 20171121 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| ..WCCr6 K2Cr2O4_00009 | 04/30/19 | ERA, Lot 040416 | | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCDCA_00055** | 03/08/18 | 12/08/17 | Di Water, Lot 20171208 | 100 mL | WCKDCA_00003 | 0.065 g | Dichloroacetic acid(Surr) | 496.855 mg/L |
| .WCKDCA_00003 | 02/28/20 | Aldrich, Lot MKBR8264V | | | (Purchased Reagent) | | Dichloroacetic acid(Surr) | 0.764393 g/g |
| **WCDCA_00056** | 03/26/18 | 12/26/17 | Di Water, Lot 20171226 | 100 mL | WCKDCA_00003 | 0.065 g | Dichloroacetic acid(Surr) | 496.855 mg/L |
| .WCKDCA_00003 | 02/28/20 | Aldrich, Lot MKBR8264V | | | (Purchased Reagent) | | Dichloroacetic acid(Surr) | 0.764393 g/g |

# Method 8260B Low Level

## Volatile Organic Compounds (GC/MS) by Method 8260B Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Matrix: Water  Level: Low

GC Column (1): DB-VRX B  ID: 0.25(mm)

| Client Sample ID | Lab Sample ID | DBFM # | TOL # | BFB # |
|---|---|---|---|---|
| VER-01I-C-24 | 440-201049-1 | 109 | 98 | 90 |
| TB-011618 | 440-201049-2 | 100 | 108 | 108 |
| VER-01I-C-36 | 440-201049-3 | 99 | 109 | 107 |
| | MB 440-452744/4 | 99 | 111 | 110 |
| | MB 440-452941/4 | 116 | 96 | 88 |
| | LCS 440-452744/5 | 96 | 105 | 108 |
| | LCS 440-452941/5 | 109 | 98 | 88 |
| | LCSD 440-452744/18 | 98 | 106 | 111 |
| VER-01I-C-36 MS | 440-201049-3 MS | 98 | 104 | 110 |
| | 440-201302-D-8 MS | 108 | 95 | 87 |
| VER-01I-C-36 MSD | 440-201049-3 MSD | 97 | 102 | 109 |
| | 440-201302-D-8 MSD | 105 | 96 | 87 |

| | QC LIMITS |
|---|---|
| DBFM = Dibromofluoromethane (Surr) | 76-132 |
| TOL = Toluene-d8 (Surr) | 80-128 |
| BFB = 4-Bromofluorobenzene (Surr) | 80-120 |

# Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: GGA19035.D

Lab ID: LCS 440-452744/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Acetone | 25.0 | 27.8 | 111 | 10-150 | |
| Benzene | 25.0 | 23.1 | 93 | 68-130 | |
| Bromobenzene | 25.0 | 28.2 | 113 | 70-130 | |
| Bromochloromethane | 25.0 | 24.1 | 96 | 70-130 | |
| Bromodichloromethane | 25.0 | 26.6 | 106 | 70-132 | |
| Bromoform | 25.0 | 28.4 | 113 | 60-148 | |
| Bromomethane | 25.0 | 23.7 | 95 | 64-139 | |
| 2-Butanone (MEK) | 25.0 | 22.9 | 91 | 44-150 | |
| Carbon tetrachloride | 25.0 | 28.2 | 113 | 60-150 | |
| Chlorobenzene | 25.0 | 26.9 | 108 | 70-130 | |
| Chloroethane | 25.0 | 22.7 | 91 | 64-135 | |
| Chloroform | 25.0 | 26.1 | 104 | 70-130 | |
| Chloromethane | 25.0 | 23.9 | 96 | 47-140 | |
| 2-Chlorotoluene | 25.0 | 27.9 | 112 | 70-130 | |
| 4-Chlorotoluene | 25.0 | 28.8 | 115 | 70-130 | |
| cis-1,2-Dichloroethene | 25.0 | 24.2 | 97 | 70-133 | |
| cis-1,3-Dichloropropene | 25.0 | 28.8 | 115 | 70-133 | |
| Dibromochloromethane | 25.0 | 31.4 | 126 | 69-145 | |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 30.7 | 123 | 52-140 | |
| 1,2-Dibromoethane (EDB) | 25.0 | 29.5 | 118 | 70-130 | |
| Dibromomethane | 25.0 | 26.0 | 104 | 70-130 | |
| 1,2-Dichlorobenzene | 25.0 | 28.5 | 114 | 70-130 | |
| 1,3-Dichlorobenzene | 25.0 | 27.6 | 110 | 70-130 | |
| 1,4-Dichlorobenzene | 25.0 | 28.1 | 112 | 70-130 | |
| Dichlorodifluoromethane | 25.0 | 25.2 | 101 | 29-150 | |
| 1,1-Dichloroethane | 25.0 | 25.4 | 102 | 64-130 | |
| 1,2-Dichloroethane | 25.0 | 27.3 | 109 | 57-138 | |
| 1,1-Dichloroethene | 25.0 | 20.3 | 81 | 70-130 | |
| 1,2-Dichloropropane | 25.0 | 26.6 | 106 | 67-130 | |
| 1,3-Dichloropropane | 25.0 | 28.3 | 113 | 70-130 | |
| 2,2-Dichloropropane | 25.0 | 32.5 | 130 | 68-141 | |
| 1,1-Dichloropropene | 25.0 | 26.9 | 108 | 70-130 | |
| Ethylbenzene | 25.0 | 27.1 | 108 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 25.6 | 102 | 60-136 | |
| Hexachlorobutadiene | 25.0 | 31.0 | 124 | 10-150 | |
| 2-Hexanone | 25.0 | 33.8 | 135 | 10-150 | |
| Isopropylbenzene | 25.0 | 27.1 | 108 | 70-136 | |
| Isopropyl Ether (DIPE) | 25.0 | 27.7 | 111 | 58-139 | |
| Methylene Chloride | 25.0 | 19.9 | 80 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 33.7 | 135 | 59-149 | |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 23.9 | 95 | 63-131 | |
| m,p-Xylene | 25.0 | 27.6 | 110 | 70-130 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: GGA19035.D

Lab ID: LCS 440-452744/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Naphthalene | 25.0 | 30.1 | 120 | 60-140 | |
| n-Butylbenzene | 25.0 | 29.5 | 118 | 65-150 | |
| N-Propylbenzene | 25.0 | 29.5 | 118 | 67-139 | |
| o-Xylene | 25.0 | 26.2 | 105 | 70-130 | |
| p-Isopropyltoluene | 25.0 | 29.0 | 116 | 70-132 | |
| sec-Butylbenzene | 25.0 | 28.2 | 113 | 70-138 | |
| Styrene | 25.0 | 26.5 | 106 | 70-134 | |
| Tert-amyl-methyl ether (TAME) | 25.0 | 22.6 | 91 | 57-139 | |
| tert-Butyl alcohol (TBA) | 250 | 312 | 125 | 70-130 | |
| tert-Butylbenzene | 25.0 | 28.6 | 114 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 25.0 | 30.7 | 123 | 60-141 | |
| 1,1,2,2-Tetrachloroethane | 25.0 | 28.1 | 113 | 63-130 | |
| Tetrachloroethene | 25.0 | 27.8 | 111 | 70-130 | |
| Toluene | 25.0 | 26.9 | 107 | 70-130 | |
| trans-1,2-Dichloroethene | 25.0 | 25.1 | 101 | 70-130 | |
| trans-1,3-Dichloropropene | 25.0 | 30.3 | 121 | 70-132 | |
| 1,2,3-Trichlorobenzene | 25.0 | 31.5 | 126 | 60-140 | |
| 1,2,4-Trichlorobenzene | 25.0 | 30.6 | 122 | 60-140 | |
| 1,1,1-Trichloroethane | 25.0 | 26.5 | 106 | 70-130 | |
| 1,1,2-Trichloroethane | 25.0 | 28.9 | 116 | 70-130 | |
| Trichloroethene | 25.0 | 24.6 | 99 | 70-130 | |
| Trichlorofluoromethane | 25.0 | 26.7 | 107 | 60-150 | |
| 1,2,3-Trichloropropane | 25.0 | 28.8 | 115 | 63-130 | |
| 1,2,4-Trimethylbenzene | 25.0 | 28.4 | 114 | 70-135 | |
| 1,3,5-Trimethylbenzene | 25.0 | 28.5 | 114 | 70-136 | |
| Vinyl chloride | 25.0 | 25.2 | 101 | 59-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YGA22005.D

Lab ID: LCS 440-452941/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Acetone | 25.0 | 21.6 | 86 | 10-150 | |
| Benzene | 25.0 | 22.9 | 92 | 68-130 | |
| Bromobenzene | 25.0 | 25.6 | 103 | 70-130 | |
| Bromochloromethane | 25.0 | 29.9 | 120 | 70-130 | |
| Bromodichloromethane | 25.0 | 25.7 | 103 | 70-132 | |
| Bromoform | 25.0 | 30.1 | 120 | 60-148 | |
| Bromomethane | 25.0 | 29.5 | 118 | 64-139 | |
| 2-Butanone (MEK) | 25.0 | 23.1 | 92 | 44-150 | |
| Carbon tetrachloride | 25.0 | 29.6 | 118 | 60-150 | |
| Chlorobenzene | 25.0 | 25.3 | 101 | 70-130 | |
| Chloroethane | 25.0 | 23.4 | 94 | 64-135 | |
| Chloroform | 25.0 | 24.3 | 97 | 70-130 | |
| Chloromethane | 25.0 | 20.6 | 82 | 47-140 | |
| 2-Chlorotoluene | 25.0 | 22.2 | 89 | 70-130 | |
| 4-Chlorotoluene | 25.0 | 23.0 | 92 | 70-130 | |
| cis-1,2-Dichloroethene | 25.0 | 24.9 | 99 | 70-133 | |
| cis-1,3-Dichloropropene | 25.0 | 22.5 | 90 | 70-133 | |
| Dibromochloromethane | 25.0 | 27.6 | 110 | 69-145 | |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 22.2 | 89 | 52-140 | |
| 1,2-Dibromoethane (EDB) | 25.0 | 24.9 | 100 | 70-130 | |
| Dibromomethane | 25.0 | 25.2 | 101 | 70-130 | |
| 1,2-Dichlorobenzene | 25.0 | 26.1 | 105 | 70-130 | |
| 1,3-Dichlorobenzene | 25.0 | 25.4 | 102 | 70-130 | |
| 1,4-Dichlorobenzene | 25.0 | 25.3 | 101 | 70-130 | |
| Dichlorodifluoromethane | 25.0 | 27.6 | 111 | 29-150 | |
| 1,1-Dichloroethane | 25.0 | 22.1 | 88 | 64-130 | |
| 1,2-Dichloroethane | 25.0 | 25.3 | 101 | 57-138 | |
| 1,1-Dichloroethene | 25.0 | 25.6 | 102 | 70-130 | |
| 1,2-Dichloropropane | 25.0 | 21.0 | 84 | 67-130 | |
| 1,3-Dichloropropane | 25.0 | 21.5 | 86 | 70-130 | |
| 2,2-Dichloropropane | 25.0 | 26.7 | 107 | 68-141 | |
| 1,1-Dichloropropene | 25.0 | 25.4 | 101 | 70-130 | |
| Ethylbenzene | 25.0 | 24.9 | 99 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 23.9 | 96 | 60-136 | |
| Hexachlorobutadiene | 25.0 | 29.6 | 118 | 10-150 | |
| 2-Hexanone | 25.0 | 20.6 | 82 | 10-150 | |
| Isopropylbenzene | 25.0 | 28.7 | 115 | 70-136 | |
| Isopropyl Ether (DIPE) | 25.0 | 20.1 | 80 | 58-139 | |
| Methylene Chloride | 25.0 | 20.1 | 80 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 19.6 | 78 | 59-149 | |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 25.2 | 101 | 63-131 | |
| m,p-Xylene | 25.0 | 26.7 | 107 | 70-130 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YGA22005.D

Lab ID: LCS 440-452941/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Naphthalene | 25.0 | 26.1 | 105 | 60-140 | |
| n-Butylbenzene | 25.0 | 25.0 | 100 | 65-150 | |
| N-Propylbenzene | 25.0 | 23.8 | 95 | 67-139 | |
| o-Xylene | 25.0 | 27.4 | 110 | 70-130 | |
| p-Isopropyltoluene | 25.0 | 26.5 | 106 | 70-132 | |
| sec-Butylbenzene | 25.0 | 25.5 | 102 | 70-138 | |
| Styrene | 25.0 | 25.9 | 103 | 70-134 | |
| Tert-amyl-methyl ether (TAME) | 25.0 | 24.1 | 96 | 57-139 | |
| tert-Butyl alcohol (TBA) | 250 | 258 | 103 | 70-130 | |
| tert-Butylbenzene | 25.0 | 26.4 | 106 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 25.0 | 28.0 | 112 | 60-141 | |
| 1,1,2,2-Tetrachloroethane | 25.0 | 19.6 | 78 | 63-130 | |
| Tetrachloroethene | 25.0 | 29.1 | 116 | 70-130 | |
| Toluene | 25.0 | 24.7 | 99 | 70-130 | |
| trans-1,2-Dichloroethene | 25.0 | 26.2 | 105 | 70-130 | |
| trans-1,3-Dichloropropene | 25.0 | 23.4 | 94 | 70-132 | |
| 1,2,3-Trichlorobenzene | 25.0 | 28.4 | 114 | 60-140 | |
| 1,2,4-Trichlorobenzene | 25.0 | 27.5 | 110 | 60-140 | |
| 1,1,1-Trichloroethane | 25.0 | 28.2 | 113 | 70-130 | |
| 1,1,2-Trichloroethane | 25.0 | 22.4 | 89 | 70-130 | |
| Trichloroethene | 25.0 | 29.6 | 118 | 70-130 | |
| Trichlorofluoromethane | 25.0 | 32.3 | 129 | 60-150 | |
| 1,2,3-Trichloropropane | 25.0 | 23.1 | 92 | 63-130 | |
| 1,2,4-Trimethylbenzene | 25.0 | 23.8 | 95 | 70-135 | |
| 1,3,5-Trimethylbenzene | 25.0 | 25.6 | 102 | 70-136 | |
| Vinyl chloride | 25.0 | 24.5 | 98 | 59-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: GGA19048.D

Lab ID: LCSD 440-452744/18 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Acetone | 25.0 | 30.5 | 122 | 9 | 30 | 10-150 | |
| Benzene | 25.0 | 24.4 | 97 | 5 | 20 | 68-130 | |
| Bromobenzene | 25.0 | 28.2 | 113 | 0 | 20 | 70-130 | |
| Bromochloromethane | 25.0 | 25.2 | 101 | 4 | 20 | 70-130 | |
| Bromodichloromethane | 25.0 | 27.1 | 108 | 2 | 20 | 70-132 | |
| Bromoform | 25.0 | 28.0 | 112 | 1 | 25 | 60-148 | |
| Bromomethane | 25.0 | 24.3 | 97 | 2 | 20 | 64-139 | |
| 2-Butanone (MEK) | 25.0 | 22.7 | 91 | 1 | 35 | 44-150 | |
| Carbon tetrachloride | 25.0 | 29.7 | 119 | 5 | 25 | 60-150 | |
| Chlorobenzene | 25.0 | 26.5 | 106 | 1 | 20 | 70-130 | |
| Chloroethane | 25.0 | 24.4 | 98 | 7 | 20 | 64-135 | |
| Chloroform | 25.0 | 26.4 | 106 | 1 | 20 | 70-130 | |
| Chloromethane | 25.0 | 25.2 | 101 | 5 | 25 | 47-140 | |
| 2-Chlorotoluene | 25.0 | 29.0 | 116 | 4 | 20 | 70-130 | |
| 4-Chlorotoluene | 25.0 | 29.6 | 119 | 3 | 20 | 70-130 | |
| cis-1,2-Dichloroethene | 25.0 | 25.1 | 100 | 4 | 20 | 70-133 | |
| cis-1,3-Dichloropropene | 25.0 | 29.0 | 116 | 0 | 25 | 70-133 | |
| Dibromochloromethane | 25.0 | 31.1 | 124 | 1 | 20 | 69-145 | |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 31.4 | 126 | 2 | 30 | 52-140 | |
| 1,2-Dibromoethane (EDB) | 25.0 | 28.7 | 115 | 3 | 20 | 70-130 | |
| Dibromomethane | 25.0 | 25.8 | 103 | 1 | 20 | 70-130 | |
| 1,2-Dichlorobenzene | 25.0 | 28.4 | 114 | 1 | 20 | 70-130 | |
| 1,3-Dichlorobenzene | 25.0 | 28.7 | 115 | 4 | 20 | 70-130 | |
| 1,4-Dichlorobenzene | 25.0 | 28.9 | 116 | 3 | 20 | 70-130 | |
| Dichlorodifluoromethane | 25.0 | 27.8 | 111 | 10 | 30 | 29-150 | |
| 1,1-Dichloroethane | 25.0 | 25.5 | 102 | 0 | 20 | 64-130 | |
| 1,2-Dichloroethane | 25.0 | 28.1 | 112 | 3 | 20 | 57-138 | |
| 1,1-Dichloroethene | 25.0 | 22.9 | 91 | 12 | 20 | 70-130 | |
| 1,2-Dichloropropane | 25.0 | 25.7 | 103 | 3 | 20 | 67-130 | |
| 1,3-Dichloropropane | 25.0 | 27.2 | 109 | 4 | 20 | 70-130 | |
| 2,2-Dichloropropane | 25.0 | 33.3 | 133 | 2 | 25 | 68-141 | |
| 1,1-Dichloropropene | 25.0 | 27.3 | 109 | 2 | 20 | 70-130 | |
| Ethylbenzene | 25.0 | 27.5 | 110 | 1 | 20 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 25.0 | 100 | 2 | 20 | 60-136 | |
| Hexachlorobutadiene | 25.0 | 32.6 | 130 | 5 | 20 | 10-150 | |
| 2-Hexanone | 25.0 | 33.6 | 134 | 1 | 30 | 10-150 | |
| Isopropylbenzene | 25.0 | 27.9 | 111 | 3 | 20 | 70-136 | |
| Isopropyl Ether (DIPE) | 25.0 | 27.9 | 112 | 1 | 20 | 58-139 | |
| Methylene Chloride | 25.0 | 20.5 | 82 | 3 | 20 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 34.7 | 139 | 3 | 30 | 59-149 | |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 23.8 | 95 | 0 | 25 | 63-131 | |
| m,p-Xylene | 25.0 | 27.6 | 111 | 0 | 20 | 70-130 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: GGA19048.D

Lab ID: LCSD 440-452744/18 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Naphthalene | 25.0 | 31.1 | 124 | 3 | 25 | 60-140 | |
| n-Butylbenzene | 25.0 | 30.7 | 123 | 4 | 20 | 65-150 | |
| N-Propylbenzene | 25.0 | 30.7 | 123 | 4 | 20 | 67-139 | |
| o-Xylene | 25.0 | 26.7 | 107 | 2 | 20 | 70-130 | |
| p-Isopropyltoluene | 25.0 | 30.2 | 121 | 4 | 20 | 70-132 | |
| sec-Butylbenzene | 25.0 | 29.1 | 116 | 3 | 20 | 70-138 | |
| Styrene | 25.0 | 26.7 | 107 | 1 | 20 | 70-134 | |
| Tert-amyl-methyl ether (TAME) | 25.0 | 21.9 | 88 | 3 | 25 | 57-139 | |
| tert-Butyl alcohol (TBA) | 250 | 317 | 127 | 2 | 20 | 70-130 | |
| tert-Butylbenzene | 25.0 | 30.6 | 122 | 7 | 20 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 25.0 | 30.4 | 122 | 1 | 20 | 60-141 | |
| 1,1,2,2-Tetrachloroethane | 25.0 | 29.5 | 118 | 5 | 25 | 63-130 | |
| Tetrachloroethene | 25.0 | 28.4 | 114 | 2 | 20 | 70-130 | |
| Toluene | 25.0 | 26.9 | 107 | 0 | 20 | 70-130 | |
| trans-1,2-Dichloroethene | 25.0 | 25.5 | 102 | 1 | 20 | 70-130 | |
| trans-1,3-Dichloropropene | 25.0 | 30.3 | 121 | 0 | 20 | 70-132 | |
| 1,2,3-Trichlorobenzene | 25.0 | 32.9 | 132 | 5 | 20 | 60-140 | |
| 1,2,4-Trichlorobenzene | 25.0 | 31.3 | 125 | 2 | 20 | 60-140 | |
| 1,1,1-Trichloroethane | 25.0 | 27.9 | 112 | 5 | 20 | 70-130 | |
| 1,1,2-Trichloroethane | 25.0 | 28.3 | 113 | 2 | 20 | 70-130 | |
| Trichloroethene | 25.0 | 26.5 | 106 | 7 | 20 | 70-130 | |
| Trichlorofluoromethane | 25.0 | 29.2 | 117 | 9 | 20 | 60-150 | |
| 1,2,3-Trichloropropane | 25.0 | 30.1 | 120 | 4 | 20 | 63-130 | |
| 1,2,4-Trimethylbenzene | 25.0 | 29.6 | 118 | 4 | 20 | 70-135 | |
| 1,3,5-Trimethylbenzene | 25.0 | 29.7 | 119 | 4 | 20 | 70-136 | |
| Vinyl chloride | 25.0 | 26.6 | 106 | 5 | 30 | 59-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: GGA19038.D

Lab ID: 440-201049-3 MS Client ID: VER-01I-C-36 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Acetone | 250 | ND | 275 | 110 | 10-150 | |
| Benzene | 250 | ND | 238 | 95 | 66-130 | |
| Bromobenzene | 250 | ND | 284 | 114 | 70-130 | |
| Bromochloromethane | 250 | ND | 246 | 98 | 70-130 | |
| Bromodichloromethane | 250 | ND | 270 | 108 | 70-138 | |
| Bromoform | 250 | ND | 282 | 113 | 59-150 | |
| Bromomethane | 250 | ND | 237 | 95 | 62-131 | |
| 2-Butanone (MEK) | 250 | ND | 225 | 90 | 48-140 | |
| Carbon tetrachloride | 250 | ND | 281 | 112 | 60-150 | |
| Chlorobenzene | 250 | ND | 260 | 104 | 70-130 | |
| Chloroethane | 250 | ND | 233 | 93 | 68-130 | |
| Chloroform | 250 | 730 | 966 | 95 | 70-130 | |
| Chloromethane | 250 | ND | 237 | 95 | 39-144 | |
| 2-Chlorotoluene | 250 | ND | 281 | 112 | 70-130 | |
| 4-Chlorotoluene | 250 | ND | 285 | 114 | 70-130 | |
| cis-1,2-Dichloroethene | 250 | ND | 243 | 97 | 70-130 | |
| cis-1,3-Dichloropropene | 250 | ND | 288 | 115 | 70-133 | |
| Dibromochloromethane | 250 | ND | 305 | 122 | 70-148 | |
| 1,2-Dibromo-3-Chloropropane | 250 | ND | 297 | 119 | 48-140 | |
| 1,2-Dibromoethane (EDB) | 250 | ND | 285 | 114 | 70-131 | |
| Dibromomethane | 250 | ND | 251 | 100 | 70-130 | |
| 1,2-Dichlorobenzene | 250 | 5.7 | 290 | 114 | 70-130 | |
| 1,3-Dichlorobenzene | 250 | ND | 277 | 111 | 70-130 | |
| 1,4-Dichlorobenzene | 250 | ND | 289 | 116 | 70-130 | |
| Dichlorodifluoromethane | 250 | ND | 252 | 101 | 25-142 | |
| 1,1-Dichloroethane | 250 | ND | 252 | 101 | 65-130 | |
| 1,2-Dichloroethane | 250 | ND | 283 | 113 | 56-146 | |
| 1,1-Dichloroethene | 250 | ND | 213 | 85 | 70-130 | |
| 1,2-Dichloropropane | 250 | ND | 256 | 103 | 69-130 | |
| 1,3-Dichloropropane | 250 | ND | 279 | 112 | 70-130 | |
| 2,2-Dichloropropane | 250 | ND | 314 | 126 | 69-138 | |
| 1,1-Dichloropropene | 250 | ND | 269 | 108 | 64-130 | |
| Ethylbenzene | 250 | ND | 262 | 105 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 250 | ND | 249 | 100 | 70-130 | |
| Hexachlorobutadiene | 250 | ND | 307 | 123 | 10-150 | |
| 2-Hexanone | 250 | ND | 333 | 133 | 10-150 | |
| Isopropylbenzene | 250 | ND | 265 | 106 | 70-132 | |
| Isopropyl Ether (DIPE) | 250 | ND | 270 | 108 | 64-138 | |
| Methylene Chloride | 250 | ND | 206 | 82 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 250 | ND | 330 | 132 | 52-150 | |
| Methyl-t-Butyl Ether (MTBE) | 250 | ND | 234 | 94 | 70-130 | |
| m,p-Xylene | 250 | ND | 269 | 108 | 70-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: GGA19038.D

Lab ID: 440-201049-3 MS Client ID: VER-01I-C-36 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Naphthalene | 250 | ND | 298 | 119 | 60-140 | |
| n-Butylbenzene | 250 | ND | 288 | 115 | 61-149 | |
| N-Propylbenzene | 250 | ND | 293 | 117 | 66-135 | |
| o-Xylene | 250 | ND | 256 | 102 | 70-133 | |
| p-Isopropyltoluene | 250 | ND | 288 | 115 | 70-130 | |
| sec-Butylbenzene | 250 | ND | 277 | 111 | 67-134 | |
| Styrene | 250 | ND | 250 | 100 | 29-150 | |
| Tert-amyl-methyl ether (TAME) | 250 | ND | 223 | 89 | 68-133 | |
| tert-Butyl alcohol (TBA) | 2500 | ND | 3210 | 128 | 70-130 | |
| tert-Butylbenzene | 250 | ND | 290 | 116 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 250 | ND | 298 | 119 | 60-149 | |
| 1,1,2,2-Tetrachloroethane | 250 | ND | 283 | 113 | 63-130 | |
| Tetrachloroethene | 250 | ND | 263 | 105 | 70-137 | |
| Toluene | 250 | ND | 263 | 105 | 70-130 | |
| trans-1,2-Dichloroethene | 250 | ND | 239 | 96 | 70-130 | |
| trans-1,3-Dichloropropene | 250 | ND | 291 | 116 | 70-138 | |
| 1,2,3-Trichlorobenzene | 250 | ND | 317 | 127 | 60-140 | |
| 1,2,4-Trichlorobenzene | 250 | ND | 312 | 125 | 60-140 | |
| 1,1,1-Trichloroethane | 250 | ND | 265 | 106 | 70-130 | |
| 1,1,2-Trichloroethane | 250 | ND | 278 | 111 | 70-130 | |
| Trichloroethene | 250 | ND | 245 | 98 | 70-130 | |
| Trichlorofluoromethane | 250 | ND | 272 | 109 | 60-150 | |
| 1,2,3-Trichloropropane | 250 | ND | 289 | 116 | 60-130 | |
| 1,2,4-Trimethylbenzene | 250 | ND | 285 | 114 | 70-130 | |
| 1,3,5-Trimethylbenzene | 250 | ND | 287 | 115 | 70-130 | |
| Vinyl chloride | 250 | ND | 249 | 100 | 50-137 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YGA22007.D

Lab ID: 440-201302-D-8 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Acetone | 25.0 | 25 | 42.7 | 73 | 10-150 | |
| Benzene | 25.0 | 0.40 J | 23.4 | 92 | 66-130 | |
| Bromobenzene | 25.0 | ND | 25.8 | 103 | 70-130 | |
| Bromochloromethane | 25.0 | ND | 29.0 | 116 | 70-130 | |
| Bromodichloromethane | 25.0 | ND | 26.0 | 104 | 70-138 | |
| Bromoform | 25.0 | ND | 30.2 | 121 | 59-150 | |
| Bromomethane | 25.0 | ND | 29.3 | 117 | 62-131 | |
| 2-Butanone (MEK) | 25.0 | 9.1 | 32.7 | 95 | 48-140 | |
| Carbon tetrachloride | 25.0 | ND | 29.2 | 117 | 60-150 | |
| Chlorobenzene | 25.0 | 0.36 J | 24.9 | 98 | 70-130 | |
| Chloroethane | 25.0 | ND | 23.1 | 92 | 68-130 | |
| Chloroform | 25.0 | ND | 24.5 | 98 | 70-130 | |
| Chloromethane | 25.0 | ND | 21.6 | 87 | 39-144 | |
| 2-Chlorotoluene | 25.0 | ND | 22.9 | 92 | 70-130 | |
| 4-Chlorotoluene | 25.0 | ND | 23.4 | 94 | 70-130 | |
| cis-1,2-Dichloroethene | 25.0 | 1.5 | 27.2 | 103 | 70-130 | |
| cis-1,3-Dichloropropene | 25.0 | ND | 22.0 | 88 | 70-133 | |
| Dibromochloromethane | 25.0 | ND | 26.1 | 105 | 70-148 | |
| 1,2-Dibromo-3-Chloropropane | 25.0 | ND | 23.8 | 95 | 48-140 | |
| 1,2-Dibromoethane (EDB) | 25.0 | ND | 24.7 | 99 | 70-131 | |
| Dibromomethane | 25.0 | ND | 25.1 | 100 | 70-130 | |
| 1,2-Dichlorobenzene | 25.0 | ND | 26.1 | 104 | 70-130 | |
| 1,3-Dichlorobenzene | 25.0 | ND | 25.6 | 103 | 70-130 | |
| 1,4-Dichlorobenzene | 25.0 | ND | 25.5 | 102 | 70-130 | |
| Dichlorodifluoromethane | 25.0 | ND | 27.6 | 110 | 25-142 | |
| 1,1-Dichloroethane | 25.0 | 1.5 | 23.7 | 89 | 65-130 | |
| 1,2-Dichloroethane | 25.0 | 2.9 | 28.2 | 101 | 56-146 | |
| 1,1-Dichloroethene | 25.0 | 6.6 | 32.2 | 102 | 70-130 | |
| 1,2-Dichloropropane | 25.0 | ND | 21.6 | 86 | 69-130 | |
| 1,3-Dichloropropane | 25.0 | ND | 20.8 | 83 | 70-130 | |
| 2,2-Dichloropropane | 25.0 | ND | 28.0 | 112 | 69-138 | |
| 1,1-Dichloropropene | 25.0 | ND | 25.9 | 103 | 64-130 | |
| Ethylbenzene | 25.0 | ND | 24.5 | 98 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 25.0 | ND | 24.4 | 98 | 70-130 | |
| Hexachlorobutadiene | 25.0 | ND | 30.0 | 120 | 10-150 | |
| 2-Hexanone | 25.0 | ND | 20.1 | 81 | 10-150 | |
| Isopropylbenzene | 25.0 | ND | 28.1 | 112 | 70-132 | |
| Isopropyl Ether (DIPE) | 25.0 | 65 | 84.5 | 79 | 64-138 | |
| Methylene Chloride | 25.0 | ND | 20.0 | 80 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | ND | 20.2 | 81 | 52-150 | |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 30 | 57.8 | 112 | 70-130 | |
| m,p-Xylene | 25.0 | ND | 26.7 | 107 | 70-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YGA22007.D

Lab ID: 440-201302-D-8 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Naphthalene | 25.0 | ND | 27.2 | 109 | 60-140 | |
| n-Butylbenzene | 25.0 | ND | 25.2 | 101 | 61-149 | |
| N-Propylbenzene | 25.0 | ND | 24.1 | 96 | 66-135 | |
| o-Xylene | 25.0 | ND | 26.7 | 107 | 70-133 | |
| p-Isopropyltoluene | 25.0 | ND | 26.6 | 106 | 70-130 | |
| sec-Butylbenzene | 25.0 | ND | 25.4 | 102 | 67-134 | |
| Styrene | 25.0 | ND | 25.2 | 101 | 29-150 | |
| Tert-amyl-methyl ether (TAME) | 25.0 | ND | 24.6 | 98 | 68-133 | |
| tert-Butyl alcohol (TBA) | 250 | 300 | 557 | 105 | 70-130 | |
| tert-Butylbenzene | 25.0 | ND | 26.8 | 107 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 25.0 | ND | 27.3 | 109 | 60-149 | |
| 1,1,2,2-Tetrachloroethane | 25.0 | ND | 20.1 | 80 | 63-130 | |
| Tetrachloroethene | 25.0 | ND | 28.3 | 113 | 70-137 | |
| Toluene | 25.0 | ND | 24.3 | 97 | 70-130 | |
| trans-1,2-Dichloroethene | 25.0 | ND | 27.6 | 110 | 70-130 | |
| trans-1,3-Dichloropropene | 25.0 | ND | 23.1 | 92 | 70-138 | |
| 1,2,3-Trichlorobenzene | 25.0 | ND | 29.1 | 116 | 60-140 | |
| 1,2,4-Trichlorobenzene | 25.0 | ND | 28.7 | 115 | 60-140 | |
| 1,1,1-Trichloroethane | 25.0 | ND | 27.9 | 112 | 70-130 | |
| 1,1,2-Trichloroethane | 25.0 | ND | 22.0 | 88 | 70-130 | |
| Trichloroethene | 25.0 | 1.6 | 30.7 | 116 | 70-130 | |
| Trichlorofluoromethane | 25.0 | ND | 31.8 | 127 | 60-150 | |
| 1,2,3-Trichloropropane | 25.0 | ND | 23.7 | 95 | 60-130 | |
| 1,2,4-Trimethylbenzene | 25.0 | ND | 23.9 | 96 | 70-130 | |
| 1,3,5-Trimethylbenzene | 25.0 | ND | 25.9 | 103 | 70-130 | |
| Vinyl chloride | 25.0 | 16 | 40.1 | 95 | 50-137 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: GGA19039.D

Lab ID: 440-201049-3 MSD Client ID: VER-01I-C-36 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Acetone | 250 | 282 | 113 | 3 | 35 | 10-150 | |
| Benzene | 250 | 242 | 97 | 2 | 20 | 66-130 | |
| Bromobenzene | 250 | 285 | 114 | 0 | 20 | 70-130 | |
| Bromochloromethane | 250 | 252 | 101 | 2 | 25 | 70-130 | |
| Bromodichloromethane | 250 | 274 | 109 | 1 | 20 | 70-138 | |
| Bromoform | 250 | 278 | 111 | 1 | 25 | 59-150 | |
| Bromomethane | 250 | 241 | 96 | 2 | 25 | 62-131 | |
| 2-Butanone (MEK) | 250 | 254 | 102 | 12 | 40 | 48-140 | |
| Carbon tetrachloride | 250 | 289 | 115 | 3 | 25 | 60-150 | |
| Chlorobenzene | 250 | 261 | 104 | 0 | 20 | 70-130 | |
| Chloroethane | 250 | 234 | 94 | 1 | 25 | 68-130 | |
| Chloroform | 250 | 1000 | 110 | 4 | 20 | 70-130 | |
| Chloromethane | 250 | 240 | 96 | 1 | 25 | 39-144 | |
| 2-Chlorotoluene | 250 | 282 | 113 | 0 | 20 | 70-130 | |
| 4-Chlorotoluene | 250 | 289 | 116 | 1 | 20 | 70-130 | |
| cis-1,2-Dichloroethene | 250 | 265 | 106 | 9 | 20 | 70-130 | |
| cis-1,3-Dichloropropene | 250 | 289 | 116 | 1 | 20 | 70-133 | |
| Dibromochloromethane | 250 | 308 | 123 | 1 | 25 | 70-148 | |
| 1,2-Dibromo-3-Chloropropane | 250 | 296 | 119 | 0 | 30 | 48-140 | |
| 1,2-Dibromoethane (EDB) | 250 | 286 | 114 | 0 | 25 | 70-131 | |
| Dibromomethane | 250 | 265 | 106 | 5 | 25 | 70-130 | |
| 1,2-Dichlorobenzene | 250 | 296 | 116 | 2 | 20 | 70-130 | |
| 1,3-Dichlorobenzene | 250 | 280 | 112 | 1 | 20 | 70-130 | |
| 1,4-Dichlorobenzene | 250 | 292 | 117 | 1 | 20 | 70-130 | |
| Dichlorodifluoromethane | 250 | 257 | 103 | 2 | 30 | 25-142 | |
| 1,1-Dichloroethane | 250 | 264 | 106 | 5 | 20 | 65-130 | |
| 1,2-Dichloroethane | 250 | 290 | 116 | 2 | 20 | 56-146 | |
| 1,1-Dichloroethene | 250 | 209 | 84 | 2 | 20 | 70-130 | |
| 1,2-Dichloropropane | 250 | 271 | 108 | 5 | 20 | 69-130 | |
| 1,3-Dichloropropane | 250 | 275 | 110 | 1 | 25 | 70-130 | |
| 2,2-Dichloropropane | 250 | 348 | 139 | 10 | 25 | 69-138 | F1 |
| 1,1-Dichloropropene | 250 | 272 | 109 | 1 | 20 | 64-130 | |
| Ethylbenzene | 250 | 270 | 108 | 3 | 20 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 250 | 262 | 105 | 5 | 25 | 70-130 | |
| Hexachlorobutadiene | 250 | 309 | 124 | 1 | 20 | 10-150 | |
| 2-Hexanone | 250 | 318 | 127 | 5 | 35 | 10-150 | |
| Isopropylbenzene | 250 | 267 | 107 | 1 | 20 | 70-132 | |
| Isopropyl Ether (DIPE) | 250 | 288 | 115 | 6 | 25 | 64-138 | |
| Methylene Chloride | 250 | 201 | 80 | 2 | 20 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 250 | 328 | 131 | 0 | 35 | 52-150 | |
| Methyl-t-Butyl Ether (MTBE) | 250 | 250 | 100 | 6 | 25 | 70-130 | |
| m,p-Xylene | 250 | 273 | 109 | 1 | 25 | 70-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: GGA19039.D

Lab ID: 440-201049-3 MSD Client ID: VER-01I-C-36 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Naphthalene | 250 | 299 | 120 | 0 | 30 | 60-140 | |
| n-Butylbenzene | 250 | 296 | 118 | 3 | 20 | 61-149 | |
| N-Propylbenzene | 250 | 297 | 119 | 1 | 20 | 66-135 | |
| o-Xylene | 250 | 264 | 105 | 3 | 20 | 70-133 | |
| p-Isopropyltoluene | 250 | 295 | 118 | 2 | 20 | 70-130 | |
| sec-Butylbenzene | 250 | 285 | 114 | 3 | 20 | 67-134 | |
| Styrene | 250 | 251 | 100 | 0 | 35 | 29-150 | |
| Tert-amyl-methyl ether (TAME) | 250 | 229 | 92 | 3 | 30 | 68-133 | |
| tert-Butyl alcohol (TBA) | 2500 | 3210 | 128 | 0 | 25 | 70-130 | |
| tert-Butylbenzene | 250 | 293 | 117 | 1 | 20 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 250 | 307 | 123 | 3 | 20 | 60-149 | |
| 1,1,2,2-Tetrachloroethane | 250 | 290 | 116 | 2 | 30 | 63-130 | |
| Tetrachloroethene | 250 | 272 | 109 | 3 | 20 | 70-137 | |
| Toluene | 250 | 264 | 105 | 0 | 20 | 70-130 | |
| trans-1,2-Dichloroethene | 250 | 258 | 103 | 8 | 20 | 70-130 | |
| trans-1,3-Dichloropropene | 250 | 303 | 121 | 4 | 25 | 70-138 | |
| 1,2,3-Trichlorobenzene | 250 | 318 | 127 | 0 | 20 | 60-140 | |
| 1,2,4-Trichlorobenzene | 250 | 306 | 122 | 2 | 20 | 60-140 | |
| 1,1,1-Trichloroethane | 250 | 275 | 110 | 3 | 20 | 70-130 | |
| 1,1,2-Trichloroethane | 250 | 278 | 111 | 0 | 25 | 70-130 | |
| Trichloroethene | 250 | 255 | 102 | 4 | 20 | 70-130 | |
| Trichlorofluoromethane | 250 | 276 | 110 | 2 | 25 | 60-150 | |
| 1,2,3-Trichloropropane | 250 | 290 | 116 | 0 | 30 | 60-130 | |
| 1,2,4-Trimethylbenzene | 250 | 294 | 118 | 3 | 25 | 70-130 | |
| 1,3,5-Trimethylbenzene | 250 | 292 | 117 | 2 | 20 | 70-130 | |
| Vinyl chloride | 250 | 255 | 102 | 3 | 30 | 50-137 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YGA22008.D

Lab ID: 440-201302-D-8 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Acetone | 25.0 | 42.1 | 70 | 1 | 35 | 10-150 | |
| Benzene | 25.0 | 23.5 | 92 | 0 | 20 | 66-130 | |
| Bromobenzene | 25.0 | 26.1 | 105 | 1 | 20 | 70-130 | |
| Bromochloromethane | 25.0 | 30.1 | 120 | 3 | 25 | 70-130 | |
| Bromodichloromethane | 25.0 | 26.0 | 104 | 0 | 20 | 70-138 | |
| Bromoform | 25.0 | 30.7 | 123 | 2 | 25 | 59-150 | |
| Bromomethane | 25.0 | 30.0 | 120 | 2 | 25 | 62-131 | |
| 2-Butanone (MEK) | 25.0 | 33.1 | 96 | 1 | 40 | 48-140 | |
| Carbon tetrachloride | 25.0 | 29.2 | 117 | 0 | 25 | 60-150 | |
| Chlorobenzene | 25.0 | 25.6 | 101 | 3 | 20 | 70-130 | |
| Chloroethane | 25.0 | 23.7 | 95 | 3 | 25 | 68-130 | |
| Chloroform | 25.0 | 24.8 | 99 | 1 | 20 | 70-130 | |
| Chloromethane | 25.0 | 21.3 | 85 | 2 | 25 | 39-144 | |
| 2-Chlorotoluene | 25.0 | 22.9 | 91 | 0 | 20 | 70-130 | |
| 4-Chlorotoluene | 25.0 | 23.7 | 95 | 1 | 20 | 70-130 | |
| cis-1,2-Dichloroethene | 25.0 | 27.3 | 103 | 0 | 20 | 70-130 | |
| cis-1,3-Dichloropropene | 25.0 | 22.7 | 91 | 3 | 20 | 70-133 | |
| Dibromochloromethane | 25.0 | 26.9 | 107 | 3 | 25 | 70-148 | |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 24.1 | 96 | 1 | 30 | 48-140 | |
| 1,2-Dibromoethane (EDB) | 25.0 | 25.1 | 101 | 2 | 25 | 70-131 | |
| Dibromomethane | 25.0 | 25.5 | 102 | 2 | 25 | 70-130 | |
| 1,2-Dichlorobenzene | 25.0 | 26.6 | 107 | 2 | 20 | 70-130 | |
| 1,3-Dichlorobenzene | 25.0 | 25.7 | 103 | 0 | 20 | 70-130 | |
| 1,4-Dichlorobenzene | 25.0 | 25.8 | 103 | 1 | 20 | 70-130 | |
| Dichlorodifluoromethane | 25.0 | 27.9 | 112 | 1 | 30 | 25-142 | |
| 1,1-Dichloroethane | 25.0 | 24.4 | 91 | 3 | 20 | 65-130 | |
| 1,2-Dichloroethane | 25.0 | 28.2 | 101 | 0 | 20 | 56-146 | |
| 1,1-Dichloroethene | 25.0 | 32.0 | 102 | 1 | 20 | 70-130 | |
| 1,2-Dichloropropane | 25.0 | 21.4 | 86 | 1 | 20 | 69-130 | |
| 1,3-Dichloropropane | 25.0 | 21.7 | 87 | 4 | 25 | 70-130 | |
| 2,2-Dichloropropane | 25.0 | 28.0 | 112 | 0 | 25 | 69-138 | |
| 1,1-Dichloropropene | 25.0 | 25.8 | 103 | 0 | 20 | 64-130 | |
| Ethylbenzene | 25.0 | 25.0 | 100 | 2 | 20 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 25.0 | 100 | 2 | 25 | 70-130 | |
| Hexachlorobutadiene | 25.0 | 30.6 | 122 | 2 | 20 | 10-150 | |
| 2-Hexanone | 25.0 | 20.4 | 82 | 1 | 35 | 10-150 | |
| Isopropylbenzene | 25.0 | 28.8 | 115 | 2 | 20 | 70-132 | |
| Isopropyl Ether (DIPE) | 25.0 | 84.2 | 78 | 0 | 25 | 64-138 | |
| Methylene Chloride | 25.0 | 22.1 | 88 | 10 | 20 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 21.0 | 84 | 4 | 35 | 52-150 | |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 58.7 | 115 | 2 | 25 | 70-130 | |
| m,p-Xylene | 25.0 | 27.4 | 110 | 3 | 25 | 70-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YGA22008.D

Lab ID: 440-201302-D-8 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Naphthalene | 25.0 | 28.0 | 112 | 3 | 30 | 60-140 | |
| n-Butylbenzene | 25.0 | 25.5 | 102 | 1 | 20 | 61-149 | |
| N-Propylbenzene | 25.0 | 24.4 | 98 | 1 | 20 | 66-135 | |
| o-Xylene | 25.0 | 27.5 | 110 | 3 | 20 | 70-133 | |
| p-Isopropyltoluene | 25.0 | 26.9 | 108 | 1 | 20 | 70-130 | |
| sec-Butylbenzene | 25.0 | 25.9 | 103 | 2 | 20 | 67-134 | |
| Styrene | 25.0 | 26.2 | 105 | 4 | 35 | 29-150 | |
| Tert-amyl-methyl ether (TAME) | 25.0 | 24.9 | 99 | 1 | 30 | 68-133 | |
| tert-Butyl alcohol (TBA) | 250 | 563 | 107 | 1 | 25 | 70-130 | |
| tert-Butylbenzene | 25.0 | 27.0 | 108 | 1 | 20 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 25.0 | 27.8 | 111 | 2 | 20 | 60-149 | |
| 1,1,2,2-Tetrachloroethane | 25.0 | 20.2 | 81 | 1 | 30 | 63-130 | |
| Tetrachloroethene | 25.0 | 29.4 | 118 | 4 | 20 | 70-137 | |
| Toluene | 25.0 | 24.7 | 99 | 2 | 20 | 70-130 | |
| trans-1,2-Dichloroethene | 25.0 | 27.4 | 109 | 1 | 20 | 70-130 | |
| trans-1,3-Dichloropropene | 25.0 | 24.2 | 97 | 5 | 25 | 70-138 | |
| 1,2,3-Trichlorobenzene | 25.0 | 29.6 | 119 | 2 | 20 | 60-140 | |
| 1,2,4-Trichlorobenzene | 25.0 | 29.4 | 117 | 2 | 20 | 60-140 | |
| 1,1,1-Trichloroethane | 25.0 | 28.3 | 113 | 1 | 20 | 70-130 | |
| 1,1,2-Trichloroethane | 25.0 | 23.0 | 92 | 5 | 25 | 70-130 | |
| Trichloroethene | 25.0 | 31.0 | 118 | 1 | 20 | 70-130 | |
| Trichlorofluoromethane | 25.0 | 31.7 | 127 | 0 | 25 | 60-150 | |
| 1,2,3-Trichloropropane | 25.0 | 23.9 | 96 | 1 | 30 | 60-130 | |
| 1,2,4-Trimethylbenzene | 25.0 | 24.1 | 97 | 1 | 25 | 70-130 | |
| 1,3,5-Trimethylbenzene | 25.0 | 26.0 | 104 | 0 | 20 | 70-130 | |
| Vinyl chloride | 25.0 | 41.6 | 100 | 4 | 30 | 50-137 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab File ID: GGA19034.D Lab Sample ID: MB 440-452744/4

Matrix: Water Heated Purge:(Y/N) Y

Instrument ID: GCMS56 Date Analyzed: 01/19/2018 17:32

GC Column: DB-VRX B ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 440-452744/5 | GGA19035.D | 01/19/2018 18:00 |
| | LCSD 440-452744/18 | GGA19048.D | 01/19/2018 18:56 |
| VER-01I-C-36 | 440-201049-3 | GGA19037.D | 01/19/2018 19:24 |
| VER-01I-C-36 MS | 440-201049-3 MS | GGA19038.D | 01/19/2018 19:52 |
| VER-01I-C-36 MSD | 440-201049-3 MSD | GGA19039.D | 01/19/2018 20:20 |
| TB-011618 | 440-201049-2 | GGA19041.D | 01/19/2018 21:15 |

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab File ID: YGA22004.D Lab Sample ID: MB 440-452941/4

Matrix: Water Heated Purge:(Y/N) Y

Instrument ID: GCMS58 Date Analyzed: 01/22/2018 08:12

GC Column: DB-VRX B ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 440-452941/5 | YGA22005.D | 01/22/2018 08:42 |
| | 440-201302-D-8 MS | YGA22007.D | 01/22/2018 09:41 |
| | 440-201302-D-8 MSD | YGA22008.D | 01/22/2018 10:11 |
| VER-01I-C-24 | 440-201049-1 | YGA22018.D | 01/22/2018 15:05 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab File ID: GFL19001.D BFB Injection Date: 12/19/2017

Instrument ID: GCMS56 BFB Injection Time: 12:12

Analysis Batch No.: 447237

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 24.9 | |
| 75 | 30.0 - 60.0 % of mass 95 | 45.3 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 6.5 | |
| 173 | Less than 2.0 % of mass 174 | 1.0 | (1.1) 1 |
| 174 | 50.0 - 120.00 % of mass 95 | 91.1 | |
| 175 | 5.0 - 9.0 % of mass 174 | 6.5 | (7.2) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 90.0 | (98.7) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 5.7 | (6.4) 2 |

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | STD02 440-447237/4 | GFL19004.D | 12/19/2017 | 13:36 |
| | STD04 440-447237/5 | GFL19005.D | 12/19/2017 | 14:04 |
| | STD05 440-447237/6 | GFL19006.D | 12/19/2017 | 14:31 |
| | STD1 440-447237/7 | GFL19007.D | 12/19/2017 | 14:59 |
| | STD2 440-447237/8 | GFL19008.D | 12/19/2017 | 15:27 |
| | STD5 440-447237/9 | GFL19009.D | 12/19/2017 | 15:55 |
| | STD10 440-447237/10 | GFL19010.D | 12/19/2017 | 16:22 |
| | ICIS 440-447237/11 | GFL19011.D | 12/19/2017 | 16:50 |
| | STD50 440-447237/12 | GFL19012.D | 12/19/2017 | 17:18 |
| | STD100 440-447237/13 | GFL19013.D | 12/19/2017 | 17:46 |
| | STD200 440-447237/14 | GFL19014.D | 12/19/2017 | 18:13 |
| | STD300 440-447237/15 | GFL19015.D | 12/19/2017 | 18:41 |
| | ICV 440-447237/18 | GFL19018.D | 12/19/2017 | 20:04 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab File ID: GGA19031.D BFB Injection Date: 01/19/2018

Instrument ID: GCMS56 BFB Injection Time: 16:03

Analysis Batch No.: 452744

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 24.0 | |
| 75 | 30.0 - 60.0 % of mass 95 | 43.8 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 6.6 | |
| 173 | Less than 2.0 % of mass 174 | 0.9 | (0.9) 1 |
| 174 | 50.0 - 120.00 % of mass 95 | 97.8 | |
| 175 | 5.0 - 9.0 % of mass 174 | 7.1 | (7.3) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 94.3 | (96.4) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 5.9 | (6.3) 2 |

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | CCVIS 440-452744/2 | GGA19032.D | 01/19/2018 | 16:29 |
| | MB 440-452744/4 | GGA19034.D | 01/19/2018 | 17:32 |
| | LCS 440-452744/5 | GGA19035.D | 01/19/2018 | 18:00 |
| | LCSD 440-452744/18 | GGA19048.D | 01/19/2018 | 18:56 |
| VER-01I-C-36 | 440-201049-3 | GGA19037.D | 01/19/2018 | 19:24 |
| VER-01I-C-36 MS | 440-201049-3 MS | GGA19038.D | 01/19/2018 | 19:52 |
| VER-01I-C-36 MSD | 440-201049-3 MSD | GGA19039.D | 01/19/2018 | 20:20 |
| TB-011618 | 440-201049-2 | GGA19041.D | 01/19/2018 | 21:15 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab File ID: YFL13010.D BFB Injection Date: 12/13/2017

Instrument ID: GCMS58 BFB Injection Time: 16:39

Analysis Batch No.: 446571

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 20.1 | |
| 75 | 30.0 - 60.0 % of mass 95 | 43.0 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 6.6 | |
| 173 | Less than 2.0 % of mass 174 | 0.0 | (0.0) 1 |
| 174 | 50.0 - 120.00 % of mass 95 | 89.9 | |
| 175 | 5.0 - 9.0 % of mass 174 | 6.7 | (7.4) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 85.7 | (95.3) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 5.7 | (6.6) 2 |

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | STD02 440-446571/4 | YFL13013.D | 12/13/2017 | 18:15 |
| | STD04 440-446571/5 | YFL13014.D | 12/13/2017 | 18:44 |
| | STD05 440-446571/6 | YFL13015.D | 12/13/2017 | 19:14 |
| | STD1 440-446571/7 | YFL13016.D | 12/13/2017 | 19:43 |
| | STD2 440-446571/8 | YFL13017.D | 12/13/2017 | 20:13 |
| | STD5 440-446571/9 | YFL13018.D | 12/13/2017 | 20:42 |
| | STD10 440-446571/10 | YFL13019.D | 12/13/2017 | 21:12 |
| | ICIS 440-446571/11 | YFL13020.D | 12/13/2017 | 21:41 |
| | STD50 440-446571/12 | YFL13021.D | 12/13/2017 | 22:11 |
| | STD100 440-446571/13 | YFL13022.D | 12/13/2017 | 22:41 |
| | STD200 440-446571/14 | YFL13023.D | 12/13/2017 | 23:10 |
| | STD300 440-446571/15 | YFL13024.D | 12/13/2017 | 23:40 |
| | ICV 440-446571/18 | YFL13027.D | 12/14/2017 | 01:08 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab File ID: YGA22001.D BFB Injection Date: 01/22/2018

Instrument ID: GCMS58 BFB Injection Time: 06:44

Analysis Batch No.: 452941

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 18.8 | |
| 75 | 30.0 - 60.0 % of mass 95 | 43.8 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 7.0 | |
| 173 | Less than 2.0 % of mass 174 | 0.0 | (0.0) 1 |
| 174 | 50.0 - 120.00 % of mass 95 | 104.7 | |
| 175 | 5.0 - 9.0 % of mass 174 | 8.0 | (7.6) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 101.2 | (96.7) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 6.5 | (6.4) 2 |

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | CCVIS 440-452941/2 | YGA22002.D | 01/22/2018 | 07:13 |
| | MB 440-452941/4 | YGA22004.D | 01/22/2018 | 08:12 |
| | LCS 440-452941/5 | YGA22005.D | 01/22/2018 | 08:42 |
| | 440-201302-D-8 MS | YGA22007.D | 01/22/2018 | 09:41 |
| | 440-201302-D-8 MSD | YGA22008.D | 01/22/2018 | 10:11 |
| VER-01I-C-24 | 440-201049-1 | YGA22018.D | 01/22/2018 | 15:05 |

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Sample No.: ICIS 440-447237/11 Date Analyzed: 12/19/2017 16:50

Instrument ID: GCMS56 GC Column: DB-VRX B ID: 0.25(mm)

Lab File ID (Standard): GFL19011.D Heated Purge: (Y/N) Y

Calibration ID: 18243

| | | TBAd9 | | FB | | CBNZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 357529 | 3.62 | 725176 | 6.43 | 748469 | 9.08 |
| UPPER LIMIT | | 715058 | 3.92 | 1450352 | 6.73 | 1496938 | 9.38 |
| LOWER LIMIT | | 178765 | 3.32 | 362588 | 6.13 | 374235 | 8.78 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 440-447237/18 | | 317680 | 3.62 | 706804 | 6.43 | 678839 | 9.09 |
| CCVIS 440-452744/2 | | 321919 | 3.61 | 641264 | 6.43 | 556653 | 9.08 |

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Sample No.: ICIS 440-447237/11 Date Analyzed: 12/19/2017 16:50

Instrument ID: GCMS56 GC Column: DB-VRX B ID: 0.25(mm)

Lab File ID (Standard): GFL19011.D Heated Purge: (Y/N) Y

Calibration ID: 18243

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 448123 | 11.44 | | | | |
| UPPER LIMIT | | 896246 | 11.74 | | | | |
| LOWER LIMIT | | 224062 | 11.14 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 440-447237/18 | | 398162 | 11.44 | | | | |
| CCVIS 440-452744/2 | | 336989 | 11.44 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Sample No.: CCVIS 440-452744/2 Date Analyzed: 01/19/2018 16:29

Instrument ID: GCMS56 GC Column: DB-VRX B ID: 0.25(mm)

Lab File ID (Standard): GGA19032.D Heated Purge: (Y/N) Y

Calibration ID: 18370

| | | TBAd9 | | FB | | CBNZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 321919 | 3.61 | 641264 | 6.43 | 556653 | 9.08 |
| UPPER LIMIT | | 643838 | 3.91 | 1282528 | 6.73 | 1113306 | 9.38 |
| LOWER LIMIT | | 160960 | 3.31 | 320632 | 6.13 | 278327 | 8.78 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 440-452744/4 | | 276916 | 3.61 | 631053 | 6.43 | 515736 | 9.09 |
| LCS 440-452744/5 | | 282368 | 3.61 | 631792 | 6.43 | 549063 | 9.08 |
| LCSD 440-452744/18 | | 295649 | 3.61 | 625944 | 6.43 | 552896 | 9.08 |
| 440-201049-3 | VER-01I-C-36 | 274712 | 3.61 | 608512 | 6.43 | 505381 | 9.08 |
| 440-201049-3 MS | VER-01I-C-36 MS | 271650 | 3.61 | 625212 | 6.43 | 552825 | 9.08 |
| 440-201049-3 MSD | VER-01I-C-36 MSD | 250801 | 3.61 | 583687 | 6.43 | 528636 | 9.08 |
| 440-201049-2 | TB-011618 | 259500 | 3.61 | 596285 | 6.43 | 489799 | 9.08 |

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Sample No.: CCVIS 440-452744/2 Date Analyzed: 01/19/2018 16:29

Instrument ID: GCMS56 GC Column: DB-VRX B ID: 0.25(mm)

Lab File ID (Standard): GGA19032.D Heated Purge: (Y/N) Y

Calibration ID: 18370

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 336989 | 11.44 | | | | |
| UPPER LIMIT | | 673978 | 11.74 | | | | |
| LOWER LIMIT | | 168495 | 11.14 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 440-452744/4 | | 329522 | 11.44 | | | | |
| LCS 440-452744/5 | | 335627 | 11.44 | | | | |
| LCSD 440-452744/18 | | 329446 | 11.44 | | | | |
| 440-201049-3 | VER-01I-C-36 | 322742 | 11.44 | | | | |
| 440-201049-3 MS | VER-01I-C-36 MS | 326840 | 11.44 | | | | |
| 440-201049-3 MSD | VER-01I-C-36 MSD | 314094 | 11.44 | | | | |
| 440-201049-2 | TB-011618 | 311705 | 11.44 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Sample No.: ICIS 440-446571/11  Date Analyzed: 12/13/2017  21:41

Instrument ID: GCMS58  GC Column: DB-VRX B  ID: 0.25(mm)

Lab File ID (Standard): YFL13020.D  Heated Purge: (Y/N) Y

Calibration ID: 18193

| | | TBAd9 | | FB | | CBNZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 165512 | 3.92 | 635241 | 6.75 | 527850 | 9.40 |
| UPPER LIMIT | | 331024 | 4.22 | 1270482 | 7.05 | 1055700 | 9.70 |
| LOWER LIMIT | | 82756 | 3.62 | 317621 | 6.45 | 263925 | 9.10 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 440-446571/18 | | 192583 | 3.92 | 744275 | 6.75 | 638444 | 9.40 |
| CCVIS 440-452941/2 | | 122002 | 3.93 | 504166 | 6.76 | 443321 | 9.41 |

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Sample No.: ICIS 440-446571/11 Date Analyzed: 12/13/2017 21:41

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm)

Lab File ID (Standard): YFL13020.D Heated Purge: (Y/N) Y

Calibration ID: 18193

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 291696 | 11.82 | | | | |
| UPPER LIMIT | | 583392 | 12.12 | | | | |
| LOWER LIMIT | | 145848 | 11.52 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 440-446571/18 | | 341430 | 11.82 | | | | |
| CCVIS 440-452941/2 | | 284379 | 11.82 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Sample No.: CCVIS 440-452941/2 Date Analyzed: 01/22/2018 07:13

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm)

Lab File ID (Standard): YGA22002.D Heated Purge: (Y/N) Y

Calibration ID: 18415

| | | TBAd9 | | FB | | CBNZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 122002 | 3.93 | 504166 | 6.76 | 443321 | 9.41 |
| UPPER LIMIT | | 244004 | 4.23 | 1008332 | 7.06 | 886642 | 9.71 |
| LOWER LIMIT | | 61001 | 3.63 | 252083 | 6.46 | 221661 | 9.11 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 440-452941/4 | | 118032 | 3.93 | 456176 | 6.76 | 419526 | 9.41 |
| LCS 440-452941/5 | | 123614 | 3.93 | 491850 | 6.76 | 441304 | 9.41 |
| 440-201302-D-8 MS | | 125994 | 3.93 | 475572 | 6.76 | 439144 | 9.41 |
| 440-201302-D-8 MSD | | 126947 | 3.93 | 481123 | 6.76 | 434538 | 9.41 |
| 440-201049-1 | VER-01I-C-24 | 145276 | 3.93 | 546503 | 6.76 | 484487 | 9.41 |

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Sample No.: CCVIS 440-452941/2 Date Analyzed: 01/22/2018 07:13

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm)

Lab File ID (Standard): YGA22002.D Heated Purge: (Y/N) Y

Calibration ID: 18415

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 284379 | 11.82 | | | | |
| UPPER LIMIT | | 568758 | 12.12 | | | | |
| LOWER LIMIT | | 142190 | 11.52 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 440-452941/4 | | 240967 | 11.82 | | | | |
| LCS 440-452941/5 | | 278409 | 11.82 | | | | |
| 440-201302-D-8 MS | | 269372 | 11.82 | | | | |
| 440-201302-D-8 MSD | | 270944 | 11.82 | | | | |
| 440-201049-1 | VER-01I-C-24 | 283811 | 11.82 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-24 | Lab Sample ID: 440-201049-1

Matrix: Water | Lab File ID: YGA22018.D

Analysis Method: 8260B | Date Collected: 01/16/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/22/2018 15:05

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452941 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 100 | 50 |
| 71-43-2 | Benzene | ND | | 2.5 | 1.3 |
| 108-86-1 | Bromobenzene | ND | | 2.5 | 1.3 |
| 74-97-5 | Bromochloromethane | ND | | 2.5 | 1.3 |
| 75-27-4 | Bromodichloromethane | ND | | 2.5 | 1.3 |
| 75-25-2 | Bromoform | ND | | 5.0 | 2.0 |
| 74-83-9 | Bromomethane | ND | | 2.5 | 1.3 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 25 | 13 |
| 56-23-5 | Carbon tetrachloride | ND | | 2.5 | 1.3 |
| 108-90-7 | Chlorobenzene | ND | | 2.5 | 1.3 |
| 75-00-3 | Chloroethane | ND | | 5.0 | 2.0 |
| 67-66-3 | Chloroform | 700 | | 2.5 | 1.3 |
| 74-87-3 | Chloromethane | ND | | 2.5 | 1.3 |
| 95-49-8 | 2-Chlorotoluene | ND | | 2.5 | 1.3 |
| 106-43-4 | 4-Chlorotoluene | ND | | 2.5 | 1.3 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 2.5 | 1.3 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 2.5 | 1.3 |
| 124-48-1 | Dibromochloromethane | ND | | 2.5 | 1.3 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 5.0 | 2.5 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 2.5 | 1.3 |
| 74-95-3 | Dibromomethane | ND | | 2.5 | 1.3 |
| 95-50-1 | 1,2-Dichlorobenzene | 5.2 | | 2.5 | 1.3 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 2.5 | 1.3 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 2.5 | 1.3 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 5.0 | 2.0 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 2.5 | 1.3 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 2.5 | 1.3 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 2.5 | 1.3 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 2.5 | 1.3 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 2.5 | 1.3 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 5.0 | 2.0 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 2.5 | 1.3 |
| 100-41-4 | Ethylbenzene | ND | | 2.5 | 1.3 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 2.5 | 1.3 |
| 87-68-3 | Hexachlorobutadiene | ND | | 2.5 | 1.3 |
| 591-78-6 | 2-Hexanone | ND | | 25 | 13 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-24 | Lab Sample ID: 440-201049-1

Matrix: Water | Lab File ID: YGA22018.D

Analysis Method: 8260B | Date Collected: 01/16/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/22/2018 15:05

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452941 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 2.5 | 1.3 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 2.5 | 1.3 |
| 75-09-2 | Methylene Chloride | ND | | 10 | 4.4 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 25 | 13 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 2.5 | 1.3 |
| 179601-23-1 | m,p-Xylene | ND | | 5.0 | 2.5 |
| 91-20-3 | Naphthalene | ND | | 5.0 | 2.0 |
| 104-51-8 | n-Butylbenzene | ND | | 5.0 | 2.0 |
| 103-65-1 | N-Propylbenzene | ND | | 2.5 | 1.3 |
| 95-47-6 | o-Xylene | ND | | 2.5 | 1.3 |
| 99-87-6 | p-Isopropyltoluene | ND | | 2.5 | 1.3 |
| 135-98-8 | sec-Butylbenzene | ND | | 2.5 | 1.3 |
| 100-42-5 | Styrene | ND | | 2.5 | 1.3 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 2.5 | 1.3 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 50 | 25 |
| 98-06-6 | tert-Butylbenzene | ND | | 2.5 | 1.3 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 2.5 | 1.3 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 2.5 | 1.3 |
| 127-18-4 | Tetrachloroethene | ND | | 2.5 | 1.3 |
| 108-88-3 | Toluene | ND | | 2.5 | 1.3 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 2.5 | 1.3 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 2.5 | 1.3 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 5.0 | 2.0 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 5.0 | 2.0 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 2.5 | 1.3 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 2.5 | 1.3 |
| 79-01-6 | Trichloroethene | 1.3 | J | 2.5 | 1.3 |
| 75-69-4 | Trichlorofluoromethane | ND | | 2.5 | 1.3 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 5.0 | 2.0 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 2.5 | 1.3 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 2.5 | 1.3 |
| 75-01-4 | Vinyl chloride | ND | | 2.5 | 1.3 |
| 1330-20-7 | Xylenes, Total | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-24 Lab Sample ID: 440-201049-1

Matrix: Water Lab File ID: YGA22018.D

Analysis Method: 8260B Date Collected: 01/16/2018 03:30

Sample wt/vol: 10(mL) Date Analyzed: 01/22/2018 15:05

Soil Aliquot Vol: Dilution Factor: 5

Soil Extract Vol.: GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452941 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 90 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 109 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 98 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: TB-011618 | Lab Sample ID: 440-201049-2

Matrix: Water | Lab File ID: GGA19041.D

Analysis Method: 8260B | Date Collected: 01/16/2018 03:34

Sample wt/vol: 10(mL) | Date Analyzed: 01/19/2018 21:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452744 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | ND | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: TB-011618 | Lab Sample ID: 440-201049-2

Matrix: Water | Lab File ID: GGA19041.D

Analysis Method: 8260B | Date Collected: 01/16/2018 03:34

Sample wt/vol: 10(mL) | Date Analyzed: 01/19/2018 21:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452744 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Client Sample ID: TB-011618 Lab Sample ID: 440-201049-2

Matrix: Water Lab File ID: GGA19041.D

Analysis Method: 8260B Date Collected: 01/16/2018 03:34

Sample wt/vol: 10(mL) Date Analyzed: 01/19/2018 21:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452744 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 108 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 108 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-36 | Lab Sample ID: 440-201049-3

Matrix: Water | Lab File ID: GGA19037.D

Analysis Method: 8260B | Date Collected: 01/16/2018 15:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/19/2018 19:24

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452744 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 200 | 100 |
| 71-43-2 | Benzene | ND | | 5.0 | 2.5 |
| 108-86-1 | Bromobenzene | ND | | 5.0 | 2.5 |
| 74-97-5 | Bromochloromethane | ND | | 5.0 | 2.5 |
| 75-27-4 | Bromodichloromethane | ND | | 5.0 | 2.5 |
| 75-25-2 | Bromoform | ND | | 10 | 4.0 |
| 74-83-9 | Bromomethane | ND | | 5.0 | 2.5 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 50 | 25 |
| 56-23-5 | Carbon tetrachloride | ND | | 5.0 | 2.5 |
| 108-90-7 | Chlorobenzene | ND | | 5.0 | 2.5 |
| 75-00-3 | Chloroethane | ND | | 10 | 4.0 |
| 67-66-3 | Chloroform | 730 | | 5.0 | 2.5 |
| 74-87-3 | Chloromethane | ND | | 5.0 | 2.5 |
| 95-49-8 | 2-Chlorotoluene | ND | | 5.0 | 2.5 |
| 106-43-4 | 4-Chlorotoluene | ND | | 5.0 | 2.5 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 5.0 | 2.5 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 5.0 | 2.5 |
| 124-48-1 | Dibromochloromethane | ND | | 5.0 | 2.5 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 10 | 5.0 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 5.0 | 2.5 |
| 74-95-3 | Dibromomethane | ND | | 5.0 | 2.5 |
| 95-50-1 | 1,2-Dichlorobenzene | 5.7 | | 5.0 | 2.5 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 5.0 | 2.5 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 5.0 | 2.5 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 10 | 4.0 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 5.0 | 2.5 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 5.0 | 2.5 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 5.0 | 2.5 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 5.0 | 2.5 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 5.0 | 2.5 |
| 594-20-7 | 2,2-Dichloropropane | ND | F1 | 10 | 4.0 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 5.0 | 2.5 |
| 100-41-4 | Ethylbenzene | ND | | 5.0 | 2.5 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 5.0 | 2.5 |
| 87-68-3 | Hexachlorobutadiene | ND | | 5.0 | 2.5 |
| 591-78-6 | 2-Hexanone | ND | | 50 | 25 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-36 | Lab Sample ID: 440-201049-3

Matrix: Water | Lab File ID: GGA19037.D

Analysis Method: 8260B | Date Collected: 01/16/2018 15:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/19/2018 19:24

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452744 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 5.0 | 2.5 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 5.0 | 2.5 |
| 75-09-2 | Methylene Chloride | ND | | 20 | 8.8 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 50 | 25 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 5.0 | 2.5 |
| 179601-23-1 | m,p-Xylene | ND | | 10 | 5.0 |
| 91-20-3 | Naphthalene | ND | | 10 | 4.0 |
| 104-51-8 | n-Butylbenzene | ND | | 10 | 4.0 |
| 103-65-1 | N-Propylbenzene | ND | | 5.0 | 2.5 |
| 95-47-6 | o-Xylene | ND | | 5.0 | 2.5 |
| 99-87-6 | p-Isopropyltoluene | ND | | 5.0 | 2.5 |
| 135-98-8 | sec-Butylbenzene | ND | | 5.0 | 2.5 |
| 100-42-5 | Styrene | ND | | 5.0 | 2.5 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 5.0 | 2.5 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 100 | 50 |
| 98-06-6 | tert-Butylbenzene | ND | | 5.0 | 2.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 5.0 | 2.5 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 5.0 | 2.5 |
| 127-18-4 | Tetrachloroethene | ND | | 5.0 | 2.5 |
| 108-88-3 | Toluene | ND | | 5.0 | 2.5 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 5.0 | 2.5 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 5.0 | 2.5 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 10 | 4.0 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 10 | 4.0 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 5.0 | 2.5 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 5.0 | 2.5 |
| 79-01-6 | Trichloroethene | ND | | 5.0 | 2.5 |
| 75-69-4 | Trichlorofluoromethane | ND | | 5.0 | 2.5 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 10 | 4.0 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 5.0 | 2.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 5.0 | 2.5 |
| 75-01-4 | Vinyl chloride | ND | | 5.0 | 2.5 |
| 1330-20-7 | Xylenes, Total | ND | | 10 | 5.0 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-36 Lab Sample ID: 440-201049-3

Matrix: Water Lab File ID: GGA19037.D

Analysis Method: 8260B Date Collected: 01/16/2018 15:30

Sample wt/vol: 10(mL) Date Analyzed: 01/19/2018 19:24

Soil Aliquot Vol: Dilution Factor: 10

Soil Extract Vol.: GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452744 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 107 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 99 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 109 | | 80-128 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 447237

SDG No.:

Instrument ID: GCMS56 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/19/2017 13:36 Calibration End Date: 12/19/2017 18:41 Calibration ID: 18243

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD02 440-447237/4 | GFL19004.D |
| Level 2 | STD04 440-447237/5 | GFL19005.D |
| Level 3 | STD05 440-447237/6 | GFL19006.D |
| Level 4 | STD1 440-447237/7 | GFL19007.D |
| Level 5 | STD2 440-447237/8 | GFL19008.D |
| Level 6 | STD5 440-447237/9 | GFL19009.D |
| Level 7 | STD10 440-447237/10 | GFL19010.D |
| Level 8 | ICIS 440-447237/11 | GFL19011.D |
| Level 9 | STD50 440-447237/12 | GFL19012.D |
| Level 10 | STD100 440-447237/13 | GFL19013.D |
| Level 11 | STD200 440-447237/14 | GFL19014.D |
| Level 12 | STD300 440-447237/15 | GFL19015.D |

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dichlorodifluoromethane | +++++<br>0.4036<br>0.4280 | +++++<br>0.4546<br>0.4145 | 0.3469<br>0.4638 | 0.3116<br>0.4394 | 0.3645<br>0.4195 | Ave | | 0.4046 | | | | 12.1 | | 15.0 | | | |
| Chloromethane | +++++<br>0.5089<br>0.4682 | +++++<br>0.5240<br>0.4324 | 0.5926<br>0.5122 | 0.5143<br>0.4893 | 0.4546<br>0.4720 | Ave | | 0.4968 | | | 0.1000 | 9.0 | | 15.0 | | | |
| Vinyl chloride | +++++<br>0.4461<br>0.3857 | 0.4485<br>0.4440<br>+++++ | 0.3828<br>0.4205 | 0.3722<br>0.4331 | 0.3338<br>0.3848 | Ave | | 0.4051 | | | | 9.6 | | 30.0 | | | |
| 1,3-Butadiene | +++++<br>0.4662<br>0.3762 | +++++<br>0.4583<br>+++++ | +++++<br>0.4315 | 0.4428<br>0.4270 | 0.3541<br>0.3789 | Ave | | 0.4169 | | | | 10.0 | | 15.0 | | | |
| Bromomethane | +++++<br>0.2774<br>0.2941 | +++++<br>0.2986<br>0.2714 | 0.2818<br>0.3102 | 0.2078<br>0.2909 | 0.2634<br>0.2913 | Ave | | 0.2787 | | | | 10.2 | | 15.0 | | | |
| Chloroethane | +++++<br>0.2432<br>0.2376 | +++++<br>0.2566<br>0.2196 | 0.2584<br>0.2677 | 0.2309<br>0.2426 | 0.2486<br>0.2451 | Ave | | 0.2450 | | | | 5.7 | | 15.0 | | | |
| Ethanol | +++++<br>0.1112<br>0.1055 | +++++<br>0.1129<br>0.0986 | +++++<br>0.1137 | +++++<br>0.1067 | 0.1222<br>0.1080 | Ave | | 0.1099 | | | | 6.3 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 447237

SDG No.:

Instrument ID: GCMS56 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/19/2017 13:36 Calibration End Date: 12/19/2017 18:41 Calibration ID: 18243

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dichlorofluoromethane | +++++<br>0.6301<br>0.6664 | +++++<br>0.6885<br>0.6195 | 0.7416<br>0.7023 | 0.6793<br>0.6694 | 0.6438<br>0.6533 | Ave | | 0.6694 | | | | 5.4 | | 15.0 | | | |
| Acrolein | +++++<br>0.0385<br>0.0556 | +++++<br>0.0531<br>0.0536 | +++++<br>0.0495 | +++++<br>0.0516 | +++++<br>0.0545 | Ave | | 0.0509 | | | | 11.4 | | 15.0 | | | |
| Acetonitrile | +++++<br>0.0474<br>0.0485 | +++++<br>0.0530<br>0.0467 | +++++<br>0.0507 | 0.0608<br>0.0470 | 0.0557<br>0.0485 | Ave | | 0.0509 | | | | 9.4 | | 15.0 | | | |
| Trichlorofluoromethane | +++++<br>0.5925<br>0.6562 | +++++<br>0.6595<br>0.6249 | 0.6063<br>0.6969 | 0.6229<br>0.6748 | 0.6097<br>0.6611 | Ave | | 0.6405 | | | | 5.3 | | 15.0 | | | |
| Acetone | +++++<br>0.0949<br>0.1011 | +++++<br>0.1035<br>0.1038 | +++++<br>0.0893 | +++++<br>0.0992 | +++++<br>0.1019 | Ave | | 0.0991 | | | | 5.3 | | 15.0 | | | |
| Diethyl ether | +++++<br>0.2444<br>0.2907 | +++++<br>0.2905<br>0.2716 | +++++<br>0.2952 | 0.2418<br>0.2689 | 0.2634<br>0.2819 | Ave | | 0.2720 | | | | 7.2 | | 15.0 | | | |
| 1,1-Dichloroethene | +++++<br>0.2978<br>0.3429 | +++++<br>0.3221<br>0.3169 | 0.3475<br>0.3521 | 0.3341<br>0.3271 | 0.3056<br>0.3398 | Ave | | 0.3286 | | | | 5.5 | | 30.0 | | | |
| Iodomethane | +++++<br>0.7648<br>0.8952 | +++++<br>0.8674<br>0.8202 | +++++<br>0.9160 | 0.7726<br>0.8424 | 0.7858<br>0.8896 | Ave | | 0.8393 | | | | 6.7 | | 15.0 | | | |
| tert-Butyl alcohol (TBA) | +++++<br>1.0654<br>1.2264 | +++++<br>1.2386<br>1.1896 | +++++<br>1.2710 | 1.0594<br>1.2235 | 1.1644<br>1.2610 | Ave | | 1.1888 | | | | 6.6 | | 15.0 | | | |
| Acrylonitrile | 0.1055<br>0.1286<br>0.1356 | 0.1173<br>0.1477<br>0.1244 | 0.1153<br>0.1439 | 0.1309<br>0.1301 | 0.1388<br>0.1419 | Ave | | 0.1300 | | | | 9.8 | | 15.0 | | | |
| Methylene Chloride | +++++<br>0.3405<br>0.3669 | +++++<br>0.3642<br>+++++ | +++++<br>0.3718 | 0.4908<br>0.3409 | 0.3965<br>0.3609 | Ave | | 0.3791 | | | | 12.8 | | 15.0 | | | |
| Methyl acetate | +++++<br>0.2113<br>0.2210 | +++++<br>0.2467<br>0.1999 | 0.2123<br>0.2435 | 0.2249<br>0.2206 | 0.2384<br>0.2307 | Ave | | 0.2249 | | | | 6.7 | | 15.0 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | +++++<br>0.3850<br>0.4093 | +++++<br>0.4272<br>0.3833 | 0.3981<br>0.4462 | 0.4478<br>0.4290 | 0.3926<br>0.4205 | Ave | | 0.4139 | | | | 5.8 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 447237

SDG No.:

Instrument ID: GCMS56 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/19/2017 13:36 Calibration End Date: 12/19/2017 18:41 Calibration ID: 18243

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Allyl chloride | +++++<br>0.5029<br>0.4958 | +++++<br>0.5282<br>0.4404 | +++++<br>0.5714 | 0.5769<br>0.4929 | 0.4690<br>0.5067 | Ave | | 0.5094 | | | | 8.7 | | 15.0 | | | |
| Carbon disulfide | +++++<br>1.0376<br>1.1866 | +++++<br>1.1427<br>1.1102 | 1.0151<br>1.2250 | 1.0375<br>1.1275 | 1.0036<br>1.1692 | Ave | | 1.1055 | | | | 7.0 | | 15.0 | | | |
| trans-1,2-Dichloroethene | +++++<br>0.2481<br>0.2960 | 0.1980<br>0.2933<br>0.2774 | 0.2497<br>0.3026 | 0.2760<br>0.2763 | 0.2574<br>0.2862 | Ave | | 0.2692 | | | | 11.1 | | 15.0 | | | |
| Methyl-t-Butyl Ether (MTBE) | +++++<br>0.7398<br>0.8753 | +++++<br>0.8477<br>0.8401 | 0.7396<br>0.8661 | 0.7432<br>0.7831 | 0.7886<br>0.8520 | Ave | | 0.8075 | | | | 6.8 | | 15.0 | | | |
| 1,1-Dichloroethane | +++++<br>0.5938<br>0.6597 | +++++<br>0.6593<br>0.6231 | 0.6441<br>0.6927 | 0.5664<br>0.6270 | 0.5664<br>0.6487 | Ave | | 0.6281 | | | 0.1000 | 6.6 | | 15.0 | | | |
| Propionitrile | +++++<br>0.0495<br>0.0589 | +++++<br>0.0578<br>0.0591 | +++++<br>0.0584 | 0.0436<br>0.0547 | 0.0501<br>0.0581 | Ave | | 0.0545 | | | | 10.1 | | 15.0 | | | |
| Vinyl acetate | +++++<br>0.5321<br>0.7024 | +++++<br>0.6094<br>0.6471 | +++++<br>0.6369 | +++++<br>0.6271 | 0.4703<br>0.6824 | Ave | | 0.6135 | | | | 12.6 | | 15.0 | | | |
| Hexane | +++++<br>0.5330<br>0.5666 | +++++<br>0.6136<br>0.5323 | +++++<br>0.6200 | 0.5275<br>0.5737 | 0.5393<br>0.5616 | Ave | | 0.5631 | | | | 6.2 | | 15.0 | | | |
| 2-Butanone (MEK) | +++++<br>0.0123<br>0.0290 | +++++<br>0.0198<br>0.0303 | +++++<br>0.0234 | +++++<br>0.0255 | +++++<br>0.0249 | Lin2 | -0.080 | 0.0279 | | | | | | | 0.9950 | | 0.9900 |
| Isopropyl Ether (DIPE) | +++++<br>1.1395<br>1.2408 | +++++<br>1.3038<br>1.1266 | 1.1191<br>1.3220 | 1.1098<br>1.1984 | 1.2015<br>1.2322 | Ave | | 1.1994 | | | | 6.3 | | 15.0 | | | |
| cis-1,2-Dichloroethene | +++++<br>0.2812<br>0.3338 | 0.2501<br>0.3187<br>0.3085 | 0.2404<br>0.3391 | 0.2908<br>0.3001 | 0.2750<br>0.3185 | Ave | | 0.2960 | | | | 10.9 | | 15.0 | | | |
| Bromochloromethane | +++++<br>0.1486<br>0.1850 | +++++<br>0.1779<br>0.1767 | 0.1415<br>0.1848 | 0.1415<br>0.1661 | 0.1599<br>0.1790 | Ave | | 0.1661 | | | | 10.4 | | 15.0 | | | |
| Chloroform | +++++<br>0.4605<br>0.5461 | +++++<br>0.5173<br>0.5168 | 0.4761<br>0.5295 | 0.4492<br>0.4982 | 0.4511<br>0.5202 | Ave | | 0.4965 | | | | 7.0 | | 30.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 447237

SDG No.:

Instrument ID: GCMS56 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/19/2017 13:36 Calibration End Date: 12/19/2017 18:41 Calibration ID: 18243

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| 2,2-Dichloropropane | +++++<br>0.3244<br>0.3210 | +++++<br>0.3448<br>0.2899 | 0.3692<br>0.3549 | 0.3249<br>0.3283 | 0.2919<br>0.3171 | Ave | | 0.3266 | | | | 7.7 | | 15.0 | | | |
| Ethyl-t-butyl ether (ETBE) | +++++<br>1.2686<br>1.4087 | +++++<br>1.4182<br>1.2886 | 1.2494<br>1.4752 | 1.1850<br>1.3225 | 1.2826<br>1.3949 | Ave | | 1.3294 | | | | 6.8 | | 15.0 | | | |
| Isobutyl alcohol | +++++<br>0.3660<br>0.4366 | +++++<br>0.3829<br>0.4157 | 0.3043<br>0.4135 | 0.3591<br>0.4211 | 0.3303<br>0.4334 | Ave | | 0.3863 | | | | 11.8 | | 15.0 | | | |
| Tetrahydrofuran | +++++<br>0.1002<br>0.1056 | +++++<br>0.1163<br>0.1054 | +++++<br>0.1115 | 0.1300<br>0.1009 | 0.1336<br>0.1067 | Ave | | 0.1123 | | | | 10.8 | | 15.0 | | | |
| 1,2-Dichloroethane | +++++<br>0.4215<br>0.5029 | 0.4097<br>0.4771<br>0.4752 | 0.4105<br>0.4969 | 0.3996<br>0.4515 | 0.4292<br>0.4860 | Ave | | 0.4509 | | | | 8.5 | | 15.0 | | | |
| 1,1,1-Trichloroethane | +++++<br>0.4872<br>0.5625 | +++++<br>0.5417<br>0.5438 | 0.5024<br>0.5734 | 0.5012<br>0.5375 | 0.4896<br>0.5558 | Ave | | 0.5295 | | | | 6.0 | | 15.0 | | | |
| 1,1-Dichloropropene | +++++<br>0.3068<br>0.3426 | +++++<br>0.3323<br>0.3331 | 0.2973<br>0.3474 | 0.2952<br>0.3323 | 0.3085<br>0.3391 | Ave | | 0.3235 | | | | 6.0 | | 15.0 | | | |
| Cyclohexane | +++++<br>0.7245<br>0.7704 | +++++<br>0.8012<br>0.7237 | +++++<br>0.8240 | 0.7583<br>0.7733 | 0.7008<br>0.7818 | Ave | | 0.7620 | | | | 5.2 | | 15.0 | | | |
| Carbon tetrachloride | +++++<br>0.4363<br>0.5283 | +++++<br>0.4817<br>0.5173 | 0.4487<br>0.5067 | 0.4170<br>0.4855 | 0.4255<br>0.5152 | Ave | | 0.4762 | | | | 8.7 | | 15.0 | | | |
| Benzene | +++++<br>0.9219<br>1.0436 | +++++<br>0.9978<br>0.9704 | 0.8935<br>1.0612 | 0.8495<br>0.9499 | 0.8594<br>1.0186 | Ave | | 0.9566 | | | | 7.8 | | 15.0 | | | |
| Tert-amyl-methyl ether (TAME) | +++++<br>0.7974<br>0.8869 | +++++<br>0.8774<br>0.8341 | 1.2807<br>0.8867 | 1.0197<br>0.7932 | 0.8833<br>0.8593 | Lin2 | 0.2108 | 0.8301 | | | | | | | 0.9960 | | 0.9900 |
| Dibromomethane | +++++<br>0.1627<br>0.2011 | +++++<br>0.1895<br>+++++ | 0.1232<br>0.1997 | 0.1496<br>0.1780 | 0.1760<br>0.1940 | Ave | | 0.1749 | | | | 14.8 | | 15.0 | | | |
| n-Heptane | +++++<br>0.5106<br>0.4870 | +++++<br>0.5527<br>0.4348 | +++++<br>0.5582 | 0.4878<br>0.5282 | 0.5156<br>0.5100 | Ave | | 0.5095 | | | | 7.3 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 447237

SDG No.:

Instrument ID: GCMS56 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/19/2017 13:36 Calibration End Date: 12/19/2017 18:41 Calibration ID: 18243

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| 1,2-Dichloropropane | +++++<br>0.3192<br>0.3908 | +++++<br>0.3706<br>0.3665 | 0.3115<br>0.3806 | 0.3014<br>0.3543 | 0.3201<br>0.3650 | Ave | | 0.3480 | | | | 9.2 | | 30.0 | | | |
| Trichloroethene | +++++<br>0.3021<br>0.3550 | +++++<br>0.3394<br>0.3440 | 0.2672<br>0.3685 | 0.2763<br>0.3399 | 0.3145<br>0.3487 | Ave | | 0.3255 | | | | 10.5 | | 15.0 | | | |
| Bromodichloromethane | +++++<br>0.3353<br>0.4467 | +++++<br>0.3832<br>0.4292 | 0.3545<br>0.4280 | 0.3122<br>0.3869 | 0.3292<br>0.4076 | Ave | | 0.3813 | | | | 12.3 | | 15.0 | | | |
| Methylcyclohexane | +++++<br>0.4666<br>0.5197 | +++++<br>0.5139<br>0.4937 | +++++<br>0.5243 | 0.4825<br>0.5095 | 0.4458<br>0.5199 | Ave | | 0.4973 | | | | 5.5 | | 15.0 | | | |
| 2-Chloroethyl vinyl ether | +++++<br>0.2092<br>0.2096 | +++++<br>0.2505<br>+++++ | +++++<br>0.2393 | +++++<br>0.2133 | 0.1925<br>0.2387 | Ave | | 0.2219 | | | | 9.5 | | 15.0 | | | |
| cis-1,3-Dichloropropene | +++++<br>0.4165<br>0.3967 | +++++<br>0.4556<br>0.3379 | 0.3885<br>0.4426 | 0.3516<br>0.3983 | 0.4272<br>0.4437 | Ave | | 0.4059 | | | | 9.7 | | 15.0 | | | |
| 4-Methyl-2-pentanone (MIBK) | +++++<br>0.2940<br>0.3201 | +++++<br>0.3365<br>0.2893 | +++++<br>0.3019 | +++++<br>0.3130 | 0.3604<br>0.3560 | Ave | | 0.3214 | | | | 8.5 | | 15.0 | | | |
| trans-1,3-Dichloropropene | +++++<br>0.3709<br>0.3725 | +++++<br>0.4160<br>0.3243 | 0.2855<br>0.4045 | 0.3292<br>0.3589 | 0.3644<br>0.4087 | Ave | | 0.3635 | | | | 11.4 | | 15.0 | | | |
| 1,1,2-Trichloroethane | +++++<br>0.1935<br>0.1991 | +++++<br>0.2329<br>0.1725 | 0.1992<br>0.2157 | 0.1771<br>0.1901 | 0.2083<br>0.2150 | Ave | | 0.2003 | | | | 9.2 | | 15.0 | | | |
| Toluene | +++++<br>1.1104<br>0.9554 | +++++<br>1.2343<br>+++++ | 1.1478<br>1.1477 | 1.2105<br>1.0311 | 1.1597<br>1.0973 | Ave | | 1.1216 | | | | 7.7 | | 30.0 | | | |
| 1,3-Dichloropropane | +++++<br>0.3574<br>0.3425 | +++++<br>0.3899<br>0.2954 | 0.2961<br>0.3742 | 0.3258<br>0.3299 | 0.3654<br>0.3806 | Ave | | 0.3457 | | | | 9.7 | | 15.0 | | | |
| Ethyl methacrylate | +++++<br>0.2595<br>0.2865 | +++++<br>0.3116<br>0.2558 | +++++<br>0.3012 | +++++<br>0.2713 | 0.2692<br>0.3165 | Ave | | 0.2839 | | | | 8.3 | | 15.0 | | | |
| 2-Hexanone | +++++<br>0.1512<br>0.2373 | +++++<br>0.2167<br>0.2184 | +++++<br>0.2181 | +++++<br>0.2281 | +++++<br>0.2644 | Lin2 | -0.415 | 0.2416 | | | | | | | 0.9940 | | 0.9900 |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 447237

SDG No.:

Instrument ID: GCMS56 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/19/2017 13:36 Calibration End Date: 12/19/2017 18:41 Calibration ID: 18243

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dibromochloromethane | +++++<br>0.3290<br>0.3809 | +++++<br>0.3916<br>0.3252 | 0.3057<br>0.3780 | 0.2930<br>0.3510 | 0.3441<br>0.4074 | Ave | | 0.3506 | | | | 10.9 | | 15.0 | | | |
| 1,2-Dibromoethane (EDB) | +++++<br>0.2826<br>0.2898 | +++++<br>0.3225<br>0.2590 | 0.2453<br>0.3045 | 0.2541<br>0.2737 | 0.3006<br>0.3131 | Ave | | 0.2845 | | | | 9.2 | | 15.0 | | | |
| Tetrachloroethene | +++++<br>0.2896<br>0.2664 | +++++<br>0.3248<br>+++++ | 0.3315<br>0.3104 | 0.3224<br>0.2812 | 0.3008<br>0.2991 | Ave | | 0.3029 | | | | 7.1 | | 15.0 | | | |
| 1,1,1,2-Tetrachloroethane | +++++<br>0.3293<br>0.3634 | +++++<br>0.3958<br>0.3078 | 0.3275<br>0.3762 | 0.3440<br>0.3366 | 0.3461<br>0.3885 | Ave | | 0.3515 | | | | 8.1 | | 15.0 | | | |
| Chlorobenzene | +++++<br>0.8692<br>0.8285 | +++++<br>0.9343<br>+++++ | 0.8588<br>0.8874 | 0.8813<br>0.7957 | 0.9172<br>0.9007 | Ave | | 0.8748 | | | 0.3000 | 4.9 | | 15.0 | | | |
| Ethylbenzene | +++++<br>1.3261<br>1.1855 | +++++<br>1.4452<br>+++++ | 1.4027<br>1.3264 | 1.4345<br>1.2244 | 1.3157<br>1.3574 | Ave | | 1.3353 | | | | 6.6 | | 30.0 | | | |
| m,p-Xylene | +++++<br>0.5462<br>0.5259 | +++++<br>0.5757<br>0.4464 | 0.5098<br>0.5452 | 0.5394<br>0.4986 | 0.5496<br>0.5613 | Ave | | 0.5298 | | | | 7.0 | | 15.0 | | | |
| Bromoform | +++++<br>0.2258<br>0.3062 | +++++<br>0.2658<br>0.2727 | 0.1837<br>0.2723 | 0.2177<br>0.2517 | 0.2393<br>0.3156 | Lin2 | -0.050 | 0.2746 | | | 0.1000 | | | | 0.9910 | | 0.9900 |
| Styrene | +++++<br>0.8653<br>0.8894 | +++++<br>0.9313<br>+++++ | 0.8489<br>0.9033 | 0.7937<br>0.8235 | 0.8243<br>0.9590 | Ave | | 0.8710 | | | | 6.2 | | 15.0 | | | |
| 1,1,2,2-Tetrachloroethane | +++++<br>0.5348<br>0.5662 | +++++<br>0.6372<br>0.5516 | 0.5006<br>0.6048 | 0.4962<br>0.5516 | 0.5575<br>0.5657 | Ave | | 0.5566 | | | 0.3000 | 7.6 | | 15.0 | | | |
| o-Xylene | +++++<br>0.5482<br>0.5237 | 0.5649<br>0.5898<br>+++++ | 0.5571<br>0.5541 | 0.5466<br>0.4957 | 0.5253<br>0.5677 | Ave | | 0.5473 | | | | 4.9 | | 15.0 | | | |
| 1,2,3-Trichloropropane | +++++<br>0.1468<br>0.1662 | +++++<br>0.1681<br>0.1717 | +++++<br>0.1618 | 0.1337<br>0.1560 | 0.1511<br>0.1607 | Ave | | 0.1573 | | | | 7.6 | | 15.0 | | | |
| trans-1,4-Dichloro-2-butene | +++++<br>0.1815<br>0.2311 | +++++<br>0.2154<br>0.2312 | +++++<br>0.2217 | +++++<br>0.2140 | 0.1924<br>0.2255 | Ave | | 0.2141 | | | | 8.5 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 447237

SDG No.:

Instrument ID: GCMS56 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/19/2017 13:36 Calibration End Date: 12/19/2017 18:41 Calibration ID: 18243

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Isopropylbenzene | +++++<br>1.4480<br>1.3408 | +++++<br>1.5581<br>+++++ | 1.4846<br>1.4645 | 1.5033<br>1.3370 | 1.4252<br>1.5219 | Ave | | 1.4537 | | | | 5.2 | | 15.0 | | | |
| Bromobenzene | +++++<br>0.6958<br>0.7669 | +++++<br>0.7666<br>0.7528 | 0.5665<br>0.7944 | 0.7035<br>0.7205 | 0.7250<br>0.7451 | Ave | | 0.7237 | | | | 8.7 | | 15.0 | | | |
| N-Propylbenzene | +++++<br>2.4830<br>2.4092 | +++++<br>2.7001<br>2.1359 | 2.4172<br>2.7248 | 2.5682<br>2.5800 | 2.3768<br>2.5344 | Ave | | 2.4930 | | | | 6.9 | | 15.0 | | | |
| 2-Chlorotoluene | +++++<br>1.5239<br>1.5555 | +++++<br>1.6390<br>1.4621 | 1.5683<br>1.6422 | 1.6002<br>1.5336 | 1.5563<br>1.5489 | Ave | | 1.5630 | | | | 3.5 | | 15.0 | | | |
| 4-Chlorotoluene | +++++<br>1.5697<br>1.6253 | +++++<br>1.7395<br>1.5014 | 1.4700<br>1.7480 | 1.6094<br>1.5999 | 1.5715<br>1.6233 | Ave | | 1.6058 | | | | 5.5 | | 15.0 | | | |
| 1,3,5-Trimethylbenzene | +++++<br>1.8713<br>1.9219 | +++++<br>2.0905<br>1.7257 | 1.9184<br>2.1090 | 1.9561<br>1.9745 | 1.8737<br>1.9941 | Ave | | 1.9435 | | | | 5.7 | | 15.0 | | | |
| tert-Butylbenzene | +++++<br>1.8999<br>1.8318 | +++++<br>2.0802<br>1.6677 | 1.9578<br>2.0794 | 2.0133<br>1.9998 | 1.9091<br>1.9437 | Ave | | 1.9383 | | | | 6.4 | | 15.0 | | | |
| 1,2,4-Trimethylbenzene | +++++<br>1.9531<br>1.9766 | +++++<br>2.1700<br>1.7850 | 1.9360<br>2.1995 | 1.8386<br>2.0418 | 1.9496<br>2.0933 | Ave | | 1.9944 | | | | 6.7 | | 15.0 | | | |
| sec-Butylbenzene | +++++<br>2.6733<br>2.4279 | +++++<br>2.8620<br>+++++ | 2.7523<br>2.8651 | 2.6714<br>2.7758 | 2.6337<br>2.6670 | Ave | | 2.7032 | | | | 4.9 | | 15.0 | | | |
| 1,3-Dichlorobenzene | +++++<br>1.3586<br>1.4332 | +++++<br>1.4779<br>1.3308 | 1.4280<br>1.5135 | 1.3833<br>1.4054 | 1.3424<br>1.4585 | Ave | | 1.4132 | | | | 4.3 | | 15.0 | | | |
| 1,4-Dichlorobenzene | +++++<br>1.3161<br>1.4457 | +++++<br>1.5195<br>1.3257 | 1.3997<br>1.5453 | 1.3994<br>1.4574 | 1.3913<br>1.4582 | Ave | | 1.4258 | | | | 5.2 | | 15.0 | | | |
| p-Isopropyltoluene | +++++<br>2.3653<br>2.3020 | +++++<br>2.6541<br>+++++ | 2.3513<br>2.6595 | 2.4336<br>2.5673 | 2.2844<br>2.5397 | Ave | | 2.4619 | | | | 6.0 | | 15.0 | | | |
| 1,2-Dichlorobenzene | +++++<br>1.3165<br>1.3793 | +++++<br>1.5135<br>1.2773 | 1.3011<br>1.5160 | 1.3044<br>1.4130 | 1.3587<br>1.4492 | Ave | | 1.3829 | | | | 6.3 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 447237

SDG No.:

Instrument ID: GCMS56 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/19/2017 13:36 Calibration End Date: 12/19/2017 18:41 Calibration ID: 18243

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| n-Butylbenzene | +++++<br>2.0599<br>1.8706 | +++++<br>2.1689<br>1.7149 | 2.0931<br>2.1947 | 2.0187<br>2.1475 | 1.9389<br>2.0724 | Ave | | 2.0280 | | | | 7.4 | | 15.0 | | | |
| 1,2-Dibromo-3-Chloropropane | +++++<br>0.1011<br>0.1189 | +++++<br>0.1196<br>0.1236 | +++++<br>0.1200 | 0.0663<br>0.1229 | 0.1044<br>0.1276 | Lin2 | -0.054 | 0.1229 | | | | | | | 0.9970 | | 0.9900 |
| 1,2,4-Trichlorobenzene | +++++<br>1.0140<br>0.9852 | +++++<br>1.1535<br>0.9108 | 0.9359<br>1.2186 | 0.9961<br>1.1726 | 1.0919<br>1.1179 | Ave | | 1.0597 | | | | 10.0 | | 15.0 | | | |
| Naphthalene | +++++<br>2.2797<br>1.9904 | +++++<br>2.6869<br>+++++ | 2.1736<br>2.6076 | 2.2301<br>2.6023 | 2.4504<br>2.4577 | Ave | | 2.3865 | | | | 9.7 | | 15.0 | | | |
| Hexachlorobutadiene | +++++<br>0.5976<br>0.5386 | +++++<br>0.6660<br>0.5180 | 0.6357<br>0.6767 | 0.6203<br>0.6722 | 0.5712<br>0.6053 | Ave | | 0.6102 | | | | 9.1 | | 15.0 | | | |
| 1,2,3-Trichlorobenzene | +++++<br>0.9499<br>0.8612 | +++++<br>1.0781<br>0.8020 | 0.9097<br>1.1024 | 0.9098<br>1.0569 | 0.9815<br>1.0020 | Ave | | 0.9654 | | | | 10.1 | | 15.0 | | | |
| Dibromofluoromethane (Surr) | 0.3138 | 0.3191 | 0.3430 | 0.3216 | 0.3395 | Ave | | 0.3274 | | | | 4.0 | | 15.0 | | | |
| 1,2-Dichloroethane-d4 (Surr) | 0.3439 | 0.3552 | 0.3788 | 0.3590 | 0.3832 | Ave | | 0.3640 | | | | 4.5 | | 15.0 | | | |
| Toluene-d8 (Surr) | 1.1293 | 1.1157 | 1.0546 | 0.9750 | 1.0477 | Ave | | 1.0645 | | | | 5.8 | | 15.0 | | | |
| 4-Bromofluorobenzene (Surr) | 0.6920 | 0.6977 | 0.7280 | 0.6905 | 0.6947 | Ave | | 0.7006 | | | | 2.2 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 447237

SDG No.:

Instrument ID: GCMS56 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/19/2017 13:36 Calibration End Date: 12/19/2017 18:41 Calibration ID: 18243

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD02 440-447237/4 | GFL19004.D |
| Level 2 | STD04 440-447237/5 | GFL19005.D |
| Level 3 | STD05 440-447237/6 | GFL19006.D |
| Level 4 | STD1 440-447237/7 | GFL19007.D |
| Level 5 | STD2 440-447237/8 | GFL19008.D |
| Level 6 | STD5 440-447237/9 | GFL19009.D |
| Level 7 | STD10 440-447237/10 | GFL19010.D |
| Level 8 | ICIS 440-447237/11 | GFL19011.D |
| Level 9 | STD50 440-447237/12 | GFL19012.D |
| Level 10 | STD100 440-447237/13 | GFL19013.D |
| Level 11 | STD200 440-447237/14 | GFL19014.D |
| Level 12 | STD300 440-447237/15 | GFL19015.D |

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Dichlorodifluoromethane | FB | Ave | +++++<br>60925<br>2452469 | +++++<br>136113<br>3678622 | 5517<br>336355 | 8884<br>637504 | 22615<br>1246161 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloromethane | FB | Ave | +++++<br>76809<br>2682549 | +++++<br>156886<br>3837766 | 9425<br>371455 | 14661<br>709927 | 28202<br>1402371 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Vinyl chloride | FB | Ave | +++++<br>67330<br>2210206 | 5540<br>132929<br>+++++ | 6089<br>304937 | 10612<br>628370 | 20708<br>1143129 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Butadiene | FB | Ave | +++++<br>70364<br>2155778 | +++++<br>137213<br>+++++ | +++++<br>312926 | 12624<br>619501 | 21971<br>1125534 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromomethane | FB | Ave | +++++<br>41873<br>1685068 | +++++<br>89400<br>2409061 | 4483<br>224972 | 5923<br>422062 | 16344<br>865281 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloroethane | FB | Ave | +++++<br>36703<br>1361130 | +++++<br>76826<br>1949218 | 4110<br>194119 | 6583<br>351925 | 15425<br>728108 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethanol | TBAd 9 | Ave | +++++<br>33216<br>1567974 | +++++<br>72301<br>2417151 | +++++<br>162597 | +++++<br>379915 | 22866<br>823091 | +++++<br>200<br>10000 | +++++<br>400<br>15000 | +++++<br>1000 | +++++<br>2500 | 100<br>5000 |
| Dichlorofluoromethane | FB | Ave | +++++<br>95108<br>3818098 | +++++<br>206151<br>5498423 | 11796<br>509302 | 19367<br>971249 | 39942<br>1940975 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 447237

SDG No.:

Instrument ID: GCMS56 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/19/2017 13:36 Calibration End Date: 12/19/2017 18:41 Calibration ID: 18243

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Acrolein | FB | Ave | +++++<br>5815<br>318723 | +++++<br>15894<br>475926 | +++++<br>35885 | +++++<br>74798 | +++++<br>161879 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Acetonitrile | FB | Ave | +++++<br>71577<br>2777429 | +++++<br>158706<br>4146319 | +++++<br>367753 | 17327<br>681457 | 34567<br>1441715 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Trichlorofluoromethane | FB | Ave | +++++<br>89433<br>3759712 | +++++<br>197465<br>5545845 | 9643<br>505407 | 17758<br>979019 | 37826<br>1964012 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Acetone | FB | Ave | +++++<br>14325<br>579308 | +++++<br>30981<br>920898 | +++++<br>64738 | +++++<br>143953 | +++++<br>302604 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Diethyl ether | FB | Ave | +++++<br>36896<br>1665875 | +++++<br>86971<br>2410542 | +++++<br>214066 | 6893<br>390108 | 16344<br>837434 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloroethene | FB | Ave | +++++<br>44948<br>1964913 | +++++<br>96446<br>2812913 | 5528<br>255313 | 9525<br>474594 | 18959<br>1009419 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Iodomethane | FB | Ave | +++++<br>115443<br>5128997 | +++++<br>259712<br>7279398 | +++++<br>664282 | 22026<br>1222197 | 48752<br>2642839 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| tert-Butyl alcohol (TBA) | TBAd9 | Ave | +++++<br>79578<br>3644189 | +++++<br>198228<br>5832544 | +++++<br>454424 | 17316<br>871136 | 43578<br>1921655 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Acrylonitrile | FB | Ave | 6353<br>194031<br>7772013 | 14489<br>442237<br>11040726 | 18336<br>1043524 | 37330<br>1887712 | 86112<br>4216009 | 2.00<br>50.0<br>2000 | 4.00<br>100<br>3000 | 5.00<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Methylene Chloride | FB | Ave | +++++<br>51400<br>2102295 | +++++<br>109055<br>+++++ | +++++<br>269595 | 13992<br>494588 | 24603<br>1072263 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methyl acetate | FB | Ave | +++++<br>159482<br>6331423 | +++++<br>369392<br>8871334 | 16881<br>882776 | 32057<br>1600596 | 73962<br>3427549 | +++++<br>25.0<br>1000 | +++++<br>50.0<br>1500 | 2.50<br>125 | 5.00<br>250 | 10.0<br>500 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | FB | Ave | +++++<br>58106<br>2345188 | +++++<br>127894<br>3401876 | 6332<br>323544 | 12765<br>622467 | 24361<br>1249125 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Allyl chloride | FB | Ave | +++++<br>75901<br>2840512 | +++++<br>158154<br>3908641 | +++++<br>414377 | 16448<br>715113 | 29100<br>1505216 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 447237

SDG No.:

Instrument ID: GCMS56 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/19/2017 13:36 Calibration End Date: 12/19/2017 18:41 Calibration ID: 18243

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Carbon disulfide | FB | Ave | +++++<br>156618<br>6798879 | +++++<br>342153<br>9853331 | 16146<br>888355 | 29577<br>1635930 | 62268<br>3473687 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| trans-1,2-Dichloroethene | FB | Ave | +++++<br>37453<br>1696027 | 2446<br>87822<br>2461561 | 3972<br>219472 | 7867<br>400888 | 15973<br>850322 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methyl-t-Butyl Ether (MTBE) | FB | Ave | +++++<br>111663<br>5015328 | +++++<br>253803<br>7455842 | 11764<br>628108 | 21187<br>1136152 | 48929<br>2531105 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloroethane | FB | Ave | +++++<br>89630<br>3780019 | +++++<br>197391<br>5530198 | 10245<br>502312 | 16148<br>909710 | 35143<br>1927312 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Propionitrile | FB | Ave | +++++<br>74673<br>3377250 | +++++<br>173174<br>5241834 | +++++<br>423155 | 12427<br>793154 | 31103<br>1726653 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Vinyl acetate | FB | Ave | +++++<br>64256<br>4024416 | +++++<br>145972<br>5743231 | +++++<br>369481 | +++++<br>909903 | 29178<br>2027195 | +++++<br>4.00<br>200 | +++++<br>8.00<br>300 | +++++<br>20.0 | +++++<br>50.0 | 2.00<br>100 |
| Hexane | FB | Ave | +++++<br>80456<br>3246148 | +++++<br>183729<br>4724318 | +++++<br>449607 | 15037<br>832339 | 33458<br>1668355 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Butanone (MEK) | FB | Lin2 | +++++<br>1853<br>166005 | +++++<br>5930<br>268783 | +++++<br>16949 | +++++<br>36971 | +++++<br>74062 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Isopropyl Ether (DIPE) | FB | Ave | +++++<br>171992<br>7109409 | +++++<br>390380<br>9998411 | 17800<br>958674 | 31640<br>1738786 | 74546<br>3660746 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| cis-1,2-Dichloroethene | FB | Ave | +++++<br>42442<br>1912547 | 3089<br>95417<br>2737963 | 3823<br>245922 | 8290<br>435373 | 17063<br>946265 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromochloromethane | FB | Ave | +++++<br>22435<br>1059772 | +++++<br>53265<br>1568257 | 2250<br>134007 | 4034<br>241003 | 9921<br>531711 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloroform | FB | Ave | +++++<br>69504<br>3129033 | +++++<br>154872<br>4586532 | 7572<br>383983 | 12805<br>722841 | 27987<br>1545438 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2,2-Dichloropropane | FB | Ave | +++++<br>48957<br>1839428 | +++++<br>103226<br>2572750 | 5873<br>257391 | 9263<br>476274 | 18109<br>941923 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 447237

SDG No.:

Instrument ID: GCMS56 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/19/2017 13:36 Calibration End Date: 12/19/2017 18:41 Calibration ID: 18243

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Ethyl-t-butyl ether (ETBE) | FB | Ave | +++++<br>191478<br>8071620 | +++++<br>424626<br>11436750 | 19872<br>1069771 | 33782<br>1918868 | 79574<br>4144137 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Isobutyl alcohol | TBAd 9 | Ave | +++++<br>68344<br>3243265 | +++++<br>153183<br>5094708 | 6208<br>369600 | 14675<br>749613 | 30908<br>1651028 | +++++<br>125<br>5000 | +++++<br>250<br>7500 | 12.5<br>625 | 25.0<br>1250 | 50.0<br>2500 |
| Tetrahydrofuran | FB | Ave | +++++<br>30259<br>1209824 | +++++<br>69645<br>1871324 | +++++<br>161756 | 7412<br>292822 | 16578<br>634217 | +++++<br>10.0<br>400 | +++++<br>20.0<br>600 | +++++<br>50.0 | 2.00<br>100 | 4.00<br>200 |
| 1,2-Dichloroethane | FB | Ave | +++++<br>63625<br>2881613 | 5061<br>142861<br>4217637 | 6530<br>360332 | 11391<br>655008 | 26632<br>1443853 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,1-Trichloroethane | FB | Ave | +++++<br>73532<br>3222677 | +++++<br>162196<br>4826230 | 7991<br>415790 | 14289<br>779843 | 30378<br>1651231 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloropropene | FB | Ave | +++++<br>46311<br>1962851 | +++++<br>99493<br>2956274 | 4729<br>251920 | 8416<br>482172 | 19140<br>1007307 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Cyclohexane | FB | Ave | +++++<br>109355<br>4414358 | +++++<br>239895<br>6423218 | +++++<br>597533 | 21617<br>1121906 | 43478<br>2322586 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Carbon tetrachloride | FB | Ave | +++++<br>65852<br>3027057 | +++++<br>144228<br>4590864 | 7137<br>367468 | 11887<br>704465 | 26398<br>1530558 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Benzene | FB | Ave | +++++<br>139146<br>5979735 | +++++<br>298765<br>8612390 | 14212<br>769543 | 24218<br>1378245 | 53317<br>3026016 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Tert-amyl-methyl ether (TAME) | FB | Lin2 | +++++<br>120354<br>5081629 | +++++<br>262700<br>7402604 | 20370<br>643025 | 29069<br>1150863 | 54803<br>2552901 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Dibromomethane | FB | Ave | +++++<br>24565<br>1152312 | +++++<br>56727<br>+++++ | 1959<br>144845 | 4264<br>258295 | 10920<br>576357 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Heptane | FB | Ave | +++++<br>77076<br>2790481 | +++++<br>165491<br>3859171 | +++++<br>404812 | 13907<br>766372 | 31989<br>1515159 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2-Dichloropropane | FB | Ave | +++++<br>48185<br>2238914 | +++++<br>110971<br>3253183 | 4954<br>275974 | 8592<br>514046 | 19858<br>1084479 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 447237

SDG No.:

Instrument ID: GCMS56 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/19/2017 13:36 Calibration End Date: 12/19/2017 18:41 Calibration ID: 18243

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Trichloroethene | FB | Ave | +++++<br>45600<br>2033855 | +++++<br>101613<br>3052642 | 4250<br>267235 | 7877<br>493155 | 19513<br>1035857 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromodichloromethane | FB | Ave | +++++<br>50606<br>2559682 | +++++<br>114729<br>3809670 | 5638<br>310372 | 8901<br>561286 | 20424<br>1210842 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methylcyclohexane | FB | Ave | +++++<br>70424<br>2977783 | +++++<br>153877<br>4381604 | +++++<br>380224 | 13754<br>739171 | 27658<br>1544511 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Chloroethyl vinyl ether | CBNZ d5 | Ave | +++++<br>28582<br>1471877 | +++++<br>69767<br>+++++ | +++++<br>179112 | +++++<br>329459 | 10757<br>737614 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| cis-1,3-Dichloropropene | CBNZ d5 | Ave | +++++<br>56901<br>2785719 | +++++<br>126895<br>4169462 | 5451<br>331309 | 8906<br>615210 | 23874<br>1371063 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 4-Methyl-2-pentanone (MIBK) | CBNZ d5 | Ave | +++++<br>40161<br>2248018 | +++++<br>93731<br>3570241 | +++++<br>225927 | +++++<br>483502 | 20138<br>1100082 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| trans-1,3-Dichloropropene | CBNZ d5 | Ave | +++++<br>50678<br>2615595 | +++++<br>115883<br>4001712 | 4006<br>302783 | 8338<br>554322 | 20364<br>1262903 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2-Trichloroethane | CBNZ d5 | Ave | +++++<br>26435<br>1398027 | +++++<br>64872<br>2128217 | 2795<br>161414 | 4487<br>293618 | 11641<br>664339 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Toluene | CBNZ d5 | Ave | +++++<br>151704<br>6709065 | +++++<br>343799<br>+++++ | 16106<br>859011 | 30662<br>1592766 | 64808<br>3390963 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Dichloropropane | CBNZ d5 | Ave | +++++<br>48832<br>2404737 | +++++<br>108613<br>3644929 | 4155<br>280096 | 8254<br>509602 | 20417<br>1176128 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethyl methacrylate | CBNZ d5 | Ave | +++++<br>35447<br>2012012 | +++++<br>86784<br>3155965 | +++++<br>225409 | +++++<br>419017 | 15042<br>978048 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| 2-Hexanone | CBNZ d5 | Lin2 | +++++<br>20661<br>1666585 | +++++<br>60364<br>2694601 | +++++<br>163272 | +++++<br>352339 | +++++<br>817050 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Dibromochloromethane | CBNZ d5 | Ave | +++++<br>44950<br>2674422 | +++++<br>109087<br>4013234 | 4290<br>282928 | 7423<br>542151 | 19230<br>1258846 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 447237

SDG No.:

Instrument ID: GCMS56 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/19/2017 13:36 Calibration End Date: 12/19/2017 18:41 Calibration ID: 18243

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 1,2-Dibromoethane (EDB) | CBNZ d5 | Ave | +++++<br>38615<br>2034637 | +++++<br>89813<br>3196435 | 3442<br>227918 | 6437<br>422850 | 16801<br>967561 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Tetrachloroethene | CBNZ d5 | Ave | +++++<br>39563<br>1870838 | +++++<br>90474<br>+++++ | 4651<br>232336 | 8166<br>434432 | 16808<br>924392 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,1,2-Tetrachloroethane | CBNZ d5 | Ave | +++++<br>44994<br>2551616 | +++++<br>110233<br>3798422 | 4595<br>281538 | 8713<br>519960 | 19339<br>1200622 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chlorobenzene | CBNZ d5 | Ave | +++++<br>118753<br>5817721 | +++++<br>260233<br>+++++ | 12051<br>664174 | 22324<br>1229076 | 51255<br>2783578 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethylbenzene | CBNZ d5 | Ave | +++++<br>181172<br>8324310 | +++++<br>402540<br>+++++ | 19683<br>992758 | 36338<br>1891315 | 73524<br>4194773 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| m,p-Xylene | CBNZ d5 | Ave | +++++<br>74622<br>3692950 | +++++<br>160358<br>5508099 | 7153<br>408069 | 13664<br>770114 | 30714<br>1734694 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromoform | CBNZ d5 | Lin2 | +++++<br>30855<br>2149995 | +++++<br>74033<br>3364461 | 2578<br>203790 | 5515<br>388876 | 13372<br>975329 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Styrene | CBNZ d5 | Ave | +++++<br>118218<br>6245471 | +++++<br>259394<br>+++++ | 11912<br>676117 | 20104<br>1272111 | 46064<br>2963486 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2,2-Tetrachloroethane | DCBd 4 | Ave | +++++<br>47816<br>2498189 | +++++<br>113107<br>3595438 | 4708<br>271013 | 8297<br>500101 | 20489<br>1214121 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| o-Xylene | CBNZ d5 | Ave | +++++<br>74896<br>3677720 | 6297<br>164269<br>+++++ | 7817<br>414705 | 13845<br>765737 | 29357<br>1754235 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,3-Trichloropropane | DCBd 4 | Ave | +++++<br>13123<br>733097 | +++++<br>29842<br>1119376 | +++++<br>72528 | 2236<br>141438 | 5552<br>344963 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| trans-1,4-Dichloro-2-butene | DCBd 4 | Ave | +++++<br>16232<br>1019491 | +++++<br>38235<br>1506673 | +++++<br>99350 | +++++<br>193989 | 7070<br>483951 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Isopropylbenzene | CBNZ d5 | Ave | +++++<br>197820<br>9414860 | +++++<br>433983<br>+++++ | 20832<br>1096116 | 38080<br>2065270 | 79644<br>4703134 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 447237

SDG No.:

Instrument ID: GCMS56 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/19/2017 13:36 Calibration End Date: 12/19/2017 18:41 Calibration ID: 18243

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Bromobenzene | DCBd 4 | Ave | +++++<br>62214<br>3383728 | +++++<br>136080<br>4906589 | 5328<br>356004 | 11763<br>653193 | 26646<br>1599077 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| N-Propylbenzene | DCBd 4 | Ave | +++++<br>222019<br>10629537 | +++++<br>479306<br>13921976 | 22733<br>1221065 | 42944<br>2339091 | 87353<br>5439117 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Chlorotoluene | DCBd 4 | Ave | +++++<br>136260<br>6863249 | +++++<br>290946<br>9529826 | 14750<br>735925 | 26758<br>1390400 | 57200<br>3324084 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 4-Chlorotoluene | DCBd 4 | Ave | +++++<br>140357<br>7171156 | +++++<br>308793<br>9786094 | 13825<br>783329 | 26911<br>1450519 | 57756<br>3483706 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3,5-Trimethylbenzene | DCBd 4 | Ave | +++++<br>167325<br>8479466 | +++++<br>371096<br>11248248 | 18042<br>945094 | 32709<br>1790156 | 68863<br>4279522 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| tert-Butylbenzene | DCBd 4 | Ave | +++++<br>169879<br>8082080 | +++++<br>369265<br>10870055 | 18413<br>931839 | 33666<br>1813028 | 70165<br>4171303 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,4-Trimethylbenzene | DCBd 4 | Ave | +++++<br>174639<br>8720807 | +++++<br>385208<br>11634682 | 18208<br>985643 | 30744<br>1851167 | 71653<br>4492396 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| sec-Butylbenzene | DCBd 4 | Ave | +++++<br>239029<br>10712348 | +++++<br>508037<br>+++++ | 25885<br>1283937 | 44669<br>2516584 | 96797<br>5723659 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Dichlorobenzene | DCBd 4 | Ave | +++++<br>121480<br>6323580 | +++++<br>262348<br>8674505 | 13430<br>678231 | 23130<br>1274206 | 49336<br>3130157 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,4-Dichlorobenzene | DCBd 4 | Ave | +++++<br>117680<br>6378530 | +++++<br>269738<br>8641159 | 13164<br>692506 | 23400<br>1321335 | 51135<br>3129512 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| p-Isopropyltoluene | DCBd 4 | Ave | +++++<br>211494<br>10156576 | +++++<br>471131<br>+++++ | 22114<br>1191801 | 40694<br>2327606 | 83960<br>5450385 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2-Dichlorobenzene | DCBd 4 | Ave | +++++<br>117715<br>6085690 | +++++<br>268667<br>8325266 | 12237<br>679360 | 21811<br>1281015 | 49936<br>3110179 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Butylbenzene | DCBd 4 | Ave | +++++<br>184183<br>8253266 | +++++<br>385007<br>11177873 | 19685<br>983511 | 33756<br>1946944 | 71260<br>4447672 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 447237

SDG No.:

Instrument ID: GCMS56 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/19/2017 13:36 Calibration End Date: 12/19/2017 18:41 Calibration ID: 18243

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 1,2-Dibromo-3-Chloropropane | DCBd 4 | Lin2 | +++++<br>9041<br>524420 | +++++<br>21237<br>805371 | +++++<br>53754 | 1108<br>111404 | 3836<br>273932 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,4-Trichlorobenzene | DCBd 4 | Ave | +++++<br>90667<br>4346993 | +++++<br>204756<br>5936517 | 8802<br>546070 | 16656<br>1063138 | 40131<br>2399181 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Naphthalene | DCBd 4 | Ave | +++++<br>203836<br>8782066 | +++++<br>476968<br>+++++ | 20442<br>1168529 | 37290<br>2359271 | 90061<br>5274384 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Hexachlorobutadiene | DCBd 4 | Ave | +++++<br>53432<br>2376569 | +++++<br>118231<br>3376593 | 5979<br>303266 | 10372<br>609435 | 20995<br>1298966 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,3-Trichlorobenzene | DCBd 4 | Ave | +++++<br>84938<br>3799799 | +++++<br>191376<br>5227686 | 8556<br>494007 | 15213<br>958182 | 36073<br>2150411 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Dibromofluoromethane (Surr) | FB | Ave | 47368 | 95542 | 248725 | 466561 | 1008707 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| 1,2-Dichloroethane-d4 (Surr) | FB | Ave | 51907 | 106356 | 274717 | 520886 | 1138393 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| Toluene-d8 (Surr) | CBNZ d5 | Ave | 154280 | 310768 | 789319 | 1506145 | 3237843 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| 4-Bromofluorobenzene (Surr) | DCBd 4 | Ave | 61875 | 123854 | 326248 | 626060 | 1490808 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |

Curve Type Legend:

| |
|---|
| Ave = Average ISTD |
| Lin2 = Linear 1/conc^2 ISTD |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD02 440-446571/4 | YFL13013.D |
| Level 2 | STD04 440-446571/5 | YFL13014.D |
| Level 3 | STD05 440-446571/6 | YFL13015.D |
| Level 4 | STD1 440-446571/7 | YFL13016.D |
| Level 5 | STD2 440-446571/8 | YFL13017.D |
| Level 6 | STD5 440-446571/9 | YFL13018.D |
| Level 7 | STD10 440-446571/10 | YFL13019.D |
| Level 8 | ICIS 440-446571/11 | YFL13020.D |
| Level 9 | STD50 440-446571/12 | YFL13021.D |
| Level 10 | STD100 440-446571/13 | YFL13022.D |
| Level 11 | STD200 440-446571/14 | YFL13023.D |
| Level 12 | STD300 440-446571/15 | YFL13024.D |

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 LVL 11 | LVL 2 LVL 7 LVL 12 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dichlorodifluoromethane | +++++ 0.2625 0.2917 | +++++ 0.3076 0.2833 | +++++ 0.3185 | 0.2707 0.2702 | 0.2562 0.3021 | Ave | | 0.2847 | | | | 7.6 | | 15.0 | | | |
| Chloromethane | +++++ 0.3966 0.3782 | +++++ 0.4344 0.3520 | 0.3478 0.4188 | 0.3770 0.3816 | 0.3849 0.3871 | Ave | | 0.3858 | | | 0.1000 | 6.9 | | 15.0 | | | |
| Vinyl chloride | +++++ 0.2874 0.2819 | 0.2431 0.3111 0.2565 | 0.2541 0.3065 | 0.3044 0.2863 | 0.2776 0.2909 | Ave | | 0.2818 | | | | 8.0 | | 30.0 | | | |
| 1,3-Butadiene | +++++ 0.3505 0.3281 | +++++ 0.3651 0.2993 | +++++ 0.3667 | 0.3614 0.3302 | 0.3475 0.3435 | Ave | | 0.3436 | | | | 6.3 | | 15.0 | | | |
| Bromomethane | +++++ 0.1871 0.2019 | +++++ 0.2054 0.1921 | 0.1332 0.2120 | 0.1629 0.1920 | 0.2023 0.2048 | Ave | | 0.1894 | | | | 12.7 | | 15.0 | | | |
| Chloroethane | +++++ 0.1664 0.1722 | +++++ 0.1778 0.1653 | +++++ 0.1854 | 0.1803 0.1628 | 0.1853 0.1788 | Ave | | 0.1749 | | | | 4.9 | | 15.0 | | | |
| Ethanol | +++++ 0.1748 0.1723 | +++++ 0.1956 0.1579 | +++++ 0.1942 | +++++ 0.1759 | 0.1976 0.1813 | Ave | | 0.1812 | | | | 7.6 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dichlorofluoromethane | +++++<br>0.4138<br>0.4286 | +++++<br>0.4453<br>0.4047 | 0.4471<br>0.4507 | 0.4304<br>0.4108 | 0.4496<br>0.4419 | Ave | | 0.4323 | | | | 4.0 | | 15.0 | | | |
| Acrolein | +++++<br>0.0248<br>0.0359 | +++++<br>0.0278<br>0.0353 | +++++<br>0.0320 | +++++<br>0.0322 | +++++<br>0.0374 | Ave | | 0.0322 | | | | 14.1 | | 15.0 | | | |
| Trichlorofluoromethane | +++++<br>0.4064<br>0.4266 | +++++<br>0.4477<br>0.4091 | 0.4197<br>0.4557 | 0.4420<br>0.4137 | 0.4393<br>0.4442 | Ave | | 0.4304 | | | | 4.1 | | 15.0 | | | |
| Acetonitrile | +++++<br>0.0433<br>0.0420 | +++++<br>0.0478<br>0.0403 | +++++<br>0.0475 | 0.0435<br>0.0422 | 0.0488<br>0.0449 | Ave | | 0.0445 | | | | 6.7 | | 15.0 | | | |
| Acetone | +++++<br>0.0986<br>0.0828 | +++++<br>0.0888<br>0.0845 | +++++<br>0.0828 | +++++<br>0.0849 | +++++<br>0.0884 | Ave | | 0.0872 | | | | 6.4 | | 15.0 | | | |
| Diethyl ether | +++++<br>0.1982<br>0.2356 | +++++<br>0.2263<br>0.2359 | +++++<br>0.2367 | 0.1858<br>0.2235 | 0.1915<br>0.2385 | Ave | | 0.2191 | | | | 9.7 | | 15.0 | | | |
| 1,1-Dichloroethene | +++++<br>0.2155<br>0.2376 | +++++<br>0.2338<br>0.2373 | 0.2088<br>0.2442 | 0.2013<br>0.2253 | 0.2099<br>0.2422 | Ave | | 0.2256 | | | | 6.9 | | 30.0 | | | |
| Iodomethane | +++++<br>0.4552<br>0.4958 | +++++<br>0.5036<br>0.4789 | +++++<br>0.5100 | 0.4736<br>0.4737 | 0.4751<br>0.4997 | Ave | | 0.4851 | | | | 3.7 | | 15.0 | | | |
| tert-Butyl alcohol (TBA) | +++++<br>1.1246<br>1.3006 | +++++<br>1.2411<br>1.2550 | +++++<br>1.2924 | 1.0463<br>1.2180 | 1.1218<br>1.3073 | Ave | | 1.2119 | | | | 7.7 | | 15.0 | | | |
| Acrylonitrile | 0.0851<br>0.1059<br>0.1056 | 0.0982<br>0.1146<br>0.0979 | 0.1032<br>0.1171 | 0.1026<br>0.1083 | 0.1138<br>0.1149 | Ave | | 0.1056 | | | | 8.7 | | 15.0 | | | |
| Methylene Chloride | +++++<br>0.2387<br>0.2600 | +++++<br>0.2452<br>0.2563 | +++++<br>0.2734 | 0.3367<br>0.2504 | 0.2878<br>0.2649 | Ave | | 0.2682 | | | | 11.1 | | 15.0 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | +++++<br>0.2502<br>0.2643 | +++++<br>0.2739<br>0.2531 | 0.2589<br>0.2761 | 0.2869<br>0.2486 | 0.2832<br>0.2775 | Ave | | 0.2673 | | | | 5.3 | | 15.0 | | | |
| Methyl acetate | +++++<br>0.1996<br>0.2161 | +++++<br>0.2345<br>0.1968 | 0.2115<br>0.2395 | 0.2175<br>0.2231 | 0.2312<br>0.2363 | Ave | | 0.2206 | | | | 6.8 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Allyl chloride | +++++<br>0.5129<br>0.5529 | +++++<br>0.5636<br>0.5045 | +++++<br>0.5804 | 0.4555<br>0.5343 | 0.4995<br>0.5660 | Ave | | 0.5300 | | | | 7.6 | | 15.0 | | | |
| Carbon disulfide | +++++<br>0.7454<br>0.7689 | +++++<br>0.8001<br>0.7364 | 0.8154<br>0.8222 | 0.7670<br>0.7465 | 0.7663<br>0.7871 | Ave | | 0.7755 | | | | 3.8 | | 15.0 | | | |
| trans-1,2-Dichloroethene | +++++<br>0.2342<br>0.2580 | 0.2044<br>0.2585<br>0.2570 | 0.2046<br>0.2664 | 0.2249<br>0.2474 | 0.2486<br>0.2605 | Ave | | 0.2422 | | | | 9.2 | | 15.0 | | | |
| Methyl-t-Butyl Ether (MTBE) | +++++<br>0.5159<br>0.6584 | +++++<br>0.5994<br>0.6657 | 0.5159<br>0.6482 | 0.5009<br>0.6015 | 0.5667<br>0.6656 | Ave | | 0.5938 | | | | 11.1 | | 15.0 | | | |
| 1,1-Dichloroethane | +++++<br>0.4270<br>0.4566 | +++++<br>0.4688<br>0.4470 | 0.4320<br>0.4788 | 0.4141<br>0.4399 | 0.4453<br>0.4623 | Ave | | 0.4472 | | | 0.1000 | 4.5 | | 15.0 | | | |
| Propionitrile | +++++<br>0.0390<br>0.0418 | +++++<br>0.0428<br>0.0413 | +++++<br>0.0441 | 0.0341<br>0.0404 | 0.0404<br>0.0442 | Ave | | 0.0409 | | | | 7.5 | | 15.0 | | | |
| Vinyl acetate | +++++<br>0.5005<br>0.6475 | +++++<br>0.6024<br>0.6059 | +++++<br>0.6363 | +++++<br>0.6207 | 0.5254<br>0.6770 | Ave | | 0.6020 | | | | 10.0 | | 15.0 | | | |
| Hexane | +++++<br>0.3943<br>0.4479 | +++++<br>0.4355<br>0.4316 | +++++<br>0.4735 | 0.3911<br>0.4369 | 0.4174<br>0.4632 | Ave | | 0.4324 | | | | 6.5 | | 15.0 | | | |
| 2-Butanone (MEK) | +++++<br>0.0151<br>0.0263 | +++++<br>0.0188<br>0.0276 | +++++<br>0.0236 | +++++<br>0.0257 | +++++<br>0.0289 | Lin2 | -0.066 | 0.0273 | | | | | | | 0.9960 | | 0.9900 |
| Isopropyl Ether (DIPE) | +++++<br>0.9844<br>1.0627 | +++++<br>1.1116<br>0.9815 | 0.9284<br>1.1624 | 0.9238<br>1.0575 | 1.0250<br>1.1136 | Ave | | 1.0351 | | | | 7.8 | | 15.0 | | | |
| cis-1,2-Dichloroethene | +++++<br>0.2617<br>0.2983 | 0.2670<br>0.2889<br>0.2905 | 0.2588<br>0.3057 | 0.2501<br>0.2824 | 0.2691<br>0.2959 | Ave | | 0.2789 | | | | 6.6 | | 15.0 | | | |
| Bromochloromethane | +++++<br>0.1396<br>0.1619 | +++++<br>0.1582<br>+++++ | 0.1026<br>0.1624 | 0.1373<br>0.1523 | 0.1388<br>0.1615 | Ave | | 0.1461 | | | | 13.3 | | 15.0 | | | |
| Chloroform | +++++<br>0.4047<br>0.4479 | +++++<br>0.4463<br>0.4388 | 0.4710<br>0.4647 | 0.4155<br>0.4288 | 0.4482<br>0.4508 | Ave | | 0.4417 | | | | 4.7 | | 30.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| 2,2-Dichloropropane | +++++<br>0.2923<br>0.3250 | +++++<br>0.3200<br>0.3122 | +++++<br>0.3344 | 0.3036<br>0.3076 | 0.3078<br>0.3328 | Ave | | 0.3151 | | | | 4.5 | | 15.0 | | | |
| Ethyl-t-butyl ether (ETBE) | +++++<br>0.6799<br>0.8589 | +++++<br>0.7770<br>0.8273 | 0.6039<br>0.8516 | 0.6469<br>0.7908 | 0.6960<br>0.8788 | Ave | | 0.7611 | | | | 12.8 | | 15.0 | | | |
| Isobutyl alcohol | +++++<br>0.5824<br>0.7068 | +++++<br>0.6935<br>0.6586 | 0.4959<br>0.7355 | 0.5557<br>0.6810 | 0.5803<br>0.7464 | Ave | | 0.6436 | | | | 13.1 | | 15.0 | | | |
| Tetrahydrofuran | +++++<br>0.0967<br>0.0980 | +++++<br>0.0995<br>0.0970 | +++++<br>0.1034 | +++++<br>0.0956 | 0.0986<br>0.1040 | Ave | | 0.0991 | | | | 3.1 | | 15.0 | | | |
| 1,2-Dichloroethane | +++++<br>0.3111<br>0.3270 | 0.2619<br>0.3348<br>0.3210 | 0.2916<br>0.3439 | 0.3098<br>0.3141 | 0.3318<br>0.3336 | Ave | | 0.3164 | | | | 7.4 | | 15.0 | | | |
| 1,1,1-Trichloroethane | +++++<br>0.3747<br>0.4200 | +++++<br>0.4137<br>0.4092 | 0.3985<br>0.4223 | 0.3948<br>0.3948 | 0.3997<br>0.4265 | Ave | | 0.4054 | | | | 3.9 | | 15.0 | | | |
| 1,1-Dichloropropene | +++++<br>0.2589<br>0.3052 | +++++<br>0.2898<br>0.3007 | 0.2429<br>0.3080 | 0.2556<br>0.2921 | 0.2591<br>0.3084 | Ave | | 0.2821 | | | | 8.9 | | 15.0 | | | |
| Cyclohexane | +++++<br>0.4466<br>0.5154 | +++++<br>0.5075<br>0.4954 | +++++<br>0.5290 | 0.4544<br>0.4898 | 0.4514<br>0.5314 | Ave | | 0.4912 | | | | 6.8 | | 15.0 | | | |
| Carbon tetrachloride | +++++<br>0.3571<br>0.4031 | +++++<br>0.3968<br>0.3905 | 0.3730<br>0.4090 | 0.3931<br>0.3838 | 0.3855<br>0.4119 | Ave | | 0.3904 | | | | 4.3 | | 15.0 | | | |
| Benzene | +++++<br>0.8720<br>0.9214 | +++++<br>0.9392<br>0.8550 | 0.9195<br>0.9645 | 0.8976<br>0.8913 | 0.9279<br>0.9411 | Ave | | 0.9129 | | | | 3.7 | | 15.0 | | | |
| Tert-amyl-methyl ether (TAME) | +++++<br>0.5366<br>0.6583 | +++++<br>0.6044<br>0.6545 | 0.9948<br>0.6368 | 0.7715<br>0.5907 | 0.6378<br>0.6646 | Lin2 | 0.1788 | 0.6056 | | | | | | | 0.9910 | | 0.9900 |
| Dibromomethane | +++++<br>0.1424<br>0.1559 | +++++<br>0.1528<br>0.1533 | 0.1288<br>0.1560 | 0.1322<br>0.1482 | 0.1437<br>0.1580 | Ave | | 0.1471 | | | | 6.9 | | 15.0 | | | |
| n-Heptane | +++++<br>0.4516<br>0.5309 | +++++<br>0.5217<br>0.4819 | 0.4614<br>0.5558 | 0.4723<br>0.5235 | 0.4777<br>0.5591 | Ave | | 0.5036 | | | | 7.8 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| 1,2-Dichloropropane | +++++<br>0.2358<br>0.2711 | +++++<br>0.2586<br>0.2657 | 0.2370<br>0.2733 | 0.2472<br>0.2533 | 0.2510<br>0.2702 | Ave | | 0.2563 | | | | 5.4 | | 30.0 | | | |
| Trichloroethene | +++++<br>0.2983<br>0.3217 | +++++<br>0.3190<br>0.3130 | 0.2980<br>0.3309 | 0.2978<br>0.3106 | 0.3167<br>0.3260 | Ave | | 0.3132 | | | | 3.8 | | 15.0 | | | |
| Bromodichloromethane | +++++<br>0.2950<br>0.3548 | +++++<br>0.3346<br>0.3500 | 0.3129<br>0.3481 | 0.2906<br>0.3296 | 0.3284<br>0.3544 | Ave | | 0.3298 | | | | 7.2 | | 15.0 | | | |
| 2-Chloroethyl vinyl ether | +++++<br>0.0957<br>0.1545 | +++++<br>0.1173<br>+++++ | +++++<br>0.1430 | +++++<br>0.1273 | 0.0853<br>0.1503 | Lin1 | -0.209 | 0.1509 | | | | | | | 0.9960 | | 0.9900 |
| Methylcyclohexane | +++++<br>0.3639<br>0.4329 | +++++<br>0.4218<br>0.4151 | +++++<br>0.4434 | 0.3537<br>0.4118 | 0.3724<br>0.4475 | Ave | | 0.4069 | | | | 8.6 | | 15.0 | | | |
| cis-1,3-Dichloropropene | +++++<br>0.3934<br>0.4416 | +++++<br>0.4357<br>0.4236 | 0.3625<br>0.4545 | 0.3765<br>0.4111 | 0.3879<br>0.4410 | Ave | | 0.4128 | | | | 7.6 | | 15.0 | | | |
| 4-Methyl-2-pentanone (MIBK) | +++++<br>0.2765<br>0.3552 | +++++<br>0.3108<br>0.3466 | +++++<br>0.3291 | +++++<br>0.3370 | 0.3067<br>0.3750 | Ave | | 0.3296 | | | | 9.4 | | 15.0 | | | |
| trans-1,3-Dichloropropene | +++++<br>0.3319<br>0.4053 | +++++<br>0.3815<br>0.3925 | 0.3189<br>0.4115 | 0.3250<br>0.3721 | 0.3411<br>0.4098 | Ave | | 0.3690 | | | | 9.9 | | 15.0 | | | |
| 1,1,2-Trichloroethane | +++++<br>0.1923<br>0.2034 | +++++<br>0.2090<br>0.1999 | 0.2011<br>0.2133 | 0.2012<br>0.1879 | 0.1999<br>0.2034 | Ave | | 0.2011 | | | | 3.6 | | 15.0 | | | |
| Toluene | +++++<br>1.1941<br>1.1434 | +++++<br>1.3069<br>0.9946 | 1.1399<br>1.3495 | 1.1255<br>1.1746 | 1.1741<br>1.2292 | Ave | | 1.1832 | | | | 8.3 | | 30.0 | | | |
| 1,3-Dichloropropane | +++++<br>0.3954<br>0.3924 | +++++<br>0.4207<br>0.3814 | 0.3981<br>0.4367 | 0.3862<br>0.3742 | 0.4132<br>0.3976 | Ave | | 0.3996 | | | | 4.7 | | 15.0 | | | |
| Ethyl methacrylate | +++++<br>0.2603<br>0.3408 | +++++<br>0.3095<br>0.3341 | +++++<br>0.3381 | +++++<br>0.3088 | 0.2424<br>0.3464 | Ave | | 0.3101 | | | | 12.6 | | 15.0 | | | |
| 2-Hexanone | +++++<br>0.1801<br>0.2558 | +++++<br>0.2146<br>0.2475 | +++++<br>0.2337 | +++++<br>0.2369 | +++++<br>0.2688 | Ave | | 0.2339 | | | | 12.5 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dibromochloromethane | +++++<br>0.3463<br>0.3796 | +++++<br>0.3820<br>0.3616 | 0.3218<br>0.3977 | 0.3570<br>0.3547 | 0.3673<br>0.3848 | Ave | | 0.3653 | | | | 6.0 | | 15.0 | | | |
| 1,2-Dibromoethane (EDB) | +++++<br>0.2582<br>0.2788 | +++++<br>0.2755<br>0.2701 | 0.2539<br>0.2899 | 0.2518<br>0.2578 | 0.2673<br>0.2806 | Ave | | 0.2684 | | | | 4.8 | | 15.0 | | | |
| Tetrachloroethene | +++++<br>0.2655<br>0.2756 | +++++<br>0.2796<br>0.2657 | 0.2966<br>0.2891 | 0.2785<br>0.2564 | 0.2856<br>0.2785 | Ave | | 0.2771 | | | | 4.3 | | 15.0 | | | |
| 1,1,1,2-Tetrachloroethane | +++++<br>0.3366<br>0.3708 | +++++<br>0.3687<br>0.3534 | 0.3413<br>0.3826 | 0.3512<br>0.3401 | 0.3755<br>0.3740 | Ave | | 0.3594 | | | | 4.7 | | 15.0 | | | |
| Chlorobenzene | +++++<br>0.9223<br>0.8925 | +++++<br>0.9949<br>0.7944 | 1.0483<br>1.0052 | 0.9702<br>0.8785 | 1.0079<br>0.9367 | Ave | | 0.9451 | | | 0.3000 | 8.0 | | 15.0 | | | |
| Ethylbenzene | +++++<br>1.2593<br>1.2977 | +++++<br>1.4156<br>+++++ | 1.3006<br>1.5017 | 1.2614<br>1.3298 | 1.2749<br>1.4098 | Ave | | 1.3390 | | | | 6.3 | | 30.0 | | | |
| m,p-Xylene | +++++<br>0.5247<br>0.6002 | +++++<br>0.5972<br>0.5554 | 0.4818<br>0.6376 | 0.4858<br>0.5658 | 0.5023<br>0.6177 | Ave | | 0.5568 | | | | 10.1 | | 15.0 | | | |
| Bromoform | +++++<br>0.2003<br>0.2443 | +++++<br>0.2217<br>0.2418 | 0.1809<br>0.2325 | 0.1999<br>0.2107 | 0.1997<br>0.2429 | Ave | | 0.2175 | | | 0.1000 | 10.3 | | 15.0 | | | |
| Styrene | +++++<br>0.7478<br>0.9488 | +++++<br>0.9002<br>0.8413 | 0.6227<br>0.9939 | 0.6316<br>0.8934 | 0.7012<br>0.9865 | Lin1 | -0.201 | 0.9047 | | | | | | | 0.9950 | | 0.9900 |
| 1,1,2,2-Tetrachloroethane | +++++<br>0.5815<br>0.6013 | +++++<br>0.6255<br>0.5966 | 0.5820<br>0.6280 | 0.5683<br>0.5833 | 0.5944<br>0.6301 | Ave | | 0.5991 | | | 0.3000 | 3.7 | | 15.0 | | | |
| o-Xylene | +++++<br>0.5380<br>0.5872 | 0.4328<br>0.6176<br>0.5290 | 0.4620<br>0.6373 | 0.4786<br>0.5622 | 0.5250<br>0.6120 | Ave | | 0.5438 | | | | 12.3 | | 15.0 | | | |
| 1,2,3-Trichloropropane | +++++<br>0.1993<br>0.2078 | +++++<br>0.2104<br>0.2124 | +++++<br>0.2183 | 0.1756<br>0.2015 | 0.2041<br>0.2160 | Ave | | 0.2051 | | | | 6.2 | | 15.0 | | | |
| trans-1,4-Dichloro-2-butene | +++++<br>0.1648<br>0.2179 | +++++<br>0.2002<br>0.2239 | +++++<br>0.2102 | +++++<br>0.2023 | 0.1533<br>0.2247 | Ave | | 0.1997 | | | | 13.4 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Isopropylbenzene | +++++<br>1.3605<br>1.4444 | +++++<br>1.5437<br>1.2074 | 1.2359<br>1.6474 | 1.2192<br>1.4610 | 1.2974<br>1.5782 | Ave | | 1.3995 | | | | 11.4 | | 15.0 | | | |
| Bromobenzene | +++++<br>0.6891<br>0.7824 | +++++<br>0.7698<br>0.7795 | 0.6409<br>0.7963 | 0.6661<br>0.7484 | 0.7144<br>0.7990 | Ave | | 0.7386 | | | | 7.7 | | 15.0 | | | |
| N-Propylbenzene | +++++<br>2.5920<br>2.7655 | +++++<br>3.0345<br>2.4214 | 2.2975<br>3.1956 | 2.3048<br>2.9805 | 2.5022<br>3.1000 | Ave | | 2.7194 | | | | 12.5 | | 15.0 | | | |
| 2-Chlorotoluene | +++++<br>1.6954<br>1.8022 | +++++<br>1.9364<br>1.6903 | 1.5827<br>1.9541 | 1.5619<br>1.8008 | 1.7566<br>1.8903 | Ave | | 1.7671 | | | | 7.7 | | 15.0 | | | |
| 4-Chlorotoluene | +++++<br>1.7218<br>1.8706 | +++++<br>1.9977<br>1.7458 | 1.5377<br>2.0216 | 1.5894<br>1.8847 | 1.7736<br>1.9769 | Ave | | 1.8120 | | | | 9.3 | | 15.0 | | | |
| 1,3,5-Trimethylbenzene | +++++<br>2.0218<br>2.2988 | +++++<br>2.3926<br>2.0581 | 1.6371<br>2.5286 | 1.7776<br>2.3623 | 1.9330<br>2.4944 | Ave | | 2.1504 | | | | 14.4 | | 15.0 | | | |
| tert-Butylbenzene | +++++<br>1.8787<br>2.1097 | +++++<br>2.1945<br>1.9149 | 1.5774<br>2.3142 | 1.7029<br>2.1744 | 1.8329<br>2.2886 | Ave | | 1.9988 | | | | 12.7 | | 15.0 | | | |
| 1,2,4-Trimethylbenzene | +++++<br>2.1312<br>2.3582 | +++++<br>2.5086<br>2.1170 | 1.6428<br>2.6443 | 1.7466<br>2.4590 | 2.0376<br>2.5749 | Lin2 | -0.445 | 2.3946 | | | | | | | 0.9920 | | 0.9900 |
| sec-Butylbenzene | +++++<br>2.8694<br>2.8399 | +++++<br>3.2782<br>2.4587 | 2.3362<br>3.3366 | 2.6025<br>3.1229 | 2.8858<br>3.2392 | Ave | | 2.8970 | | | | 12.1 | | 15.0 | | | |
| 1,3-Dichlorobenzene | +++++<br>1.4861<br>1.5166 | +++++<br>1.6053<br>1.4436 | 1.5286<br>1.6309 | 1.5052<br>1.5163 | 1.5599<br>1.6022 | Ave | | 1.5395 | | | | 3.8 | | 15.0 | | | |
| 1,4-Dichlorobenzene | +++++<br>1.5266<br>1.5343 | +++++<br>1.6671<br>1.4427 | 1.6822<br>1.6891 | 1.6873<br>1.5600 | 1.6429<br>1.6207 | Ave | | 1.6053 | | | | 5.3 | | 15.0 | | | |
| p-Isopropyltoluene | +++++<br>2.5211<br>2.6034 | +++++<br>2.9006<br>2.2446 | 2.3572<br>3.0281 | 2.4194<br>2.8330 | 2.5606<br>2.9301 | Ave | | 2.6398 | | | | 10.2 | | 15.0 | | | |
| 1,2-Dichlorobenzene | +++++<br>1.3379<br>1.4569 | +++++<br>1.4986<br>1.3842 | 1.3978<br>1.5433 | 1.3216<br>1.4541 | 1.3969<br>1.5276 | Ave | | 1.4319 | | | | 5.3 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| n-Butylbenzene | +++++<br>1.9772<br>2.1896 | +++++<br>2.3177<br>1.9435 | 1.6895<br>2.4308 | 1.7550<br>2.2881 | 1.8683<br>2.4127 | Ave | | 2.0872 | | | | 13.1 | | 15.0 | | | |
| 1,2-Dibromo-3-Chloropropane | +++++<br>0.0955<br>0.1230 | +++++<br>0.1124<br>0.1258 | +++++<br>0.1193 | 0.0523<br>0.1155 | 0.1024<br>0.1268 | Lin2 | -0.066 | 0.1218 | | | | | | | 0.9950 | | 0.9900 |
| 1,2,4-Trichlorobenzene | +++++<br>0.8260<br>1.0299 | +++++<br>0.9433<br>0.9952 | 0.8939<br>1.0236 | 0.8148<br>0.9961 | 0.8515<br>1.0503 | Ave | | 0.9424 | | | | 9.5 | | 15.0 | | | |
| Naphthalene | +++++<br>2.0716<br>2.3828 | +++++<br>2.5428<br>+++++ | 1.7066<br>2.7952 | 1.6662<br>2.6976 | 1.8776<br>2.7585 | Lin1 | -0.642 | 2.5540 | | | | | | | 0.9940 | | 0.9900 |
| Hexachlorobutadiene | +++++<br>0.4875<br>0.5583 | +++++<br>0.5357<br>0.5489 | 0.5675<br>0.5459 | 0.5547<br>0.5298 | 0.5066<br>0.5623 | Ave | | 0.5397 | | | | 4.7 | | 15.0 | | | |
| 1,2,3-Trichlorobenzene | +++++<br>0.8418<br>0.9637 | +++++<br>0.9505<br>0.9425 | 0.8181<br>0.9701 | 0.7648<br>0.9355 | 0.8724<br>1.0001 | Ave | | 0.9059 | | | | 8.5 | | 15.0 | | | |
| Dibromofluoromethane (Surr) | 0.2722 | 0.2783 | 0.2770 | 0.2672 | 0.2826 | Ave | | 0.2755 | | | | 2.1 | | 15.0 | | | |
| 1,2-Dichloroethane-d4 (Surr) | 0.2737 | 0.2745 | 0.2732 | 0.2596 | 0.2773 | Ave | | 0.2717 | | | | 2.5 | | 15.0 | | | |
| Toluene-d8 (Surr) | 1.1299 | 1.1385 | 1.1536 | 1.0345 | 1.0861 | Ave | | 1.1085 | | | | 4.4 | | 15.0 | | | |
| 4-Bromofluorobenzene (Surr) | 0.7794 | 0.8300 | 0.8223 | 0.7893 | 0.8386 | Ave | | 0.8119 | | | | 3.2 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD02 440-446571/4 | YFL13013.D |
| Level 2 | STD04 440-446571/5 | YFL13014.D |
| Level 3 | STD05 440-446571/6 | YFL13015.D |
| Level 4 | STD1 440-446571/7 | YFL13016.D |
| Level 5 | STD2 440-446571/8 | YFL13017.D |
| Level 6 | STD5 440-446571/9 | YFL13018.D |
| Level 7 | STD10 440-446571/10 | YFL13019.D |
| Level 8 | ICIS 440-446571/11 | YFL13020.D |
| Level 9 | STD50 440-446571/12 | YFL13021.D |
| Level 10 | STD100 440-446571/13 | YFL13022.D |
| Level 11 | STD200 440-446571/14 | YFL13023.D |
| Level 12 | STD300 440-446571/15 | YFL13024.D |

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Dichlorodifluoromethane | FB | Ave | +++++<br>32748<br>1592401 | +++++<br>77025<br>2513627 | +++++<br>202305 | 6984<br>347033 | 12487<br>796750 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloromethane | FB | Ave | +++++<br>49483<br>2064093 | +++++<br>108778<br>3122313 | 4574<br>266023 | 9728<br>490231 | 18763<br>1020736 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Vinyl chloride | FB | Ave | +++++<br>35860<br>1538681 | 2707<br>77895<br>2275358 | 3342<br>194695 | 7855<br>367779 | 13529<br>767125 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Butadiene | FB | Ave | +++++<br>43735<br>1790693 | +++++<br>91428<br>2654982 | +++++<br>232965 | 9324<br>424155 | 16937<br>905899 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromomethane | FB | Ave | +++++<br>23347<br>1102167 | +++++<br>51436<br>1704141 | 1751<br>134691 | 4203<br>246590 | 9859<br>540037 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloroethane | FB | Ave | +++++<br>20759<br>940071 | +++++<br>44515<br>1466068 | +++++<br>117747 | 4653<br>209070 | 9033<br>471485 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethanol | TBAd 9 | Ave | +++++<br>23253<br>1277148 | +++++<br>50957<br>2002745 | +++++<br>128547 | +++++<br>295311 | 13158<br>674662 | +++++<br>200<br>10000 | +++++<br>400<br>15000 | +++++<br>1000 | +++++<br>2500 | 100<br>5000 |
| Dichlorofluoromethane | FB | Ave | +++++<br>51633<br>2339446 | +++++<br>111510<br>3589799 | 5879<br>286333 | 11106<br>527660 | 21914<br>1165416 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Acrolein | FB | Ave | +++++<br>3095<br>196179 | +++++<br>6966<br>313346 | +++++<br>20322 | +++++<br>41403 | +++++<br>98605 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Trichlorofluoromethane | FB | Ave | +++++<br>50709<br>2328309 | +++++<br>112100<br>3628761 | 5519<br>289484 | 11404<br>531475 | 21415<br>1171367 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Acetonitrile | FB | Ave | +++++<br>54006<br>2294825 | +++++<br>119620<br>3576502 | +++++<br>301664 | 11213<br>541621 | 23809<br>1184923 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Acetone | FB | Ave | +++++<br>12298<br>452001 | +++++<br>22243<br>749291 | +++++<br>52594 | +++++<br>109002 | +++++<br>233154 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Diethyl ether | FB | Ave | +++++<br>24737<br>1285886 | +++++<br>56677<br>2093020 | +++++<br>150349 | 4794<br>287134 | 9333<br>628849 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloroethene | FB | Ave | +++++<br>26889<br>1296670 | +++++<br>58543<br>2104829 | 2746<br>155126 | 5193<br>289365 | 10232<br>638681 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Iodomethane | FB | Ave | +++++<br>56795<br>2706352 | +++++<br>126104<br>4248339 | +++++<br>323959 | 12219<br>608473 | 23156<br>1317920 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| tert-Butyl alcohol (TBA) | TBAd 9 | Ave | +++++<br>37390<br>1928695 | +++++<br>80852<br>3184609 | +++++<br>213902 | 6824<br>408999 | 14939<br>973099 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Acrylonitrile | FB | Ave | 4664<br>132192<br>5765120 | 10935<br>287081<br>8683217 | 13576<br>744006 | 26467<br>1391667 | 55471<br>3031251 | 2.00<br>50.0<br>2000 | 4.00<br>100<br>3000 | 5.00<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Methylene Chloride | FB | Ave | +++++<br>29785<br>1419191 | +++++<br>61404<br>2274060 | +++++<br>173682 | 8688<br>321656 | 14027<br>698576 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | FB | Ave | +++++<br>31215<br>1442382 | +++++<br>68598<br>2245349 | 3405<br>175360 | 7402<br>319298 | 13802<br>731912 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methyl acetate | FB | Ave | +++++<br>124537<br>5896219 | +++++<br>293653<br>8728723 | 13906<br>760793 | 28058<br>1433104 | 56337<br>3115238 | +++++<br>25.0<br>1000 | +++++<br>50.0<br>1500 | 2.50<br>125 | 5.00<br>250 | 10.0<br>500 |
| Allyl chloride | FB | Ave | +++++<br>64004<br>3017941 | +++++<br>141138<br>4475460 | +++++<br>368709 | 11753<br>686363 | 24346<br>1492553 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Carbon disulfide | FB | Ave | +++++<br>93011<br>4196812 | +++++<br>200350<br>6533040 | 10723<br>522301 | 19789<br>958921 | 37350<br>2075837 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| trans-1,2-Dichloroethene | FB | Ave | +++++<br>29225<br>1408305 | 2277<br>64730<br>2280018 | 2690<br>169204 | 5802<br>317802 | 12117<br>686931 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methyl-t-Butyl Ether (MTBE) | FB | Ave | +++++<br>64368<br>3593610 | +++++<br>150104<br>5905205 | 6784<br>411761 | 12925<br>772628 | 27622<br>1755327 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloroethane | FB | Ave | +++++<br>53280<br>2492046 | +++++<br>117398<br>3965177 | 5681<br>304137 | 10684<br>565087 | 21705<br>1219067 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Propionitrile | FB | Ave | +++++<br>48707<br>2280753 | +++++<br>107192<br>3664476 | +++++<br>280356 | 8800<br>518988 | 19696<br>1166368 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Vinyl acetate | FB | Ave | +++++<br>49965<br>3533937 | +++++<br>120677<br>5375303 | +++++<br>323347 | +++++<br>797286 | 25610<br>1785310 | +++++<br>4.00<br>200 | +++++<br>8.00<br>300 | +++++<br>20.0 | +++++<br>50.0 | 2.00<br>100 |
| Hexane | FB | Ave | +++++<br>49196<br>2444778 | +++++<br>109042<br>3828816 | +++++<br>300791 | 10092<br>561222 | 20343<br>1221425 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Butanone (MEK) | FB | Lin2 | +++++<br>1890<br>143400 | +++++<br>4706<br>245194 | +++++<br>14965 | +++++<br>32968 | +++++<br>76214 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Isopropyl Ether (DIPE) | FB | Ave | +++++<br>122830<br>5800384 | +++++<br>278353<br>8706862 | 12208<br>738377 | 23836<br>1358498 | 49962<br>2936740 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| cis-1,2-Dichloroethene | FB | Ave | +++++<br>32650<br>1628249 | 2974<br>72341<br>2577054 | 3403<br>194193 | 6454<br>362759 | 13118<br>780245 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromochloromethane | FB | Ave | +++++<br>17421<br>883908 | +++++<br>39615<br>+++++ | 1349<br>103194 | 3542<br>195606 | 6765<br>425933 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloroform | FB | Ave | +++++<br>50494<br>2444831 | +++++<br>111769<br>3892466 | 6194<br>295219 | 10721<br>550840 | 21845<br>1188945 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2,2-Dichloropropane | FB | Ave | +++++<br>36474<br>1773699 | +++++<br>80141<br>2769917 | +++++<br>212407 | 7833<br>395171 | 15002<br>877653 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Ethyl-t-butyl ether (ETBE) | FB | Ave | +++++<br>84837<br>4688079 | +++++<br>194556<br>7339275 | 7941<br>540982 | 16692<br>1015910 | 33924<br>2317653 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Isobutyl alcohol | TBAd9 | Ave | +++++<br>48406<br>2620103 | +++++<br>112948<br>4177738 | 4397<br>304346 | 9060<br>571740 | 19320<br>1389051 | +++++<br>125<br>5000 | +++++<br>250<br>7500 | 12.5<br>625 | 25.0<br>1250 | 50.0<br>2500 |
| Tetrahydrofuran | FB | Ave | +++++<br>24133<br>1070232 | +++++<br>49838<br>1721055 | +++++<br>131424 | +++++<br>245487 | 9608<br>548345 | +++++<br>10.0<br>400 | +++++<br>20.0<br>600 | +++++<br>50.0 | +++++<br>100 | 4.00<br>200 |
| 1,2-Dichloroethane | FB | Ave | +++++<br>38823<br>1784859 | 2917<br>83835<br>2847240 | 3835<br>218449 | 7993<br>403512 | 16175<br>879639 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,1-Trichloroethane | FB | Ave | +++++<br>46758<br>2292481 | +++++<br>103598<br>3630019 | 5240<br>268260 | 10187<br>507206 | 19483<br>1124747 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloropropene | FB | Ave | +++++<br>32311<br>1665626 | +++++<br>72577<br>2667981 | 3194<br>195633 | 6594<br>375214 | 12630<br>813345 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Cyclohexane | FB | Ave | +++++<br>55720<br>2813000 | +++++<br>127094<br>4394499 | +++++<br>336062 | 11724<br>629222 | 22002<br>1401495 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Carbon tetrachloride | FB | Ave | +++++<br>44562<br>2200273 | +++++<br>99373<br>3463844 | 4905<br>259841 | 10143<br>493022 | 18790<br>1086220 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Benzene | FB | Ave | +++++<br>108804<br>5029405 | +++++<br>235186<br>7584632 | 12091<br>612704 | 23159<br>1144994 | 45227<br>2481882 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Tert-amyl-methyl ether (TAME) | FB | Lin2 | +++++<br>66962<br>3592917 | +++++<br>151342<br>5806155 | 13081<br>404519 | 19906<br>758846 | 31088<br>1752551 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Dibromomethane | FB | Ave | +++++<br>17763<br>850740 | +++++<br>38258<br>1359537 | 1694<br>99107 | 3410<br>190340 | 7004<br>416742 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Heptane | FB | Ave | +++++<br>56349<br>2897958 | +++++<br>130630<br>4275264 | 6067<br>353061 | 12187<br>672459 | 23282<br>1474414 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2-Dichloropropane | FB | Ave | +++++<br>29417<br>1479908 | +++++<br>64763<br>2357140 | 3116<br>173611 | 6378<br>325342 | 12234<br>712585 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Trichloroethene | FB | Ave | +++++<br>37218<br>1755911 | +++++<br>79877<br>2776779 | 3919<br>210202 | 7685<br>398938 | 15439<br>859819 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromodichloromethane | FB | Ave | +++++<br>36810<br>1936352 | +++++<br>83787<br>3105220 | 4114<br>221113 | 7499<br>423419 | 16008<br>934588 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Chloroethyl vinyl ether | CBNZ d5 | Lin1 | +++++<br>9558<br>751848 | +++++<br>24097<br>+++++ | +++++<br>75466 | +++++<br>143974 | 3382<br>351300 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Methylcyclohexane | FB | Ave | +++++<br>45408<br>2362728 | +++++<br>105616<br>3682651 | +++++<br>281635 | 9126<br>528971 | 18154<br>1180140 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| cis-1,3-Dichloropropene | CBNZ d5 | Ave | +++++<br>39294<br>2149303 | +++++<br>89508<br>3407309 | 3852<br>239929 | 7800<br>464956 | 15380<br>1030466 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 4-Methyl-2-pentanone (MIBK) | CBNZ d5 | Ave | +++++<br>27613<br>1728858 | +++++<br>63858<br>2788115 | +++++<br>173717 | +++++<br>381163 | 12160<br>876297 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| trans-1,3-Dichloropropene | CBNZ d5 | Ave | +++++<br>33151<br>1972425 | +++++<br>78373<br>3157331 | 3388<br>217203 | 6733<br>420793 | 13525<br>957628 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2-Trichloroethane | CBNZ d5 | Ave | +++++<br>19207<br>989900 | +++++<br>42947<br>1607543 | 2137<br>112574 | 4168<br>212476 | 7927<br>475395 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Toluene | CBNZ d5 | Ave | +++++<br>119256<br>5564640 | +++++<br>268514<br>8000120 | 12112<br>712320 | 23318<br>1328373 | 46553<br>2872553 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Dichloropropane | CBNZ d5 | Ave | +++++<br>39492<br>1909928 | +++++<br>86432<br>3068045 | 4230<br>230513 | 8002<br>423194 | 16382<br>929048 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethyl methacrylate | CBNZ d5 | Ave | +++++<br>25995<br>1658653 | +++++<br>63596<br>2687619 | +++++<br>178490 | +++++<br>349229 | 9611<br>809410 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| 2-Hexanone | CBNZ d5 | Ave | +++++<br>17982<br>1245018 | +++++<br>44093<br>1990741 | +++++<br>123375 | +++++<br>267894 | +++++<br>628182 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Dibromochloromethane | CBNZ d5 | Ave | +++++<br>34583<br>1847486 | +++++<br>78486<br>2908381 | 3419<br>209914 | 7397<br>401173 | 14563<br>899190 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 1,2-Dibromoethane (EDB) | CBNZ d5 | Ave | +++++<br>25789<br>1356839 | +++++<br>56604<br>2172761 | 2698<br>153014 | 5216<br>291516 | 10598<br>655617 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Tetrachloroethene | CBNZ d5 | Ave | +++++<br>26516<br>1341447 | +++++<br>57436<br>2136871 | 3152<br>152581 | 5769<br>289953 | 11326<br>650809 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,1,2-Tetrachloroethane | CBNZ d5 | Ave | +++++<br>33616<br>1804466 | +++++<br>75760<br>2842218 | 3627<br>201952 | 7276<br>384650 | 14890<br>874072 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chlorobenzene | CBNZ d5 | Ave | +++++<br>92110<br>4343696 | +++++<br>204414<br>6389378 | 11139<br>530594 | 20099<br>993549 | 39963<br>2188994 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethylbenzene | CBNZ d5 | Ave | +++++<br>125764<br>6315582 | +++++<br>290856<br>+++++ | 13820<br>792686 | 26132<br>1503944 | 50549<br>3294417 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| m,p-Xylene | CBNZ d5 | Ave | +++++<br>52398<br>2920979 | +++++<br>122697<br>4467133 | 5119<br>336576 | 10065<br>639906 | 19915<br>1443457 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromoform | CBNZ d5 | Ave | +++++<br>20007<br>1188925 | +++++<br>45560<br>1945022 | 1922<br>122719 | 4142<br>238326 | 7917<br>567616 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Styrene | CBNZ d5 | Lin1 | +++++<br>74682<br>4617359 | +++++<br>184943<br>6766673 | 6617<br>524609 | 13085<br>1010395 | 27802<br>2305235 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2,2-Tetrachloroethane | DCBd 4 | Ave | +++++<br>32047<br>1616985 | +++++<br>69790<br>2507850 | 3338<br>183183 | 6444<br>345564 | 12924<br>807148 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| o-Xylene | CBNZ d5 | Ave | +++++<br>53729<br>2857844 | 3851<br>126891<br>4254884 | 4909<br>336417 | 9915<br>635828 | 20817<br>1430032 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,3-Trichloropropane | DCBd 4 | Ave | +++++<br>10984<br>558773 | +++++<br>23474<br>892791 | +++++<br>63680 | 1991<br>119406 | 4438<br>276717 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| trans-1,4-Dichloro-2-butene | DCBd 4 | Ave | +++++<br>9080<br>586115 | +++++<br>22341<br>941167 | +++++<br>61303 | +++++<br>119857 | 3334<br>287848 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Isopropylbenzene | CBNZ d5 | Ave | +++++<br>135876<br>7029773 | +++++<br>317160<br>9711278 | 13132<br>869571 | 25258<br>1652338 | 51444<br>3688023 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1 LVL 6 LVL 11 | LVL 2 LVL 7 LVL 12 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 LVL 10 | LVL 1 LVL 6 LVL 11 | LVL 2 LVL 7 LVL 12 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 LVL 10 |
| Bromobenzene | DCBd 4 | Ave | +++++<br>37973<br>2104175 | +++++<br>85890<br>3276453 | 3676<br>232282 | 7553<br>443385 | 15533<br>1023474 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| N-Propylbenzene | DCBd 4 | Ave | +++++<br>142838<br>7437145 | +++++<br>338555<br>10178257 | 13177<br>932141 | 26133<br>1765855 | 54404<br>3970790 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Chlorotoluene | DCBd 4 | Ave | +++++<br>93430<br>4846575 | +++++<br>216042<br>7105153 | 9077<br>569994 | 17709<br>1066912 | 38194<br>2421345 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 4-Chlorotoluene | DCBd 4 | Ave | +++++<br>94883<br>5030412 | +++++<br>222883<br>7338648 | 8819<br>589694 | 18021<br>1116630 | 38563<br>2532242 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3,5-Trimethylbenzene | DCBd 4 | Ave | +++++<br>111416<br>6182011 | +++++<br>266938<br>8651259 | 9389<br>737593 | 20155<br>1399600 | 42029<br>3195023 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| tert-Butylbenzene | DCBd 4 | Ave | +++++<br>103527<br>5673654 | +++++<br>244831<br>8049250 | 9047<br>675039 | 19308<br>1288234 | 39853<br>2931529 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,4-Trimethylbenzene | DCBd 4 | Lin2 | +++++<br>117442<br>6341786 | +++++<br>279884<br>8898647 | 9422<br>771345 | 19804<br>1456902 | 44302<br>3298226 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| sec-Butylbenzene | DCBd 4 | Ave | +++++<br>158121<br>7637368 | +++++<br>365745<br>10335081 | 13399<br>973279 | 29508<br>1850192 | 62746<br>4149128 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Dichlorobenzene | DCBd 4 | Ave | +++++<br>81892<br>4078559 | +++++<br>179104<br>6067994 | 8767<br>475737 | 17066<br>898337 | 33917<br>2052271 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,4-Dichlorobenzene | DCBd 4 | Ave | +++++<br>84127<br>4126225 | +++++<br>185989<br>6064350 | 9648<br>492694 | 19131<br>924230 | 35722<br>2075952 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| p-Isopropyltoluene | DCBd 4 | Ave | +++++<br>138929<br>7001141 | +++++<br>323618<br>9435325 | 13519<br>883295 | 27432<br>1678457 | 55674<br>3753177 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2-Dichlorobenzene | DCBd 4 | Ave | +++++<br>73725<br>3917999 | +++++<br>167197<br>5818562 | 8017<br>450181 | 14985<br>861519 | 30373<br>1956714 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Butylbenzene | DCBd 4 | Ave | +++++<br>108959<br>5888368 | +++++<br>258575<br>8169485 | 9690<br>709063 | 19899<br>1355612 | 40622<br>3090410 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 1,2-Dibromo-3-Chloropropane | DCBd 4 | Lin2 | +++++<br>5264<br>330913 | +++++<br>12535<br>528829 | +++++<br>34790 | 593<br>68422 | 2226<br>162389 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,4-Trichlorobenzene | DCBd 4 | Ave | +++++<br>45517<br>2769663 | +++++<br>105246<br>4183181 | 5127<br>298586 | 9238<br>590129 | 18513<br>1345292 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Naphthalene | DCBd 4 | Lin1 | +++++<br>114157<br>6407987 | +++++<br>283695<br>+++++ | 9788<br>815347 | 18892<br>1598232 | 40824<br>3533382 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Hexachlorobutadiene | DCBd 4 | Ave | +++++<br>26866<br>1501467 | +++++<br>59765<br>2307424 | 3255<br>159223 | 6289<br>313875 | 11015<br>720187 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,3-Trichlorobenzene | DCBd 4 | Ave | +++++<br>46390<br>2591535 | +++++<br>106042<br>3961620 | 4692<br>282966 | 8671<br>554272 | 18968<br>1281032 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Dibromofluoromethane (Surr) | FB | Ave | 33967 | 69691 | 175933 | 343285 | 745317 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| 1,2-Dichloroethane-d4 (Surr) | FB | Ave | 34146 | 68728 | 173556 | 333537 | 731283 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| Toluene-d8 (Surr) | CBNZ d5 | Ave | 112844 | 233914 | 608913 | 1170013 | 2538162 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| 4-Bromofluorobenzene (Surr) | DCBd 4 | Ave | 42951 | 92599 | 239872 | 467651 | 1074191 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: ICV 440-447237/18 Calibration Date: 12/19/2017 20:04

Instrument ID: GCMS56 Calib Start Date: 12/19/2017 13:36

GC Column: DB-VRX B ID: 0.25(mm) Calib End Date: 12/19/2017 18:41

Lab File ID: GFL19018.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.4046 | 0.4121 | | 25.5 | 25.0 | 1.8 | 40.0 |
| Chloromethane | Ave | 0.4968 | 0.4975 | 0.1000 | 25.0 | 25.0 | 0.1 | 40.0 |
| Vinyl chloride | Ave | 0.4051 | 0.4133 | | 25.5 | 25.0 | 2.0 | 30.0 |
| 1,3-Butadiene | Ave | 0.4169 | 0.3926 | | 23.5 | 25.0 | -5.8 | 30.0 |
| Bromomethane | Ave | 0.2787 | 0.2912 | | 26.1 | 25.0 | 4.5 | 30.0 |
| Chloroethane | Ave | 0.2450 | 0.2440 | | 24.9 | 25.0 | -0.4 | 30.0 |
| Ethanol | Ave | 0.1099 | 0.1174 | | 1070 | 1000 | 6.9 | 40.0 |
| Dichlorofluoromethane | Ave | 0.6694 | 0.7003 | | 26.2 | 25.0 | 4.6 | 40.0 |
| Acrolein | Ave | 0.0509 | 0.0424 | | 20.8 | 25.0 | -16.6 | 40.0 |
| Acetonitrile | Ave | 0.0509 | 0.0480 | | 236 | 250 | -5.7 | 40.0 |
| Trichlorofluoromethane | Ave | 0.6405 | 0.6303 | | 24.6 | 25.0 | -1.6 | 40.0 |
| Acetone | Ave | 0.0991 | 0.0973 | | 24.5 | 25.0 | -1.8 | 40.0 |
| Diethyl ether | Ave | 0.2720 | 0.2719 | | 25.0 | 25.0 | -0.0 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.3286 | 0.2997 | | 22.8 | 25.0 | -8.8 | 30.0 |
| Iodomethane | Ave | 0.8393 | 0.8079 | | 24.1 | 25.0 | -3.7 | 40.0 |
| tert-Butyl alcohol (TBA) | Ave | 1.189 | 1.311 | | 276 | 250 | 10.3 | 30.0 |
| Acrylonitrile | Ave | 0.1300 | 0.1320 | | 254 | 250 | 1.5 | 40.0 |
| Methylene Chloride | Ave | 0.3791 | 0.3331 | | 22.0 | 25.0 | -12.1 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.4139 | 0.3884 | | 23.5 | 25.0 | -6.2 | 40.0 |
| Methyl acetate | Ave | 0.2249 | 0.2167 | | 120 | 125 | -3.7 | 30.0 |
| Allyl chloride | Ave | 0.5094 | 0.5134 | | 25.2 | 25.0 | 0.8 | 40.0 |
| Carbon disulfide | Ave | 1.106 | 1.069 | | 24.2 | 25.0 | -3.3 | 40.0 |
| trans-1,2-Dichloroethene | Ave | 0.2692 | 0.2737 | | 25.4 | 25.0 | 1.7 | 30.0 |
| Methyl-t-Butyl Ether (MTBE) | Ave | 0.8075 | 0.8209 | | 25.4 | 25.0 | 1.6 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.6281 | 0.6333 | 0.1000 | 25.2 | 25.0 | 0.8 | 30.0 |
| Propionitrile | Ave | 0.0545 | 0.0571 | | 262 | 250 | 4.8 | 40.0 |
| Vinyl acetate | Ave | 0.6135 | 0.6639 | | 27.1 | 25.0 | 8.2 | 40.0 |
| Hexane | Ave | 0.5631 | 0.5556 | | 24.7 | 25.0 | -1.3 | 40.0 |
| 2-Butanone (MEK) | Lin2 | | 0.0253 | | 25.5 | 25.0 | 2.1 | 40.0 |
| Isopropyl Ether (DIPE) | Ave | 1.199 | 1.291 | | 26.9 | 25.0 | 7.6 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.2960 | 0.3079 | | 26.0 | 25.0 | 4.0 | 30.0 |
| Bromochloromethane | Ave | 0.1661 | 0.1664 | | 25.0 | 25.0 | 0.2 | 30.0 |
| Chloroform | Ave | 0.4965 | 0.4952 | | 24.9 | 25.0 | -0.2 | 30.0 |
| 2,2-Dichloropropane | Ave | 0.3266 | 0.3134 | | 24.0 | 25.0 | -4.1 | 30.0 |
| Ethyl-t-butyl ether (ETBE) | Ave | 1.329 | 1.424 | | 26.8 | 25.0 | 7.1 | 30.0 |
| Isobutyl alcohol | Ave | 0.3863 | 0.4262 | | 690 | 625 | 10.3 | 40.0 |
| Tetrahydrofuran | Ave | 0.1123 | 0.1026 | | 45.7 | 50.0 | -8.6 | 40.0 |
| 1,2-Dichloroethane | Ave | 0.4509 | 0.4570 | | 25.3 | 25.0 | 1.3 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.5295 | 0.5188 | | 24.5 | 25.0 | -2.0 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.3235 | 0.3287 | | 25.4 | 25.0 | 1.6 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: ICV 440-447237/18 Calibration Date: 12/19/2017 20:04

Instrument ID: GCMS56 Calib Start Date: 12/19/2017 13:36

GC Column: DB-VRX B ID: 0.25(mm) Calib End Date: 12/19/2017 18:41

Lab File ID: GFL19018.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Cyclohexane | Ave | 0.7620 | 0.7488 | | 24.6 | 25.0 | -1.7 | 30.0 |
| Carbon tetrachloride | Ave | 0.4762 | 0.4682 | | 24.6 | 25.0 | -1.7 | 40.0 |
| Benzene | Ave | 0.9566 | 0.9617 | | 25.1 | 25.0 | 0.5 | 30.0 |
| Tert-amyl-methyl ether (TAME) | Lin2 | | 0.8499 | | 25.3 | 25.0 | 1.4 | 30.0 |
| Dibromomethane | Ave | 0.1749 | 0.1838 | | 26.3 | 25.0 | 5.1 | 30.0 |
| n-Heptane | Ave | 0.5095 | 0.4987 | | 24.5 | 25.0 | -2.1 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.3480 | 0.3698 | | 26.6 | 25.0 | 6.3 | 30.0 |
| Trichloroethene | Ave | 0.3255 | 0.3340 | | 25.7 | 25.0 | 2.6 | 30.0 |
| Bromodichloromethane | Ave | 0.3813 | 0.3950 | | 25.9 | 25.0 | 3.6 | 30.0 |
| 2-Chloroethyl vinyl ether | Ave | 0.2219 | 0.2323 | | 26.2 | 25.0 | 4.7 | 40.0 |
| Methylcyclohexane | Ave | 0.4973 | 0.4753 | | 23.9 | 25.0 | -4.4 | 30.0 |
| cis-1,3-Dichloropropene | Ave | 0.4059 | 0.4407 | | 27.1 | 25.0 | 8.6 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.3214 | 0.3529 | | 27.4 | 25.0 | 9.8 | 40.0 |
| trans-1,3-Dichloropropene | Ave | 0.3635 | 0.3933 | | 27.1 | 25.0 | 8.2 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.2003 | 0.2168 | | 27.1 | 25.0 | 8.2 | 30.0 |
| Toluene | Ave | 1.122 | 1.138 | | 25.4 | 25.0 | 1.4 | 30.0 |
| 1,3-Dichloropropane | Ave | 0.3457 | 0.3554 | | 25.7 | 25.0 | 2.8 | 30.0 |
| Ethyl methacrylate | Ave | 0.2839 | 0.3020 | | 26.6 | 25.0 | 6.4 | 40.0 |
| 2-Hexanone | Lin2 | | 0.2371 | | 26.3 | 25.0 | 5.0 | 40.0 |
| Dibromochloromethane | Ave | 0.3506 | 0.3795 | | 27.1 | 25.0 | 8.2 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2845 | 0.2978 | | 26.2 | 25.0 | 4.7 | 30.0 |
| Tetrachloroethene | Ave | 0.3029 | 0.2916 | | 24.1 | 25.0 | -3.7 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.3515 | 0.3810 | | 27.1 | 25.0 | 8.4 | 40.0 |
| Chlorobenzene | Ave | 0.8748 | 0.8649 | 0.3000 | 24.7 | 25.0 | -1.1 | 30.0 |
| Ethylbenzene | Ave | 1.335 | 1.315 | | 24.6 | 25.0 | -1.5 | 30.0 |
| m,p-Xylene | Ave | 0.5298 | 0.5345 | | 25.2 | 25.0 | 0.9 | 30.0 |
| Bromoform | Lin2 | | 0.2747 | 0.1000 | 25.2 | 25.0 | 0.8 | 40.0 |
| Styrene | Ave | 0.8710 | 0.8864 | | 25.4 | 25.0 | 1.8 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5566 | 0.6142 | 0.3000 | 27.6 | 25.0 | 10.3 | 30.0 |
| o-Xylene | Ave | 0.5473 | 0.5425 | | 24.8 | 25.0 | -0.9 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.1573 | 0.1730 | | 27.5 | 25.0 | 9.9 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.2141 | 0.2263 | | 26.4 | 25.0 | 5.7 | 40.0 |
| Isopropylbenzene | Ave | 1.454 | 1.427 | | 24.5 | 25.0 | -1.8 | 30.0 |
| Bromobenzene | Ave | 0.7237 | 0.7856 | | 27.1 | 25.0 | 8.5 | 30.0 |
| N-Propylbenzene | Ave | 2.493 | 2.694 | | 27.0 | 25.0 | 8.1 | 30.0 |
| 2-Chlorotoluene | Ave | 1.563 | 1.631 | | 26.1 | 25.0 | 4.3 | 30.0 |
| 4-Chlorotoluene | Ave | 1.606 | 1.716 | | 26.7 | 25.0 | 6.9 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 1.944 | 2.112 | | 27.2 | 25.0 | 8.7 | 30.0 |
| tert-Butylbenzene | Ave | 1.938 | 2.102 | | 27.1 | 25.0 | 8.4 | 30.0 |
| 1,2,4-Trimethylbenzene | Ave | 1.994 | 2.157 | | 27.0 | 25.0 | 8.2 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Lab Sample ID: ICV 440-447237/18  Calibration Date: 12/19/2017 20:04

Instrument ID: GCMS56  Calib Start Date: 12/19/2017 13:36

GC Column: DB-VRX B  ID: 0.25(mm)  Calib End Date: 12/19/2017 18:41

Lab File ID: GFL19018.D  Conc. Units: ug/L  Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | Ave | 2.703 | 2.862 | | 26.5 | 25.0 | 5.9 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.413 | 1.511 | | 26.7 | 25.0 | 6.9 | 30.0 |
| 1,4-Dichlorobenzene | Ave | 1.426 | 1.523 | | 26.7 | 25.0 | 6.8 | 30.0 |
| p-Isopropyltoluene | Ave | 2.462 | 2.620 | | 26.6 | 25.0 | 6.4 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.383 | 1.533 | | 27.7 | 25.0 | 10.8 | 30.0 |
| n-Butylbenzene | Ave | 2.028 | 2.123 | | 26.2 | 25.0 | 4.7 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Lin2 | | 0.1300 | | 26.9 | 25.0 | 7.6 | 40.0 |
| 1,2,4-Trichlorobenzene | Ave | 1.060 | 1.143 | | 27.0 | 25.0 | 7.8 | 40.0 |
| Naphthalene | Ave | 2.387 | 2.672 | | 28.0 | 25.0 | 12.0 | 40.0 |
| Hexachlorobutadiene | Ave | 0.6102 | 0.6663 | | 27.3 | 25.0 | 9.2 | 40.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.9654 | 1.118 | | 28.9 | 25.0 | 15.8 | 40.0 |
| Dibromofluoromethane (Surr) | Ave | 0.3274 | 0.3056 | | 23.3 | 25.0 | -6.6 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.3640 | 0.3344 | | 23.0 | 25.0 | -8.1 | |
| Toluene-d8 (Surr) | Ave | 1.064 | 1.037 | | 24.4 | 25.0 | -2.6 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.7006 | 0.7509 | | 26.8 | 25.0 | 7.2 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCVIS 440-452744/2 Calibration Date: 01/19/2018 16:29

Instrument ID: GCMS56 Calib Start Date: 12/19/2017 13:36

GC Column: DB-VRX B ID: 0.25(mm) Calib End Date: 12/19/2017 18:41

Lab File ID: GGA19032.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.4046 | 0.4744 | | 29.3 | 25.0 | 17.2 | 40.0 |
| Chloromethane | Ave | 0.4968 | 0.5043 | 0.1000 | 25.4 | 25.0 | 1.5 | 40.0 |
| Vinyl chloride | Ave | 0.4051 | 0.4414 | | 27.2 | 25.0 | 8.9 | 20.0 |
| 1,3-Butadiene | Ave | 0.4169 | 0.4644 | | 27.8 | 25.0 | 11.4 | 30.0 |
| Bromomethane | Ave | 0.2787 | 0.2717 | | 24.4 | 25.0 | -2.5 | 30.0 |
| Chloroethane | Ave | 0.2450 | 0.2298 | | 23.4 | 25.0 | -6.2 | 30.0 |
| Ethanol | Ave | 0.1099 | 0.0938 | | 854 | 1000 | -14.6 | 40.0 |
| Dichlorofluoromethane | Ave | 0.6694 | 0.6767 | | 25.3 | 25.0 | 1.1 | 40.0 |
| Acrolein | Ave | 0.0509 | 0.0352 | | 17.3 | 25.0 | -30.9 | 40.0 |
| Acetonitrile | Ave | 0.0509 | 0.0517 | | 254 | 250 | 1.4 | 40.0 |
| Trichlorofluoromethane | Ave | 0.6405 | 0.7211 | | 28.1 | 25.0 | 12.6 | 40.0 |
| Acetone | Ave | 0.0991 | 0.1026 | | 25.9 | 25.0 | 3.6 | 40.0 |
| Diethyl ether | Ave | 0.2720 | 0.2886 | | 26.5 | 25.0 | 6.1 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.3286 | 0.2950 | | 22.4 | 25.0 | -10.2 | 20.0 |
| Iodomethane | Ave | 0.8393 | 0.7848 | | 23.4 | 25.0 | -6.5 | 40.0 |
| tert-Butyl alcohol (TBA) | Ave | 1.189 | 1.395 | | 293 | 250 | 17.4 | 30.0 |
| Acrylonitrile | Ave | 0.1300 | 0.1487 | | 286 | 250 | 14.4 | 40.0 |
| Methylene Chloride | Ave | 0.3791 | 0.3152 | | 20.8 | 25.0 | -16.8 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.4139 | 0.4219 | | 25.5 | 25.0 | 1.9 | 40.0 |
| Methyl acetate | Ave | 0.2249 | 0.2441 | | 136 | 125 | 8.5 | 30.0 |
| Allyl chloride | Ave | 0.5094 | 0.5205 | | 25.5 | 25.0 | 2.2 | 40.0 |
| Carbon disulfide | Ave | 1.106 | 1.012 | | 22.9 | 25.0 | -8.4 | 40.0 |
| trans-1,2-Dichloroethene | Ave | 0.2692 | 0.2549 | | 23.7 | 25.0 | -5.3 | 30.0 |
| Methyl-t-Butyl Ether (MTBE) | Ave | 0.8075 | 0.7785 | | 24.1 | 25.0 | -3.6 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.6281 | 0.6310 | 0.1000 | 25.1 | 25.0 | 0.5 | 30.0 |
| Propionitrile | Ave | 0.0545 | 0.0616 | | 283 | 250 | 13.2 | 40.0 |
| Vinyl acetate | Ave | 0.6135 | 0.7252 | | 23.6 | 20.0 | 18.2 | 40.0 |
| Hexane | Ave | 0.5631 | 0.5930 | | 26.3 | 25.0 | 5.3 | 40.0 |
| 2-Butanone (MEK) | Lin2 | | 0.0211 | | 21.7 | 25.0 | -13.1 | 40.0 |
| Isopropyl Ether (DIPE) | Ave | 1.199 | 1.265 | | 26.4 | 25.0 | 5.5 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.2960 | 0.2837 | | 24.0 | 25.0 | -4.2 | 30.0 |
| Bromochloromethane | Ave | 0.1661 | 0.1608 | | 24.2 | 25.0 | -3.2 | 30.0 |
| Chloroform | Ave | 0.4965 | 0.4989 | | 25.1 | 25.0 | 0.5 | 20.0 |
| 2,2-Dichloropropane | Ave | 0.3266 | 0.4368 | | 33.4 | 25.0 | 33.7* | 30.0 |
| Ethyl-t-butyl ether (ETBE) | Ave | 1.329 | 1.359 | | 25.5 | 25.0 | 2.2 | 30.0 |
| Isobutyl alcohol | Ave | 0.3863 | 0.4640 | | 751 | 625 | 20.1 | 40.0 |
| Tetrahydrofuran | Ave | 0.1123 | 0.1183 | | 52.7 | 50.0 | 5.4 | 40.0 |
| 1,2-Dichloroethane | Ave | 0.4509 | 0.4956 | | 27.5 | 25.0 | 9.9 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.5295 | 0.5591 | | 26.4 | 25.0 | 5.6 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.3235 | 0.3263 | | 25.2 | 25.0 | 0.9 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCVIS 440-452744/2  Calibration Date: 01/19/2018 16:29

Instrument ID: GCMS56  Calib Start Date: 12/19/2017 13:36

GC Column: DB-VRX B  ID: 0.25(mm)  Calib End Date: 12/19/2017 18:41

Lab File ID: GGA19032.D  Conc. Units: ug/L  Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Cyclohexane | Ave | 0.7620 | 0.8250 | | 27.1 | 25.0 | 8.3 | 30.0 |
| Carbon tetrachloride | Ave | 0.4762 | 0.5359 | | 28.1 | 25.0 | 12.5 | 40.0 |
| Benzene | Ave | 0.9566 | 0.8683 | | 22.7 | 25.0 | -9.2 | 30.0 |
| Tert-amyl-methyl ether (TAME) | Lin2 | | 0.7643 | | 22.8 | 25.0 | -8.9 | 30.0 |
| Dibromomethane | Ave | 0.1749 | 0.1810 | | 25.9 | 25.0 | 3.5 | 30.0 |
| n-Heptane | Ave | 0.5095 | 0.5646 | | 27.7 | 25.0 | 10.8 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.3480 | 0.3433 | | 24.7 | 25.0 | -1.3 | 20.0 |
| Trichloroethene | Ave | 0.3255 | 0.3097 | | 23.8 | 25.0 | -4.9 | 30.0 |
| Bromodichloromethane | Ave | 0.3813 | 0.3879 | | 25.4 | 25.0 | 1.7 | 30.0 |
| Methylcyclohexane | Ave | 0.4973 | 0.4601 | | 23.1 | 25.0 | -7.5 | 30.0 |
| 2-Chloroethyl vinyl ether | Ave | 0.2219 | 0.2390 | | 26.9 | 25.0 | 7.7 | 40.0 |
| cis-1,3-Dichloropropene | Ave | 0.4059 | 0.4518 | | 27.8 | 25.0 | 11.3 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.3214 | 0.3802 | | 29.6 | 25.0 | 18.3 | 40.0 |
| trans-1,3-Dichloropropene | Ave | 0.3635 | 0.4295 | | 29.5 | 25.0 | 18.2 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.2003 | 0.2197 | | 27.4 | 25.0 | 9.7 | 30.0 |
| Toluene | Ave | 1.122 | 1.137 | | 25.3 | 25.0 | 1.4 | 20.0 |
| 1,3-Dichloropropane | Ave | 0.3457 | 0.3828 | | 27.7 | 25.0 | 10.7 | 30.0 |
| Ethyl methacrylate | Ave | 0.2839 | 0.3044 | | 26.8 | 25.0 | 7.2 | 40.0 |
| 2-Hexanone | Lin2 | | 0.2743 | | 30.1 | 25.0 | 20.4 | 40.0 |
| Dibromochloromethane | Ave | 0.3506 | 0.4226 | | 30.1 | 25.0 | 20.5 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2845 | 0.3188 | | 28.0 | 25.0 | 12.0 | 30.0 |
| Tetrachloroethene | Ave | 0.3029 | 0.3214 | | 26.5 | 25.0 | 6.1 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.3515 | 0.4131 | | 29.4 | 25.0 | 17.5 | 40.0 |
| Chlorobenzene | Ave | 0.8748 | 0.8820 | 0.3000 | 25.2 | 25.0 | 0.8 | 30.0 |
| Ethylbenzene | Ave | 1.335 | 1.365 | | 25.5 | 25.0 | 2.2 | 20.0 |
| m,p-Xylene | Ave | 0.5298 | 0.5484 | | 25.9 | 25.0 | 3.5 | 30.0 |
| Bromoform | Lin2 | | 0.3046 | 0.1000 | 27.9 | 25.0 | 11.6 | 40.0 |
| Styrene | Ave | 0.8710 | 0.8721 | | 25.0 | 25.0 | 0.1 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5566 | 0.6251 | 0.3000 | 28.1 | 25.0 | 12.3 | 30.0 |
| o-Xylene | Ave | 0.5473 | 0.5466 | | 25.0 | 25.0 | -0.1 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.1573 | 0.1777 | | 28.2 | 25.0 | 12.9 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.2141 | 0.2813 | | 32.8 | 25.0 | 31.4 | 40.0 |
| Isopropylbenzene | Ave | 1.454 | 1.528 | | 26.3 | 25.0 | 5.1 | 30.0 |
| Bromobenzene | Ave | 0.7237 | 0.7802 | | 26.9 | 25.0 | 7.8 | 30.0 |
| N-Propylbenzene | Ave | 2.493 | 2.769 | | 27.8 | 25.0 | 11.1 | 30.0 |
| 2-Chlorotoluene | Ave | 1.563 | 1.668 | | 26.7 | 25.0 | 6.7 | 30.0 |
| 4-Chlorotoluene | Ave | 1.606 | 1.727 | | 26.9 | 25.0 | 7.6 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 1.944 | 2.142 | | 27.5 | 25.0 | 10.2 | 30.0 |
| tert-Butylbenzene | Ave | 1.938 | 2.129 | | 27.5 | 25.0 | 9.8 | 30.0 |
| 1,2,4-Trimethylbenzene | Ave | 1.994 | 2.208 | | 27.7 | 25.0 | 10.7 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCVIS 440-452744/2  Calibration Date: 01/19/2018 16:29

Instrument ID: GCMS56  Calib Start Date: 12/19/2017 13:36

GC Column: DB-VRX B  ID: 0.25(mm)  Calib End Date: 12/19/2017 18:41

Lab File ID: GGA19032.D  Conc. Units: ug/L  Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | Ave | 2.703 | 2.957 | | 27.3 | 25.0 | 9.4 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.413 | 1.489 | | 26.3 | 25.0 | 5.4 | 30.0 |
| 1,4-Dichlorobenzene | Ave | 1.426 | 1.560 | | 27.3 | 25.0 | 9.4 | 30.0 |
| p-Isopropyltoluene | Ave | 2.462 | 2.793 | | 28.4 | 25.0 | 13.4 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.383 | 1.495 | | 27.0 | 25.0 | 8.1 | 30.0 |
| n-Butylbenzene | Ave | 2.028 | 2.287 | | 28.2 | 25.0 | 12.8 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Lin2 | | 0.1448 | | 29.9 | 25.0 | 19.5 | 40.0 |
| 1,2,4-Trichlorobenzene | Ave | 1.060 | 1.266 | | 29.9 | 25.0 | 19.4 | 40.0 |
| Naphthalene | Ave | 2.387 | 2.829 | | 29.6 | 25.0 | 18.5 | 40.0 |
| Hexachlorobutadiene | Ave | 0.6102 | 0.7157 | | 29.3 | 25.0 | 17.3 | 40.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.9654 | 1.164 | | 30.1 | 25.0 | 20.6 | 40.0 |
| Dibromofluoromethane (Surr) | Ave | 0.3274 | 0.3222 | | 24.6 | 25.0 | -1.6 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.3640 | 0.3927 | | 27.0 | 25.0 | 7.9 | |
| Toluene-d8 (Surr) | Ave | 1.064 | 1.123 | | 26.4 | 25.0 | 5.5 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.7006 | 0.7615 | | 27.2 | 25.0 | 8.7 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: ICV 440-446571/18 Calibration Date: 12/14/2017 01:08

Instrument ID: GCMS58 Calib Start Date: 12/13/2017 18:15

GC Column: DB-VRX B ID: 0.25(mm) Calib End Date: 12/13/2017 23:40

Lab File ID: YFL13027.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.2847 | 0.2828 | | 24.8 | 25.0 | -0.7 | 40.0 |
| Chloromethane | Ave | 0.3858 | 0.3953 | 0.1000 | 25.6 | 25.0 | 2.5 | 40.0 |
| Vinyl chloride | Ave | 0.2818 | 0.2765 | | 24.5 | 25.0 | -1.9 | 30.0 |
| 1,3-Butadiene | Ave | 0.3436 | 0.3006 | | 21.9 | 25.0 | -12.5 | 30.0 |
| Bromomethane | Ave | 0.1894 | 0.1891 | | 25.0 | 25.0 | -0.1 | 30.0 |
| Chloroethane | Ave | 0.1749 | 0.1646 | | 23.5 | 25.0 | -5.9 | 30.0 |
| Ethanol | Ave | 0.1812 | 0.1864 | | 1030 | 1000 | 2.9 | 40.0 |
| Dichlorofluoromethane | Ave | 0.4323 | 0.4234 | | 24.5 | 25.0 | -2.1 | 40.0 |
| Acrolein | Ave | 0.0322 | 0.0269 | | 20.9 | 25.0 | -16.4 | 40.0 |
| Acetonitrile | Ave | 0.0445 | 0.0417 | | 235 | 250 | -6.2 | 40.0 |
| Trichlorofluoromethane | Ave | 0.4304 | 0.3939 | | 22.9 | 25.0 | -8.5 | 40.0 |
| Acetone | Ave | 0.0872 | 0.0825 | | 23.6 | 25.0 | -5.4 | 40.0 |
| Diethyl ether | Ave | 0.2191 | 0.2265 | | 25.8 | 25.0 | 3.4 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.2256 | 0.2146 | | 23.8 | 25.0 | -4.9 | 30.0 |
| Iodomethane | Ave | 0.4851 | 0.4642 | | 23.9 | 25.0 | -4.3 | 40.0 |
| tert-Butyl alcohol (TBA) | Ave | 1.212 | 1.352 | | 279 | 250 | 11.5 | 30.0 |
| Acrylonitrile | Ave | 0.1056 | 0.1048 | | 248 | 250 | -0.8 | 40.0 |
| Methylene Chloride | Ave | 0.2682 | 0.2572 | | 24.0 | 25.0 | -4.1 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.2673 | 0.2342 | | 21.9 | 25.0 | -12.4 | 40.0 |
| Methyl acetate | Ave | 0.2206 | 0.2101 | | 119 | 125 | -4.8 | 30.0 |
| Allyl chloride | Ave | 0.5300 | 0.4945 | | 23.3 | 25.0 | -6.7 | 40.0 |
| Carbon disulfide | Ave | 0.7755 | 0.7167 | | 23.1 | 25.0 | -7.6 | 40.0 |
| trans-1,2-Dichloroethene | Ave | 0.2422 | 0.2550 | | 26.3 | 25.0 | 5.3 | 30.0 |
| Methyl-t-Butyl Ether (MTBE) | Ave | 0.5938 | 0.6214 | | 26.2 | 25.0 | 4.6 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.4472 | 0.4378 | 0.1000 | 24.5 | 25.0 | -2.1 | 30.0 |
| Propionitrile | Ave | 0.0409 | 0.0423 | | 259 | 250 | 3.4 | 40.0 |
| Vinyl acetate | Ave | 0.6020 | 0.6323 | | 26.3 | 25.0 | 5.0 | 40.0 |
| Hexane | Ave | 0.4324 | 0.4206 | | 24.3 | 25.0 | -2.7 | 40.0 |
| 2-Butanone (MEK) | Lin2 | | 0.0255 | | 25.8 | 25.0 | 3.1 | 40.0 |
| Isopropyl Ether (DIPE) | Ave | 1.035 | 1.111 | | 26.8 | 25.0 | 7.3 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.2789 | 0.2893 | | 25.9 | 25.0 | 3.7 | 30.0 |
| Bromochloromethane | Ave | 0.1461 | 0.1547 | | 26.5 | 25.0 | 5.9 | 30.0 |
| Chloroform | Ave | 0.4417 | 0.4240 | | 24.0 | 25.0 | -4.0 | 30.0 |
| 2,2-Dichloropropane | Ave | 0.3151 | 0.2815 | | 22.3 | 25.0 | -10.7 | 30.0 |
| Ethyl-t-butyl ether (ETBE) | Ave | 0.7611 | 0.8264 | | 27.1 | 25.0 | 8.6 | 30.0 |
| Isobutyl alcohol | Ave | 0.6436 | 0.7424 | | 721 | 625 | 15.4 | 40.0 |
| Tetrahydrofuran | Ave | 0.0991 | 0.0927 | | 46.8 | 50.0 | -6.4 | 40.0 |
| 1,2-Dichloroethane | Ave | 0.3164 | 0.3072 | | 24.3 | 25.0 | -2.9 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.4054 | 0.3847 | | 23.7 | 25.0 | -5.1 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.2821 | 0.2979 | | 26.4 | 25.0 | 5.6 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: ICV 440-446571/18 Calibration Date: 12/14/2017 01:08

Instrument ID: GCMS58 Calib Start Date: 12/13/2017 18:15

GC Column: DB-VRX B ID: 0.25(mm) Calib End Date: 12/13/2017 23:40

Lab File ID: YFL13027.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Cyclohexane | Ave | 0.4912 | 0.4704 | | 23.9 | 25.0 | -4.2 | 30.0 |
| Carbon tetrachloride | Ave | 0.3904 | 0.3628 | | 23.2 | 25.0 | -7.1 | 40.0 |
| Benzene | Ave | 0.9129 | 0.9269 | | 25.4 | 25.0 | 1.5 | 30.0 |
| Tert-amyl-methyl ether (TAME) | Lin2 | | 0.6307 | | 25.7 | 25.0 | 3.0 | 30.0 |
| Dibromomethane | Ave | 0.1471 | 0.1475 | | 25.1 | 25.0 | 0.3 | 30.0 |
| n-Heptane | Ave | 0.5036 | 0.4854 | | 24.1 | 25.0 | -3.6 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.2563 | 0.2581 | | 25.2 | 25.0 | 0.7 | 30.0 |
| Trichloroethene | Ave | 0.3132 | 0.3141 | | 25.1 | 25.0 | 0.3 | 30.0 |
| Bromodichloromethane | Ave | 0.3298 | 0.3360 | | 25.5 | 25.0 | 1.9 | 30.0 |
| 2-Chloroethyl vinyl ether | Lin1 | | 0.1268 | | 22.4 | 25.0 | -10.4 | 40.0 |
| Methylcyclohexane | Ave | 0.4069 | 0.4067 | | 25.0 | 25.0 | -0.0 | 30.0 |
| cis-1,3-Dichloropropene | Ave | 0.4128 | 0.4246 | | 25.7 | 25.0 | 2.9 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.3296 | 0.3513 | | 26.6 | 25.0 | 6.6 | 40.0 |
| trans-1,3-Dichloropropene | Ave | 0.3690 | 0.3740 | | 25.3 | 25.0 | 1.4 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.2011 | 0.2095 | | 26.0 | 25.0 | 4.2 | 30.0 |
| Toluene | Ave | 1.183 | 1.235 | | 26.1 | 25.0 | 4.4 | 30.0 |
| 1,3-Dichloropropane | Ave | 0.3996 | 0.3937 | | 24.6 | 25.0 | -1.5 | 30.0 |
| Ethyl methacrylate | Ave | 0.3101 | 0.3333 | | 26.9 | 25.0 | 7.5 | 40.0 |
| 2-Hexanone | Ave | 0.2339 | 0.2553 | | 27.3 | 25.0 | 9.2 | 40.0 |
| Dibromochloromethane | Ave | 0.3653 | 0.3711 | | 25.4 | 25.0 | 1.6 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2684 | 0.2698 | | 25.1 | 25.0 | 0.5 | 30.0 |
| Tetrachloroethene | Ave | 0.2771 | 0.2638 | | 23.8 | 25.0 | -4.8 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.3594 | 0.3753 | | 26.1 | 25.0 | 4.4 | 40.0 |
| Chlorobenzene | Ave | 0.9451 | 0.9408 | 0.3000 | 24.9 | 25.0 | -0.5 | 30.0 |
| Ethylbenzene | Ave | 1.339 | 1.389 | | 25.9 | 25.0 | 3.7 | 30.0 |
| m,p-Xylene | Ave | 0.5568 | 0.5906 | | 26.5 | 25.0 | 6.1 | 30.0 |
| Bromoform | Ave | 0.2175 | 0.2342 | 0.1000 | 26.9 | 25.0 | 7.7 | 40.0 |
| Styrene | Lin1 | | 0.9528 | | 26.6 | 25.0 | 6.2 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5991 | 0.6719 | 0.3000 | 28.0 | 25.0 | 12.1 | 30.0 |
| o-Xylene | Ave | 0.5438 | 0.5907 | | 27.2 | 25.0 | 8.6 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.2051 | 0.2279 | | 27.8 | 25.0 | 11.1 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.1997 | 0.2131 | | 26.7 | 25.0 | 6.7 | 40.0 |
| Isopropylbenzene | Ave | 1.400 | 1.515 | | 27.1 | 25.0 | 8.2 | 30.0 |
| Bromobenzene | Ave | 0.7386 | 0.7964 | | 27.0 | 25.0 | 7.8 | 30.0 |
| N-Propylbenzene | Ave | 2.719 | 3.058 | | 28.1 | 25.0 | 12.4 | 30.0 |
| 2-Chlorotoluene | Ave | 1.767 | 1.894 | | 26.8 | 25.0 | 7.2 | 30.0 |
| 4-Chlorotoluene | Ave | 1.812 | 1.989 | | 27.4 | 25.0 | 9.7 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.150 | 2.420 | | 28.1 | 25.0 | 12.5 | 30.0 |
| tert-Butylbenzene | Ave | 1.999 | 2.232 | | 27.9 | 25.0 | 11.7 | 30.0 |
| 1,2,4-Trimethylbenzene | Lin2 | | 2.525 | | 26.6 | 25.0 | 6.2 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Lab Sample ID: ICV 440-446571/18  Calibration Date: 12/14/2017 01:08

Instrument ID: GCMS58  Calib Start Date: 12/13/2017 18:15

GC Column: DB-VRX B  ID: 0.25(mm)  Calib End Date: 12/13/2017 23:40

Lab File ID: YFL13027.D  Conc. Units: ug/L  Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | Ave | 2.897 | 3.183 | | 27.5 | 25.0 | 9.9 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.539 | 1.621 | | 26.3 | 25.0 | 5.3 | 30.0 |
| 1,4-Dichlorobenzene | Ave | 1.605 | 1.699 | | 26.5 | 25.0 | 5.9 | 30.0 |
| p-Isopropyltoluene | Ave | 2.640 | 2.865 | | 27.1 | 25.0 | 8.5 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.432 | 1.604 | | 28.0 | 25.0 | 12.0 | 30.0 |
| n-Butylbenzene | Ave | 2.087 | 2.293 | | 27.5 | 25.0 | 9.8 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Lin2 | | 0.1328 | | 27.8 | 25.0 | 11.2 | 40.0 |
| 1,2,4-Trichlorobenzene | Ave | 0.9424 | 1.115 | | 29.6 | 25.0 | 18.3 | 40.0 |
| Naphthalene | Lin1 | | 3.090 | | 30.5 | 25.0 | 22.0 | 40.0 |
| Hexachlorobutadiene | Ave | 0.5397 | 0.5763 | | 26.7 | 25.0 | 6.8 | 40.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.9059 | 1.132 | | 31.2 | 25.0 | 25.0 | 40.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2755 | 0.2758 | | 25.0 | 25.0 | 0.1 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.2717 | 0.2610 | | 24.0 | 25.0 | -3.9 | |
| Toluene-d8 (Surr) | Ave | 1.109 | 1.116 | | 25.2 | 25.0 | 0.7 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.8119 | 0.8254 | | 25.4 | 25.0 | 1.7 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCVIS 440-452941/2 Calibration Date: 01/22/2018 07:13

Instrument ID: GCMS58 Calib Start Date: 12/13/2017 18:15

GC Column: DB-VRX B ID: 0.25(mm) Calib End Date: 12/13/2017 23:40

Lab File ID: YGA22002.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.2847 | 0.3351 | | 29.4 | 25.0 | 17.7 | 40.0 |
| Chloromethane | Ave | 0.3858 | 0.3434 | 0.1000 | 22.2 | 25.0 | -11.0 | 40.0 |
| Vinyl chloride | Ave | 0.2818 | 0.3117 | | 27.7 | 25.0 | 10.6 | 20.0 |
| 1,3-Butadiene | Ave | 0.3436 | 0.3316 | | 24.1 | 25.0 | -3.5 | 30.0 |
| Bromomethane | Ave | 0.1894 | 0.2309 | | 30.5 | 25.0 | 22.0 | 30.0 |
| Chloroethane | Ave | 0.1749 | 0.1659 | | 23.7 | 25.0 | -5.2 | 30.0 |
| Ethanol | Ave | 0.1812 | 0.1587 | | 876 | 1000 | -12.4 | 40.0 |
| Dichlorofluoromethane | Ave | 0.4323 | 0.4682 | | 27.1 | 25.0 | 8.3 | 40.0 |
| Trichlorofluoromethane | Ave | 0.4304 | 0.5752 | | 33.4 | 25.0 | 33.6 | 40.0 |
| Acrolein | Ave | 0.0322 | 0.0187 | | 14.5 | 25.0 | -42.1* | 40.0 |
| Acetonitrile | Ave | 0.0445 | 0.0352 | | 198 | 250 | -21.0 | 40.0 |
| Acetone | Ave | 0.0872 | 0.0687 | | 19.7 | 25.0 | -21.2 | 40.0 |
| Diethyl ether | Ave | 0.2191 | 0.1869 | | 21.3 | 25.0 | -14.7 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.2256 | 0.2413 | | 26.7 | 25.0 | 7.0 | 20.0 |
| Iodomethane | Ave | 0.4851 | 0.5629 | | 29.0 | 25.0 | 16.1 | 40.0 |
| tert-Butyl alcohol (TBA) | Ave | 1.212 | 1.260 | | 260 | 250 | 4.0 | 30.0 |
| Acrylonitrile | Ave | 0.1056 | 0.0874 | | 207 | 250 | -17.3 | 40.0 |
| Methylene Chloride | Ave | 0.2682 | 0.2104 | | 19.6 | 25.0 | -21.5 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.2673 | 0.3019 | | 28.2 | 25.0 | 13.0 | 40.0 |
| Methyl acetate | Ave | 0.2206 | 0.1622 | | 91.9 | 125 | -26.5 | 30.0 |
| Allyl chloride | Ave | 0.5300 | 0.4215 | | 19.9 | 25.0 | -20.5 | 40.0 |
| Carbon disulfide | Ave | 0.7755 | 0.7065 | | 22.8 | 25.0 | -8.9 | 40.0 |
| trans-1,2-Dichloroethene | Ave | 0.2422 | 0.2470 | | 25.5 | 25.0 | 2.0 | 30.0 |
| Methyl-t-Butyl Ether (MTBE) | Ave | 0.5938 | 0.5528 | | 23.3 | 25.0 | -6.9 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.4472 | 0.3872 | 0.1000 | 21.6 | 25.0 | -13.4 | 30.0 |
| Propionitrile | Ave | 0.0409 | 0.0334 | | 204 | 250 | -18.4 | 40.0 |
| Vinyl acetate | Ave | 0.6020 | 0.4634 | | 15.4 | 20.0 | -23.0 | 40.0 |
| Hexane | Ave | 0.4324 | 0.3754 | | 21.7 | 25.0 | -13.2 | 40.0 |
| 2-Butanone (MEK) | Lin2 | | 0.0194 | | 20.2 | 25.0 | -19.3 | 40.0 |
| Isopropyl Ether (DIPE) | Ave | 1.035 | 0.7682 | | 18.6 | 25.0 | -25.8 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.2789 | 0.2786 | | 25.0 | 25.0 | -0.1 | 30.0 |
| Bromochloromethane | Ave | 0.1461 | 0.1665 | | 28.5 | 25.0 | 14.0 | 30.0 |
| Chloroform | Ave | 0.4417 | 0.4323 | | 24.5 | 25.0 | -2.1 | 20.0 |
| 2,2-Dichloropropane | Ave | 0.3151 | 0.3563 | | 28.3 | 25.0 | 13.1 | 30.0 |
| Ethyl-t-butyl ether (ETBE) | Ave | 0.7611 | 0.6863 | | 22.5 | 25.0 | -9.8 | 30.0 |
| Isobutyl alcohol | Ave | 0.6436 | 0.5928 | | 576 | 625 | -7.9 | 40.0 |
| Tetrahydrofuran | Ave | 0.0991 | 0.0715 | | 36.1 | 50.0 | -27.8 | 40.0 |
| 1,2-Dichloroethane | Ave | 0.3164 | 0.3172 | | 25.1 | 25.0 | 0.3 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.4054 | 0.4615 | | 28.5 | 25.0 | 13.8 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.2821 | 0.2768 | | 24.5 | 25.0 | -1.9 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCVIS 440-452941/2  Calibration Date: 01/22/2018 07:13

Instrument ID: GCMS58  Calib Start Date: 12/13/2017 18:15

GC Column: DB-VRX B  ID: 0.25(mm)  Calib End Date: 12/13/2017 23:40

Lab File ID: YGA22002.D  Conc. Units: ug/L  Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Cyclohexane | Ave | 0.4912 | 0.4478 | | 22.8 | 25.0 | -8.8 | 30.0 |
| Carbon tetrachloride | Ave | 0.3904 | 0.4700 | | 30.1 | 25.0 | 20.4 | 40.0 |
| Benzene | Ave | 0.9129 | 0.7985 | | 21.9 | 25.0 | -12.5 | 30.0 |
| Tert-amyl-methyl ether (TAME) | Lin2 | | 0.5475 | | 22.3 | 25.0 | -10.8 | 30.0 |
| Dibromomethane | Ave | 0.1471 | 0.1420 | | 24.1 | 25.0 | -3.5 | 30.0 |
| n-Heptane | Ave | 0.5036 | 0.4134 | | 20.5 | 25.0 | -17.9 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.2563 | 0.2084 | | 20.3 | 25.0 | -18.7 | 20.0 |
| Trichloroethene | Ave | 0.3132 | 0.3666 | | 29.3 | 25.0 | 17.0 | 30.0 |
| Bromodichloromethane | Ave | 0.3298 | 0.3205 | | 24.3 | 25.0 | -2.8 | 30.0 |
| 2-Chloroethyl vinyl ether | Lin1 | | 0.1379 | | 24.2 | 25.0 | -3.1 | 40.0 |
| Methylcyclohexane | Ave | 0.4069 | 0.4128 | | 25.4 | 25.0 | 1.4 | 30.0 |
| cis-1,3-Dichloropropene | Ave | 0.4128 | 0.3666 | | 22.2 | 25.0 | -11.2 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.3296 | 0.2291 | | 17.4 | 25.0 | -30.5 | 40.0 |
| trans-1,3-Dichloropropene | Ave | 0.3690 | 0.3429 | | 23.2 | 25.0 | -7.1 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.2011 | 0.1708 | | 21.2 | 25.0 | -15.1 | 30.0 |
| Toluene | Ave | 1.183 | 1.159 | | 24.5 | 25.0 | -2.0 | 20.0 |
| 1,3-Dichloropropane | Ave | 0.3996 | 0.3319 | | 20.8 | 25.0 | -16.9 | 30.0 |
| Ethyl methacrylate | Ave | 0.3101 | 0.2586 | | 20.9 | 25.0 | -16.6 | 40.0 |
| 2-Hexanone | Ave | 0.2339 | 0.1646 | | 17.6 | 25.0 | -29.6 | 40.0 |
| Dibromochloromethane | Ave | 0.3653 | 0.3975 | | 27.2 | 25.0 | 8.8 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2684 | 0.2593 | | 24.1 | 25.0 | -3.4 | 30.0 |
| Tetrachloroethene | Ave | 0.2771 | 0.3282 | | 29.6 | 25.0 | 18.4 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.3594 | 0.3941 | | 27.4 | 25.0 | 9.6 | 40.0 |
| Chlorobenzene | Ave | 0.9451 | 0.9511 | 0.3000 | 25.2 | 25.0 | 0.6 | 30.0 |
| Ethylbenzene | Ave | 1.339 | 1.339 | | 25.0 | 25.0 | -0.0 | 20.0 |
| m,p-Xylene | Ave | 0.5568 | 0.6055 | | 27.2 | 25.0 | 8.7 | 30.0 |
| Bromoform | Ave | 0.2175 | 0.2616 | 0.1000 | 30.1 | 25.0 | 20.3 | 40.0 |
| Styrene | Lin1 | | 0.9243 | | 25.8 | 25.0 | 3.1 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5991 | 0.4602 | 0.3000 | 19.2 | 25.0 | -23.2 | 30.0 |
| o-Xylene | Ave | 0.5438 | 0.6037 | | 27.8 | 25.0 | 11.0 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.2051 | 0.1857 | | 22.6 | 25.0 | -9.5 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.1997 | 0.1626 | | 20.4 | 25.0 | -18.6 | 40.0 |
| Isopropylbenzene | Ave | 1.400 | 1.617 | | 28.9 | 25.0 | 15.5 | 30.0 |
| Bromobenzene | Ave | 0.7386 | 0.7421 | | 25.1 | 25.0 | 0.5 | 30.0 |
| N-Propylbenzene | Ave | 2.719 | 2.579 | | 23.7 | 25.0 | -5.2 | 30.0 |
| 2-Chlorotoluene | Ave | 1.767 | 1.548 | | 21.9 | 25.0 | -12.4 | 30.0 |
| 4-Chlorotoluene | Ave | 1.812 | 1.651 | | 22.8 | 25.0 | -8.9 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.150 | 2.201 | | 25.6 | 25.0 | 2.4 | 30.0 |
| tert-Butylbenzene | Ave | 1.999 | 2.123 | | 26.6 | 25.0 | 6.2 | 30.0 |
| 1,2,4-Trimethylbenzene | Lin2 | | 2.283 | | 24.0 | 25.0 | -3.9 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCVIS 440-452941/2  Calibration Date: 01/22/2018 07:13

Instrument ID: GCMS58  Calib Start Date: 12/13/2017 18:15

GC Column: DB-VRX B  ID: 0.25(mm)  Calib End Date: 12/13/2017 23:40

Lab File ID: YGA22002.D  Conc. Units: ug/L  Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | Ave | 2.897 | 2.978 | | 25.7 | 25.0 | 2.8 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.539 | 1.583 | | 25.7 | 25.0 | 2.8 | 30.0 |
| 1,4-Dichlorobenzene | Ave | 1.605 | 1.606 | | 25.0 | 25.0 | 0.0 | 30.0 |
| p-Isopropyltoluene | Ave | 2.640 | 2.877 | | 27.3 | 25.0 | 9.0 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.432 | 1.474 | | 25.7 | 25.0 | 2.9 | 30.0 |
| n-Butylbenzene | Ave | 2.087 | 2.117 | | 25.4 | 25.0 | 1.4 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Lin2 | | 0.1089 | | 22.9 | 25.0 | -8.5 | 40.0 |
| 1,2,4-Trichlorobenzene | Ave | 0.9424 | 1.060 | | 28.1 | 25.0 | 12.5 | 40.0 |
| Naphthalene | Lin1 | | 2.613 | | 25.8 | 25.0 | 3.3 | 40.0 |
| Hexachlorobutadiene | Ave | 0.5397 | 0.6496 | | 30.1 | 25.0 | 20.4 | 40.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.9059 | 0.996 | | 27.5 | 25.0 | 9.9 | 40.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2755 | 0.2927 | | 26.6 | 25.0 | 6.2 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.2717 | 0.2685 | | 24.7 | 25.0 | -1.2 | |
| Toluene-d8 (Surr) | Ave | 1.109 | 1.099 | | 24.8 | 25.0 | -0.9 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.8119 | 0.6846 | | 21.1 | 25.0 | -15.7 | 20.0 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452744/4

Matrix: Water | Lab File ID: GGA19034.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/19/2018 17:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452744 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | ND | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452744/4

Matrix: Water | Lab File ID: GGA19034.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/19/2018 17:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452744 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 440-452744/4

Matrix: Water  Lab File ID: GGA19034.D

Analysis Method: 8260B  Date Collected:

Sample wt/vol: 10(mL)  Date Analyzed: 01/19/2018 17:32

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX B  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 452744  Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 110 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 99 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 111 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452941/4

Matrix: Water | Lab File ID: YGA22004.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/22/2018 08:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452941 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | ND | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452941/4

Matrix: Water | Lab File ID: YGA22004.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/22/2018 08:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452941 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 440-452941/4

Matrix: Water  Lab File ID: YGA22004.D

Analysis Method: 8260B  Date Collected:

Sample wt/vol: 10(mL)  Date Analyzed: 01/22/2018 08:12

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX B  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 452941  Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 88 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 116 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 96 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-452744/5

Matrix: Water | Lab File ID: GGA19035.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/19/2018 18:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452744 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 27.8 | | 20 | 10 |
| 71-43-2 | Benzene | 23.1 | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | 28.2 | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | 24.1 | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 26.6 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 28.4 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | 23.7 | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | 22.9 | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 28.2 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | 26.9 | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | 22.7 | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 26.1 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | 23.9 | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | 27.9 | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | 28.8 | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | 24.2 | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | 28.8 | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 31.4 | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 30.7 | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 29.5 | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | 26.0 | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 28.5 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 27.6 | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 28.1 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | 25.2 | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | 25.4 | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | 27.3 | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | 20.3 | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | 26.6 | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | 28.3 | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | 32.5 | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | 26.9 | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | 27.1 | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 25.6 | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | 31.0 | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | 33.8 | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-452744/5

Matrix: Water | Lab File ID: GGA19035.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/19/2018 18:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452744 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 27.1 | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | 27.7 | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 19.9 | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 33.7 | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 23.9 | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | 27.6 | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | 30.1 | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | 29.5 | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | 29.5 | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | 26.2 | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | 29.0 | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | 28.2 | | 0.50 | 0.25 |
| 100-42-5 | Styrene | 26.5 | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 22.6 | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 312 | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | 28.6 | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 30.7 | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 28.1 | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 27.8 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | 26.9 | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | 25.1 | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | 30.3 | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 31.5 | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 30.6 | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | 26.5 | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | 28.9 | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 24.6 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | 26.7 | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | 28.8 | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 28.4 | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 28.5 | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | 25.2 | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | 53.8 | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 440-452744/5

Matrix: Water  Lab File ID: GGA19035.D

Analysis Method: 8260B  Date Collected:

Sample wt/vol: 10(mL)  Date Analyzed: 01/19/2018 18:00

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX B  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 452744  Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 108 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 96 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 105 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-452941/5

Matrix: Water | Lab File ID: YGA22005.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/22/2018 08:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452941 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 21.6 | | 20 | 10 |
| 71-43-2 | Benzene | 22.9 | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | 25.6 | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | 29.9 | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 25.7 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 30.1 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | 29.5 | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | 23.1 | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 29.6 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | 25.3 | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | 23.4 | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 24.3 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | 20.6 | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | 22.2 | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | 23.0 | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | 24.9 | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | 22.5 | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 27.6 | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 22.2 | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 24.9 | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | 25.2 | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 26.1 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 25.4 | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 25.3 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | 27.6 | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | 22.1 | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | 25.3 | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | 25.6 | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | 21.0 | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | 21.5 | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | 26.7 | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | 25.4 | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | 24.9 | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 23.9 | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | 29.6 | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | 20.6 | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-452941/5

Matrix: Water | Lab File ID: YGA22005.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/22/2018 08:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452941 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 28.7 | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | 20.1 | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 20.1 | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 19.6 | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 25.2 | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | 26.7 | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | 26.1 | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | 25.0 | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | 23.8 | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | 27.4 | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | 26.5 | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | 25.5 | | 0.50 | 0.25 |
| 100-42-5 | Styrene | 25.9 | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 24.1 | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 258 | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | 26.4 | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 28.0 | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 19.6 | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 29.1 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | 24.7 | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | 26.2 | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | 23.4 | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 28.4 | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 27.5 | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | 28.2 | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | 22.4 | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 29.6 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | 32.3 | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | 23.1 | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 23.8 | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25.6 | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | 24.5 | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | 54.1 | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 440-452941/5

Matrix: Water  Lab File ID: YGA22005.D

Analysis Method: 8260B  Date Collected:

Sample wt/vol: 10(mL)  Date Analyzed: 01/22/2018 08:42

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX B  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 452941  Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 88 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 109 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 98 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 440-452744/18

Matrix: Water | Lab File ID: GGA19048.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/19/2018 18:56

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452744 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 30.5 | | 20 | 10 |
| 71-43-2 | Benzene | 24.4 | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | 28.2 | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | 25.2 | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 27.1 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 28.0 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | 24.3 | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | 22.7 | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 29.7 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | 26.5 | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | 24.4 | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 26.4 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | 25.2 | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | 29.0 | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | 29.6 | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | 25.1 | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | 29.0 | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 31.1 | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 31.4 | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 28.7 | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | 25.8 | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 28.4 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 28.7 | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 28.9 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | 27.8 | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | 25.5 | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | 28.1 | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | 22.9 | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | 25.7 | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | 27.2 | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | 33.3 | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | 27.3 | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | 27.5 | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 25.0 | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | 32.6 | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | 33.6 | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 440-452744/18

Matrix: Water | Lab File ID: GGA19048.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/19/2018 18:56

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452744 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 27.9 | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | 27.9 | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 20.5 | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 34.7 | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 23.8 | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | 27.6 | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | 31.1 | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | 30.7 | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | 30.7 | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | 26.7 | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | 30.2 | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | 29.1 | | 0.50 | 0.25 |
| 100-42-5 | Styrene | 26.7 | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 21.9 | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 317 | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | 30.6 | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 30.4 | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 29.5 | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 28.4 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | 26.9 | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | 25.5 | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | 30.3 | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 32.9 | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 31.3 | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | 27.9 | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | 28.3 | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 26.5 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | 29.2 | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | 30.1 | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 29.6 | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 29.7 | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | 26.6 | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | 54.3 | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCSD 440-452744/18

Matrix: Water  Lab File ID: GGA19048.D

Analysis Method: 8260B  Date Collected:

Sample wt/vol: 10(mL)  Date Analyzed: 01/19/2018 18:56

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX B  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 452744  Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 111 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 98 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 106 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-36 MS | Lab Sample ID: 440-201049-3 MS

Matrix: Water | Lab File ID: GGA19038.D

Analysis Method: 8260B | Date Collected: 01/16/2018 15:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/19/2018 19:52

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452744 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 275 | | 200 | 100 |
| 71-43-2 | Benzene | 238 | | 5.0 | 2.5 |
| 108-86-1 | Bromobenzene | 284 | | 5.0 | 2.5 |
| 74-97-5 | Bromochloromethane | 246 | | 5.0 | 2.5 |
| 75-27-4 | Bromodichloromethane | 270 | | 5.0 | 2.5 |
| 75-25-2 | Bromoform | 282 | | 10 | 4.0 |
| 74-83-9 | Bromomethane | 237 | | 5.0 | 2.5 |
| 78-93-3 | 2-Butanone (MEK) | 225 | | 50 | 25 |
| 56-23-5 | Carbon tetrachloride | 281 | | 5.0 | 2.5 |
| 108-90-7 | Chlorobenzene | 260 | | 5.0 | 2.5 |
| 75-00-3 | Chloroethane | 233 | | 10 | 4.0 |
| 67-66-3 | Chloroform | 966 | | 5.0 | 2.5 |
| 74-87-3 | Chloromethane | 237 | | 5.0 | 2.5 |
| 95-49-8 | 2-Chlorotoluene | 281 | | 5.0 | 2.5 |
| 106-43-4 | 4-Chlorotoluene | 285 | | 5.0 | 2.5 |
| 156-59-2 | cis-1,2-Dichloroethene | 243 | | 5.0 | 2.5 |
| 10061-01-5 | cis-1,3-Dichloropropene | 288 | | 5.0 | 2.5 |
| 124-48-1 | Dibromochloromethane | 305 | | 5.0 | 2.5 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 297 | | 10 | 5.0 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 285 | | 5.0 | 2.5 |
| 74-95-3 | Dibromomethane | 251 | | 5.0 | 2.5 |
| 95-50-1 | 1,2-Dichlorobenzene | 290 | | 5.0 | 2.5 |
| 541-73-1 | 1,3-Dichlorobenzene | 277 | | 5.0 | 2.5 |
| 106-46-7 | 1,4-Dichlorobenzene | 289 | | 5.0 | 2.5 |
| 75-71-8 | Dichlorodifluoromethane | 252 | | 10 | 4.0 |
| 75-34-3 | 1,1-Dichloroethane | 252 | | 5.0 | 2.5 |
| 107-06-2 | 1,2-Dichloroethane | 283 | | 5.0 | 2.5 |
| 75-35-4 | 1,1-Dichloroethene | 213 | | 5.0 | 2.5 |
| 78-87-5 | 1,2-Dichloropropane | 256 | | 5.0 | 2.5 |
| 142-28-9 | 1,3-Dichloropropane | 279 | | 5.0 | 2.5 |
| 594-20-7 | 2,2-Dichloropropane | 314 | | 10 | 4.0 |
| 563-58-6 | 1,1-Dichloropropene | 269 | | 5.0 | 2.5 |
| 100-41-4 | Ethylbenzene | 262 | | 5.0 | 2.5 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 249 | | 5.0 | 2.5 |
| 87-68-3 | Hexachlorobutadiene | 307 | | 5.0 | 2.5 |
| 591-78-6 | 2-Hexanone | 333 | | 50 | 25 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-36 MS | Lab Sample ID: 440-201049-3 MS

Matrix: Water | Lab File ID: GGA19038.D

Analysis Method: 8260B | Date Collected: 01/16/2018 15:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/19/2018 19:52

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452744 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 265 | | 5.0 | 2.5 |
| 108-20-3 | Isopropyl Ether (DIPE) | 270 | | 5.0 | 2.5 |
| 75-09-2 | Methylene Chloride | 206 | | 20 | 8.8 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 330 | | 50 | 25 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 234 | | 5.0 | 2.5 |
| 179601-23-1 | m,p-Xylene | 269 | | 10 | 5.0 |
| 91-20-3 | Naphthalene | 298 | | 10 | 4.0 |
| 104-51-8 | n-Butylbenzene | 288 | | 10 | 4.0 |
| 103-65-1 | N-Propylbenzene | 293 | | 5.0 | 2.5 |
| 95-47-6 | o-Xylene | 256 | | 5.0 | 2.5 |
| 99-87-6 | p-Isopropyltoluene | 288 | | 5.0 | 2.5 |
| 135-98-8 | sec-Butylbenzene | 277 | | 5.0 | 2.5 |
| 100-42-5 | Styrene | 250 | | 5.0 | 2.5 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 223 | | 5.0 | 2.5 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 3210 | | 100 | 50 |
| 98-06-6 | tert-Butylbenzene | 290 | | 5.0 | 2.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 298 | | 5.0 | 2.5 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 283 | | 5.0 | 2.5 |
| 127-18-4 | Tetrachloroethene | 263 | | 5.0 | 2.5 |
| 108-88-3 | Toluene | 263 | | 5.0 | 2.5 |
| 156-60-5 | trans-1,2-Dichloroethene | 239 | | 5.0 | 2.5 |
| 10061-02-6 | trans-1,3-Dichloropropene | 291 | | 5.0 | 2.5 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 317 | | 10 | 4.0 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 312 | | 10 | 4.0 |
| 71-55-6 | 1,1,1-Trichloroethane | 265 | | 5.0 | 2.5 |
| 79-00-5 | 1,1,2-Trichloroethane | 278 | | 5.0 | 2.5 |
| 79-01-6 | Trichloroethene | 245 | | 5.0 | 2.5 |
| 75-69-4 | Trichlorofluoromethane | 272 | | 5.0 | 2.5 |
| 96-18-4 | 1,2,3-Trichloropropane | 289 | | 10 | 4.0 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 285 | | 5.0 | 2.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 287 | | 5.0 | 2.5 |
| 75-01-4 | Vinyl chloride | 249 | | 5.0 | 2.5 |
| 1330-20-7 | Xylenes, Total | 525 | | 10 | 5.0 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-36 MS Lab Sample ID: 440-201049-3 MS

Matrix: Water Lab File ID: GGA19038.D

Analysis Method: 8260B Date Collected: 01/16/2018 15:30

Sample wt/vol: 10(mL) Date Analyzed: 01/19/2018 19:52

Soil Aliquot Vol: Dilution Factor: 10

Soil Extract Vol.: GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452744 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 110 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 98 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 104 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201302-D-8 MS

Matrix: Water | Lab File ID: YGA22007.D

Analysis Method: 8260B | Date Collected: 01/17/2018 13:55

Sample wt/vol: 10(mL) | Date Analyzed: 01/22/2018 09:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452941 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 42.7 | | 20 | 10 |
| 71-43-2 | Benzene | 23.4 | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | 25.8 | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | 29.0 | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 26.0 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 30.2 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | 29.3 | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | 32.7 | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 29.2 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | 24.9 | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | 23.1 | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 24.5 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | 21.6 | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | 22.9 | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | 23.4 | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | 27.2 | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | 22.0 | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 26.1 | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 23.8 | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 24.7 | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | 25.1 | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 26.1 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 25.6 | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 25.5 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | 27.6 | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | 23.7 | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | 28.2 | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | 32.2 | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | 21.6 | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | 20.8 | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | 28.0 | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | 25.9 | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | 24.5 | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 24.4 | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | 30.0 | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | 20.1 | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201302-D-8 MS

Matrix: Water | Lab File ID: YGA22007.D

Analysis Method: 8260B | Date Collected: 01/17/2018 13:55

Sample wt/vol: 10(mL) | Date Analyzed: 01/22/2018 09:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452941 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 28.1 | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | 84.5 | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 20.0 | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 20.2 | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 57.8 | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | 26.7 | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | 27.2 | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | 25.2 | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | 24.1 | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | 26.7 | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | 26.6 | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | 25.4 | | 0.50 | 0.25 |
| 100-42-5 | Styrene | 25.2 | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 24.6 | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 557 | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | 26.8 | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 27.3 | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 20.1 | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 28.3 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | 24.3 | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | 27.6 | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | 23.1 | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 29.1 | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 28.7 | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | 27.9 | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | 22.0 | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 30.7 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | 31.8 | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | 23.7 | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 23.9 | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25.9 | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | 40.1 | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | 53.4 | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Client Sample ID:  Lab Sample ID: 440-201302-D-8 MS

Matrix: Water  Lab File ID: YGA22007.D

Analysis Method: 8260B  Date Collected: 01/17/2018 13:55

Sample wt/vol: 10(mL)  Date Analyzed: 01/22/2018 09:41

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX B  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 452941  Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 87 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 108 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 95 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-36 MSD | Lab Sample ID: 440-201049-3 MSD

Matrix: Water | Lab File ID: GGA19039.D

Analysis Method: 8260B | Date Collected: 01/16/2018 15:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/19/2018 20:20

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452744 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 282 | | 200 | 100 |
| 71-43-2 | Benzene | 242 | | 5.0 | 2.5 |
| 108-86-1 | Bromobenzene | 285 | | 5.0 | 2.5 |
| 74-97-5 | Bromochloromethane | 252 | | 5.0 | 2.5 |
| 75-27-4 | Bromodichloromethane | 274 | | 5.0 | 2.5 |
| 75-25-2 | Bromoform | 278 | | 10 | 4.0 |
| 74-83-9 | Bromomethane | 241 | | 5.0 | 2.5 |
| 78-93-3 | 2-Butanone (MEK) | 254 | | 50 | 25 |
| 56-23-5 | Carbon tetrachloride | 289 | | 5.0 | 2.5 |
| 108-90-7 | Chlorobenzene | 261 | | 5.0 | 2.5 |
| 75-00-3 | Chloroethane | 234 | | 10 | 4.0 |
| 67-66-3 | Chloroform | 1000 | | 5.0 | 2.5 |
| 74-87-3 | Chloromethane | 240 | | 5.0 | 2.5 |
| 95-49-8 | 2-Chlorotoluene | 282 | | 5.0 | 2.5 |
| 106-43-4 | 4-Chlorotoluene | 289 | | 5.0 | 2.5 |
| 156-59-2 | cis-1,2-Dichloroethene | 265 | | 5.0 | 2.5 |
| 10061-01-5 | cis-1,3-Dichloropropene | 289 | | 5.0 | 2.5 |
| 124-48-1 | Dibromochloromethane | 308 | | 5.0 | 2.5 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 296 | | 10 | 5.0 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 286 | | 5.0 | 2.5 |
| 74-95-3 | Dibromomethane | 265 | | 5.0 | 2.5 |
| 95-50-1 | 1,2-Dichlorobenzene | 296 | | 5.0 | 2.5 |
| 541-73-1 | 1,3-Dichlorobenzene | 280 | | 5.0 | 2.5 |
| 106-46-7 | 1,4-Dichlorobenzene | 292 | | 5.0 | 2.5 |
| 75-71-8 | Dichlorodifluoromethane | 257 | | 10 | 4.0 |
| 75-34-3 | 1,1-Dichloroethane | 264 | | 5.0 | 2.5 |
| 107-06-2 | 1,2-Dichloroethane | 290 | | 5.0 | 2.5 |
| 75-35-4 | 1,1-Dichloroethene | 209 | | 5.0 | 2.5 |
| 78-87-5 | 1,2-Dichloropropane | 271 | | 5.0 | 2.5 |
| 142-28-9 | 1,3-Dichloropropane | 275 | | 5.0 | 2.5 |
| 594-20-7 | 2,2-Dichloropropane | 348 | | 10 | 4.0 |
| 563-58-6 | 1,1-Dichloropropene | 272 | | 5.0 | 2.5 |
| 100-41-4 | Ethylbenzene | 270 | | 5.0 | 2.5 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 262 | | 5.0 | 2.5 |
| 87-68-3 | Hexachlorobutadiene | 309 | | 5.0 | 2.5 |
| 591-78-6 | 2-Hexanone | 318 | | 50 | 25 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-36 MSD | Lab Sample ID: 440-201049-3 MSD

Matrix: Water | Lab File ID: GGA19039.D

Analysis Method: 8260B | Date Collected: 01/16/2018 15:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/19/2018 20:20

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452744 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 267 | | 5.0 | 2.5 |
| 108-20-3 | Isopropyl Ether (DIPE) | 288 | | 5.0 | 2.5 |
| 75-09-2 | Methylene Chloride | 201 | | 20 | 8.8 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 328 | | 50 | 25 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 250 | | 5.0 | 2.5 |
| 179601-23-1 | m,p-Xylene | 273 | | 10 | 5.0 |
| 91-20-3 | Naphthalene | 299 | | 10 | 4.0 |
| 104-51-8 | n-Butylbenzene | 296 | | 10 | 4.0 |
| 103-65-1 | N-Propylbenzene | 297 | | 5.0 | 2.5 |
| 95-47-6 | o-Xylene | 264 | | 5.0 | 2.5 |
| 99-87-6 | p-Isopropyltoluene | 295 | | 5.0 | 2.5 |
| 135-98-8 | sec-Butylbenzene | 285 | | 5.0 | 2.5 |
| 100-42-5 | Styrene | 251 | | 5.0 | 2.5 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 229 | | 5.0 | 2.5 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 3210 | | 100 | 50 |
| 98-06-6 | tert-Butylbenzene | 293 | | 5.0 | 2.5 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 307 | | 5.0 | 2.5 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 290 | | 5.0 | 2.5 |
| 127-18-4 | Tetrachloroethene | 272 | | 5.0 | 2.5 |
| 108-88-3 | Toluene | 264 | | 5.0 | 2.5 |
| 156-60-5 | trans-1,2-Dichloroethene | 258 | | 5.0 | 2.5 |
| 10061-02-6 | trans-1,3-Dichloropropene | 303 | | 5.0 | 2.5 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 318 | | 10 | 4.0 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 306 | | 10 | 4.0 |
| 71-55-6 | 1,1,1-Trichloroethane | 275 | | 5.0 | 2.5 |
| 79-00-5 | 1,1,2-Trichloroethane | 278 | | 5.0 | 2.5 |
| 79-01-6 | Trichloroethene | 255 | | 5.0 | 2.5 |
| 75-69-4 | Trichlorofluoromethane | 276 | | 5.0 | 2.5 |
| 96-18-4 | 1,2,3-Trichloropropane | 290 | | 10 | 4.0 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 294 | | 5.0 | 2.5 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 292 | | 5.0 | 2.5 |
| 75-01-4 | Vinyl chloride | 255 | | 5.0 | 2.5 |
| 1330-20-7 | Xylenes, Total | 537 | | 10 | 5.0 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-36 MSD Lab Sample ID: 440-201049-3 MSD

Matrix: Water Lab File ID: GGA19039.D

Analysis Method: 8260B Date Collected: 01/16/2018 15:30

Sample wt/vol: 10(mL) Date Analyzed: 01/19/2018 20:20

Soil Aliquot Vol: Dilution Factor: 10

Soil Extract Vol.: GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452744 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 109 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 97 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 102 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201302-D-8 MSD

Matrix: Water | Lab File ID: YGA22008.D

Analysis Method: 8260B | Date Collected: 01/17/2018 13:55

Sample wt/vol: 10(mL) | Date Analyzed: 01/22/2018 10:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452941 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 42.1 | | 20 | 10 |
| 71-43-2 | Benzene | 23.5 | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | 26.1 | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | 30.1 | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 26.0 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 30.7 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | 30.0 | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | 33.1 | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 29.2 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | 25.6 | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | 23.7 | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 24.8 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | 21.3 | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | 22.9 | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | 23.7 | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | 27.3 | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | 22.7 | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 26.9 | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 24.1 | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 25.1 | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | 25.5 | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 26.6 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 25.7 | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 25.8 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | 27.9 | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | 24.4 | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | 28.2 | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | 32.0 | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | 21.4 | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | 21.7 | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | 28.0 | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | 25.8 | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | 25.0 | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 25.0 | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | 30.6 | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | 20.4 | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201302-D-8 MSD

Matrix: Water | Lab File ID: YGA22008.D

Analysis Method: 8260B | Date Collected: 01/17/2018 13:55

Sample wt/vol: 10(mL) | Date Analyzed: 01/22/2018 10:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452941 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 28.8 | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | 84.2 | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 22.1 | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 21.0 | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 58.7 | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | 27.4 | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | 28.0 | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | 25.5 | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | 24.4 | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | 27.5 | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | 26.9 | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | 25.9 | | 0.50 | 0.25 |
| 100-42-5 | Styrene | 26.2 | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 24.9 | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 563 | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | 27.0 | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 27.8 | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 20.2 | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 29.4 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | 24.7 | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | 27.4 | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | 24.2 | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 29.6 | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 29.4 | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | 28.3 | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | 23.0 | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 31.0 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | 31.7 | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | 23.9 | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 24.1 | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 26.0 | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | 41.6 | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | 54.9 | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Client Sample ID: Lab Sample ID: 440-201302-D-8 MSD

Matrix: Water Lab File ID: YGA22008.D

Analysis Method: 8260B Date Collected: 01/17/2018 13:55

Sample wt/vol: 10(mL) Date Analyzed: 01/22/2018 10:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452941 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 87 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 105 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 96 | | 80-128 |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: GCMS56 Start Date: 12/19/2017 12:12

Analysis Batch Number: 447237 End Date: 12/19/2017 20:04

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-447237/1 | | 12/19/2017 12:12 | 1 | GFL19001.D | DB-VRX B 0.25(mm) |
| ZZZZZ | | 12/19/2017 12:40 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 12/19/2017 13:08 | 1 | | DB-VRX B 0.25(mm) |
| STD02 440-447237/4 IC | | 12/19/2017 13:36 | 1 | GFL19004.D | DB-VRX B 0.25(mm) |
| STD04 440-447237/5 IC | | 12/19/2017 14:04 | 1 | GFL19005.D | DB-VRX B 0.25(mm) |
| STD05 440-447237/6 IC | | 12/19/2017 14:31 | 1 | GFL19006.D | DB-VRX B 0.25(mm) |
| STD1 440-447237/7 IC | | 12/19/2017 14:59 | 1 | GFL19007.D | DB-VRX B 0.25(mm) |
| STD2 440-447237/8 IC | | 12/19/2017 15:27 | 1 | GFL19008.D | DB-VRX B 0.25(mm) |
| STD5 440-447237/9 IC | | 12/19/2017 15:55 | 1 | GFL19009.D | DB-VRX B 0.25(mm) |
| STD10 440-447237/10 IC | | 12/19/2017 16:22 | 1 | GFL19010.D | DB-VRX B 0.25(mm) |
| ICIS 440-447237/11 | | 12/19/2017 16:50 | 1 | GFL19011.D | DB-VRX B 0.25(mm) |
| STD50 440-447237/12 IC | | 12/19/2017 17:18 | 1 | GFL19012.D | DB-VRX B 0.25(mm) |
| STD100 440-447237/13 IC | | 12/19/2017 17:46 | 1 | GFL19013.D | DB-VRX B 0.25(mm) |
| STD200 440-447237/14 IC | | 12/19/2017 18:13 | 1 | GFL19014.D | DB-VRX B 0.25(mm) |
| STD300 440-447237/15 IC | | 12/19/2017 18:41 | 1 | GFL19015.D | DB-VRX B 0.25(mm) |
| ZZZZZ | | 12/19/2017 19:09 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 12/19/2017 19:36 | 1 | | DB-VRX B 0.25(mm) |
| ICV 440-447237/18 | | 12/19/2017 20:04 | 1 | GFL19018.D | DB-VRX B 0.25(mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: GCMS56 Start Date: 01/19/2018 16:03

Analysis Batch Number: 452744 End Date: 01/20/2018 03:44

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-452744/1 | | 01/19/2018 16:03 | 1 | GGA19031.D | DB-VRX B 0.25(mm) |
| CCVIS 440-452744/2 | | 01/19/2018 16:29 | 1 | GGA19032.D | DB-VRX B 0.25(mm) |
| MB 440-452744/4 | | 01/19/2018 17:32 | 1 | GGA19034.D | DB-VRX B 0.25(mm) |
| LCS 440-452744/5 | | 01/19/2018 18:00 | 1 | GGA19035.D | DB-VRX B 0.25(mm) |
| LCSD 440-452744/18 | | 01/19/2018 18:56 | 1 | GGA19048.D | DB-VRX B 0.25(mm) |
| 440-201049-3 | | 01/19/2018 19:24 | 10 | GGA19037.D | DB-VRX B 0.25(mm) |
| 440-201049-3 MS | | 01/19/2018 19:52 | 10 | GGA19038.D | DB-VRX B 0.25(mm) |
| 440-201049-3 MSD | | 01/19/2018 20:20 | 10 | GGA19039.D | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/19/2018 20:48 | 20 | | DB-VRX B 0.25(mm) |
| 440-201049-2 | | 01/19/2018 21:15 | 1 | GGA19041.D | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/19/2018 21:43 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/19/2018 22:11 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/19/2018 22:39 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/19/2018 23:07 | 5 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/19/2018 23:34 | 10 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 00:02 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 00:30 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 00:58 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 01:25 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 01:53 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 02:21 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 02:49 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 03:17 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 03:44 | 1 | | DB-VRX B 0.25(mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: GCMS58 Start Date: 12/13/2017 16:39

Analysis Batch Number: 446571 End Date: 12/14/2017 01:08

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-446571/1 | | 12/13/2017 16:39 | 1 | YFL13010.D | DB-VRX B 0.25(mm) |
| ZZZZZ | | 12/13/2017 17:16 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 12/13/2017 17:45 | 1 | | DB-VRX B 0.25(mm) |
| STD02 440-446571/4 IC | | 12/13/2017 18:15 | 1 | YFL13013.D | DB-VRX B 0.25(mm) |
| STD04 440-446571/5 IC | | 12/13/2017 18:44 | 1 | YFL13014.D | DB-VRX B 0.25(mm) |
| STD05 440-446571/6 IC | | 12/13/2017 19:14 | 1 | YFL13015.D | DB-VRX B 0.25(mm) |
| STD1 440-446571/7 IC | | 12/13/2017 19:43 | 1 | YFL13016.D | DB-VRX B 0.25(mm) |
| STD2 440-446571/8 IC | | 12/13/2017 20:13 | 1 | YFL13017.D | DB-VRX B 0.25(mm) |
| STD5 440-446571/9 IC | | 12/13/2017 20:42 | 1 | YFL13018.D | DB-VRX B 0.25(mm) |
| STD10 440-446571/10 IC | | 12/13/2017 21:12 | 1 | YFL13019.D | DB-VRX B 0.25(mm) |
| ICIS 440-446571/11 | | 12/13/2017 21:41 | 1 | YFL13020.D | DB-VRX B 0.25(mm) |
| STD50 440-446571/12 IC | | 12/13/2017 22:11 | 1 | YFL13021.D | DB-VRX B 0.25(mm) |
| STD100 440-446571/13 IC | | 12/13/2017 22:41 | 1 | YFL13022.D | DB-VRX B 0.25(mm) |
| STD200 440-446571/14 IC | | 12/13/2017 23:10 | 1 | YFL13023.D | DB-VRX B 0.25(mm) |
| STD300 440-446571/15 IC | | 12/13/2017 23:40 | 1 | YFL13024.D | DB-VRX B 0.25(mm) |
| ZZZZZ | | 12/14/2017 00:09 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 12/14/2017 00:39 | 1 | | DB-VRX B 0.25(mm) |
| ICV 440-446571/18 | | 12/14/2017 01:08 | 1 | YFL13027.D | DB-VRX B 0.25(mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: GCMS58 Start Date: 01/22/2018 06:44

Analysis Batch Number: 452941 End Date: 01/22/2018 17:30

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-452941/1 | | 01/22/2018 06:44 | 1 | YGA22001.D | DB-VRX B 0.25(mm) |
| CCVIS 440-452941/2 | | 01/22/2018 07:13 | 1 | YGA22002.D | DB-VRX B 0.25(mm) |
| CCV 440-452941/3 | | 01/22/2018 07:43 | 1 | | DB-VRX B 0.25(mm) |
| MB 440-452941/4 | | 01/22/2018 08:12 | 1 | YGA22004.D | DB-VRX B 0.25(mm) |
| LCS 440-452941/5 | | 01/22/2018 08:42 | 1 | YGA22005.D | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/22/2018 09:12 | 1 | | DB-VRX B 0.25(mm) |
| 440-201302-D-8 MS | | 01/22/2018 09:41 | 1 | YGA22007.D | DB-VRX B 0.25(mm) |
| 440-201302-D-8 MSD | | 01/22/2018 10:11 | 1 | YGA22008.D | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/22/2018 10:40 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/22/2018 11:09 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/22/2018 11:39 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/22/2018 12:08 | 2.5 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/22/2018 12:38 | 20 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/22/2018 13:07 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/22/2018 13:37 | 5 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/22/2018 14:06 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/22/2018 14:35 | 1 | | DB-VRX B 0.25(mm) |
| 440-201049-1 | | 01/22/2018 15:05 | 5 | YGA22018.D | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/22/2018 15:33 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/22/2018 16:02 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/22/2018 16:32 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/22/2018 17:01 | 5 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/22/2018 17:30 | 1 | | DB-VRX B 0.25(mm) |

# GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Batch Number: 452744  Batch Start Date: 01/19/18 16:03  Batch Analyst: Le, Annie Y. Y

Batch Method: 8260B  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | Initial pH | VMW8260TUNE1 00415 | VMWNU8260CCV1 00883 | VMWNU8260ISS 00135 |
|---|---|---|---|---|---|---|---|---|---|
| BFB 440-452744/1 | | 8260B | | 10 mL | 10 mL | | 2 uL | | |
| CCVIS 440-452744/2 | | 8260B | | 10 mL | 10 mL | | | 5 uL | 5 uL |
| MB 440-452744/4 | | 8260B | | 10 mL | 10 mL | | | | 5 uL |
| LCS 440-452744/5 | | 8260B | | 10 mL | 10 mL | | | | 5 uL |
| 440-201049-A-3 | VER-01I-C-36 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-201049-A-3 MS | VER-01I-C-36 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-201049-A-3 MSD | VER-01I-C-36 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-201049-A-2 | TB-011618 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| LCSD 440-452744/18 | | 8260B | | 10 mL | 10 mL | | | | 5 uL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | VMWNU8260LCS2 00174 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BFB 440-452744/1 | | 8260B | | | | | | | |
| CCVIS 440-452744/2 | | 8260B | | | | | | | |
| MB 440-452744/4 | | 8260B | | | | | | | |
| LCS 440-452744/5 | | 8260B | | 5 uL | | | | | |
| 440-201049-A-3 | VER-01I-C-36 | 8260B | T | | | | | | |
| 440-201049-A-3 MS | VER-01I-C-36 | 8260B | T | 5 uL | | | | | |
| 440-201049-A-3 MSD | VER-01I-C-36 | 8260B | T | 5 uL | | | | | |
| 440-201049-A-2 | TB-011618 | 8260B | T | | | | | | |
| LCSD 440-452744/18 | | 8260B | | 5 uL | | | | | |

| Batch Notes | |
|---|---|
| | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Batch Number: 452744 Batch Start Date: 01/19/18 16:03 Batch Analyst: Le, Annie Y. Y

Batch Method: 8260B Batch End Date:

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Batch Number: 452941  Batch Start Date: 01/22/18 06:44  Batch Analyst: Chan, William

Batch Method: 8260B  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | Initial pH | VMW8260TUNE1 00415 | VMWNU8260CCV1 00883 | VMWNU8260ISS 00135 |
|---|---|---|---|---|---|---|---|---|---|
| BFB 440-452941/1 | | 8260B | | 10 mL | 10 mL | | 2 uL | | |
| CCVIS 440-452941/2 | | 8260B | | 10 mL | 10 mL | | | 5 uL | 5 uL |
| MB 440-452941/4 | | 8260B | | 10 mL | 10 mL | | | | 5 uL |
| LCS 440-452941/5 | | 8260B | | 10 mL | 10 mL | | | | 5 uL |
| 440-201302-D-8 MS | | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-201302-D-8 MSD | | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-201049-B-1 | VER-01I-C-24 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | VMWNU8260LCS2 00174 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BFB 440-452941/1 | | 8260B | | | | | | | |
| CCVIS 440-452941/2 | | 8260B | | | | | | | |
| MB 440-452941/4 | | 8260B | | | | | | | |
| LCS 440-452941/5 | | 8260B | | 5 uL | | | | | |
| 440-201302-D-8 MS | | 8260B | T | 5 uL | | | | | |
| 440-201302-D-8 MSD | | 8260B | T | 5 uL | | | | | |
| 440-201049-B-1 | VER-01I-C-24 | 8260B | T | | | | | | |

| Batch Notes | |
|---|---|
| | |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# 314.0_LL

## Perchlorate (IC)

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098743-005_5_ECD_1.d

Lab ID: LCS 440-452147/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 10.0 | 9.10 | 91 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098743-004_4_ECD_1.d

Lab ID: MRL 440-452147/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 1.00 | 0.973 J | 97 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098743-012_12_ECD_1.d

Lab ID: MRL 440-452147/12 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 1.00 | 1.03 | 103 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098743-031_31_ECD_1.d

Lab ID: 440-201049-3 MS Client ID: VER-01I-C-36 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Perchlorate | 1000 | 1100000 | 1150000 | 3096 | 80-120 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098743-032_32_ECD_1.d

Lab ID: 440-201049-3 MSD Client ID: VER-01I-C-36 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Perchlorate | 1000 | 1130000 | 1576 | 1 | 20 | 80-120 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098743-007_7_ECD_1.d

Lab ID: INF 440-452147/7 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | INF CONCENTRATION (ug/L) | INF % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 10.0 | 9.57 | 96 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab File ID: 440-0098743-006_6_ECD_1.d Lab Sample ID: MB 440-452147/6

Matrix: Water Date Extracted:

Instrument ID: IC-25 Date Analyzed: 01/17/2018 10:00

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-452147/3 | 440-0098742-003_3_ECD_1.d | 01/17/2018 09:05 |
| | LCS 440-452147/5 | 440-0098743-005_5_ECD_1.d | 01/17/2018 09:42 |
| | 440-200809-M-1 DU | 440-0098743-011_11_ECD 1.d | 01/17/2018 11:41 |
| | CCB 440-452147/14 | 440-0098743-014_14_ECD 1.d | 01/17/2018 12:36 |
| VER-01I-C-24 | 440-201049-1 | 440-0098743-023_23_ECD_1.d | 01/17/2018 15:21 |
| | CCB 440-452147/25 | 440-0098743-025_25_ECD 1.d | 01/17/2018 15:58 |
| VER-01I-C-36 | 440-201049-3 | 440-0098743-030_30_ECD_1.d | 01/17/2018 17:29 |
| VER-01I-C-36 MS | 440-201049-3 MS | 440-0098743-031_31_ECD 1.d | 01/17/2018 17:47 |
| VER-01I-C-36 MSD | 440-201049-3 MSD | 440-0098743-032_32_ECD 1.d | 01/17/2018 18:06 |
| | CCB 440-452147/34 | 440-0098743-034_34_ECD_1.d | 01/17/2018 18:42 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-24 | Lab Sample ID: 440-201049-1

Matrix: Water | Lab File ID: 440-0098743-023_23_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/16/2018 03:30

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/17/2018 15:21

Con. Extract Vol.: | Dilution Factor: 100000

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452147 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1200000 | | 100000 | 50000 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-36 | Lab Sample ID: 440-201049-3

Matrix: Water | Lab File ID: 440-0098743-030_30_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/16/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/17/2018 17:29

Con. Extract Vol.: | Dilution Factor: 100000

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452147 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1100000 | | 100000 | 50000 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 447839

SDG No.:

Instrument ID: IC-25 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/20/2017 11:10 Calibration End Date: 12/20/2017 13:16 Calibration ID: 18248

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-447839/1 | 440-0097758-001_1_ECD_1.d |
| Level 2 | STD1 440-447839/2 | 440-0097758-002_2_ECD_1.d |
| Level 3 | STD2 440-447839/3 | 440-0097758-003_3_ECD_1.d |
| Level 4 | STD3 440-447839/4 | 440-0097758-004_4_ECD_1.d |
| Level 5 | STD4 440-447839/5 | 440-0097758-005_5_ECD_1.d |
| Level 6 | STD5 440-447839/6 | 440-0097758-006_6_ECD_1.d |
| Level 7 | STD6 440-447839/7 | 440-0097758-007_7_ECD_1.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | | 11.814 | 11.814 | 11.804 | 11.804 | 11.804 | 11.810 | | | | 0.000 - 0.000 | 11.808 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1  Analy Batch No.: 447839

SDG No.:

Instrument ID: IC-25  GC Column: AS7 A  ID: 4(mm)  Heated Purge: (Y/N) N

Calibration Start Date: 12/20/2017 11:10  Calibration End Date: 12/20/2017 13:16  Calibration ID: 18248

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-447839/1 | 440-0097758-001_1_ECD_1.d |
| Level 2 | STD1 440-447839/2 | 440-0097758-002_2_ECD_1.d |
| Level 3 | STD2 440-447839/3 | 440-0097758-003_3_ECD_1.d |
| Level 4 | STD3 440-447839/4 | 440-0097758-004_4_ECD_1.d |
| Level 5 | STD4 440-447839/5 | 440-0097758-005_5_ECD_1.d |
| Level 6 | STD5 440-447839/6 | 440-0097758-006_6_ECD_1.d |
| Level 7 | STD6 440-447839/7 | 440-0097758-007_7_ECD_1.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Perchlorate | 137199 | 193691<br>140806 | 172072<br>133109 | 150105 | Lin | 57064.1722 | 132466.839 | | | | | | | 0.9990 | | 0.9950 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 447839

SDG No.:

Instrument ID: IC-25 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/20/2017 11:10 Calibration End Date: 12/20/2017 13:16 Calibration ID: 18248

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-447839/1 | 440-0097758-001_1_ECD_1.d |
| Level 2 | STD1 440-447839/2 | 440-0097758-002_2_ECD_1.d |
| Level 3 | STD2 440-447839/3 | 440-0097758-003_3_ECD_1.d |
| Level 4 | STD3 440-447839/4 | 440-0097758-004_4_ECD_1.d |
| Level 5 | STD4 440-447839/5 | 440-0097758-005_5_ECD_1.d |
| Level 6 | STD5 440-447839/6 | 440-0097758-006_6_ECD_1.d |
| Level 7 | STD6 440-447839/7 | 440-0097758-007_7_ECD_1.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| Perchlorate | Lin | 2112096 | 193691<br>3327719 | 344144 | 600421 | 1371988 | 0.000000<br>15.0 | 1.00<br>25.0 | 2.00 | 4.00 | 10.0 |

Curve Type Legend:
Lin = Linear

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: ICV 440-447839/8 Calibration Date: 12/20/2017 13:40

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0097758-008_8_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 10.1 | 10.0 | 101 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: ICV 440-447839/8 Calibration Date: 12/20/2017 13:40

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0097758-008_8_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.81 | 11.22 | 12.41 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452147/2 Calibration Date: 01/17/2018 08:46

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098743-002_2_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 8.92 | 10.0 | 89 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452147/2 Calibration Date: 01/17/2018 08:46

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098743-002_2_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.54 | 11.91 | 13.16 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452147/13 Calibration Date: 01/17/2018 12:18

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098743-013_13_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 19.1 | 20.0 | 95 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452147/13 Calibration Date: 01/17/2018 12:18

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098743-013_13_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.51 | 11.88 | 13.13 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452147/24 Calibration Date: 01/17/2018 15:39

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098743-024_24_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 8.81 | 10.0 | 88 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452147/24 Calibration Date: 01/17/2018 15:39

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098743-024_24_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.50 | 11.88 | 13.13 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452147/33 Calibration Date: 01/17/2018 18:24

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098743-033_33_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 18.5 | 20.0 | 92 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452147/33 Calibration Date: 01/17/2018 18:24

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098743-033_33_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.49 | 11.86 | 13.11 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452147/6

Matrix: Water | Lab File ID: 440-0098743-006_6_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/17/2018 10:00

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452147 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 440-452147/3

Matrix: Water Lab File ID: 440-0098742-003_3_ECD_1.d

Analysis Method: 314.0 LL Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 01/17/2018 09:05

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: AS16 ID: 4(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 452147 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452147/14

Matrix: Water | Lab File ID: 440-0098743-014_14_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/17/2018 12:36

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452147 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452147/25

Matrix: Water | Lab File ID: 440-0098743-025_25_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/17/2018 15:58

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452147 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452147/34

Matrix: Water | Lab File ID: 440-0098743-034_34_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/17/2018 18:42

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452147 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-452147/5

Matrix: Water | Lab File ID: 440-0098743-005_5_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/17/2018 09:42

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452147 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 9.10 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-452147/4

Matrix: Water | Lab File ID: 440-0098743-004_4_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/17/2018 09:23

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452147 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 0.973 | J | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-452147/12

Matrix: Water | Lab File ID: 440-0098743-012_12_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/17/2018 11:59

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452147 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1.03 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: INF 440-452147/7

Matrix: Water | Lab File ID: 440-0098743-007_7_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/17/2018 10:18

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452147 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 9.57 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-36 MS | Lab Sample ID: 440-201049-3 MS

Matrix: Water | Lab File ID: 440-0098743-031_31_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/16/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/17/2018 17:47

Con. Extract Vol.: | Dilution Factor: 100000

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452147 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1150000 | | 100000 | 50000 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-36 MSD | Lab Sample ID: 440-201049-3 MSD

Matrix: Water | Lab File ID: 440-0098743-032_32_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/16/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/17/2018 18:06

Con. Extract Vol.: | Dilution Factor: 100000

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452147 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1130000 | | 100000 | 50000 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-200809-M-1 DU

Matrix: Water | Lab File ID: 440-0098743-011_11_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/12/2018 15:40

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/17/2018 11:41

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452147 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 0.765 | J | 1.0 | 0.50 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-25 Start Date: 12/20/2017 11:10

Analysis Batch Number: 447839 End Date: 12/20/2017 19:55

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| STD0 440-447839/1 IC | | 12/20/2017 11:10 | 1 | 440-0097758-001 1 ECD 1.d | AS7 A 4(mm) |
| STD1 440-447839/2 IC | | 12/20/2017 11:28 | 1 | 440-0097758-002 2 ECD 1.d | AS7 A 4(mm) |
| STD2 440-447839/3 IC | | 12/20/2017 12:02 | 1 | 440-0097758-003 3 ECD 1.d | AS7 A 4(mm) |
| STD3 440-447839/4 IC | | 12/20/2017 12:21 | 1 | 440-0097758-004 4 ECD 1.d | AS7 A 4(mm) |
| STD4 440-447839/5 IC | | 12/20/2017 12:39 | 1 | 440-0097758-005 5 ECD 1.d | AS7 A 4(mm) |
| STD5 440-447839/6 IC | | 12/20/2017 12:57 | 1 | 440-0097758-006 6 ECD 1.d | AS7 A 4(mm) |
| STD6 440-447839/7 IC | | 12/20/2017 13:16 | 1 | 440-0097758-007 7 ECD 1.d | AS7 A 4(mm) |
| ICV 440-447839/8 | | 12/20/2017 13:40 | 1 | 440-0097758-008 8 ECD 1.d | AS7 A 4(mm) |
| ICB 440-447839/9 | | 12/20/2017 13:58 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 14:16 | 1 | | AS7 A 4(mm) |
| CCV 440-447839/11 | | 12/20/2017 14:34 | 1 | | AS7 A 4(mm) |
| CCB 440-447839/12 | | 12/20/2017 14:58 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 15:17 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 15:35 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 15:53 | 1 | | AS7 A 4(mm) |
| INF 440-447839/16 | | 12/20/2017 16:12 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 16:38 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 16:55 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 17:14 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 17:46 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 18:04 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 18:23 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 18:41 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 18:59 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 19:18 | 1 | | AS7 A 4(mm) |
| CCV 440-447839/26 | | 12/20/2017 19:36 | 1 | | AS7 A 4(mm) |
| CCB 440-447839/27 | | 12/20/2017 19:55 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-25 Start Date: 01/17/2018 08:28

Analysis Batch Number: 452147 End Date: 01/17/2018 18:42

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/17/2018 08:28 | 1 | | AS16 4(mm) |
| CCV 440-452147/2 | | 01/17/2018 08:46 | 1 | 440-0098743-002 2 ECD 1.d | AS16 4(mm) |
| CCB 440-452147/3 | | 01/17/2018 09:05 | 1 | 440-0098742-003 3 ECD 1.d | AS16 4(mm) |
| MRL 440-452147/4 | | 01/17/2018 09:23 | 1 | 440-0098743-004 4 ECD 1.d | AS16 4(mm) |
| LCS 440-452147/5 | | 01/17/2018 09:42 | 1 | 440-0098743-005 5 ECD 1.d | AS16 4(mm) |
| MB 440-452147/6 | | 01/17/2018 10:00 | 1 | 440-0098743-006 6 ECD 1.d | AS16 4(mm) |
| INF 440-452147/7 | | 01/17/2018 10:18 | 1 | 440-0098743-007 7 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/17/2018 10:46 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/17/2018 11:04 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/17/2018 11:23 | 1 | | AS16 4(mm) |
| 440-200809-M-1 DU | | 01/17/2018 11:41 | 1 | 440-0098743-011 11 ECD 1.d | AS16 4(mm) |
| MRL 440-452147/12 | | 01/17/2018 11:59 | 1 | 440-0098743-012 12 ECD 1.d | AS16 4(mm) |
| CCV 440-452147/13 | | 01/17/2018 12:18 | 1 | 440-0098743-013 13 ECD 1.d | AS16 4(mm) |
| CCB 440-452147/14 | | 01/17/2018 12:36 | 1 | 440-0098743-014 14 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/17/2018 12:54 | 100 | | AS16 4(mm) |
| ZZZZZ | | 01/17/2018 13:12 | 100 | | AS16 4(mm) |
| ZZZZZ | | 01/17/2018 13:31 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/17/2018 13:49 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/17/2018 14:07 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/17/2018 14:26 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/17/2018 14:44 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/17/2018 15:03 | 1 | | AS16 4(mm) |
| 440-201049-1 | | 01/17/2018 15:21 | 100000 | 440-0098743-023 23 ECD 1.d | AS16 4(mm) |
| CCV 440-452147/24 | | 01/17/2018 15:39 | 1 | 440-0098743-024 24 ECD 1.d | AS16 4(mm) |
| CCB 440-452147/25 | | 01/17/2018 15:58 | 1 | 440-0098743-025 25 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/17/2018 16:16 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/17/2018 16:34 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/17/2018 16:52 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/17/2018 17:11 | 1 | | AS16 4(mm) |
| 440-201049-3 | | 01/17/2018 17:29 | 100000 | 440-0098743-030 30 ECD 1.d | AS16 4(mm) |
| 440-201049-3 MS | | 01/17/2018 17:47 | 100000 | 440-0098743-031 31 ECD 1.d | AS16 4(mm) |
| 440-201049-3 MSD | | 01/17/2018 18:06 | 100000 | 440-0098743-032 32 ECD 1.d | AS16 4(mm) |
| CCV 440-452147/33 | | 01/17/2018 18:24 | 1 | 440-0098743-033 33 ECD 1.d | AS16 4(mm) |
| CCB 440-452147/34 | | 01/17/2018 18:42 | 1 | 440-0098743-034 34 ECD 1.d | AS16 4(mm) |

# Method 7199

## Chromium, Hexavalent (IC) by Method 7199

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: LCS 440-451869/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 50.9 | 102 | 90-110 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: LCS 440-452101/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 50.9 | 102 | 90-110 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: MRL 440-451869/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 1.00 | 0.986 J | 99 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: MRL 440-452101/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 1.00 | 1.10 J | 110 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: 440-201049-3 MS Client ID: VER-01I-C-36 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chromium, hexavalent | 1500 | 13000 | 14100 | 81 | 85-115 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: 440-201118-N-2 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | ND | 48.8 | 98 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: 440-201049-3 MSD Client ID: VER-01I-C-36 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 1500 | 14200 | 84 | 0 | 20 | 85-115 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: 440-201118-N-2 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 49.1 | 98 | 1 | 20 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2 Lab Sample ID: MB 440-451869/6

Matrix: Water Date Extracted:

Instrument ID: IC-16 Date Analyzed: 01/16/2018 12:42

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-451869/3 | Info 2_TAIIRV0066_Hex Chrom_20180116-121858.d | 01/16/2018 12:07 |
| | LCS 440-451869/5 | Info 2_TAIIRV0066_Hex Chrom_20180116-124213.d | 01/16/2018 12:30 |
| | CCB 440-451869/19 | Info 2_TAIIRV0066_Hex Chrom_20180116-152503.d | 01/16/2018 15:13 |
| | CCB 440-451869/30 | Info 2_TAIIRV0066_Hex Chrom_20180116-191609.d | 01/16/2018 19:04 |
| | 440-201118-N-2 MS | Info 2_TAIIRV0066_Hex Chrom_20180116-201432.d | 01/16/2018 20:02 |
| | 440-201118-N-2 MSD | Info 2_TAIIRV0066_Hex Chrom_20180116-202610.d | 01/16/2018 20:14 |
| VER-01I-C-24 | 440-201049-1 | Info 2_TAIIRV0066_Hex Chrom_20180116-212418.d | 01/16/2018 21:12 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2 Lab Sample ID: MB 440-451869/6

Matrix: Water Date Extracted:

Instrument ID: IC-16 Date Analyzed: 01/16/2018 12:42

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-451869/42 | Info 2_TAIIRV0066_Hex Chrom_20180116-215912.d | 01/16/2018 21:47 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2 Lab Sample ID: MB 440-452101/6

Matrix: Water Date Extracted:

Instrument ID: IC-16 Date Analyzed: 01/17/2018 06:55

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-452101/3 | Info 2_TAIIRV0066_Hex Chrom_20180117-063149.d | 01/17/2018 06:20 |
| | LCS 440-452101/5 | Info 2_TAIIRV0066_Hex Chrom_20180117-065505.d | 01/17/2018 06:43 |
| VER-01I-C-36 | 440-201049-3 | Info 2_TAIIRV0066_Hex Chrom_20180117-081319.d | 01/17/2018 08:01 |
| VER-01I-C-36 MS | 440-201049-3 MS | Info 2_TAIIRV0066_Hex Chrom_20180117-083635.d | 01/17/2018 08:24 |
| VER-01I-C-36 MSD | 440-201049-3 MSD | Info 2_TAIIRV0066_Hex Chrom_20180117-084812.d | 01/17/2018 08:36 |
| | CCB 440-452101/13 | Info 2_TAIIRV0066_Hex Chrom_20180117-091818.d | 01/17/2018 09:06 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-24 | Lab Sample ID: 440-201049-1

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/16/2018 03:30

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 21:12

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451869 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 11000 | | 1000 | 130 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-36 | Lab Sample ID: 440-201049-3

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/16/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/17/2018 08:01

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452101 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 13000 | | 1000 | 130 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 432478

SDG No.:

Instrument ID: IC-16 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2017 12:38 Calibration End Date: 10/02/2017 13:59 Calibration ID: 17606

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-432478/3 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d |
| Level 2 | STD2 440-432478/4 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d |
| Level 3 | STD3 440-432478/5 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d |
| Level 4 | STD4 440-432478/6 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d |
| Level 5 | STD5 440-432478/7 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d |
| Level 6 | STD6 440-432478/8 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d |
| Level 7 | STD7 440-432478/9 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 7.528 | 7.528 | 7.528 | 7.528 | 7.523 | 7.523 | 7.523 | | | | 7.151 - 7.904 | 7.526 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 432478

SDG No.:

Instrument ID: IC-16 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2017 12:38 Calibration End Date: 10/02/2017 13:59 Calibration ID: 17606

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-432478/3 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d |
| Level 2 | STD2 440-432478/4 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d |
| Level 3 | STD3 440-432478/5 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d |
| Level 4 | STD4 440-432478/6 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d |
| Level 5 | STD5 440-432478/7 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d |
| Level 6 | STD6 440-432478/8 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d |
| Level 7 | STD7 440-432478/9 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Chromium, hexavalent | 48520<br>43927 | 45274<br>44791 | 45566<br>44690 | 43498 | Lin1 | 1102.44248 | 44469.5021 | | | | | | | 1.0000 | | 0.9990 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 432478

SDG No.:

Instrument ID: IC-16 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2017 12:38 Calibration End Date: 10/02/2017 13:59 Calibration ID: 17606

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-432478/3 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d |
| Level 2 | STD2 440-432478/4 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d |
| Level 3 | STD3 440-432478/5 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d |
| Level 4 | STD4 440-432478/6 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d |
| Level 5 | STD5 440-432478/7 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d |
| Level 6 | STD6 440-432478/8 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d |
| Level 7 | STD7 440-432478/9 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| Chromium, hexavalent | Lin1 | 14556<br>3359349 | 45274<br>4468974 | 455662 | 1087448 | 2196335 | 0.300<br>75.0 | 1.00<br>100 | 10.0 | 25.0 | 50.0 |

Curve Type Legend:
Lin1 = Linear 1/conc

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Lab Sample ID: ICV 440-432478/10  Calibration Date: 10/02/2017 14:26

Instrument ID: IC-16  Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A  ID: 4.00(mm)  Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20171  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 50.1 | 50.0 | 100 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: ICV 440-432478/10 Calibration Date: 10/02/2017 14:26

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20171

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.52 | 7.15 | 7.90 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-451869/2 Calibration Date: 01/16/2018 11:49

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 50.6 | 50.0 | 101 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-451869/2 Calibration Date: 01/16/2018 11:49

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 6.59 | 6.26 | 6.92 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-451869/18 Calibration Date: 01/16/2018 15:01

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 51.0 | 50.0 | 102 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-451869/18 Calibration Date: 01/16/2018 15:01

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.10 | 6.66 | 7.36 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-451869/29 Calibration Date: 01/16/2018 18:52

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 49.3 | 50.0 | 99 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-451869/29 Calibration Date: 01/16/2018 18:52

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.10 | 6.53 | 7.22 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-451869/41 Calibration Date: 01/16/2018 21:35

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 49.6 | 50.0 | 99 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-451869/41 Calibration Date: 01/16/2018 21:35

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.10 | 6.53 | 7.22 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452101/2 Calibration Date: 01/17/2018 06:00

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 50.6 | 50.0 | 101 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452101/2 Calibration Date: 01/17/2018 06:00

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.12 | 6.53 | 7.22 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452101/12 Calibration Date: 01/17/2018 08:55

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 51.5 | 50.0 | 103 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452101/12 Calibration Date: 01/17/2018 08:55

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.12 | 6.53 | 7.22 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-451869/6

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 12:42

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451869 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452101/6

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/17/2018 06:55

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452101 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451869/3

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 12:07

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451869 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451869/19

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 15:13

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451869 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451869/30

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 19:04

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451869 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-451869/42

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 21:47

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451869 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452101/3

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/17/2018 06:20

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452101 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452101/13

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/17/2018 09:06

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452101 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-451869/5

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 12:30

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451869 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 50.9 | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-452101/5

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/17/2018 06:43

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452101 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 50.9 | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-451869/4

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 12:19

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451869 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 0.986 | J | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-452101/4

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/17/2018 06:31

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452101 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 1.10 | J | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-36 MS | Lab Sample ID: 440-201049-3 MS

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/16/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/17/2018 08:24

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452101 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 14100 | | 1000 | 130 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201118-N-2 MS

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/16/2018 08:59

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 20:02

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451869 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 48.8 | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-36 MSD | Lab Sample ID: 440-201049-3 MSD

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/16/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/17/2018 08:36

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452101 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 14200 | | 1000 | 130 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201118-N-2 MSD

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/16/2018 08:59

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/16/2018 20:14

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 451869 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 49.1 | | 2.0 | 0.25 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-16 Start Date: 10/02/2017 12:38

Analysis Batch Number: 432478 End Date: 10/03/2017 04:27

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| STD0 440-432478/2 IC | | 10/02/2017 12:38 | 1 | | AS7 A 4(mm) |
| STD1 440-432478/3 IC | | 10/02/2017 12:50 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d | AS7 A 4(mm) |
| STD2 440-432478/4 IC | | 10/02/2017 13:01 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d | AS7 A 4(mm) |
| STD3 440-432478/5 IC | | 10/02/2017 13:13 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d | AS7 A 4(mm) |
| STD4 440-432478/6 IC | | 10/02/2017 13:25 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d | AS7 A 4(mm) |
| STD5 440-432478/7 IC | | 10/02/2017 13:36 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d | AS7 A 4(mm) |
| STD6 440-432478/8 IC | | 10/02/2017 13:48 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d | AS7 A 4(mm) |
| STD7 440-432478/9 IC | | 10/02/2017 13:59 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d | AS7 A 4(mm) |
| ICV 440-432478/10 | | 10/02/2017 14:26 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-143755.d | AS7 A 4(mm) |
| ICB 440-432478/11 | | 10/02/2017 14:47 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 14:59 | 1 | | AS7 A 4(mm) |
| CCV 440-432478/1012 | | 10/02/2017 14:59 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 15:10 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/1013 | | 10/02/2017 15:10 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 15:22 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 15:34 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 20:53 | 1 | | AS7 A 4(mm) |
| CCV 440-432478/17 | | 10/02/2017 21:05 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/18 | | 10/02/2017 21:16 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:03 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:15 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:26 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:38 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:50 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-16 Start Date: 10/02/2017 12:38

Analysis Batch Number: 432478 End Date: 10/03/2017 04:27

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 10/02/2017 23:01 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:13 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:25 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:36 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:48 | 10 | | AS7 A 4(mm) |
| CCV 440-432478/29 | | 10/02/2017 23:59 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/30 | | 10/03/2017 00:11 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:23 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:34 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:46 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:58 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:09 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:21 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:32 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:44 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:56 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 02:07 | 1 | | AS7 A 4(mm) |
| CCV 440-432478/41 | | 10/03/2017 02:19 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/42 | | 10/03/2017 02:31 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 02:42 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 02:54 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 03:29 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 03:40 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 03:52 | 2 | | AS7 A 4(mm) |
| CCV 440-432478/51 | | 10/03/2017 04:15 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/52 | | 10/03/2017 04:27 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-16 Start Date: 01/16/2018 11:49

Analysis Batch Number: 451869 End Date: 01/17/2018 04:45

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-451869/2 | | 01/16/2018 11:49 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-120039.d | AS7 A 4(mm) |
| CCB 440-451869/3 | | 01/16/2018 12:07 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-121858.d | AS7 A 4(mm) |
| MRL 440-451869/4 | | 01/16/2018 12:19 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-123036.d | AS7 A 4(mm) |
| LCS 440-451869/5 | | 01/16/2018 12:30 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-124213.d | AS7 A 4(mm) |
| MB 440-451869/6 | | 01/16/2018 12:42 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-125351.d | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 12:53 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 13:05 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 13:17 | 20 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 13:28 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 13:40 | 20 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 13:52 | 20 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 14:03 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 14:15 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 14:26 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 14:38 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 14:50 | 3 | | AS7 A 4(mm) |
| CCV 440-451869/18 | | 01/16/2018 15:01 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-151325.d | AS7 A 4(mm) |
| CCB 440-451869/19 | | 01/16/2018 15:13 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-152503.d | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 15:25 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 15:36 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 15:48 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 15:59 | 3 | | AS7 A 4(mm) |
| CCV 440-451869/24 | | 01/16/2018 16:11 | 1 | | AS7 A 4(mm) |
| CCB 440-451869/25 | | 01/16/2018 16:23 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 18:03 | 1 | | AS7 A 4(mm) |
| CCV 440-451869/27 | | 01/16/2018 18:14 | 1 | | AS7 A 4(mm) |
| CCB 440-451869/28 | | 01/16/2018 18:26 | 1 | | AS7 A 4(mm) |

7199

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-16 Start Date: 01/16/2018 11:49

Analysis Batch Number: 451869 End Date: 01/17/2018 04:45

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-451869/29 | | 01/16/2018 18:52 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-190432.d | AS7 A 4(mm) |
| CCB 440-451869/30 | | 01/16/2018 19:04 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-191609.d | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 19:39 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 19:51 | 1 | | AS7 A 4(mm) |
| 440-201118-N-2 MS | | 01/16/2018 20:02 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-201432.d | AS7 A 4(mm) |
| 440-201118-N-2 MSD | | 01/16/2018 20:14 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-202610.d | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 20:26 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 20:37 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 20:49 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 21:01 | 1 | | AS7 A 4(mm) |
| 440-201049-1 | | 01/16/2018 21:12 | 500 | Info 2_TAIIRV0066_Hex Chrom_20180116-212418.d | AS7 A 4(mm) |
| 440-201049-1 | | 01/16/2018 21:24 | 500 | Info 2_TAIIRV0066_Hex Chrom_20180116-213556.d | AS7 A 4(mm) |
| CCV 440-451869/41 | | 01/16/2018 21:35 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-214734.d | AS7 A 4(mm) |
| CCB 440-451869/42 | | 01/16/2018 21:47 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180116-215912.d | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 23:23 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/16/2018 23:34 | 20 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 01:39 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 01:51 | 20 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 02:02 | 20 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 02:14 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 02:26 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 02:37 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 02:49 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 03:00 | 3 | | AS7 A 4(mm) |

7199

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-16 Start Date: 01/16/2018 11:49

Analysis Batch Number: 451869 End Date: 01/17/2018 04:45

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-451869/53 | | 01/17/2018 03:12 | 1 | | AS7 A 4(mm) |
| CCB 440-451869/54 | | 01/17/2018 03:24 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 03:35 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 03:47 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 03:59 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 04:10 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 04:22 | 3 | | AS7 A 4(mm) |
| CCV 440-451869/60 | | 01/17/2018 04:33 | 1 | | AS7 A 4(mm) |
| CCB 440-451869/61 | | 01/17/2018 04:45 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-16 Start Date: 01/17/2018 06:00

Analysis Batch Number: 452101 End Date: 01/18/2018 01:48

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-452101/2 | | 01/17/2018 06:00 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180117-061154.d | AS7 A 4(mm) |
| CCB 440-452101/3 | | 01/17/2018 06:20 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180117-063149.d | AS7 A 4(mm) |
| MRL 440-452101/4 | | 01/17/2018 06:31 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180117-064327.d | AS7 A 4(mm) |
| LCS 440-452101/5 | | 01/17/2018 06:43 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180117-065505.d | AS7 A 4(mm) |
| MB 440-452101/6 | | 01/17/2018 06:55 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180117-070642.d | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 07:06 | 1 | | AS7 A 4(mm) |
| 440-201049-3 | | 01/17/2018 08:01 | 500 | Info 2_TAIIRV0066_Hex Chrom_20180117-081319.d | AS7 A 4(mm) |
| 440-201049-3 | | 01/17/2018 08:13 | 500 | Info 2_TAIIRV0066_Hex Chrom_20180117-082457.d | AS7 A 4(mm) |
| 440-201049-3 MS | | 01/17/2018 08:24 | 500 | Info 2_TAIIRV0066_Hex Chrom_20180117-083635.d | AS7 A 4(mm) |
| 440-201049-3 MSD | | 01/17/2018 08:36 | 500 | Info 2_TAIIRV0066_Hex Chrom_20180117-084812.d | AS7 A 4(mm) |
| CCV 440-452101/12 | | 01/17/2018 08:55 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180117-090641.d | AS7 A 4(mm) |
| CCB 440-452101/13 | | 01/17/2018 09:06 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180117-091818.d | AS7 A 4(mm) |
| CCV 440-452101/15 | | 01/17/2018 11:02 | 1 | | AS7 A 4(mm) |
| CCB 440-452101/16 | | 01/17/2018 11:14 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 11:26 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 11:37 | 20 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 11:49 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-16 Start Date: 01/17/2018 06:00

Analysis Batch Number: 452101 End Date: 01/18/2018 01:48

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/17/2018 12:01 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 12:12 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 12:24 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 12:35 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 12:47 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 12:59 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 13:10 | 3 | | AS7 A 4(mm) |
| CCV 440-452101/27 | | 01/17/2018 13:22 | 1 | | AS7 A 4(mm) |
| CCB 440-452101/28 | | 01/17/2018 13:34 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 13:45 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 13:57 | 20 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 14:08 | 20 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 14:20 | 1000 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 14:32 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 14:43 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 14:55 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 15:07 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 15:18 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 15:30 | 3 | | AS7 A 4(mm) |
| CCV 440-452101/39 | | 01/17/2018 15:42 | 1 | | AS7 A 4(mm) |
| CCB 440-452101/40 | | 01/17/2018 15:53 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 16:16 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 16:28 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 16:39 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 16:51 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 17:03 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 17:14 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 17:26 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 17:37 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 17:49 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 18:01 | 1 | | AS7 A 4(mm) |
| CCV 440-452101/51 | | 01/17/2018 18:12 | 1 | | AS7 A 4(mm) |
| CCB 440-452101/52 | | 01/17/2018 18:24 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 19:04 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 19:16 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 20:05 | 20 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 20:33 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 20:45 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 20:56 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 21:08 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 21:20 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 21:31 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 21:43 | 20 | | AS7 A 4(mm) |
| CCV 440-452101/63 | | 01/17/2018 21:54 | 1 | | AS7 A 4(mm) |
| CCB 440-452101/64 | | 01/17/2018 22:06 | 1 | | AS7 A 4(mm) |

7199

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-16 Start Date: 01/17/2018 06:00

Analysis Batch Number: 452101 End Date: 01/18/2018 01:48

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/17/2018 22:34 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 22:46 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 22:58 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 23:09 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 23:21 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 23:33 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 23:44 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 23:56 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 00:07 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 00:19 | 3 | | AS7 A 4(mm) |
| CCV 440-452101/75 | | 01/18/2018 00:31 | 1 | | AS7 A 4(mm) |
| CCB 440-452101/76 | | 01/18/2018 00:42 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 01:01 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 01:13 | 3 | | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 01:25 | 3 | | AS7 A 4(mm) |
| CCV 440-452101/80 | | 01/18/2018 01:36 | 1 | | AS7 A 4(mm) |
| CCB 440-452101/81 | | 01/18/2018 01:48 | 1 | | AS7 A 4(mm) |

# Method 300.1

## Disinfection By-Products (IC) by Method 300.1

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): AS9-HC ID: 4 (mm)

| Client Sample ID | Lab Sample ID | DCAA # |
|---|---|---|
| VER-01I-C-24 | 440-201049-1 | 102 |
| VER-01I-C-24 | 440-201049-1 | 99 |
| VER-01I-C-36 | 440-201049-3 | 99 |
| VER-01I-C-36 | 440-201049-3 | 100 |
| | MB 440-452345/5 | 102 |
| | MB 440-452346/5 | 102 |
| | LCS 440-452345/4 | 101 |
| | LCS 440-452346/4 | 101 |
| | MRL 440-452345/3 | 101 |
| | MRL 440-452346/3 | 101 |
| VER-01I-C-36 MS | 440-201049-3 MS | 100 |
| VER-01I-C-36 MS | 440-201049-3 MS | 101 |
| | 440-201200-A-1 MS | 98 |
| VER-01I-C-36 MSD | 440-201049-3 MSD | 99 |
| VER-01I-C-36 MSD | 440-201049-3 MSD | 100 |
| | 440-201200-A-1 MSD | 100 |

| | QC LIMITS |
|---|---|
| DCAA = Dichloroacetic acid(Surr) | 90-115 |

# Column to be used to flag recovery values

FORM II 300.1B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-004.d

Lab ID: LCS 440-452345/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 100 | 99.0 | 99 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-004.d

Lab ID: LCS 440-452346/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorite | 100 | 101 | 101 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-003.d

Lab ID: MRL 440-452345/3 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 20.0 | 20.8 | 104 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-003.d

Lab ID: MRL 440-452346/3 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorite | 20.0 | 21.2 | 106 | 10-200 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-045.d

Lab ID: 440-201049-3 MS Client ID: VER-01I-C-36 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorite | 200 | ND | ND | NC | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-028.d

Lab ID: 440-201049-3 MS Client ID: VER-01I-C-36 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorate | 200 | 3300000 | 3170000 | -54704 | 75-125 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-017.d

Lab ID: 440-201200-A-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorate | 200 | 190 | 398 | 104 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-046.d

Lab ID: 440-201049-3 MSD Client ID: VER-01I-C-36 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chlorite | 200 | ND | NC | NC | 25 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-029.d

Lab ID: 440-201049-3 MSD Client ID: VER-01I-C-36 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS | | # |
|---|---|---|---|---|---|---|---|
| | | | | | RPD | REC | |
| Chlorate | 200 | 3320000 | 19576 | 5 | 25 | 75-125 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-018.d

Lab ID: 440-201200-A-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chlorate | 200 | 394 | 102 | 1 | 25 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab File ID: 440-0098772-005.d Lab Sample ID: MB 440-452345/5

Matrix: Water Date Extracted:

Instrument ID: IC-8 Date Analyzed: 01/18/2018 06:19

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-452345/2 | 440-0098772-002.d | 01/18/2018 04:18 |
| | LCS 440-452345/4 | 440-0098772-004.d | 01/18/2018 05:43 |
| | CCB 440-452345/14 | 440-0098772-014.d | 01/18/2018 12:19 |
| | 440-201200-A-1 MS | 440-0098772-017.d | 01/18/2018 14:11 |
| | 440-201200-A-1 MSD | 440-0098772-018.d | 01/18/2018 14:47 |
| VER-01I-C-24 | 440-201049-1 | 440-0098772-020.d | 01/18/2018 16:00 |
| | CCB 440-452345/26 | 440-0098772-026.d | 01/18/2018 19:37 |
| VER-01I-C-36 | 440-201049-3 | 440-0098772-027.d | 01/18/2018 20:13 |
| VER-01I-C-36 MS | 440-201049-3 MS | 440-0098772-028.d | 01/18/2018 20:50 |
| VER-01I-C-36 MSD | 440-201049-3 MSD | 440-0098772-029.d | 01/18/2018 21:26 |
| | CCB 440-452345/38 | 440-0098772-038.d | 01/19/2018 02:52 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab File ID: 440-0098772-005.d Lab Sample ID: MB 440-452346/5

Matrix: Water Date Extracted:

Instrument ID: IC-8 Date Analyzed: 01/18/2018 06:19

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-452346/2 | 440-0098772-002.d | 01/18/2018 04:18 |
| | LCS 440-452346/4 | 440-0098772-004.d | 01/18/2018 05:43 |
| | CCB 440-452346/14 | 440-0098772-014.d | 01/18/2018 12:19 |
| | CCB 440-452346/38 | 440-0098772-038.d | 01/19/2018 02:52 |
| VER-01I-C-36 | 440-201049-3 | 440-0098772-044.d | 01/19/2018 06:29 |
| VER-01I-C-36 MS | 440-201049-3 MS | 440-0098772-045.d | 01/19/2018 07:06 |
| VER-01I-C-36 MSD | 440-201049-3 MSD | 440-0098772-046.d | 01/19/2018 07:42 |
| | CCB 440-452346/50 | 440-0098772-050.d | 01/19/2018 10:07 |
| VER-01I-C-24 | 440-201049-1 | 440-0098772-051.d | 01/19/2018 10:47 |
| | CCB 440-452346/58 | 440-0098772-058.d | 01/19/2018 15:07 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-24 | Lab Sample ID: 440-201049-1

Matrix: Water | Lab File ID: 440-0098772-051.d

Analysis Method: 300.1B | Date Collected: 01/16/2018 03:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/19/2018 10:47

Con. Extract Vol.: | Dilution Factor: 1000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20000 | 10000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 99 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-24 | Lab Sample ID: 440-201049-1

Matrix: Water | Lab File ID: 440-0098772-020.d

Analysis Method: 300.1B | Date Collected: 01/16/2018 03:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 16:00

Con. Extract Vol.: | Dilution Factor: 10000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 3100000 | | 200000 | 100000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-36 | Lab Sample ID: 440-201049-3

Matrix: Water | Lab File ID: 440-0098772-044.d

Analysis Method: 300.1B | Date Collected: 01/16/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/19/2018 06:29

Con. Extract Vol.: | Dilution Factor: 1000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20000 | 10000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-36 | Lab Sample ID: 440-201049-3

Matrix: Water | Lab File ID: 440-0098772-027.d

Analysis Method: 300.1B | Date Collected: 01/16/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 20:13

Con. Extract Vol.: | Dilution Factor: 10000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 3300000 | | 200000 | 100000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 99 | | 90-115 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 445955

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18157

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445955/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445955/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445955/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445955/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445955/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445955/7 | 440-0097300-007.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromate | | 8.809 | 8.800 | 8.800 | 8.800 | 8.800 | | | | | 0.000 - 0.000 | 8.802 |
| Bromide | | 18.375 | 18.334 | 18.325 | 18.358 | 18.275 | | | | | 0.000 - 0.000 | 18.333 |
| Chlorate | | 20.175 | 20.134 | 20.117 | 20.158 | 20.075 | | | | | 0.000 - 0.000 | 20.132 |
| Dichloroacetic acid(Surr) | 14.975 | 14.967 | 14.975 | 14.967 | 14.983 | 14.975 | | | | | 13.919 - 16.015 | 14.974 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 445955

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18157

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445955/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445955/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445955/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445955/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445955/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445955/7 | 440-0097300-007.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Bromate | 85030 | 84777<br>83932 | 83142 | 85924 | Lin | 13316.2536 | 84031.2285 | | | | | | | 1.0000 | | 0.9950 |
| Bromide | 155080 | 170331<br>157285 | 156910 | 155772 | Lin | 6334.71702 | 156810.286 | | | | | | | 1.0000 | | 0.9950 |
| Chlorate | 137286 | 122469<br>136488 | 132031 | 134495 | Lin | -163510.51 | 137057.039 | | | | | | | 1.0000 | | 0.9950 |
| Dichloroacetic acid(Surr) | 82131<br>81437 | 81949<br>82824 | 82576 | 83010 | Ave | | 82321.1870 | | | | 0.7 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 445955

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18157

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445955/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445955/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445955/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445955/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445955/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445955/7 | 440-0097300-007.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Bromate | Lin | 8393172 | 423885 | 1039271 | 2148106 | 4251475 | 0.000000<br>100 | 5.00 | 12.5 | 25.0 | 50.0 |
| Bromide | Lin | 157284596 | 8516526 | 19613766 | 38942890 | 77540030 | 0.000000<br>1000 | 50.0 | 125 | 250 | 500 |
| Chlorate | Lin | 54595205 | 2449371 | 6601552 | 13449523 | 27457206 | 0.000000<br>400 | 20.0 | 50.0 | 100 | 200 |
| Dichloroacetic acid(Surr) | Ave | 81614796<br>82303494 | 81433893 | 82056259 | 82487538 | 80924785 | 994<br>994 | 994 | 994 | 994 | 994 |

Curve Type Legend:

Ave = Average
Lin = Linear

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 445956

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18158

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445956/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445956/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445956/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445956/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445956/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445956/7 | 440-0097300-007.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | 7.517 | 7.509 | 7.509 | 7.517 | 7.517 | | | | | 0.000 - 0.000 | 7.514 |
| Dichloroacetic acid(Surr) | 14.975 | 14.967 | 14.975 | 14.967 | 14.983 | 14.975 | | | | | 13.919 - 16.015 | 14.974 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 445956

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18158

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445956/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445956/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445956/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445956/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445956/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445956/7 | 440-0097300-007.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Chlorite | 159315 | 144620<br>163366 | 153703 | 157087 | Lin | -425656.25 | 163700.877 | | | | | | | 1.0000 | | 0.9950 |
| Dichloroacetic acid(Surr) | 82131<br>81437 | 81949<br>82824 | 82576 | 83010 | Ave | | 82321.1870 | | | | 0.7 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201049-1 Analy Batch No.: 445956

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18158

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445956/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445956/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445956/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445956/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445956/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445956/7 | 440-0097300-007.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Chlorite | Lin | 65346431 | 2892398 | 7685136 | 15708703 | 31863070 | 0.000000<br>400 | 20.0 | 50.0 | 100 | 200 |
| Dichloroacetic acid(Surr) | Ave | 81614796<br>82303494 | 81433893 | 82056259 | 82487538 | 80924785 | 994<br>994 | 994 | 994 | 994 | 994 |

Curve Type Legend:

Ave = Average
Lin = Linear

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Lab Sample ID: ICV 440-445955/8  Calibration Date: 12/11/2017 09:01

Instrument ID: IC-8  Calib Start Date: 12/11/2017 05:11

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0097300-008.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 83178 | | 29.6 | 30.1 | -1.5 | 15.0 |
| Bromide | Lin | | 155600 | | 298 | 300 | -0.8 | 15.0 |
| Chlorate | Lin | | 134468 | | 119 | 120 | -0.9 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82190 | | 992 | 994 | -0.2 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: ICV 440-445955/8 Calibration Date: 12/11/2017 09:01

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS14 ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0097300-008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.77 | 8.19 | 9.43 |
| Bromide | 18.03 | 16.57 | 19.06 |
| Chlorate | 19.86 | 18.64 | 20.60 |
| Dichloroacetic acid(Surr) | 14.99 | 13.80 | 15.87 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: ICV 440-445956/8 Calibration Date: 12/11/2017 09:01

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS14 ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0097300-008.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 155519 | | 117 | 120 | -2.8 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82190 | | 992 | 994 | -0.2 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: ICV 440-445956/8 Calibration Date: 12/11/2017 09:01

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS14 ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0097300-008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.50 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.99 | 13.80 | 15.87 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452345/1 Calibration Date: 01/18/2018 03:43

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-001.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 84694 | | 30.1 | 30.0 | 0.3 | 15.0 |
| Bromide | Lin | | 160520 | | 307 | 300 | 2.4 | 15.0 |
| Chlorate | Lin | | 140567 | | 124 | 120 | 3.6 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83505 | | 1010 | 994 | 1.4 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452345/1 Calibration Date: 01/18/2018 03:43

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.75 | 8.07 | 9.28 |
| Bromide | 18.09 | 16.55 | 19.05 |
| Chlorate | 19.66 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.58 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452346/1  Calibration Date: 01/18/2018 03:43

Instrument ID: IC-8  Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC  ID: 4.00(mm)  Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-001.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 157624 | | 118 | 120 | -1.5 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83505 | | 1010 | 994 | 1.4 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452346/1 Calibration Date: 01/18/2018 03:43

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.48 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.58 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452345/13 Calibration Date: 01/18/2018 11:43

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-013.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 83991 | | 49.8 | 50.0 | -0.4 | 15.0 |
| Bromide | Lin | | 155749 | | 497 | 500 | -0.7 | 15.0 |
| Chlorate | Lin | | 138058 | | 203 | 200 | 1.3 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83097 | | 1000 | 994 | 0.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452345/13 Calibration Date: 01/18/2018 11:43

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-013.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.66 | 8.07 | 9.28 |
| Bromide | 17.40 | 16.55 | 19.05 |
| Chlorate | 19.07 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.66 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452346/13  Calibration Date: 01/18/2018 11:43

Instrument ID: IC-8  Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC  ID: 4.00(mm)  Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-013.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 164552 | | 204 | 200 | 1.8 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83097 | | 1000 | 994 | 0.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452346/13 Calibration Date: 01/18/2018 11:43

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-013.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.47 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.66 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452345/25  Calibration Date: 01/18/2018 19:01

Instrument ID: IC-8  Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC  ID: 4.00(mm)  Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-025.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 87408 | | 25.8 | 25.0 | 3.4 | 15.0 |
| Bromide | Lin | | 160519 | | 256 | 250 | 2.3 | 15.0 |
| Chlorate | Lin | | 143179 | | 106 | 100 | 5.7 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83023 | | 1000 | 994 | 0.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452345/25 Calibration Date: 01/18/2018 19:01

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-025.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.66 | 8.07 | 9.28 |
| Bromide | 17.41 | 16.55 | 19.05 |
| Chlorate | 19.08 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.67 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452345/37  Calibration Date: 01/19/2018 02:16

Instrument ID: IC-8  Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC  ID: 4.00(mm)  Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-037.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 84179 | | 49.9 | 50.0 | -0.1 | 15.0 |
| Bromide | Lin | | 158726 | | 506 | 500 | 1.2 | 15.0 |
| Chlorate | Lin | | 141762 | | 208 | 200 | 4.0 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82532 | | 996 | 994 | 0.3 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452345/37 Calibration Date: 01/19/2018 02:16

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-037.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.71 | 8.07 | 9.28 |
| Bromide | 17.81 | 16.55 | 19.05 |
| Chlorate | 19.42 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.61 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452346/37 Calibration Date: 01/19/2018 02:16

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-037.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 166143 | | 206 | 200 | 2.8 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82532 | | 996 | 994 | 0.3 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452346/37 Calibration Date: 01/19/2018 02:16

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-037.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.48 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.61 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452346/49 Calibration Date: 01/19/2018 09:31

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-049.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 155435 | | 97.6 | 100 | -2.4 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82333 | | 994 | 994 | 0.0 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452346/49 Calibration Date: 01/19/2018 09:31

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-049.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.46 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.60 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452346/57  Calibration Date: 01/19/2018 14:31

Instrument ID: IC-8  Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC  ID: 4.00(mm)  Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-057.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 159436 | | 197 | 200 | -1.3 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 80324 | | 970 | 994 | -2.4 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Lab Sample ID: CCV 440-452346/57 Calibration Date: 01/19/2018 14:31

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-057.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.48 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.65 | 13.75 | 15.82 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452345/5

Matrix: Water | Lab File ID: 440-0098772-005.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 06:19

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452346/5

Matrix: Water | Lab File ID: 440-0098772-005.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 06:19

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452345/2

Matrix: Water | Lab File ID: 440-0098772-002.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 04:18

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-452345/14

Matrix: Water  Lab File ID: 440-0098772-014.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/18/2018 12:19

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452345/26

Matrix: Water | Lab File ID: 440-0098772-026.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 19:37

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452345/38

Matrix: Water | Lab File ID: 440-0098772-038.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/19/2018 02:52

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452346/2

Matrix: Water | Lab File ID: 440-0098772-002.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 04:18

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452346/14

Matrix: Water | Lab File ID: 440-0098772-014.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 12:19

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452346/38

Matrix: Water | Lab File ID: 440-0098772-038.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/19/2018 02:52

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452346/50

Matrix: Water | Lab File ID: 440-0098772-050.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/19/2018 10:07

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452346/58

Matrix: Water | Lab File ID: 440-0098772-058.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/19/2018 15:07

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-452345/4

Matrix: Water | Lab File ID: 440-0098772-004.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 05:43

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 99.0 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 440-452346/4

Matrix: Water  Lab File ID: 440-0098772-004.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/18/2018 05:43

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 101 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-452345/3

Matrix: Water | Lab File ID: 440-0098772-003.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 04:55

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 20.8 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-452346/3

Matrix: Water | Lab File ID: 440-0098772-003.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 04:55

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 21.2 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-36 MS | Lab Sample ID: 440-201049-3 MS

Matrix: Water | Lab File ID: 440-0098772-045.d

Analysis Method: 300.1B | Date Collected: 01/16/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/19/2018 07:06

Con. Extract Vol.: | Dilution Factor: 1000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20000 | 10000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-36 MS | Lab Sample ID: 440-201049-3 MS

Matrix: Water | Lab File ID: 440-0098772-028.d

Analysis Method: 300.1B | Date Collected: 01/16/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 20:50

Con. Extract Vol.: | Dilution Factor: 10000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 3170000 | | 200000 | 100000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201200-A-1 MS

Matrix: Water | Lab File ID: 440-0098772-017.d

Analysis Method: 300.1B | Date Collected: 01/13/2018 08:50

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 14:11

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 398 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 98 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-36 MSD | Lab Sample ID: 440-201049-3 MSD

Matrix: Water | Lab File ID: 440-0098772-046.d

Analysis Method: 300.1B | Date Collected: 01/16/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/19/2018 07:42

Con. Extract Vol.: | Dilution Factor: 1000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20000 | 10000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: VER-01I-C-36 MSD | Lab Sample ID: 440-201049-3 MSD

Matrix: Water | Lab File ID: 440-0098772-029.d

Analysis Method: 300.1B | Date Collected: 01/16/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 21:26

Con. Extract Vol.: | Dilution Factor: 10000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 3320000 | | 200000 | 100000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 99 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201200-A-1 MSD

Matrix: Water | Lab File ID: 440-0098772-018.d

Analysis Method: 300.1B | Date Collected: 01/13/2018 08:50

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 14:47

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 394 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-8 Start Date: 12/11/2017 04:35

Analysis Batch Number: 445955 End Date: 12/12/2017 11:51

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 12/11/2017 04:35 | 1 | | AS14 4(mm) |
| STD0 440-445955/2 IC | | 12/11/2017 05:11 | 1 | 440-0097300-002.d | AS14 4(mm) |
| STD1 440-445955/3 IC | | 12/11/2017 05:47 | 1 | 440-0097300-003.d | AS14 4(mm) |
| STD2 440-445955/4 IC | | 12/11/2017 06:24 | 1 | 440-0097300-004.d | AS14 4(mm) |
| STD3 440-445955/5 IC | | 12/11/2017 07:00 | 1 | 440-0097300-005.d | AS14 4(mm) |
| STD4 440-445955/6 IC | | 12/11/2017 07:36 | 1 | 440-0097300-006.d | AS14 4(mm) |
| STD5 440-445955/7 IC | | 12/11/2017 08:12 | 1 | 440-0097300-007.d | AS14 4(mm) |
| ICV 440-445955/8 | | 12/11/2017 09:01 | 1 | 440-0097300-008.d | AS14 4(mm) |
| ICB 440-445955/9 | | 12/11/2017 09:37 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 10:14 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 10:50 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 11:26 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 12:39 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 13:15 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 13:51 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 15:40 | 1 | | AS14 4(mm) |
| CCV 440-445955/20 | | 12/11/2017 16:16 | 1 | | AS14 4(mm) |
| CCB 440-445955/21 | | 12/11/2017 16:52 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 18:05 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 18:41 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 19:17 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 22:55 | 10 | | AS14 4(mm) |
| CCV 440-445955/32 | | 12/11/2017 23:31 | 1 | | AS14 4(mm) |
| CCB 440-445955/33 | | 12/12/2017 00:07 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 01:20 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 01:56 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 02:32 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 03:08 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 03:45 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 04:33 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 05:09 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 05:45 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 06:21 | 1 | | AS14 4(mm) |
| CCV 440-445955/44 | | 12/12/2017 06:58 | 1 | | AS14 4(mm) |
| CCB 440-445955/45 | | 12/12/2017 07:34 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 08:14 | 2 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 08:49 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 09:26 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 10:02 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 10:38 | 5 | | AS14 4(mm) |
| CCV 440-445955/51 | | 12/12/2017 11:14 | 1 | | AS14 4(mm) |
| CCB 440-445955/52 | | 12/12/2017 11:51 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-8 Start Date: 12/11/2017 04:35

Analysis Batch Number: 445956 End Date: 12/12/2017 07:34

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 12/11/2017 04:35 | 1 | | AS14 4(mm) |
| STD0 440-445956/2 IC | | 12/11/2017 05:11 | 1 | 440-0097300-002.d | AS14 4(mm) |
| STD1 440-445956/3 IC | | 12/11/2017 05:47 | 1 | 440-0097300-003.d | AS14 4(mm) |
| STD2 440-445956/4 IC | | 12/11/2017 06:24 | 1 | 440-0097300-004.d | AS14 4(mm) |
| STD3 440-445956/5 IC | | 12/11/2017 07:00 | 1 | 440-0097300-005.d | AS14 4(mm) |
| STD4 440-445956/6 IC | | 12/11/2017 07:36 | 1 | 440-0097300-006.d | AS14 4(mm) |
| STD5 440-445956/7 IC | | 12/11/2017 08:12 | 1 | 440-0097300-007.d | AS14 4(mm) |
| ICV 440-445956/8 | | 12/11/2017 09:01 | 1 | 440-0097300-008.d | AS14 4(mm) |
| ICB 440-445956/9 | | 12/11/2017 09:37 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 10:14 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 10:50 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 11:26 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 12:02 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 12:39 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 13:15 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 13:51 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 14:27 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 15:04 | 5 | | AS14 4(mm) |
| CCV 440-445956/20 | | 12/11/2017 16:16 | 1 | | AS14 4(mm) |
| CCB 440-445956/21 | | 12/11/2017 16:52 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 17:29 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 18:05 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 18:41 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 19:17 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 19:54 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 20:30 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 21:06 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 21:42 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 22:19 | 5 | | AS14 4(mm) |
| CCV 440-445956/32 | | 12/11/2017 23:31 | 1 | | AS14 4(mm) |
| CCB 440-445956/33 | | 12/12/2017 00:07 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 00:44 | 1 | | AS14 4(mm) |
| CCV 440-445956/44 | | 12/12/2017 06:58 | 1 | | AS14 4(mm) |
| CCB 440-445956/45 | | 12/12/2017 07:34 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-8 Start Date: 01/18/2018 03:43

Analysis Batch Number: 452345 End Date: 01/19/2018 15:07

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-452345/1 | | 01/18/2018 03:43 | 1 | 440-0098772-001.d | AS9-HC 4(mm) |
| CCB 440-452345/2 | | 01/18/2018 04:18 | 1 | 440-0098772-002.d | AS9-HC 4(mm) |
| MRL 440-452345/3 | | 01/18/2018 04:55 | 1 | 440-0098772-003.d | AS9-HC 4(mm) |
| LCS 440-452345/4 | | 01/18/2018 05:43 | 1 | 440-0098772-004.d | AS9-HC 4(mm) |
| MB 440-452345/5 | | 01/18/2018 06:19 | 1 | 440-0098772-005.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 06:56 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 07:32 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 08:16 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 09:08 | 100 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 09:44 | 20 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 10:31 | 20 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 11:07 | 20 | | AS9-HC 4(mm) |
| CCV 440-452345/13 | | 01/18/2018 11:43 | 1 | 440-0098772-013.d | AS9-HC 4(mm) |
| CCB 440-452345/14 | | 01/18/2018 12:19 | 1 | 440-0098772-014.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 12:59 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 13:35 | 1 | | AS9-HC 4(mm) |
| 440-201200-A-1 MS | | 01/18/2018 14:11 | 1 | 440-0098772-017.d | AS9-HC 4(mm) |
| 440-201200-A-1 MSD | | 01/18/2018 14:47 | 1 | 440-0098772-018.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 15:23 | 1 | | AS9-HC 4(mm) |
| 440-201049-1 | | 01/18/2018 16:00 | 10000 | 440-0098772-020.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 16:36 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 17:12 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 17:48 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 18:25 | 1 | | AS9-HC 4(mm) |
| CCV 440-452345/25 | | 01/18/2018 19:01 | 1 | 440-0098772-025.d | AS9-HC 4(mm) |
| CCB 440-452345/26 | | 01/18/2018 19:37 | 1 | 440-0098772-026.d | AS9-HC 4(mm) |
| 440-201049-3 | | 01/18/2018 20:13 | 10000 | 440-0098772-027.d | AS9-HC 4(mm) |
| 440-201049-3 MS | | 01/18/2018 20:50 | 10000 | 440-0098772-028.d | AS9-HC 4(mm) |
| 440-201049-3 MSD | | 01/18/2018 21:26 | 10000 | 440-0098772-029.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 23:14 | 50 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 23:51 | 50 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 00:27 | 50 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 01:03 | 50 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 01:39 | 10000 | | AS9-HC 4(mm) |
| CCV 440-452345/37 | | 01/19/2018 02:16 | 1 | 440-0098772-037.d | AS9-HC 4(mm) |
| CCB 440-452345/38 | | 01/19/2018 02:52 | 1 | 440-0098772-038.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 04:41 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 05:17 | 5 | | AS9-HC 4(mm) |

300.1B

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-8 Start Date: 01/18/2018 03:43

Analysis Batch Number: 452345 End Date: 01/19/2018 15:07

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/19/2018 05:53 | 20000 | | AS9-HC 4(mm) |
| CCV 440-452345/49 | | 01/19/2018 09:31 | 1 | | AS9-HC 4(mm) |
| CCB 440-452345/50 | | 01/19/2018 10:07 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 10:47 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 11:23 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 12:07 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 12:43 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 13:19 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 13:55 | 500 | | AS9-HC 4(mm) |
| CCV 440-452345/57 | | 01/19/2018 14:31 | 1 | | AS9-HC 4(mm) |
| CCB 440-452345/58 | | 01/19/2018 15:07 | 1 | | AS9-HC 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-8 Start Date: 01/18/2018 03:43

Analysis Batch Number: 452346 End Date: 01/19/2018 15:07

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-452346/1 | | 01/18/2018 03:43 | 1 | 440-0098772-001.d | AS9-HC 4(mm) |
| CCB 440-452346/2 | | 01/18/2018 04:18 | 1 | 440-0098772-002.d | AS9-HC 4(mm) |
| MRL 440-452346/3 | | 01/18/2018 04:55 | 1 | 440-0098772-003.d | AS9-HC 4(mm) |
| LCS 440-452346/4 | | 01/18/2018 05:43 | 1 | 440-0098772-004.d | AS9-HC 4(mm) |
| MB 440-452346/5 | | 01/18/2018 06:19 | 1 | 440-0098772-005.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 08:16 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 09:08 | 100 | | AS9-HC 4(mm) |
| CCV 440-452346/13 | | 01/18/2018 11:43 | 1 | 440-0098772-013.d | AS9-HC 4(mm) |
| CCB 440-452346/14 | | 01/18/2018 12:19 | 1 | 440-0098772-014.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 13:35 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 14:11 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 14:47 | 1 | | AS9-HC 4(mm) |
| CCV 440-452346/25 | | 01/18/2018 19:01 | 1 | | AS9-HC 4(mm) |
| CCB 440-452346/26 | | 01/18/2018 19:37 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 22:02 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 22:38 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 23:14 | 50 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 23:51 | 50 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 00:27 | 50 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 01:03 | 50 | | AS9-HC 4(mm) |
| CCV 440-452346/37 | | 01/19/2018 02:16 | 1 | 440-0098772-037.d | AS9-HC 4(mm) |
| CCB 440-452346/38 | | 01/19/2018 02:52 | 1 | 440-0098772-038.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 03:28 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 04:04 | 1000 | | AS9-HC 4(mm) |
| 440-201049-3 | | 01/19/2018 06:29 | 1000 | 440-0098772-044.d | AS9-HC 4(mm) |
| 440-201049-3 MS | | 01/19/2018 07:06 | 1000 | 440-0098772-045.d | AS9-HC 4(mm) |
| 440-201049-3 MSD | | 01/19/2018 07:42 | 1000 | 440-0098772-046.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 08:18 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 08:54 | 1000 | | AS9-HC 4(mm) |
| CCV 440-452346/49 | | 01/19/2018 09:31 | 1 | 440-0098772-049.d | AS9-HC 4(mm) |
| CCB 440-452346/50 | | 01/19/2018 10:07 | 1 | 440-0098772-050.d | AS9-HC 4(mm) |
| 440-201049-1 | | 01/19/2018 10:47 | 1000 | 440-0098772-051.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 11:23 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 12:07 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 12:43 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 13:19 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 13:55 | 500 | | AS9-HC 4(mm) |
| CCV 440-452346/57 | | 01/19/2018 14:31 | 1 | 440-0098772-057.d | AS9-HC 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Instrument ID: IC-8 Start Date: 01/18/2018 03:43

Analysis Batch Number: 452346 End Date: 01/19/2018 15:07

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCB 440-452346/58 | | 01/19/2018 15:07 | 1 | 440-0098772-058.d | AS9-HC 4(mm) |

300.1B

# METALS

COVER PAGE
METALS

Lab Name: TestAmerica Irvine Job Number: 440-201049-1

SDG No.:

Project: NERT VER Treatability Study

| Client Sample ID | Lab Sample ID |
|---|---|
| VER-01I-C-24 | 440-201049-1 |
| VER-01I-C-36 | 440-201049-3 |

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: VER-01I-C-24 Lab Sample ID: 440-201049-1

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG ID.:

Matrix: Water Date Sampled: 01/16/2018 03:30

Reporting Basis: WET Date Received: 01/16/2018 19:15

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 12 | 0.025 | 0.013 | mg/L | | | 5 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: VER-01I-C-36 Lab Sample ID: 440-201049-3

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG ID.:

Matrix: Water Date Sampled: 01/16/2018 15:30

Reporting Basis: WET Date Received: 01/16/2018 19:15

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 12 | 0.025 | 0.013 | mg/L | | | 5 | 6010B |

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

ICV Source: ME ICP ICV2_01766  Concentration Units: mg/L

CCV Source: ME ICP STD3_01851

| Analyte | ICV 440-452846/5 01/19/2018 09:26 | | | | CCV 440-452846/26 01/19/2018 18:38 | | | | CCV 440-452846/38 01/19/2018 19:29 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Found | C | True | %R | Found | C | True | %R | Found | C | True | %R |
| **Chromium** | 1.02 | | 1.00 | 102 | 0.971 | | 1.00 | 97 | 0.980 | | 1.00 | 98 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

ICV Source: ME ICP ICV2_01768  Concentration Units: mg/L

CCV Source: ME ICP STD3_01855

| Analyte | ICV 440-453488/5 01/23/2018 12:17 | | | | CCV 440-453488/23 01/23/2018 18:54 | | | | CCV 440-453488/35 01/23/2018 19:21 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Found | C | True | %R | Found | C | True | %R | Found | C | True | %R |
| **Chromium** | 0.984 | | 1.00 | 98 | 0.930 | | 1.00 | 93 | 0.955 | | 1.00 | 95 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Method: 6010B Instrument ID: ICP8

Lab Sample ID: CRI 440-452846/15 Concentration Units: mg/L

CRQL Check Standard Source: ME ICP 2X RL_00055

| Analyte | CRQL Check Standard | | | | |
|---|---|---|---|---|---|
| | True | Found | Qualifiers | %R(1) | Limits |
| Chromium | 0.0100 | 0.0106 | | 106 | 50-150 |

Lab Sample ID: CRI 440-453488/13 Concentration Units: mg/L

CRQL Check Standard Source: ME ICP 2X RL_00057

| Analyte | CRQL Check Standard | | | | |
|---|---|---|---|---|---|
| | True | Found | Qualifiers | %R(1) | Limits |
| Chromium | 0.0100 | 0.00940 | | 94 | 50-150 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Concentration Units: mg/L

| Analyte | RL | ICB 440-452846/8 01/19/2018 09:38 | | CCB 440-452846/27 01/19/2018 18:41 | | CCB 440-452846/39 01/19/2018 19:31 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Found | C | Found | C | Found | C | Found | C |
| **Chromium** | 0.0050 | ND | | ND | | ND | | | |

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Concentration Units: mg/L

| Analyte | RL | ICB 440-453488/7 01/23/2018 12:44 | | CCB 440-453488/24 01/23/2018 18:56 | | CCB 440-453488/37 01/23/2018 19:29 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Found | C | Found | C | Found | C | Found | C |
| **Chromium** | 0.0050 | ND | | ND | | ND | | | |

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 440-452668/1-A

Instrument Code: ICP8 Batch No.: 452846

| CAS No. | Analyte | Concentration | C | Q | Method |
|---|---|---|---|---|---|
| 7440-47-3 | Chromium | ND | | | 6010B |

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 440-452988/1-A

Instrument Code: ICP8 Batch No.: 453488

| CAS No. | Analyte | Concentration | C | Q | Method |
|---|---|---|---|---|---|
| 7440-47-3 | Chromium | ND | | | 6010B |

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Lab Sample ID: ICSA 440-452846/9  Instrument ID: ICP8

Lab File ID: 180119-2F.csv  ICS Source: ME ICP IFA_01792

Concentration Units: mg/L

| Analyte | True Solution A | Found Solution A | Percent Recovery |
|---|---|---|---|
| **Chromium** | | **0.0017** | |
| *Aluminum* | *600* | *622* | *104* |
| *Antimony* | | *-0.0013* | |
| *Arsenic* | | *-0.0050* | |
| *Barium* | | *0.0047* | |
| *Beryllium* | | *-0.0008* | |
| *Boron* | | *-0.0132* | |
| *Cadmium* | | *0.0035* | |
| *Calcium* | *600* | *623* | *104* |
| *Cobalt* | | *-0.0021* | |
| *Copper* | | *-0.0070* | |
| *Iron* | *600* | *575* | *96* |
| *Lead* | | *-0.0085* | |
| *Lithium* | | *-0.0540* | |
| *Magnesium* | *600* | *595* | *99* |
| *Manganese* | | *-0.0022* | |
| *Molybdenum* | | *0.0035* | |
| *Nickel* | | *0.0005* | |
| *Phosphorus* | | *-0.0201* | |
| *Potassium* | | *0.116* | |
| *Selenium* | | *0.0039* | |
| *Silicon* | | *-0.0085* | |
| *Silver* | | *0.0002* | |
| *Sodium* | | *0.348* | |
| *Strontium* | | *-0.0134* | |
| *Thallium* | | *0.0022* | |
| *Tin* | | *-0.0097* | |
| *Titanium* | | *0.0007* | |
| *Tungsten* | | *-0.0054* | |
| *Vanadium* | | *0.0038* | |
| *Zinc* | | *0.0135* | |
| *Zirconium* | | *0.0019* | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Lab Sample ID: ICSAB 440-452846/11  Instrument ID: ICP8

Lab File ID: 180119-2F.csv  ICS Source: ME ICP IFB_01811

Concentration Units: mg/L

| Analyte | True Solution AB | Found Solution AB | Percent Recovery |
|---|---|---|---|
| **Chromium** | **0.500** | **0.485** | **97** |
| *Aluminum* | *601* | *604* | *101* |
| *Antimony* | *0.500* | *0.495* | *99* |
| *Arsenic* | *0.500* | *0.495* | *99* |
| *Barium* | *0.500* | *0.466* | *93* |
| *Beryllium* | *0.500* | *0.514* | *103* |
| *Boron* | *0.500* | *0.492* | *98* |
| *Cadmium* | *0.500* | *0.457* | *91* |
| *Calcium* | *603* | *610* | *101* |
| *Cobalt* | *0.500* | *0.448* | *90* |
| *Copper* | *0.500* | *0.527* | *105* |
| *Iron* | *601* | *562* | *94* |
| *Lead* | *0.500* | *0.452* | *90* |
| *Lithium* | *0.500* | *0.485* | *97* |
| *Magnesium* | *603* | *581* | *96* |
| *Manganese* | *0.500* | *0.464* | *93* |
| *Molybdenum* | *0.500* | *0.510* | *102* |
| *Nickel* | *0.500* | *0.448* | *90* |
| *Phosphorus* | *0.500* | *0.492* | *98* |
| *Potassium* | *10.0* | *10.8* | *108* |
| *Selenium* | *0.500* | *0.458* | *92* |
| *Silicon* | *2.50* | *2.41* | *96* |
| *Silver* | *0.250* | *0.269* | *108* |
| *Sodium* | *10.0* | *10.5* | *105* |
| *Strontium* | *0.500* | *0.487* | *97* |
| *Thallium* | *0.500* | *0.426* | *85* |
| *Tin* | *0.500* | *0.460* | *92* |
| *Titanium* | *0.500* | *0.511* | *102* |
| *Tungsten* | *0.500* | *0.459* | *92* |
| *Vanadium* | *0.500* | *0.503* | *101* |
| *Zinc* | *0.500* | *0.471* | *94* |
| *Zirconium* | *0.500* | *0.407* | *81* |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Lab Sample ID: ICSA 440-453488/8  Instrument ID: ICP8

Lab File ID: 180123-4F.csv  ICS Source: ME ICP IFA_01794

Concentration Units: mg/L

| Analyte | True Solution A | Found Solution A | Found Percent Recovery |
|---|---|---|---|
| **Chromium** | | **0.0025** | |
| *Aluminum* | *600* | *596* | *99* |
| *Antimony* | | *-0.0005* | |
| *Arsenic* | | *-0.0096* | |
| *Barium* | | *0.0045* | |
| *Beryllium* | | *-0.0002* | |
| *Boron* | | *-0.0045* | |
| *Cadmium* | | *0.0029* | |
| *Calcium* | *600* | *611* | *102* |
| *Cobalt* | | *-0.0045* | |
| *Copper* | | *-0.0073* | |
| *Iron* | *600* | *569* | *95* |
| *Lead* | | *-0.0053* | |
| *Lithium* | | *-0.0554* | |
| *Magnesium* | *600* | *589* | *98* |
| *Manganese* | | *0.0027* | |
| *Molybdenum* | | *0.0061* | |
| *Nickel* | | *-0.0001* | |
| *Phosphorus* | | *-0.0057* | |
| *Potassium* | | *-0.197* | |
| *Selenium* | | *0.0094* | |
| *Silicon* | | *-0.0040* | |
| *Silver* | | *0.0005* | |
| *Sodium* | | *0.257* | |
| *Strontium* | | *-0.0140* | |
| *Thallium* | | *0.0069* | |
| *Tin* | | *-0.0144* | |
| *Titanium* | | *0.0010* | |
| *Tungsten* | | *-0.0109* | |
| *Vanadium* | | *0.0035* | |
| *Zinc* | | *0.0122* | |
| *Zirconium* | | *0.0020* | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Lab Sample ID: ICSAB 440-453488/9  Instrument ID: ICP8

Lab File ID: 180123-4F.csv  ICS Source: ME ICP IFB_01813

Concentration Units: mg/L

| Analyte | True Solution AB | Found Solution AB | Percent Recovery |
|---|---|---|---|
| **Chromium** | **0.500** | **0.477** | **95** |
| *Aluminum* | *601* | *567* | *94* |
| *Antimony* | *0.500* | *0.475* | *95* |
| *Arsenic* | *0.500* | *0.497* | *99* |
| *Barium* | *0.500* | *0.475* | *95* |
| *Beryllium* | *0.500* | *0.496* | *99* |
| *Boron* | *0.500* | *0.480* | *96* |
| *Cadmium* | *0.500* | *0.449* | *90* |
| *Calcium* | *603* | *595* | *99* |
| *Cobalt* | *0.500* | *0.442* | *88* |
| *Copper* | *0.500* | *0.515* | *103* |
| *Iron* | *601* | *559* | *93* |
| *Lead* | *0.500* | *0.444* | *89* |
| *Lithium* | *0.500* | *0.483* | *97* |
| *Magnesium* | *603* | *578* | *96* |
| *Manganese* | *0.500* | *0.441* | *88* |
| *Molybdenum* | *0.500* | *0.506* | *101* |
| *Nickel* | *0.500* | *0.441* | *88* |
| *Phosphorus* | *0.500* | *0.479* | *96* |
| *Potassium* | *10.0* | *10.9* | *109* |
| *Selenium* | *0.500* | *0.456* | *91* |
| *Silicon* | *2.50* | *2.32* | *93* |
| *Silver* | *0.250* | *0.263* | *105* |
| *Sodium* | *10.0* | *10.5* | *105* |
| *Strontium* | *0.500* | *0.493* | *99* |
| *Thallium* | *0.500* | *0.457* | *91* |
| *Tin* | *0.500* | *0.449* | *90* |
| *Titanium* | *0.500* | *0.500* | *100* |
| *Tungsten* | *0.500* | *0.450* | *90* |
| *Vanadium* | *0.500* | *0.492* | *98* |
| *Zinc* | *0.500* | *0.448* | *90* |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: VER-01I-C-36 MS | Lab ID: 440-201049-3 MS

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Matrix: Water | Concentration Units: mg/L

% Solids:

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 12.4 | | 12 | | 1.00 | 39 | 75-125 | 4 | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 440-200988-G-1-B MS ^5

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.: _____

Matrix: Water Concentration Units: mg/L

% Solids: _____

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 8.76 | | 8.7 | | 1.00 | 5 | 75-125 | 4 | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: VER-01I-C-36 MSD
Lab ID: 440-201049-3 MSD
Lab Name: TestAmerica Irvine
Job No.: 440-201049-1
SDG No.:
Matrix: Water
Concentration Units: mg/L
% Solids:

| Analyte | (SDR) C | | Spike Added (SA) | %R | Control Limit %R | RPD | RPD Limit | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 12.4 | | 1.00 | 41 | 75-125 | 0 | 20 | 4 | 6010B |

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 440-200988-G-1-C MSD ^5

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.: _____

Matrix: Water Concentration Units: mg/L

% Solids: _____

| Analyte | (SDR) C | | Spike Added (SA) | %R | Control Limit %R | RPD | RPD Limit | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 8.91 | | 1.00 | 20 | 75-125 | 2 | 20 | 4 | 6010B |

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: VER-01I-C-36 PDS | Lab ID: 440-201049-3 PDS

Lab Name: TestAmerica Irvine | Job No.: 440-201049-1

SDG No.:

Matrix: Water | Concentration Units: mg/L

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 12.2 | | 12 | | 1.00 | NC | 80-120 | | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: _____ Lab ID: 440-200988-G-1-D PDS ^5

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.: _____

Matrix: Water Concentration Units: mg/L

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 8.94 | | 8.7 | | 1.00 | 23 | 80-120 | W | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 440-452668/2-A

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

Sample Matrix: Water  LCS Source: ME ICP2 ICV1A_00051

| Analyte | Water(mg/L) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | True | Found | C | %R | Limits | | Q | Method |
| Chromium | 1.00 | 0.949 | | 95 | 80 | 120 | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 440-452988/2-A

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

Sample Matrix: Water  LCS Source: ME ICP2 ICV1A_00051

| Analyte | Water(mg/L) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | True | Found | C | %R | Limits | | Q | Method |
| Chromium | 1.00 | 0.951 | | 95 | 80 | 120 | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 440-201049-3

SDG No:

Lab Name: TestAmerica Irvine Job No: 440-201049-1

Matrix: Water Concentration Units: mg/L

| Analyte | Initial Sample Result (I) | C | Serial Dilution Result (S) | C | % Difference | Q | Method |
|---|---|---|---|---|---|---|---|
| Chromium | 12 | | 12.1 | | 0.48 | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 440-200988-G-1-A SD ^25

SDG No:

Lab Name: TestAmerica Irvine Job No: 440-201049-1

Matrix: Water Concentration Units: mg/L

| Analyte | Initial Sample Result (I) | C | Serial Dilution Result (S) | C | % Difference | Q | Method |
|---|---|---|---|---|---|---|---|
| Chromium | 8.7 | | 8.67 | | 0.46 | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine  Job Number: 440-201049-1

SDG Number:

Matrix: Water  Instrument ID: ICP8

Method: 6010B  MDL Date: 06/15/2017 17:45

Prep Method: 3005A

| Analyte | Wavelength/ Mass | RL (mg/L) | MDL (mg/L) |
|---|---|---|---|
| Chromium | 205.552 | 0.005 | 0.0025 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine  Job Number: 440-201049-1

SDG Number:

Matrix: Water  Instrument ID: ICP8

Method: 6010B  XMDL Date: 06/15/2017 17:46

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Chromium | 205.552 | 0.005 | 0.0025 |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-201049-1

SDG No.:

ICP-AES Instrument ID: ICP8 Date: 01/19/2018

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 396.152 | | 0.000013 | -0.000018 | 0.000025 | 0.000008 | -0.000036 | 0.000046 | 0 | 0.02689 | -0.000079 | -0.000019 | -0.000203 | 0.000009 | 0.001073 |
| Antimony | 206.834 | 0.000009 | 0.000003 | 0.000006 | 0.010395 | 0.000062 | -0.00006 | -0.000002 | -0.000075 | -0.01878 | -0.000037 | 0.000237 | 0.000208 | 0.00005 | -0.000369 |
| Arsenic | 188.980 | 0.000011 | -0.000005 | -0.000018 | -0.012816 | 0.00004 | 0.000016 | 0.000008 | -0.000015 | 0.000025 | 0.000095 | -0.000094 | -0.000062 | -0.000062 | 0.000903 |
| Barium | 233.527 | 0 | 0 | -0.000006 | -0.000002 | 0.000001 | 0.000001 | 0.000001 | 0 | -0.000191 | -0.000007 | -0.000001 | 0.000003 | -0.000164 | 0.000137 |
| Beryllium | 234.861 | 0 | 0 | 0.000004 | 0 | 0 | 0.0000181 | 0 | -0.000003 | -0.000013 | -0.000018 | 0.000001 | 0.000003 | 0.000001 | 0.000004 |
| Boron | 249.678 | 0 | 0.000001 | 0.00088 | 0.000452 | -0.00002 | -0.000089 | 0 | -0.00007 | -0.000017 | -0.000005 | -0.000014 | -0.00003 | -0.000018 | -0.010398 |
| Cadmium | 214.439 | -0.000001 | 0 | 0.000002 | -0.000009 | -0.000003 | 0.000011 | 0 | 0.000001 | -0.000006 | 0.000004 | 0.000001 | 0.000005 | 0.000002 | -0.000056 |
| Calcium | 422.673 | -0.000006 | | 0.000876 | 0.000377 | -0.000272 | -0.000064 | 0.000039 | -0.000053 | -0.000524 | -0.000396 | -0.000114 | -0.000132 | 0.000387 | -0.000193 |
| Chromium | 205.560 | 0.000001 | 0.000003 | -0.000007 | | 0.000042 | 0.000004 | 0 | 0.000025 | -0.000681 | -0.000317 | 0.000014 | 0.000028 | -0.000018 | 0.000386 |
| Cobalt | 228.615 | 0 | 0.000001 | | 0.000085 | 0.000016 | 0.000008 | 0.000002 | -0.000003 | 0.000019 | 0.000157 | 0.000002 | 0.001777 | -0.000007 | 0.000113 |
| Copper | 324.754 | 0.000001 | -0.000019 | 0.000014 | 0.000019 | | 0.000022 | 0.000002 | 0.000013 | 0.000217 | 0.000018 | 0.000014 | 0.000206 | -0.000092 | 0.00002 |
| Iron | 238.204 | -0.000007 | 0.000002 | -0.000338 | -0.000187 | -0.00013 | | 0.000024 | 0.000002 | -0.000162 | -0.000109 | -0.000119 | -0.000132 | -0.000188 | -0.000132 |
| Lead | 220.353 | -0.000039 | 0.000003 | -0.000498 | 0 | 0.000033 | -0.000033 | 0.000011 | 0.000209 | -0.000819 | -0.000019 | 0.000021 | -0.000428 | -0.000038 | -0.000096 |
| Lithium | 670.783 | 0.000054 | 0.000021 | -0.000148 | -0.00023 | -0.001097 | -0.000003 | 0.000057 | -0.000518 | -0.000367 | -0.000358 | -0.001101 | 0.000381 | -0.001377 | -0.000136 |
| Magnesium | 279.078 | -0.00001 | 0.000007 | -0.000382 | -0.000435 | -0.0001 | -0.000217 | | 0.000627 | -0.000188 | -0.000014 | -0.000068 | -0.000188 | 0.000112 | -0.00038 |
| Manganese | 259.372 | 0 | 0.000001 | 0.00001 | -0.000007 | -0.000001 | 0.00171 | 0.000036 | | 0.004715 | 0.000013 | 0.000005 | 0.000019 | 0.00001 | 0.000005 |
| Molybdenum | 204.598 | 0.000025 | 0 | 0.000039 | 0.000067 | 0.000001 | 0.000004 | 0 | 0.000022 | | 0.000085 | -0.000008 | 0.00005 | -0.000031 | 0.000033 |
| Nickel | 231.604 | 0.000001 | -0.000003 | -0.000756 | 0.000004 | -0.000028 | 0.000004 | -0.000002 | -0.000049 | -0.000042 | | 0.00006 | 0.000011 | -0.000001 | -0.000013 |
| Phosphorus | 213.618 | 0.000001 | -0.000013 | 0.000141 | 0.000127 | -0.03762 | -0.000018 | 0.000004 | -0.000139 | -0.020778 | 0.000094 | -0.000098 | 0.000151 | 0.00024 | -0.000573 |
| Potassium | 744.491 | 0.000095 | 0.000087 | 0.002408 | 0.001429 | -0.000339 | 0.000196 | 0.000277 | -0.000372 | -0.001987 | 0.001312 | 0.001861 | 0.001852 | 0.001103 | 0.001579 |
| Selenium | 196.026 | -0.000006 | -0.000007 | -0.00066 | -0.000051 | -0.000107 | -0.00019 | -0.000001 | 0.000565 | -0.000003 | -0.000241 | 0 | -0.000066 | -0.000483 | 0.009364 |
| Silicon | 251.611 | 0.000013 | 0.00002 | 0.000136 | 0.000095 | 0.000162 | -0.000038 | 0.000048 | 0.000255 | 0.010982 | 0.000192 | 0.000679 | 0.004127 | 0.000213 | 0.053502 |
| Silver | 328.068 | 0 | -0.000003 | -0.000013 | -0.000026 | -0.000003 | -0.000007 | -0.000002 | 0.000075 | 0.000029 | 0.000003 | -0.000009 | -0.000107 | 0.000009 | 0.000009 |
| Sodium | 589.592 | 0.00003 | 0.000041 | 0.000558 | 0.000239 | 0.000428 | 0.000025 | 0.000018 | 0.000127 | 0.002128 | 0.000479 | 0.000076 | 0.000228 | -0.00004 | 0.006467 |
| Strontium | 421.552 | 0 | 0.00003 | 0.000002 | 0.000003 | -0.000001 | 0.00000 | 0 | 0 | 0.000001 | 0.000002 | 0.000002 | 0.000001 | 0 | 0.000017 |
| Thallium | 190.794 | -0.000001 | -0.000005 | 0.003078 | 0.000156 | -0.000039 | 0 | 0.000005 | 0.001388 | 0.000096 | -0.000005 | -0.000043 | -0.010982 | -0.02142 | 0.000265 |
| Tin | 189.925 | 0.000001 | 0 | 0.000083 | 0.000021 | 0.000021 | 0.000006 | 0.000003 | 0.000047 | 0.000038 | 0.000039 | | -0.000119 | 0.000028 | 0.000028 |
| Titanium | 336.122 | 0 | -0.000008 | -0.000017 | -0.000029 | 0.000002 | 0.000001 | 0 | 0.000005 | -0.00012 | -0.000039 | 0.000005 | | -0.000364 | 0.000399 |
| Tungsten | 207.912 | -0.000006 | -0.000009 | -0.000082 | -0.000001 | -0.000042 | 0 | -0.000001 | -0.000021 | 0.000144 | -0.000024 | -0.000005 | -0.000009 | -0.000019 | |
| Vanadium | 292.401 | 0.000004 | 0.000038 | 0.000001 | 0.000214 | 0.000012 | 0.000007 | 0.000002 | 0.000014 | -0.008504 | 0.000003 | 0.000009 | 0.000907 | | 0.000183 |

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-201049-1

SDG No.:

ICP-AES Instrument ID: ICP8 Date: 01/19/2018

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | 0 | 0 | 0 | 0 | 0 | -0.000005 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Zinc | 202.548 | 0.000003 | 0.000003 | 0.000013 | -0.001604 | 0.0078 | -0.00000167 | 0.000028 | 0.000044 | 0.00007 | -0.000062 | 0.000012 | 0.000048 | 0.000036 | 0.000339 |
| Zirconium | 343.823 | 0 | 0.000002 | -0.000097 | 0.000005 | 0.000002 | 0.000012 | 0 | -0.000025 | -0.000012 | -0.000009 | 0.000007 | -0.000025 | 0.000005 | 0.000085 |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-201049-1

SDG No.:

ICP-AES Instrument ID: ICP8 Date: 01/19/2018

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 396.152 | -0.00005 | 0.008541 | | | | | | | | | | | | |
| Antimony | 206.834 | 0.000096 | -0.000086 | | | | | | | | | | | | |
| Arsenic | 188.980 | -0.000075 | 0.000125 | | | | | | | | | | | | |
| Barium | 233.527 | 0.000001 | -0.000001 | | | | | | | | | | | | |
| Beryllium | 234.861 | 0.000001 | 0.000006 | | | | | | | | | | | | |
| Boron | 249.678 | 0.00002 | 0.000445 | | | | | | | | | | | | |
| Cadmium | 214.439 | 0.000005 | 0.000001 | | | | | | | | | | | | |
| Calcium | 422.673 | -0.000066 | -0.000488 | | | | | | | | | | | | |
| Chromium | 205.560 | 0.000037 | 0.000101 | | | | | | | | | | | | |
| Cobalt | 228.615 | -0.000013 | -0.000003 | | | | | | | | | | | | |
| Copper | 324.754 | 0.000016 | 0.00004 | | | | | | | | | | | | |
| Iron | 238.204 | 0.00011 | 0.000622 | | | | | | | | | | | | |
| Lead | 220.353 | -0.000028 | -0.000005 | | | | | | | | | | | | |
| Lithium | 670.783 | -0.00073 | -0.000634 | | | | | | | | | | | | |
| Magnesium | 279.078 | -0.000119 | -0.000067 | | | | | | | | | | | | |
| Manganese | 259.372 | 0.000005 | 0.000048 | | | | | | | | | | | | |
| Molybdenum | 204.598 | 0.000052 | 0.000002 | | | | | | | | | | | | |
| Nickel | 231.604 | 0.000023 | 0.000028 | | | | | | | | | | | | |
| Phosphorus | 213.618 | -0.00009 | 0.000028 | | | | | | | | | | | | |
| Potassium | 744.491 | -0.001412 | 0.000491 | | | | | | | | | | | | |
| Selenium | 196.026 | -0.000101 | -0.000166 | | | | | | | | | | | | |
| Silicon | 251.611 | 0.001039 | 0.006759 | | | | | | | | | | | | |
| Silver | 328.068 | 0.000001 | 0.003947 | | | | | | | | | | | | |
| Sodium | 589.592 | -0.000112 | 0.000318 | | | | | | | | | | | | |
| Strontium | 421.552 | 0 | -0.00002 | | | | | | | | | | | | |
| Thallium | 190.794 | -0.000027 | 0.000028 | | | | | | | | | | | | |
| Tin | 189.925 | 0.000048 | 0.000557 | | | | | | | | | | | | |
| Titanium | 336.122 | 0.000006 | 0.000122 | | | | | | | | | | | | |
| Tungsten | 207.912 | 0.008281 | 0.000004 | | | | | | | | | | | | |
| Vanadium | 292.401 | 0.000024 | -0.000008 | | | | | | | | | | | | |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-201049-1

SDG No.:

ICP-AES Instrument ID: ICP8 Date: 01/19/2018

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | 0 | 0 | | | | | | | | | | | | |
| Zinc | 202.548 | | 0.000117 | | | | | | | | | | | | |
| Zirconium | 343.823 | 0.000003 | | | | | | | | | | | | | |

X-IN

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Irvine Job No: 440-201049-1

SDG No.:

Instrument ID: ICP8 Date: 06/15/2017 18:16

| Analyte | Integ. Time (Sec.) | Concentration (mg/L) | Method |
|---|---|---|---|
| Chromium | | 30 | 6010B |

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Prep Method: 3005A

| Lab Sample ID | Preparation Date | Prep Batch | Initial Weight | Initial Volume (mL) | Final Volume (mL) |
|---|---|---|---|---|---|
| MB 440-452668/1-A | 01/19/2018 10:59 | 452668 | | 25 | 25 |
| LCS 440-452668/2-A | 01/19/2018 10:59 | 452668 | | 25 | 25 |
| 440-200988-G-1-B MS ^5 | 01/19/2018 10:59 | 452668 | | 25 | 25 |
| 440-200988-G-1-C MSD ^5 | 01/19/2018 10:59 | 452668 | | 25 | 25 |
| 440-201049-1 | 01/19/2018 10:59 | 452668 | | 25 | 25 |

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Irvine Job No.: 440-201049-1

SDG No.:

Prep Method: 3005A

| Lab Sample ID | Preparation Date | Prep Batch | Initial Weight | Initial Volume (mL) | Final Volume (mL) |
|---|---|---|---|---|---|
| MB 440-452988/1-A | 01/22/2018 10:36 | 452988 | | 25 | 25 |
| LCS 440-452988/2-A | 01/22/2018 10:36 | 452988 | | 25 | 25 |
| 440-201049-3 | 01/22/2018 10:36 | 452988 | | 25 | 25 |
| 440-201049-3 MS | 01/22/2018 10:36 | 452988 | | 25 | 25 |
| 440-201049-3 MSD | 01/22/2018 10:36 | 452988 | | 25 | 25 |

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Instrument ID: ICP8  Analysis Method: 6010B

Start Date: 01/19/2018 09:18  End Date: 01/19/2018 20:24

| Lab Sample Id | D/F | Type | Time | Analytes |
|---|---|---|---|---|
| | | | | Cr |
| ICIS 440-452846/1 | 1 | | 09:18 | X |
| STD1 440-452846/2 IC | | | 09:20 | X |
| STD2 440-452846/3 IC | | | 09:22 | X |
| STD3 440-452846/4 IC | | | 09:24 | X |
| ICV 440-452846/5 | 1 | | 09:26 | X |
| ZZZZZZ | | | 09:29 | |
| ZZZZZZ | | | 09:33 | |
| ICB 440-452846/8 | 1 | | 09:38 | X |
| ICSA 440-452846/9 | 1 | | 09:40 | X |
| ZZZZZZ | | | 09:42 | |
| ICSAB 440-452846/11 | 1 | | 09:46 | X |
| ZZZZZZ | | | 09:48 | |
| RINSE 440-452846/13 | | | 09:50 | |
| ZZZZZZ | | | 09:54 | |
| CRI 440-452846/15 | 1 | | 09:56 | X |
| CCV 440-452846/16 | | | 17:39 | |
| CCB 440-452846/17 | | | 17:41 | |
| ZZZZZZ | | | 17:52 | |
| ZZZZZZ | | | 17:55 | |
| ZZZZZZ | | | 17:57 | |
| ZZZZZZ | | | 18:00 | |
| ZZZZZZ | | | 18:02 | |
| ZZZZZZ | | | 18:05 | |
| ZZZZZZ | | | 18:08 | |
| ZZZZZZ | | | 18:10 | |
| CCV 440-452846/26 | 1 | | 18:38 | X |
| CCB 440-452846/27 | 1 | | 18:41 | X |
| MB 440-452668/1-A | 1 | R | 19:03 | X |
| LCS 440-452668/2-A | 1 | R | 19:05 | X |
| ZZZZZZ | | | 19:08 | |
| 440-200988-G-1-B MS ^5 | 5 | R | 19:11 | X |
| 440-200988-G-1-C MSD ^5 | 5 | R | 19:13 | X |
| 440-200988-G-1-D PDS ^5 | 5 | R | 19:16 | X |
| 440-200988-G-1-A SD ^25 | 25 | R | 19:18 | X |
| ZZZZZZ | | | 19:21 | |
| 440-201049-1 | 5 | R | 19:24 | X |
| ZZZZZZ | | | 19:26 | |
| CCV 440-452846/38 | 1 | | 19:29 | X |
| CCB 440-452846/39 | 1 | | 19:31 | X |
| ZZZZZZ | | | 19:34 | |
| ZZZZZZ | | | 19:37 | |
| ZZZZZZ | | | 19:39 | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Instrument ID: ICP8  Analysis Method: 6010B

Start Date: 01/19/2018 09:18  End Date: 01/19/2018 20:24

| Lab Sample Id | D/F | Type | Time | Analytes |
|---|---|---|---|---|
| | | | | Cr |
| ZZZZZZ | | | 19:42 | |
| ZZZZZZ | | | 19:44 | |
| ZZZZZZ | | | 19:47 | |
| ZZZZZZ | | | 19:50 | |
| ZZZZZZ | | | 19:52 | |
| ZZZZZZ | | | 19:55 | |
| ZZZZZZ | | | 19:57 | |
| CCV 440-452846/50 | | | 20:00 | |
| CCB 440-452846/51 | | | 20:03 | |
| ZZZZZZ | | | 20:05 | |
| ZZZZZZ | | | 20:08 | |
| ZZZZZZ | | | 20:10 | |
| ZZZZZZ | | | 20:13 | |
| ZZZZZZ | | | 20:16 | |
| ZZZZZZ | | | 20:18 | |
| CCV 440-452846/58 | | | 20:21 | |
| CCB 440-452846/59 | | | 20:24 | |

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Instrument ID: ICP8  Analysis Method: 6010B

Start Date: 01/23/2018 12:09  End Date: 01/23/2018 19:50

| Lab Sample Id | D/F | Type | Time | Analytes |
|---|---|---|---|---|
| | | | | Cr |
| ICIS 440-453488/1 | 1 | | 12:09 | X |
| STD1 440-453488/2 IC | | | 12:11 | X |
| STD2 440-453488/3 IC | | | 12:13 | X |
| STD3 440-453488/4 IC | | | 12:15 | X |
| ICV 440-453488/5 | 1 | | 12:17 | X |
| ZZZZZZ | | | 12:40 | |
| ICB 440-453488/7 | 1 | | 12:44 | X |
| ICSA 440-453488/8 | 1 | | 12:49 | X |
| ICSAB 440-453488/9 | 1 | | 12:51 | X |
| ZZZZZZ | | | 12:54 | |
| RINSE 440-453488/11 | | | 12:56 | |
| ZZZZZZ | | | 12:58 | |
| CRI 440-453488/13 | 1 | | 13:00 | X |
| CCV 440-453488/14 | | | 18:31 | |
| CCB 440-453488/15 | | | 18:33 | |
| ZZZZZZ | | | 18:40 | |
| ZZZZZZ | | | 18:42 | |
| ZZZZZZ | | | 18:44 | |
| ZZZZZZ | | | 18:46 | |
| ZZZZZZ | | | 18:48 | |
| ZZZZZZ | | | 18:50 | |
| ZZZZZZ | | | 18:52 | |
| CCV 440-453488/23 | 1 | | 18:54 | X |
| CCB 440-453488/24 | 1 | | 18:56 | X |
| MB 440-452988/1-A | 1 | R | 19:00 | X |
| LCS 440-452988/2-A | 1 | R | 19:02 | X |
| 440-201049-3 | 5 | R | 19:04 | X |
| 440-201049-3 MS | 5 | R | 19:06 | X |
| 440-201049-3 MSD | 5 | R | 19:08 | X |
| 440-201049-3 PDS | 5 | R | 19:10 | X |
| 440-201049-3 SD | 25 | R | 19:12 | X |
| ZZZZZZ | | | 19:14 | |
| ZZZZZZ | | | 19:16 | |
| ZZZZZZ | | | 19:19 | |
| CCV 440-453488/35 | 1 | | 19:21 | X |
| ZZZZZZ | | | 19:23 | |
| CCB 440-453488/37 | 1 | | 19:29 | X |
| ZZZZZZ | | | 19:31 | |
| ZZZZZZ | | | 19:34 | |
| ZZZZZZ | | | 19:36 | |
| ZZZZZZ | | | 19:38 | |
| ZZZZZZ | | | 19:40 | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Instrument ID: ICP8  Analysis Method: 6010B

Start Date: 01/23/2018 12:09  End Date: 01/23/2018 19:50

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Cr | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:42 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 440-453488/44 | | | 19:48 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 440-453488/45 | | | 19:50 | | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
R = Total Recoverable

FORM XIII-IN

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Batch Number: 452668  Batch Start Date: 01/19/18 10:59  Batch Analyst: Nakhaei, Mahmoud

Batch Method: 3005A  Batch End Date: 01/19/18 16:52

| Lab Sample ID | Client Sample ID | Method Chain | Basis | Initial pH | InitialAmount | FinalAmount | ME HCl 00393 | ME HNO3 00412 | ME ICP2 ICV1A 00051 |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-452668/1 | | 3005A, 6010B | | | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| LCS 440-452668/2 | | 3005A, 6010B | | | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 0.25 mL |
| 440-200988-G-1 MS | | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 0.25 mL |
| 440-200988-G-1 MSD | | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 0.25 mL |
| 440-201049-G-1 | VER-01I-C-24 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| 440-200988-G-1 PDS | | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 0.25 mL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | ME ICP2 ICV1B 00045 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-452668/1 | | 3005A, 6010B | | | | | | | |
| LCS 440-452668/2 | | 3005A, 6010B | | 0.25 mL | | | | | |
| 440-200988-G-1 MS | | 3005A, 6010B | R | 0.25 mL | | | | | |
| 440-200988-G-1 MSD | | 3005A, 6010B | R | 0.25 mL | | | | | |
| 440-201049-G-1 | VER-01I-C-24 | 3005A, 6010B | R | | | | | | |
| 440-200988-G-1 PDS | | 3005A, 6010B | R | 0.25 mL | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Batch Number: 452668  Batch Start Date: 01/19/18 10:59  Batch Analyst: Nakhaei, Mahmoud

Batch Method: 3005A  Batch End Date: 01/19/18 16:52

| Batch Notes | |
|---|---|
| Temperature - Corrected - End | 93 Degrees C |
| Temperature - Corrected - Start | 95 Degrees C |
| Digestion End Time | 01/19/2018 16:20 |
| Digestion Start Time | 01/19/2018 12:05 |
| Digestion Unit ID | 9 |
| Hydrochloric Acid ID | 0000183197 |
| Nitric Acid ID | 0000185595 |
| Pipette/Syringe/Dispenser ID | 201 |
| Thermometer ID | P-112, Loc A4, CF=-1 |
| Digestion Tube/Cup ID | 1707186 |
| Temperature - Uncorrected - End | 94 Degrees C |
| Temperature - Uncorrected - Start | 96 Degrees C |

| Basis | Basis Description |
|---|---|
| R | Total Recoverable |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Batch Number: 452988  Batch Start Date: 01/22/18 10:36  Batch Analyst: Lopez-Canseco, Jessica

Batch Method: 3005A  Batch End Date: 01/22/18 16:08

| Lab Sample ID | Client Sample ID | Method Chain | Basis | Initial pH | InitialAmount | FinalAmount | ME HCl 00393 | ME HNO3 00412 | ME ICP2 ICV1A 00051 |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-452988/1 | | 3005A, 6010B | | | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| LCS 440-452988/2 | | 3005A, 6010B | | | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-201049-G-3 | VER-01I-C-36 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| 440-201049-G-3 MS | VER-01I-C-36 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-201049-G-3 MSD | VER-01I-C-36 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |
| 440-201049-G-3 PDS | VER-01I-C-36 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 250 uL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | ME ICP2 ICV1B 00045 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-452988/1 | | 3005A, 6010B | | | | | | | |
| LCS 440-452988/2 | | 3005A, 6010B | | 250 uL | | | | | |
| 440-201049-G-3 | VER-01I-C-36 | 3005A, 6010B | R | | | | | | |
| 440-201049-G-3 MS | VER-01I-C-36 | 3005A, 6010B | R | 250 uL | | | | | |
| 440-201049-G-3 MSD | VER-01I-C-36 | 3005A, 6010B | R | 250 uL | | | | | |
| 440-201049-G-3 PDS | VER-01I-C-36 | 3005A, 6010B | R | 250 uL | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201049-1

SDG No.:

Batch Number: 452988  Batch Start Date: 01/22/18 10:36  Batch Analyst: Lopez-Canseco, Jessica

Batch Method: 3005A  Batch End Date: 01/22/18 16:08

| Batch Notes | |
|---|---|
| Temperature - Corrected - End | 93 Degrees C |
| Temperature - Corrected - Start | 93 Degrees C |
| Digestion End Time | 01/22/2018 16:00 |
| Digestion Start Time | 01/22/2018 12:00 |
| Digestion Unit ID | 7 |
| Hydrochloric Acid ID | 0000183197 |
| Nitric Acid ID | 0000185595 |
| Pipette/Syringe/Dispenser ID | #201 |
| Thermometer ID | P-115 Loc A6 CF= 0.00 |
| Digestion Tube/Cup ID | 1707186 |
| Temperature - Uncorrected - End | 93 Degrees C |
| Temperature - Uncorrected - Start | 93 Degrees C |

| Basis | Basis Description |
|---|---|
| R | Total Recoverable |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Shipping and Receiving Documents

stAmerica Irvine
/461 Deran Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information | Sampler | Lab PM | Carrier Tracking No(s) | COC No |
|---|---|---|---|---|
| Client Contact: Carl Lenker | Jeff Richeson | Mata, Patty | | Page 1 of 2 |
| Company: Tetra Tech, Inc. | Phone: (805) 660-1774 | E-Mail: patty.mata@testamericainc.com | | Job # |

| Address | Due Date Requested: |
|---|---|
| 17885 Von Karman Ave, Ste 500 | |
| City: Irvine | TAT Requested (days): |
| State, Zip: CA, 92614 | |
| Phone: 949-809-5000(Tel) | PO #: |
| Email: Carl Lenker@tetratech.com | WO #: |
| Project Name: NERT VER Treatability Study | Project #: M16 |
| Site: NERT | SSOW#: |

**Analysis Requested**

| Sample Identification | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 7199_ORGFM - Chromium, hexavalent | 314.0_LL - Perchlorate | E300.1 Chlorate and Chlorite | SW846 5035A VOCs | 200.7 Total Chromium | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | N | N | L | A | D | | |
| VER-01I-C-24 | 01/16/18 | 0330 | G | W | Y | | X | X | X | X | X | 7 | |
| TB-011618 | 01/16/18 | 0334 | G | W | | | | | | X | | 2 | |

Preservation Codes:

| | |
|---|---|
| A - HCL | M - Hexane |
| B - NaOH | N - None |
| C - Zn Acetate | O - AsNaO2 |
| D - Nitric Acid | P - Na2O4S |
| E - NaHSO4 | Q - Na2SO3 |
| F - MeOH | R - Na2S2O3 |
| G - Amchlor | S - H2SO4 |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice | U - Acetone |
| J - DI Water | V - MCAA |
| K - EDTA | W - pH 4-5 |
| L - EDA | Z - other (specify) |

Other:

00 11/16/18

440-201049 Chain of Custody

***Possible Hazard Identification***
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

***Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)***
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment |
|---|---|---|---|
| | | | |

| | Date/Time | Company | Received by | Date/Time | Company |
|---|---|---|---|---|---|
| Relinquished by: | 01/16/18 1150 | Tetra Tech | | 1-16-18 1150 | TALVS |
| Relinquished by: | 1-16-18 1245 | TALVS | | | |
| Relinquished by: | | | Received by: | 01/16/18 1915 | TARV |

Custody Seals Intact: △ Yes △ No

Custody Seal No.: TWA: 526 00604 00604

Cooler Temperature(s) °C and Other Remarks: TALVS 16.3 3.3/3.3

**TestAmerica Irvine**
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information | Sampler: Jeff Richeson | Lab PM: Mata, Patty | Carrier Tracking No(s): | COC No: |
|---|---|---|---|---|
| Client Contact: Carl Lenker | Phone: (805) 660-1774 | E-Mail: patty.mata@testamericainc.com | | Page: 4 of 4 |
| Company: Tetra Tech, Inc. | | | | Job # |
| Address: 17885 Von Karman Ave, Ste 500 | Due Date Requested: | | | |
| City: Irvine | TAT Requested (days): | | | |
| State, Zip: CA, 92614 | | | | |
| Phone: 949-809-5000(Tel) | PO # | | | |
| Email: Carl.Lenker@tetratech.com | WO #: | | | |
| Project Name: NERT VER Treatability Study | Project #: M16 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

| | |
|---|---|
| A - HCL | M - Hexane |
| B - NaOH | N - None |
| C - Zn Acetate | O - AsNaO2 |
| D - Nitric Acid | P - Na2O4S |
| E - NaHSO4 | Q - Na2SO3 |
| F - MeOH | R - Na2S2O3 |
| G - Amchlor | S - H2SO4 |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice | U - Acetone |
| J - DI Water | V - MCAA |
| K - EDTA | W - pH 4-5 |
| L - EDA | Z - other (specify) |

Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 7199_ORGFM - Chromium, hexavalent | 314.0_LL - Perchlorate | E300.1 Chlorate and Chlorite | SW846 5035A VOCs | 200.7 Total Chromium | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | X | X | N | N | L | A | D | X | |
| VER-02I-C-36 | 1/16/18 | 1530 | G | W | X | X | X | X | X | X | X | 14 | |

440-201049 Chain of Custody

**Possible Hazard Identification**
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment |
|---|---|---|---|

| | Date/Time | Company | Received by | Date/Time | Company |
|---|---|---|---|---|---|
| Relinquished by: | 1/16/18 1520 | Tetra Tech | | 1-16-18 1520 | TALVS |
| Relinquished by: | 1-16-18 1700 | TALVS | | 1/17/18 0700 | TAPN |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.: SWA-520 60064 0053

Cooler Temperature(s) °C and Other Remarks: 1.8-1.1-1.1 TALVS 19.8

# Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 440-201049-1

**Login Number: 201049**
**List Number: 1**
**Creator: Soderblom, Tim**

**List Source: TestAmerica Irvine**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | N/A | Not present |
| Sample custody seals, if present, are intact. | N/A | Not Present |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

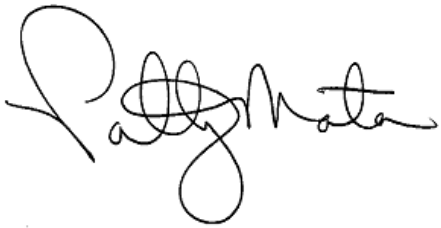
# ANALYTICAL REPORT

Job Number: 440-201313-1

Job Description: NERT VER Treatability Study

For:
Tetra Tech, Inc.
17885 Von Karman Ave, Ste 500
Irvine, CA 92614

Attention: Jeff Richeson



Approved for release.
Patty Mata
Senior Project Manager
1/29/2018 9:23 AM

Patty Mata, Senior Project Manager
17461 Derian Ave, Irvine, CA, 92614-5817
patty.mata@testamericainc.com
01/29/2018

# Table of Contents


Cover Title Page . . . . . 1

Data Summaries . . . . . 6

Definitions . . . . . 6

Case Narrative . . . . . 7

Detection Summary . . . . . 8

Client Sample Results . . . . . 9

Default Detection Limits . . . . . 15

Surrogate Summary . . . . . 17

QC Sample Results . . . . . 18

QC Association . . . . . 31

Chronicle . . . . . 33

Certification Summary . . . . . 34

Method Summary . . . . . 35

Sample Summary . . . . . 36

Manual Integration Summary . . . . . 37

Reagent Traceability . . . . . 48

Organic Sample Data . . . . . 93

GC/MS VOA . . . . . 93

Method 8260B Low Level . . . . . 93

Method 8260B Low Level QC Summary . . . . . 94

Method 8260B Low Level Sample Data . . . . . 118

Standards Data . . . . . 130

Method 8260B Low Level ICAL Data . . . . . 130

Method 8260B Low Level CCAL Data . . . . . 162

Raw QC Data . . . . . 174

Method 8260B Low Level Blank Data . . . . . 174

# Table of Contents


Method 8260B Low Level LCS/LCSD Data . . . . . 178

Method 8260B Low Level MS/MSD Data . . . . . 182

Method 8260B Low Level Run Logs . . . . . 190

Method 8260B Low Level Prep Data . . . . . 194

HPLC/IC . . . . . 198

314.0_LL . . . . . 198

314.0_LL QC Summary . . . . . 199

314.0_LL Sample Data . . . . . 205

Standards Data . . . . . 207

314.0_LL ICAL Data . . . . . 207

314.0_LL CCAL Data . . . . . 210

Raw QC Data . . . . . 218

314.0_LL Blank Data . . . . . 218

314.0_LL LCS/LCSD Data . . . . . 222

314.0_LL MS/MSD Data . . . . . 225

314.0_LL Run Logs . . . . . 227

Method 7199 . . . . . 230

Method 7199 QC Summary . . . . . 231

Method 7199 Sample Data . . . . . 242

Standards Data . . . . . 244

Method 7199 ICAL Data . . . . . 244

Method 7199 CCAL Data . . . . . 250

Raw QC Data . . . . . 268

Method 7199 Blank Data . . . . . 268

Method 7199 LCS/LCSD Data . . . . . 277

Method 7199 MS/MSD Data . . . . . 281

# Table of Contents


Method 7199 Run Logs . . . . . 285

Method 300.1 . . . . . 293

Method 300.1 QC Summary . . . . . 294

Method 300.1 Sample Data . . . . . 305

Standards Data . . . . . 309

Method 300.1 ICAL Data . . . . . 309

Method 300.1 CCAL Data . . . . . 315

Raw QC Data . . . . . 335

Method 300.1 Blank Data . . . . . 335

Method 300.1 LCS/LCSD Data . . . . . 345

Method 300.1 MS/MSD Data . . . . . 349

Method 300.1 Run Logs . . . . . 353

Inorganic Sample Data . . . . . 358

Metals Data . . . . . 358

Met Cover Page . . . . . 359

Met Sample Data . . . . . 360

Met QC Data . . . . . 362

Met ICV/CCV . . . . . 362

Met CRQL . . . . . 363

Met Blanks . . . . . 364

Met ICSA/ICSAB . . . . . 366

Met MS/MSD/PDS . . . . . 368

Met LCS/LCSD . . . . . 371

Met Serial Dilution . . . . . 372

Met MDL . . . . . 373

Met IECF . . . . . 375

# Table of Contents


Met Linear Ranges . . . . . 379

Met Preparation Log . . . . . 380

Met Analysis Run Log . . . . . 381

Met Prep Data . . . . . 382

Shipping and Receiving Documents . . . . . 384

Client Chain of Custody . . . . . 385

Sample Receipt Checklist . . . . . 387

## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| E | Result exceeded calibration range. |

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| PQL | Practical Quantitation Limit |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

**Job Narrative**
**440-201313-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 1/17/2018 6:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the coolers at receipt were 4.2º C and 3.4º C. The following sample was received on 1/18/18 at 7:00 AM but was included in this report with samples received at an earlier date/time per client request: VER-01I-C-60 (440-201313-3).

**GC/MS VOA**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**HPLC/IC**
Method(s) 300.1B: The following samples were diluted for the chlorite analyte due to the nature of the sample matrix: VER-01I-C-48 (440-201313-1) and VER-01I-C-60 (440-201313-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**Metals**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**VOA Prep**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-201313-1

## Client Sample ID: VER-01I-C-48 — Lab Sample ID: 440-201313-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | 0.71 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Bromoform | 0.82 | J | 1.0 | 0.40 | ug/L | 1 | | 8260B | Total/NA |
| Carbon tetrachloride | 1.1 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| 1,2-Dichlorobenzene | 5.0 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| 1,4-Dichlorobenzene | 1.2 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Tetrachloroethene | 0.90 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Trichloroethene | 1.5 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Chloroform - DL | 630 | | 5.0 | 2.5 | ug/L | 10 | | 8260B | Total/NA |
| Chlorate | 2900000 | | 200000 | 100000 | ug/L | 10000 | | 300.1B | Total/NA |
| Perchlorate | 1200000 | | 100000 | 50000 | ug/L | 100000 | | 314.0 LL | Total/NA |
| Chromium, hexavalent | 12000 | | 1000 | 130 | ug/L | 500 | | 7199 | Total/NA |
| Chromium | 11 | | 0.025 | 0.013 | mg/L | 5 | | 6010B | Total Recoverable |

## Client Sample ID: Trip Blank — Lab Sample ID: 440-201313-2

No Detections.

## Client Sample ID: VER-01I-C-60 — Lab Sample ID: 440-201313-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | 0.74 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Bromoform | 1.2 | | 1.0 | 0.40 | ug/L | 1 | | 8260B | Total/NA |
| Carbon tetrachloride | 0.86 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Dibromochloromethane | 0.34 | J | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| 1,2-Dichlorobenzene | 6.3 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| 1,3-Dichlorobenzene | 0.28 | J | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| 1,4-Dichlorobenzene | 1.5 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Tetrachloroethene | 0.80 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Trichloroethene | 1.4 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Chloroform - DL | 670 | | 5.0 | 2.5 | ug/L | 10 | | 8260B | Total/NA |
| Chlorate | 3400000 | | 200000 | 100000 | ug/L | 10000 | | 300.1B | Total/NA |
| Perchlorate | 1200000 | | 100000 | 50000 | ug/L | 100000 | | 314.0 LL | Total/NA |
| Chromium, hexavalent | 13000 | | 1000 | 130 | ug/L | 500 | | 7199 | Total/NA |
| Chromium | 12 | | 0.010 | 0.0050 | mg/L | 2 | | 6010B | Total Recoverable |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: VER-01I-C-48 Lab Sample ID: 440-201313-1

**Date Collected: 01/17/18 03:31** **Matrix: Water**
**Date Received: 01/17/18 18:15**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 01/20/18 17:58 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| **Bromodichloromethane** | **0.71** | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| **Bromoform** | **0.82** | **J** | 1.0 | 0.40 | ug/L | | | 01/20/18 17:58 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 17:58 | 1 |
| **Carbon tetrachloride** | **1.1** | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 17:58 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 17:58 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| **1,2-Dichlorobenzene** | **5.0** | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| **1,4-Dichlorobenzene** | **1.2** | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 17:58 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 17:58 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 17:58 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 01/20/18 17:58 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 17:58 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 17:58 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 17:58 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 17:58 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |

**Client Sample ID: VER-01I-C-48** **Lab Sample ID: 440-201313-1**
**Date Collected: 01/17/18 03:31** **Matrix: Water**
**Date Received: 01/17/18 18:15**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 01/20/18 17:58 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| **Tetrachloroethene** | **0.90** | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 17:58 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 17:58 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| **Trichloroethene** | **1.5** | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 17:58 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 17:58 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 17:58 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *83* | | *80 - 120* | | *01/20/18 17:58* | *1* |
| *Dibromofluoromethane (Surr)* | *120* | | *76 - 132* | | *01/20/18 17:58* | *1* |
| *Toluene-d8 (Surr)* | *96* | | *80 - 128* | | *01/20/18 17:58* | *1* |

## Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloroform** | **630** | | 5.0 | 2.5 | ug/L | | | 01/22/18 09:58 | 10 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *101* | | *80 - 120* | | *01/22/18 09:58* | *10* |
| *Dibromofluoromethane (Surr)* | *99* | | *76 - 132* | | *01/22/18 09:58* | *10* |
| *Toluene-d8 (Surr)* | *106* | | *80 - 128* | | *01/22/18 09:58* | *10* |

## Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 20000 | 10000 | ug/L | | | 01/19/18 08:18 | 1000 |
| **Chlorate** | **2900000** | | 200000 | 100000 | ug/L | | | 01/18/18 17:12 | 10000 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *99* | | *90 - 115* | | *01/18/18 17:12* | *10000* |
| *Dichloroacetic acid(Surr)* | *98* | | *90 - 115* | | *01/19/18 08:18* | *1000* |

## Method: 314.0 LL - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perchlorate** | **1200000** | | 100000 | 50000 | ug/L | | | 01/18/18 14:03 | 100000 |

## Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium, hexavalent** | **12000** | | 1000 | 130 | ug/L | | | 01/17/18 21:24 | 500 |

## Client Sample ID: VER-01I-C-48 — Lab Sample ID: 440-201313-1

**Date Collected: 01/17/18 03:31** — **Matrix: Water**
**Date Received: 01/17/18 18:15**

### Method: 6010B - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 11 | | 0.025 | 0.013 | mg/L | | 01/23/18 09:22 | 01/23/18 18:39 | 5 |

## Client Sample ID: Trip Blank — Lab Sample ID: 440-201313-2

**Date Collected: 01/17/18 03:30** — **Matrix: Water**
**Date Received: 01/17/18 18:15**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 01/20/18 18:28 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 18:28 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 18:28 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 18:28 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 18:28 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 18:28 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 18:28 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 18:28 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 01/20/18 18:28 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 18:28 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 18:28 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 18:28 | 1 |

## Client Sample ID: Trip Blank — Lab Sample ID: 440-201313-2

**Date Collected: 01/17/18 03:30** — **Matrix: Water**
**Date Received: 01/17/18 18:15**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 18:28 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 01/20/18 18:28 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 18:28 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 18:28 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 18:28 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:28 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 18:28 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *84* | | *80 - 120* | | *01/20/18 18:28* | *1* |
| *Dibromofluoromethane (Surr)* | *120* | | *76 - 132* | | *01/20/18 18:28* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *80 - 128* | | *01/20/18 18:28* | *1* |

### Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloroform | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 11:14 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *99* | | *80 - 120* | | *01/22/18 11:14* | *1* |
| *Dibromofluoromethane (Surr)* | *101* | | *76 - 132* | | *01/22/18 11:14* | *1* |
| *Toluene-d8 (Surr)* | *106* | | *80 - 128* | | *01/22/18 11:14* | *1* |

## Client Sample ID: VER-01I-C-60 — Lab Sample ID: 440-201313-3

**Date Collected: 01/17/18 15:30** — **Matrix: Water**
**Date Received: 01/17/18 18:15**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 01/20/18 18:57 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |

## Client Sample ID: VER-01I-C-60 Lab Sample ID: 440-201313-3

**Date Collected: 01/17/18 15:30** **Matrix: Water**
**Date Received: 01/17/18 18:15**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| **Bromodichloromethane** | **0.74** | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| **Bromoform** | **1.2** | | 1.0 | 0.40 | ug/L | | | 01/20/18 18:57 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 18:57 | 1 |
| **Carbon tetrachloride** | **0.86** | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 18:57 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| **Dibromochloromethane** | **0.34** | **J** | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 18:57 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| **1,2-Dichlorobenzene** | **6.3** | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| **1,3-Dichlorobenzene** | **0.28** | **J** | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| **1,4-Dichlorobenzene** | **1.5** | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 18:57 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 18:57 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 18:57 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 01/20/18 18:57 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 18:57 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 18:57 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 18:57 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 18:57 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 01/20/18 18:57 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |

**Client Sample ID: VER-01I-C-60** **Lab Sample ID: 440-201313-3**
**Date Collected: 01/17/18 15:30** **Matrix: Water**
**Date Received: 01/17/18 18:15**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| **Tetrachloroethene** | **0.80** | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 18:57 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 18:57 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| **Trichloroethene** | **1.4** | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 18:57 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 18:57 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 18:57 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *86* | | *80 - 120* | | *01/20/18 18:57* | *1* |
| *Dibromofluoromethane (Surr)* | *123* | | *76 - 132* | | *01/20/18 18:57* | *1* |
| *Toluene-d8 (Surr)* | *92* | | *80 - 128* | | *01/20/18 18:57* | *1* |

## Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloroform** | **670** | | 5.0 | 2.5 | ug/L | | | 01/22/18 11:40 | 10 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *80 - 120* | | *01/22/18 11:40* | *10* |
| *Dibromofluoromethane (Surr)* | *101* | | *76 - 132* | | *01/22/18 11:40* | *10* |
| *Toluene-d8 (Surr)* | *106* | | *80 - 128* | | *01/22/18 11:40* | *10* |

## Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 20000 | 10000 | ug/L | | | 01/19/18 08:54 | 1000 |
| **Chlorate** | **3400000** | | 200000 | 100000 | ug/L | | | 01/18/18 17:48 | 10000 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* | | *01/18/18 17:48* | *10000* |
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* | | *01/19/18 08:54* | *1000* |

## Method: 314.0 LL - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perchlorate** | **1200000** | | 100000 | 50000 | ug/L | | | 01/18/18 14:21 | 100000 |

## Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium, hexavalent** | **13000** | | 1000 | 130 | ug/L | | | 01/18/18 08:12 | 500 |

## Method: 6010B - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **12** | | 0.010 | 0.0050 | mg/L | | 01/23/18 09:22 | 01/23/18 18:50 | 2 |

# Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-201313-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,1-Trichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,2,2-Tetrachloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,2-Trichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2,3-Trichlorobenzene | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,3-Trichloropropane | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,4-Trichlorobenzene | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,4-Trimethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dibromo-3-Chloropropane | 1.0 | 0.50 | ug/L | 8260B |
| 1,2-Dibromoethane (EDB) | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichloropropane | 0.50 | 0.25 | ug/L | 8260B |
| 1,3,5-Trimethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,3-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,3-Dichloropropane | 0.50 | 0.25 | ug/L | 8260B |
| 1,4-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 2,2-Dichloropropane | 1.0 | 0.40 | ug/L | 8260B |
| 2-Butanone (MEK) | 5.0 | 2.5 | ug/L | 8260B |
| 2-Chlorotoluene | 0.50 | 0.25 | ug/L | 8260B |
| 2-Hexanone | 5.0 | 2.5 | ug/L | 8260B |
| 4-Chlorotoluene | 0.50 | 0.25 | ug/L | 8260B |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | 2.5 | ug/L | 8260B |
| Acetone | 20 | 10 | ug/L | 8260B |
| Benzene | 0.50 | 0.25 | ug/L | 8260B |
| Bromobenzene | 0.50 | 0.25 | ug/L | 8260B |
| Bromochloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Bromodichloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Bromoform | 1.0 | 0.40 | ug/L | 8260B |
| Bromomethane | 0.50 | 0.25 | ug/L | 8260B |
| Carbon tetrachloride | 0.50 | 0.25 | ug/L | 8260B |
| Chlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| Chloroethane | 1.0 | 0.40 | ug/L | 8260B |
| Chloroform | 0.50 | 0.25 | ug/L | 8260B |
| Chloromethane | 0.50 | 0.25 | ug/L | 8260B |
| cis-1,2-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| cis-1,3-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| Dibromochloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Dibromomethane | 0.50 | 0.25 | ug/L | 8260B |
| Dichlorodifluoromethane | 1.0 | 0.40 | ug/L | 8260B |
| Ethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Ethyl-t-butyl ether (ETBE) | 0.50 | 0.25 | ug/L | 8260B |
| Hexachlorobutadiene | 0.50 | 0.25 | ug/L | 8260B |
| Isopropyl Ether (DIPE) | 0.50 | 0.25 | ug/L | 8260B |
| Isopropylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| m,p-Xylene | 1.0 | 0.50 | ug/L | 8260B |
| Methylene Chloride | 2.0 | 0.88 | ug/L | 8260B |
| Methyl-t-Butyl Ether (MTBE) | 0.50 | 0.25 | ug/L | 8260B |
| Naphthalene | 1.0 | 0.40 | ug/L | 8260B |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| n-Butylbenzene | 1.0 | 0.40 | ug/L | 8260B |
| N-Propylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| o-Xylene | 0.50 | 0.25 | ug/L | 8260B |
| p-Isopropyltoluene | 0.50 | 0.25 | ug/L | 8260B |
| sec-Butylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Styrene | 0.50 | 0.25 | ug/L | 8260B |
| Tert-amyl-methyl ether (TAME) | 0.50 | 0.25 | ug/L | 8260B |
| tert-Butyl alcohol (TBA) | 10 | 5.0 | ug/L | 8260B |
| tert-Butylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Tetrachloroethene | 0.50 | 0.25 | ug/L | 8260B |
| Toluene | 0.50 | 0.25 | ug/L | 8260B |
| trans-1,2-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| trans-1,3-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| Trichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| Trichlorofluoromethane | 0.50 | 0.25 | ug/L | 8260B |
| Vinyl chloride | 0.50 | 0.25 | ug/L | 8260B |
| Xylenes, Total | 1.0 | 0.50 | ug/L | 8260B |

## Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chlorate | 20 | 10 | ug/L | 300.1B |
| Chlorite | 20 | 10 | ug/L | 300.1B |

## Method: 314.0 LL - Perchlorate (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Perchlorate | 1.0 | 0.50 | ug/L | 314.0 LL |

## Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chromium, hexavalent | 2.0 | 0.25 | ug/L | 7199 |

## Method: 6010B - Metals (ICP) - Total Recoverable

### Prep: 3005A

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chromium | 0.0050 | 0.0025 | mg/L | 6010B |

# Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-201313-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Matrix: Water**

**Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | |
|---|---|---|---|---|
| | | BFB | DBFM | TOL |
| Lab Sample ID | Client Sample ID | (80-120) | (76-132) | (80-128) |
| 440-201313-1 | VER-01I-C-48 | 83 | 120 | 96 |
| 440-201313-1 - DL | VER-01I-C-48 | 101 | 99 | 106 |
| 440-201313-1 MS | VER-01I-C-48 | 100 | 100 | 103 |
| 440-201313-1 MSD | VER-01I-C-48 | 102 | 100 | 102 |
| 440-201313-2 | Trip Blank | 84 | 120 | 94 |
| 440-201313-2 - RA | Trip Blank | 99 | 101 | 106 |
| 440-201313-3 | VER-01I-C-60 | 86 | 123 | 92 |
| 440-201313-3 - DL | VER-01I-C-60 | 100 | 101 | 106 |
| 440-201437-B-3 MS | Matrix Spike | 87 | 107 | 96 |
| 440-201437-B-3 MSD | Matrix Spike Duplicate | 88 | 107 | 96 |
| LCS 440-452839/5 | Lab Control Sample | 89 | 105 | 96 |
| LCS 440-452937/5 | Lab Control Sample | 101 | 98 | 104 |
| MB 440-452839/4 | Method Blank | 89 | 108 | 99 |
| MB 440-452937/4 | Method Blank | 100 | 97 | 109 |

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

## Method: 300.1B - Disinfection By-Products, (IC)

**Matrix: Water**

**Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | |
|---|---|---|---|
| | | DCAA | DCAA |
| Lab Sample ID | Client Sample ID | (90-115) | (90-115) |
| 440-201200-A-1 MS | Matrix Spike | 98 | 98 |
| 440-201200-A-1 MSD | Matrix Spike Duplicate | 100 | 100 |
| 440-201313-1 | VER-01I-C-48 | 99 | 99 |
| 440-201313-1 | VER-01I-C-48 | 98 | 98 |
| 440-201313-3 | VER-01I-C-60 | 101 | 101 |
| 440-201313-3 | VER-01I-C-60 | 101 | 101 |
| LCS 440-452345/4 | Lab Control Sample | 101 | 101 |
| LCS 440-452346/4 | Lab Control Sample | 101 | 101 |
| MB 440-452345/5 | Method Blank | 102 | 102 |
| MB 440-452346/5 | Method Blank | 102 | 102 |
| MRL 440-452345/3 | Lab Control Sample | 101 | 101 |
| MRL 440-452346/3 | Lab Control Sample | 101 | 101 |

**Surrogate Legend**

DCAA = Dichloroacetic acid(Surr)

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 440-452839/4**
**Matrix: Water**
**Analysis Batch: 452839**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 01/20/18 10:17 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 10:17 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 10:17 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 10:17 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 10:17 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 01/20/18 10:17 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 10:17 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 10:17 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 10:17 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 10:17 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 440-452839/4**
**Matrix: Water**
**Analysis Batch: 452839**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 01/20/18 10:17 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 10:17 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *89* | | *80 - 120* | | *01/20/18 10:17* | *1* |
| *Dibromofluoromethane (Surr)* | *108* | | *76 - 132* | | *01/20/18 10:17* | *1* |
| *Toluene-d8 (Surr)* | *99* | | *80 - 128* | | *01/20/18 10:17* | *1* |

**Lab Sample ID: LCS 440-452839/5**
**Matrix: Water**
**Analysis Batch: 452839**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acetone | 25.0 | 21.6 | | ug/L | | 86 | 10 - 150 |
| Benzene | 25.0 | 23.8 | | ug/L | | 95 | 68 - 130 |
| Bromobenzene | 25.0 | 26.2 | | ug/L | | 105 | 70 - 130 |
| Bromochloromethane | 25.0 | 29.3 | | ug/L | | 117 | 70 - 130 |
| Bromodichloromethane | 25.0 | 25.8 | | ug/L | | 103 | 70 - 132 |
| Bromoform | 25.0 | 29.8 | | ug/L | | 119 | 60 - 148 |
| Bromomethane | 25.0 | 27.8 | | ug/L | | 111 | 64 - 139 |
| 2-Butanone (MEK) | 25.0 | 24.2 | | ug/L | | 97 | 44 - 150 |
| Carbon tetrachloride | 25.0 | 28.8 | | ug/L | | 115 | 60 - 150 |
| Chlorobenzene | 25.0 | 25.1 | | ug/L | | 101 | 70 - 130 |
| Chloroethane | 25.0 | 21.1 | | ug/L | | 85 | 64 - 135 |
| Chloromethane | 25.0 | 20.2 | | ug/L | | 81 | 47 - 140 |
| 2-Chlorotoluene | 25.0 | 23.6 | | ug/L | | 95 | 70 - 130 |
| 4-Chlorotoluene | 25.0 | 24.3 | | ug/L | | 97 | 70 - 130 |
| cis-1,2-Dichloroethene | 25.0 | 26.1 | | ug/L | | 104 | 70 - 133 |
| cis-1,3-Dichloropropene | 25.0 | 23.3 | | ug/L | | 93 | 70 - 133 |
| Dibromochloromethane | 25.0 | 26.4 | | ug/L | | 105 | 69 - 145 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 440-452839/5**
**Matrix: Water**
**Analysis Batch: 452839**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,2-Dibromo-3-Chloropropane | 25.0 | 24.1 | | ug/L | | 96 | 52 - 140 |
| 1,2-Dibromoethane (EDB) | 25.0 | 24.9 | | ug/L | | 100 | 70 - 130 |
| Dibromomethane | 25.0 | 24.5 | | ug/L | | 98 | 70 - 130 |
| 1,2-Dichlorobenzene | 25.0 | 26.7 | | ug/L | | 107 | 70 - 130 |
| 1,3-Dichlorobenzene | 25.0 | 26.0 | | ug/L | | 104 | 70 - 130 |
| 1,4-Dichlorobenzene | 25.0 | 25.5 | | ug/L | | 102 | 70 - 130 |
| Dichlorodifluoromethane | 25.0 | 29.7 | | ug/L | | 119 | 29 - 150 |
| 1,1-Dichloroethane | 25.0 | 22.8 | | ug/L | | 91 | 64 - 130 |
| 1,2-Dichloroethane | 25.0 | 25.1 | | ug/L | | 100 | 57 - 138 |
| 1,1-Dichloroethene | 25.0 | 25.9 | | ug/L | | 104 | 70 - 130 |
| 1,2-Dichloropropane | 25.0 | 21.9 | | ug/L | | 88 | 67 - 130 |
| 1,3-Dichloropropane | 25.0 | 21.8 | | ug/L | | 87 | 70 - 130 |
| 2,2-Dichloropropane | 25.0 | 27.3 | | ug/L | | 109 | 68 - 141 |
| 1,1-Dichloropropene | 25.0 | 26.9 | | ug/L | | 108 | 70 - 130 |
| Ethylbenzene | 25.0 | 25.6 | | ug/L | | 102 | 70 - 130 |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 24.5 | | ug/L | | 98 | 60 - 136 |
| Hexachlorobutadiene | 25.0 | 31.2 | | ug/L | | 125 | 10 - 150 |
| 2-Hexanone | 25.0 | 21.8 | | ug/L | | 87 | 10 - 150 |
| Isopropylbenzene | 25.0 | 29.0 | | ug/L | | 116 | 70 - 136 |
| Isopropyl Ether (DIPE) | 25.0 | 20.0 | | ug/L | | 80 | 58 - 139 |
| Methylene Chloride | 25.0 | 20.0 | | ug/L | | 80 | 52 - 130 |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 20.8 | | ug/L | | 83 | 59 - 149 |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 26.0 | | ug/L | | 104 | 63 - 131 |
| m,p-Xylene | 25.0 | 27.2 | | ug/L | | 109 | 70 - 130 |
| Naphthalene | 25.0 | 28.0 | | ug/L | | 112 | 60 - 140 |
| n-Butylbenzene | 25.0 | 26.0 | | ug/L | | 104 | 65 - 150 |
| N-Propylbenzene | 25.0 | 25.0 | | ug/L | | 100 | 67 - 139 |
| o-Xylene | 25.0 | 27.7 | | ug/L | | 111 | 70 - 130 |
| p-Isopropyltoluene | 25.0 | 27.1 | | ug/L | | 108 | 70 - 132 |
| sec-Butylbenzene | 25.0 | 26.1 | | ug/L | | 104 | 70 - 138 |
| Styrene | 25.0 | 26.2 | | ug/L | | 105 | 70 - 134 |
| Tert-amyl-methyl ether (TAME) | 25.0 | 24.9 | | ug/L | | 100 | 57 - 139 |
| tert-Butyl alcohol (TBA) | 250 | 255 | | ug/L | | 102 | 70 - 130 |
| tert-Butylbenzene | 25.0 | 27.4 | | ug/L | | 110 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 27.4 | | ug/L | | 110 | 60 - 141 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 20.6 | | ug/L | | 83 | 63 - 130 |
| Tetrachloroethene | 25.0 | 30.0 | | ug/L | | 120 | 70 - 130 |
| Toluene | 25.0 | 25.2 | | ug/L | | 101 | 70 - 130 |
| trans-1,2-Dichloroethene | 25.0 | 27.3 | | ug/L | | 109 | 70 - 130 |
| trans-1,3-Dichloropropene | 25.0 | 23.8 | | ug/L | | 95 | 70 - 132 |
| 1,2,3-Trichlorobenzene | 25.0 | 30.0 | | ug/L | | 120 | 60 - 140 |
| 1,2,4-Trichlorobenzene | 25.0 | 29.6 | | ug/L | | 118 | 60 - 140 |
| 1,1,1-Trichloroethane | 25.0 | 27.8 | | ug/L | | 111 | 70 - 130 |
| 1,1,2-Trichloroethane | 25.0 | 22.6 | | ug/L | | 90 | 70 - 130 |
| Trichloroethene | 25.0 | 29.5 | | ug/L | | 118 | 70 - 130 |
| Trichlorofluoromethane | 25.0 | 29.4 | | ug/L | | 117 | 60 - 150 |
| 1,2,3-Trichloropropane | 25.0 | 24.1 | | ug/L | | 96 | 63 - 130 |
| 1,2,4-Trimethylbenzene | 25.0 | 24.6 | | ug/L | | 99 | 70 - 135 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 440-452839/5**
**Matrix: Water**
**Analysis Batch: 452839**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,3,5-Trimethylbenzene | 25.0 | 26.6 | | ug/L | | 107 | 70 - 136 |
| Vinyl chloride | 25.0 | 24.1 | | ug/L | | 96 | 59 - 133 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *89* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *105* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *96* | | *80 - 128* |

**Lab Sample ID: 440-201437-B-3 MS**
**Matrix: Water**
**Analysis Batch: 452839**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 25.0 | 24.1 | | ug/L | | 96 | 10 - 150 |
| Benzene | ND | | 25.0 | 24.4 | | ug/L | | 98 | 66 - 130 |
| Bromobenzene | ND | | 25.0 | 26.8 | | ug/L | | 107 | 70 - 130 |
| Bromochloromethane | ND | | 25.0 | 30.9 | | ug/L | | 123 | 70 - 130 |
| Bromodichloromethane | 0.67 | | 25.0 | 27.9 | | ug/L | | 109 | 70 - 138 |
| Bromoform | 0.66 | J | 25.0 | 31.7 | | ug/L | | 124 | 59 - 150 |
| Bromomethane | ND | | 25.0 | 28.1 | | ug/L | | 113 | 62 - 131 |
| 2-Butanone (MEK) | ND | | 25.0 | 23.3 | | ug/L | | 93 | 48 - 140 |
| Carbon tetrachloride | 0.92 | | 25.0 | 31.1 | | ug/L | | 121 | 60 - 150 |
| Chlorobenzene | ND | | 25.0 | 25.9 | | ug/L | | 104 | 70 - 130 |
| Chloroethane | ND | | 25.0 | 21.9 | | ug/L | | 88 | 68 - 130 |
| Chloroform | 660 | E | 25.0 | 645 | E 4 | ug/L | | -49 | 70 - 130 |
| Chloromethane | ND | | 25.0 | 20.5 | | ug/L | | 82 | 39 - 144 |
| 2-Chlorotoluene | ND | | 25.0 | 24.1 | | ug/L | | 96 | 70 - 130 |
| 4-Chlorotoluene | ND | | 25.0 | 25.2 | | ug/L | | 101 | 70 - 130 |
| cis-1,2-Dichloroethene | ND | | 25.0 | 26.8 | | ug/L | | 107 | 70 - 130 |
| cis-1,3-Dichloropropene | ND | | 25.0 | 23.8 | | ug/L | | 95 | 70 - 133 |
| Dibromochloromethane | 0.26 | J | 25.0 | 27.9 | | ug/L | | 111 | 70 - 148 |
| 1,2-Dibromo-3-Chloropropane | ND | | 25.0 | 22.8 | | ug/L | | 91 | 48 - 140 |
| 1,2-Dibromoethane (EDB) | ND | | 25.0 | 25.4 | | ug/L | | 101 | 70 - 131 |
| Dibromomethane | ND | | 25.0 | 25.4 | | ug/L | | 102 | 70 - 130 |
| 1,2-Dichlorobenzene | 5.4 | | 25.0 | 33.0 | | ug/L | | 111 | 70 - 130 |
| 1,3-Dichlorobenzene | 0.28 | J | 25.0 | 27.2 | | ug/L | | 108 | 70 - 130 |
| 1,4-Dichlorobenzene | 1.3 | | 25.0 | 28.1 | | ug/L | | 107 | 70 - 130 |
| Dichlorodifluoromethane | ND | | 25.0 | 28.4 | | ug/L | | 114 | 25 - 142 |
| 1,1-Dichloroethane | ND | | 25.0 | 23.3 | | ug/L | | 93 | 65 - 130 |
| 1,2-Dichloroethane | ND | | 25.0 | 26.5 | | ug/L | | 106 | 56 - 146 |
| 1,1-Dichloroethene | ND | | 25.0 | 26.9 | | ug/L | | 108 | 70 - 130 |
| 1,2-Dichloropropane | ND | | 25.0 | 22.5 | | ug/L | | 90 | 69 - 130 |
| 1,3-Dichloropropane | ND | | 25.0 | 22.3 | | ug/L | | 89 | 70 - 130 |
| 2,2-Dichloropropane | ND | | 25.0 | 28.8 | | ug/L | | 115 | 69 - 138 |
| 1,1-Dichloropropene | ND | | 25.0 | 27.1 | | ug/L | | 109 | 64 - 130 |
| Ethylbenzene | ND | | 25.0 | 26.1 | | ug/L | | 104 | 70 - 130 |
| Ethyl-t-butyl ether (ETBE) | ND | | 25.0 | 26.1 | | ug/L | | 104 | 70 - 130 |
| Hexachlorobutadiene | ND | | 25.0 | 31.2 | | ug/L | | 125 | 10 - 150 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-201437-B-3 MS**
**Matrix: Water**
**Analysis Batch: 452839**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2-Hexanone | ND | | 25.0 | 20.7 | | ug/L | | 83 | 10 - 150 |
| Isopropylbenzene | ND | | 25.0 | 29.7 | | ug/L | | 119 | 70 - 132 |
| Isopropyl Ether (DIPE) | ND | | 25.0 | 21.1 | | ug/L | | 84 | 64 - 138 |
| Methylene Chloride | ND | | 25.0 | 23.1 | | ug/L | | 92 | 52 - 130 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 25.0 | 20.3 | | ug/L | | 81 | 52 - 150 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 25.0 | 27.1 | | ug/L | | 108 | 70 - 130 |
| m,p-Xylene | ND | | 25.0 | 27.9 | | ug/L | | 112 | 70 - 133 |
| Naphthalene | ND | | 25.0 | 27.4 | | ug/L | | 109 | 60 - 140 |
| n-Butylbenzene | ND | | 25.0 | 26.6 | | ug/L | | 107 | 61 - 149 |
| N-Propylbenzene | ND | | 25.0 | 25.6 | | ug/L | | 102 | 66 - 135 |
| o-Xylene | ND | | 25.0 | 28.5 | | ug/L | | 114 | 70 - 133 |
| p-Isopropyltoluene | ND | | 25.0 | 28.1 | | ug/L | | 112 | 70 - 130 |
| sec-Butylbenzene | ND | | 25.0 | 26.6 | | ug/L | | 106 | 67 - 134 |
| Styrene | ND | | 25.0 | 18.1 | | ug/L | | 72 | 29 - 150 |
| Tert-amyl-methyl ether (TAME) | ND | | 25.0 | 25.7 | | ug/L | | 103 | 68 - 133 |
| tert-Butyl alcohol (TBA) | ND | | 250 | 284 | | ug/L | | 113 | 70 - 130 |
| tert-Butylbenzene | ND | | 25.0 | 28.1 | | ug/L | | 112 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | ND | | 25.0 | 28.6 | | ug/L | | 115 | 60 - 149 |
| 1,1,2,2-Tetrachloroethane | ND | | 25.0 | 20.4 | | ug/L | | 81 | 63 - 130 |
| Tetrachloroethene | 0.95 | | 25.0 | 30.8 | | ug/L | | 119 | 70 - 137 |
| Toluene | ND | | 25.0 | 25.9 | | ug/L | | 103 | 70 - 130 |
| trans-1,2-Dichloroethene | ND | | 25.0 | 27.9 | | ug/L | | 112 | 70 - 130 |
| trans-1,3-Dichloropropene | ND | | 25.0 | 24.7 | | ug/L | | 99 | 70 - 138 |
| 1,2,3-Trichlorobenzene | ND | | 25.0 | 29.6 | | ug/L | | 118 | 60 - 140 |
| 1,2,4-Trichlorobenzene | ND | | 25.0 | 29.6 | | ug/L | | 118 | 60 - 140 |
| 1,1,1-Trichloroethane | ND | | 25.0 | 28.9 | | ug/L | | 116 | 70 - 130 |
| 1,1,2-Trichloroethane | ND | | 25.0 | 23.0 | | ug/L | | 92 | 70 - 130 |
| Trichloroethene | 1.5 | | 25.0 | 32.0 | | ug/L | | 122 | 70 - 130 |
| Trichlorofluoromethane | ND | | 25.0 | 30.3 | | ug/L | | 121 | 60 - 150 |
| 1,2,3-Trichloropropane | ND | | 25.0 | 24.1 | | ug/L | | 96 | 60 - 130 |
| 1,2,4-Trimethylbenzene | ND | | 25.0 | 25.3 | | ug/L | | 101 | 70 - 130 |
| 1,3,5-Trimethylbenzene | ND | | 25.0 | 27.1 | | ug/L | | 108 | 70 - 130 |
| Vinyl chloride | ND | | 25.0 | 23.6 | | ug/L | | 94 | 50 - 137 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *87* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *107* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *96* | | *80 - 128* |

**Lab Sample ID: 440-201437-B-3 MSD**
**Matrix: Water**
**Analysis Batch: 452839**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 25.0 | 24.7 | | ug/L | | 99 | 10 - 150 | 3 | 35 |
| Benzene | ND | | 25.0 | 23.6 | | ug/L | | 95 | 66 - 130 | 3 | 20 |
| Bromobenzene | ND | | 25.0 | 26.4 | | ug/L | | 106 | 70 - 130 | 1 | 20 |
| Bromochloromethane | ND | | 25.0 | 30.2 | | ug/L | | 121 | 70 - 130 | 2 | 25 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-201437-B-3 MSD**
**Matrix: Water**
**Analysis Batch: 452839**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | 0.67 | | 25.0 | 27.4 | | ug/L | | 107 | 70 - 138 | 2 | 20 |
| Bromoform | 0.66 | J | 25.0 | 31.4 | | ug/L | | 123 | 59 - 150 | 1 | 25 |
| Bromomethane | ND | | 25.0 | 28.2 | | ug/L | | 113 | 62 - 131 | 0 | 25 |
| 2-Butanone (MEK) | ND | | 25.0 | 24.0 | | ug/L | | 96 | 48 - 140 | 3 | 40 |
| Carbon tetrachloride | 0.92 | | 25.0 | 29.8 | | ug/L | | 116 | 60 - 150 | 4 | 25 |
| Chlorobenzene | ND | | 25.0 | 25.4 | | ug/L | | 102 | 70 - 130 | 2 | 20 |
| Chloroethane | ND | | 25.0 | 21.4 | | ug/L | | 85 | 68 - 130 | 3 | 25 |
| Chloroform | 660 | E | 25.0 | 614 | E 4 | ug/L | | -173 | 70 - 130 | 5 | 20 |
| Chloromethane | ND | | 25.0 | 20.2 | | ug/L | | 81 | 39 - 144 | 1 | 25 |
| 2-Chlorotoluene | ND | | 25.0 | 23.0 | | ug/L | | 92 | 70 - 130 | 5 | 20 |
| 4-Chlorotoluene | ND | | 25.0 | 23.6 | | ug/L | | 95 | 70 - 130 | 6 | 20 |
| cis-1,2-Dichloroethene | ND | | 25.0 | 25.9 | | ug/L | | 103 | 70 - 130 | 4 | 20 |
| cis-1,3-Dichloropropene | ND | | 25.0 | 23.4 | | ug/L | | 94 | 70 - 133 | 2 | 20 |
| Dibromochloromethane | 0.26 | J | 25.0 | 27.8 | | ug/L | | 110 | 70 - 148 | 0 | 25 |
| 1,2-Dibromo-3-Chloropropane | ND | | 25.0 | 23.2 | | ug/L | | 93 | 48 - 140 | 2 | 30 |
| 1,2-Dibromoethane (EDB) | ND | | 25.0 | 25.7 | | ug/L | | 103 | 70 - 131 | 1 | 25 |
| Dibromomethane | ND | | 25.0 | 25.6 | | ug/L | | 102 | 70 - 130 | 1 | 25 |
| 1,2-Dichlorobenzene | 5.4 | | 25.0 | 32.2 | | ug/L | | 107 | 70 - 130 | 3 | 20 |
| 1,3-Dichlorobenzene | 0.28 | J | 25.0 | 26.3 | | ug/L | | 104 | 70 - 130 | 3 | 20 |
| 1,4-Dichlorobenzene | 1.3 | | 25.0 | 27.0 | | ug/L | | 103 | 70 - 130 | 4 | 20 |
| Dichlorodifluoromethane | ND | | 25.0 | 28.3 | | ug/L | | 113 | 25 - 142 | 0 | 30 |
| 1,1-Dichloroethane | ND | | 25.0 | 23.0 | | ug/L | | 92 | 65 - 130 | 1 | 20 |
| 1,2-Dichloroethane | ND | | 25.0 | 26.1 | | ug/L | | 104 | 56 - 146 | 2 | 20 |
| 1,1-Dichloroethene | ND | | 25.0 | 26.1 | | ug/L | | 105 | 70 - 130 | 3 | 20 |
| 1,2-Dichloropropane | ND | | 25.0 | 22.3 | | ug/L | | 89 | 69 - 130 | 1 | 20 |
| 1,3-Dichloropropane | ND | | 25.0 | 22.0 | | ug/L | | 88 | 70 - 130 | 1 | 25 |
| 2,2-Dichloropropane | ND | | 25.0 | 27.3 | | ug/L | | 109 | 69 - 138 | 5 | 25 |
| 1,1-Dichloropropene | ND | | 25.0 | 26.1 | | ug/L | | 104 | 64 - 130 | 4 | 20 |
| Ethylbenzene | ND | | 25.0 | 25.3 | | ug/L | | 101 | 70 - 130 | 3 | 20 |
| Ethyl-t-butyl ether (ETBE) | ND | | 25.0 | 26.0 | | ug/L | | 104 | 70 - 130 | 0 | 25 |
| Hexachlorobutadiene | ND | | 25.0 | 30.0 | | ug/L | | 120 | 10 - 150 | 4 | 20 |
| 2-Hexanone | ND | | 25.0 | 20.9 | | ug/L | | 84 | 10 - 150 | 1 | 35 |
| Isopropylbenzene | ND | | 25.0 | 28.6 | | ug/L | | 115 | 70 - 132 | 4 | 20 |
| Isopropyl Ether (DIPE) | ND | | 25.0 | 20.9 | | ug/L | | 84 | 64 - 138 | 1 | 25 |
| Methylene Chloride | ND | | 25.0 | 22.5 | | ug/L | | 90 | 52 - 130 | 3 | 20 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 25.0 | 20.2 | | ug/L | | 81 | 52 - 150 | 0 | 35 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 25.0 | 27.4 | | ug/L | | 110 | 70 - 130 | 1 | 25 |
| m,p-Xylene | ND | | 25.0 | 27.5 | | ug/L | | 110 | 70 - 133 | 2 | 25 |
| Naphthalene | ND | | 25.0 | 27.6 | | ug/L | | 110 | 60 - 140 | 1 | 30 |
| n-Butylbenzene | ND | | 25.0 | 25.4 | | ug/L | | 101 | 61 - 149 | 5 | 20 |
| N-Propylbenzene | ND | | 25.0 | 24.4 | | ug/L | | 98 | 66 - 135 | 5 | 20 |
| o-Xylene | ND | | 25.0 | 27.8 | | ug/L | | 111 | 70 - 133 | 3 | 20 |
| p-Isopropyltoluene | ND | | 25.0 | 26.9 | | ug/L | | 108 | 70 - 130 | 4 | 20 |
| sec-Butylbenzene | ND | | 25.0 | 25.5 | | ug/L | | 102 | 67 - 134 | 4 | 20 |
| Styrene | ND | | 25.0 | 16.3 | | ug/L | | 65 | 29 - 150 | 11 | 35 |
| Tert-amyl-methyl ether (TAME) | ND | | 25.0 | 25.9 | | ug/L | | 104 | 68 - 133 | 1 | 30 |
| tert-Butyl alcohol (TBA) | ND | | 250 | 265 | | ug/L | | 106 | 70 - 130 | 7 | 25 |
| tert-Butylbenzene | ND | | 25.0 | 26.9 | | ug/L | | 108 | 70 - 130 | 4 | 20 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-201437-B-3 MSD**
**Matrix: Water**
**Analysis Batch: 452839**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 25.0 | 28.0 | | ug/L | | 112 | 60 - 149 | 2 | 20 |
| 1,1,2,2-Tetrachloroethane | ND | | 25.0 | 20.3 | | ug/L | | 81 | 63 - 130 | 0 | 30 |
| Tetrachloroethene | 0.95 | | 25.0 | 29.9 | | ug/L | | 116 | 70 - 137 | 3 | 20 |
| Toluene | ND | | 25.0 | 25.2 | | ug/L | | 101 | 70 - 130 | 3 | 20 |
| trans-1,2-Dichloroethene | ND | | 25.0 | 26.8 | | ug/L | | 107 | 70 - 130 | 4 | 20 |
| trans-1,3-Dichloropropene | ND | | 25.0 | 24.6 | | ug/L | | 98 | 70 - 138 | 0 | 25 |
| 1,2,3-Trichlorobenzene | ND | | 25.0 | 29.7 | | ug/L | | 119 | 60 - 140 | 0 | 20 |
| 1,2,4-Trichlorobenzene | ND | | 25.0 | 29.4 | | ug/L | | 118 | 60 - 140 | 1 | 20 |
| 1,1,1-Trichloroethane | ND | | 25.0 | 28.0 | | ug/L | | 112 | 70 - 130 | 3 | 20 |
| 1,1,2-Trichloroethane | ND | | 25.0 | 23.1 | | ug/L | | 93 | 70 - 130 | 0 | 25 |
| Trichloroethene | 1.5 | | 25.0 | 30.8 | | ug/L | | 117 | 70 - 130 | 4 | 20 |
| Trichlorofluoromethane | ND | | 25.0 | 29.7 | | ug/L | | 119 | 60 - 150 | 2 | 25 |
| 1,2,3-Trichloropropane | ND | | 25.0 | 24.1 | | ug/L | | 96 | 60 - 130 | 0 | 30 |
| 1,2,4-Trimethylbenzene | ND | | 25.0 | 24.5 | | ug/L | | 98 | 70 - 130 | 3 | 25 |
| 1,3,5-Trimethylbenzene | ND | | 25.0 | 25.7 | | ug/L | | 103 | 70 - 130 | 5 | 20 |
| Vinyl chloride | ND | | 25.0 | 23.3 | | ug/L | | 93 | 50 - 137 | 1 | 30 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *88* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *107* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *96* | | *80 - 128* |

**Lab Sample ID: MB 440-452937/4**
**Matrix: Water**
**Analysis Batch: 452937**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloroform | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:42 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *80 - 120* | | *01/22/18 08:42* | *1* |
| *Dibromofluoromethane (Surr)* | *97* | | *76 - 132* | | *01/22/18 08:42* | *1* |
| *Toluene-d8 (Surr)* | *109* | | *80 - 128* | | *01/22/18 08:42* | *1* |

**Lab Sample ID: LCS 440-452937/5**
**Matrix: Water**
**Analysis Batch: 452937**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloroform | | | 25.0 | 23.3 | | ug/L | | 93 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *101* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *98* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *104* | | *80 - 128* |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-201313-1 MS**
**Matrix: Water**
**Analysis Batch: 452937**

**Client Sample ID: VER-01I-C-48**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloroform | 630 | | 250 | 809 | | ug/L | | 73 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *100* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *103* | | *80 - 128* |

**Lab Sample ID: 440-201313-1 MSD**
**Matrix: Water**
**Analysis Batch: 452937**

**Client Sample ID: VER-01I-C-48**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloroform | 630 | | 250 | 819 | | ug/L | | 76 | 70 - 130 | 1 | 20 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *102* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *100* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *102* | | *80 - 128* |

## Method: 300.1B - Disinfection By-Products, (IC)

**Lab Sample ID: MB 440-452345/5**
**Matrix: Water**
**Analysis Batch: 452345**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorate | ND | | 20 | 10 | ug/L | | | 01/18/18 06:19 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *102* | | *90 - 115* | | *01/18/18 06:19* | *1* |

**Lab Sample ID: LCS 440-452345/4**
**Matrix: Water**
**Analysis Batch: 452345**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 100 | 99.0 | | ug/L | | 99 | 75 - 125 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

**Lab Sample ID: MRL 440-452345/3**
**Matrix: Water**
**Analysis Batch: 452345**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 20.0 | 20.8 | | ug/L | | 104 | 50 - 150 |

| Surrogate | MRL %Recovery | MRL Qualifier | Limits |
|---|---|---|---|
| Dichloroacetic acid(Surr) | 101 | | 90 - 115 |

**Lab Sample ID: 440-201200-A-1 MS** — **Client Sample ID: Matrix Spike**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 452345**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 190 | | 200 | 398 | | ug/L | | 104 | 75 - 125 |

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| Dichloroacetic acid(Surr) | 98 | | 90 - 115 |

**Lab Sample ID: 440-201200-A-1 MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 452345**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 190 | | 200 | 394 | | ug/L | | 102 | 75 - 125 | 1 | 25 |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| Dichloroacetic acid(Surr) | 100 | | 90 - 115 |

**Lab Sample ID: MB 440-452346/5** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 452346**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 20 | 10 | ug/L | | | 01/18/18 06:19 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| Dichloroacetic acid(Surr) | 102 | | 90 - 115 | | 01/18/18 06:19 | 1 |

**Lab Sample ID: LCS 440-452346/4** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 452346**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chlorite | 100 | 101 | | ug/L | | 101 | 85 - 115 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| Dichloroacetic acid(Surr) | 101 | | 90 - 115 |

**Lab Sample ID: MRL 440-452346/3** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 452346**

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chlorite | 20.0 | 21.2 | | ug/L | | 106 | 10 - 200 |

| Surrogate | MRL %Recovery | MRL Qualifier | Limits |
|---|---|---|---|
| Dichloroacetic acid(Surr) | 101 | | 90 - 115 |

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

**Lab Sample ID: 440-201200-A-1 MS**
**Matrix: Water**
**Analysis Batch: 452346**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 200 | 190 | | ug/L | | 95 | 75 - 125 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *98* | | *90 - 115* |

**Lab Sample ID: 440-201200-A-1 MSD**
**Matrix: Water**
**Analysis Batch: 452346**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 200 | 189 | | ug/L | | 94 | 75 - 125 | 1 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

## Method: 314.0 LL - Perchlorate (IC)

**Lab Sample ID: MB 440-452387/6**
**Matrix: Water**
**Analysis Batch: 452387**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 1.0 | 0.50 | ug/L | | | 01/18/18 10:37 | 1 |

**Lab Sample ID: LCS 440-452387/5**
**Matrix: Water**
**Analysis Batch: 452387**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 8.66 | | ug/L | | 87 | 85 - 115 |

**Lab Sample ID: MRL 440-452387/4**
**Matrix: Water**
**Analysis Batch: 452387**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 1.00 | 1.02 | | ug/L | | 102 | 75 - 125 |

**Lab Sample ID: 440-200551-D-1 MS**
**Matrix: Water**
**Analysis Batch: 452387**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 10.0 | 9.07 | | ug/L | | 91 | 80 - 120 |

## Method: 314.0 LL - Perchlorate (IC) (Continued)

**Lab Sample ID: 440-200551-D-1 MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 452387**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 10.0 | 9.28 | | ug/L | | 93 | 80 - 120 | 2 | 20 |

**Lab Sample ID: INF 440-452387/7** — **Client Sample ID: Lab Control Sample**
**Matrix: Water**
**Analysis Batch: 452387**

| Analyte | | | Spike Added | INF Result | INF Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | | | 10.0 | 9.58 | | ug/L | | 96 | 80 - 120 | | |

## Method: 7199 - Chromium, Hexavalent (IC)

**Lab Sample ID: MB 440-452103/6** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 452103**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 2.0 | 0.25 | ug/L | | | 01/17/18 06:58 | 1 |

**Lab Sample ID: LCS 440-452103/5** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 452103**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | | | 50.0 | 50.0 | | ug/L | | 100 | 90 - 110 | | |

**Lab Sample ID: MRL 440-452103/4** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 452103**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | | | 1.00 | 1.05 | J | ug/L | | 105 | 50 - 150 | | |

**Lab Sample ID: 440-201270-F-1 MS** — **Client Sample ID: Matrix Spike**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 452103**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 50.0 | 48.3 | | ug/L | | 97 | 85 - 115 | | |

**Lab Sample ID: 440-201270-F-1 MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 452103**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 50.0 | 48.8 | | ug/L | | 98 | 85 - 115 | 1 | 20 |

## Method: 7199 - Chromium, Hexavalent (IC) (Continued)

**Lab Sample ID: MB 440-452351/6**
**Matrix: Water**
**Analysis Batch: 452351**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 2.0 | 0.25 | ug/L | | | 01/18/18 06:40 | 1 |

**Lab Sample ID: LCS 440-452351/5**
**Matrix: Water**
**Analysis Batch: 452351**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 50.7 | | ug/L | | 101 | 90 - 110 |

**Lab Sample ID: MRL 440-452351/4**
**Matrix: Water**
**Analysis Batch: 452351**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 1.00 | 1.04 | J | ug/L | | 104 | 50 - 150 |

**Lab Sample ID: 440-201313-3 MS**
**Matrix: Water**
**Analysis Batch: 452351**

**Client Sample ID: VER-01I-C-60**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 13000 | | 1500 | 14100 | 4 | ug/L | | 72 | 85 - 115 |

**Lab Sample ID: 440-201313-3 MSD**
**Matrix: Water**
**Analysis Batch: 452351**

**Client Sample ID: VER-01I-C-60**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 13000 | | 1500 | 13700 | 4 | ug/L | | 46 | 85 - 115 | 3 | 20 |

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 440-453212/1-A**
**Matrix: Water**
**Analysis Batch: 453402**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 453212**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | ND | | 0.0050 | 0.0025 | mg/L | | 01/23/18 09:22 | 01/23/18 18:35 | 1 |

**Lab Sample ID: LCS 440-453212/2-A**
**Matrix: Water**
**Analysis Batch: 453402**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 453212**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium | 1.00 | 0.997 | | mg/L | | 100 | 80 - 120 |

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: 440-201313-1 MS**
**Matrix: Water**
**Analysis Batch: 453402**

**Client Sample ID: VER-01I-C-48**
**Prep Type: Total Recoverable**
**Prep Batch: 453212**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 11 | | 1.00 | 11.5 | 4 | mg/L | | 57 | 75 - 125 | | |

**Lab Sample ID: 440-201313-1 MSD**
**Matrix: Water**
**Analysis Batch: 453402**

**Client Sample ID: VER-01I-C-48**
**Prep Type: Total Recoverable**
**Prep Batch: 453212**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 11 | | 1.00 | 11.9 | 4 | mg/L | | 92 | 75 - 125 | 3 | 20 |

## GC/MS VOA

### Analysis Batch: 452839

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201313-1 | VER-01I-C-48 | Total/NA | Water | 8260B | |
| 440-201313-2 | Trip Blank | Total/NA | Water | 8260B | |
| 440-201313-3 | VER-01I-C-60 | Total/NA | Water | 8260B | |
| MB 440-452839/4 | Method Blank | Total/NA | Water | 8260B | |
| LCS 440-452839/5 | Lab Control Sample | Total/NA | Water | 8260B | |
| 440-201437-B-3 MS | Matrix Spike | Total/NA | Water | 8260B | |
| 440-201437-B-3 MSD | Matrix Spike Duplicate | Total/NA | Water | 8260B | |

### Analysis Batch: 452937

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201313-1 - DL | VER-01I-C-48 | Total/NA | Water | 8260B | |
| 440-201313-2 - RA | Trip Blank | Total/NA | Water | 8260B | |
| 440-201313-3 - DL | VER-01I-C-60 | Total/NA | Water | 8260B | |
| MB 440-452937/4 | Method Blank | Total/NA | Water | 8260B | |
| LCS 440-452937/5 | Lab Control Sample | Total/NA | Water | 8260B | |
| 440-201313-1 MS | VER-01I-C-48 | Total/NA | Water | 8260B | |
| 440-201313-1 MSD | VER-01I-C-48 | Total/NA | Water | 8260B | |

## HPLC/IC

### Analysis Batch: 452103

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201313-1 | VER-01I-C-48 | Total/NA | Water | 7199 | |
| MB 440-452103/6 | Method Blank | Total/NA | Water | 7199 | |
| LCS 440-452103/5 | Lab Control Sample | Total/NA | Water | 7199 | |
| MRL 440-452103/4 | Lab Control Sample | Total/NA | Water | 7199 | |
| 440-201270-F-1 MS | Matrix Spike | Total/NA | Water | 7199 | |
| 440-201270-F-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 7199 | |

### Analysis Batch: 452345

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201313-1 | VER-01I-C-48 | Total/NA | Water | 300.1B | |
| 440-201313-3 | VER-01I-C-60 | Total/NA | Water | 300.1B | |
| MB 440-452345/5 | Method Blank | Total/NA | Water | 300.1B | |
| LCS 440-452345/4 | Lab Control Sample | Total/NA | Water | 300.1B | |
| MRL 440-452345/3 | Lab Control Sample | Total/NA | Water | 300.1B | |
| 440-201200-A-1 MS | Matrix Spike | Total/NA | Water | 300.1B | |
| 440-201200-A-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.1B | |

### Analysis Batch: 452346

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201313-1 | VER-01I-C-48 | Total/NA | Water | 300.1B | |
| 440-201313-3 | VER-01I-C-60 | Total/NA | Water | 300.1B | |
| MB 440-452346/5 | Method Blank | Total/NA | Water | 300.1B | |
| LCS 440-452346/4 | Lab Control Sample | Total/NA | Water | 300.1B | |
| MRL 440-452346/3 | Lab Control Sample | Total/NA | Water | 300.1B | |
| 440-201200-A-1 MS | Matrix Spike | Total/NA | Water | 300.1B | |
| 440-201200-A-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.1B | |

## HPLC/IC (Continued)

### Analysis Batch: 452351

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201313-3 | VER-01I-C-60 | Total/NA | Water | 7199 | |
| MB 440-452351/6 | Method Blank | Total/NA | Water | 7199 | |
| LCS 440-452351/5 | Lab Control Sample | Total/NA | Water | 7199 | |
| MRL 440-452351/4 | Lab Control Sample | Total/NA | Water | 7199 | |
| 440-201313-3 MS | VER-01I-C-60 | Total/NA | Water | 7199 | |
| 440-201313-3 MSD | VER-01I-C-60 | Total/NA | Water | 7199 | |

### Analysis Batch: 452387

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201313-1 | VER-01I-C-48 | Total/NA | Water | 314.0 LL | |
| 440-201313-3 | VER-01I-C-60 | Total/NA | Water | 314.0 LL | |
| MB 440-452387/6 | Method Blank | Total/NA | Water | 314.0 LL | |
| INF 440-452387/7 | Lab Control Sample | | Water | 314.0 LL | |
| LCS 440-452387/5 | Lab Control Sample | Total/NA | Water | 314.0 LL | |
| MRL 440-452387/4 | Lab Control Sample | Total/NA | Water | 314.0 LL | |
| 440-200551-D-1 MS | Matrix Spike | Total/NA | Water | 314.0 LL | |
| 440-200551-D-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 314.0 LL | |

## Metals

### Prep Batch: 453212

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201313-1 | VER-01I-C-48 | Total Recoverable | Water | 3005A | |
| 440-201313-3 | VER-01I-C-60 | Total Recoverable | Water | 3005A | |
| MB 440-453212/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 440-453212/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 440-201313-1 MS | VER-01I-C-48 | Total Recoverable | Water | 3005A | |
| 440-201313-1 MSD | VER-01I-C-48 | Total Recoverable | Water | 3005A | |

### Analysis Batch: 453402

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201313-1 | VER-01I-C-48 | Total Recoverable | Water | 6010B | 453212 |
| 440-201313-3 | VER-01I-C-60 | Total Recoverable | Water | 6010B | 453212 |
| MB 440-453212/1-A | Method Blank | Total Recoverable | Water | 6010B | 453212 |
| LCS 440-453212/2-A | Lab Control Sample | Total Recoverable | Water | 6010B | 453212 |
| 440-201313-1 MS | VER-01I-C-48 | Total Recoverable | Water | 6010B | 453212 |
| 440-201313-1 MSD | VER-01I-C-48 | Total Recoverable | Water | 6010B | 453212 |

# Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-201313-1

## Client Sample ID: VER-01I-C-48

**Date Collected: 01/17/18 03:31**
**Date Received: 01/17/18 18:15**

## Lab Sample ID: 440-201313-1

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | DL | 10 | 452937 | 01/22/18 09:58 | TCN | TAL IRV |
| Total/NA | Analysis | 8260B | | 1 | 452839 | 01/20/18 17:58 | TCN | TAL IRV |
| Total/NA | Analysis | 300.1B | | 10000 | 452345 | 01/18/18 17:12 | YZ | TAL IRV |
| Total/NA | Analysis | 300.1B | | 1000 | 452346 | 01/19/18 08:18 | YZ | TAL IRV |
| Total/NA | Analysis | 314.0 LL | | 100000 | 452387 | 01/18/18 14:03 | CTH | TAL IRV |
| Total/NA | Analysis | 7199 | | 500 | 452103 | 01/17/18 21:24 | MN | TAL IRV |
| Total Recoverable | Prep | 3005A | | | 453212 | 01/23/18 09:22 | MN1 | TAL IRV |
| Total Recoverable | Analysis | 6010B | | 5 | 453402 | 01/23/18 18:39 | K1E | TAL IRV |

## Client Sample ID: Trip Blank

**Date Collected: 01/17/18 03:30**
**Date Received: 01/17/18 18:15**

## Lab Sample ID: 440-201313-2

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | RA | 1 | 452937 | 01/22/18 11:14 | TCN | TAL IRV |
| Total/NA | Analysis | 8260B | | 1 | 452839 | 01/20/18 18:28 | TCN | TAL IRV |

## Client Sample ID: VER-01I-C-60

**Date Collected: 01/17/18 15:30**
**Date Received: 01/17/18 18:15**

## Lab Sample ID: 440-201313-3

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | DL | 10 | 452937 | 01/22/18 11:40 | TCN | TAL IRV |
| Total/NA | Analysis | 8260B | | 1 | 452839 | 01/20/18 18:57 | TCN | TAL IRV |
| Total/NA | Analysis | 300.1B | | 10000 | 452345 | 01/18/18 17:48 | YZ | TAL IRV |
| Total/NA | Analysis | 300.1B | | 1000 | 452346 | 01/19/18 08:54 | YZ | TAL IRV |
| Total/NA | Analysis | 314.0 LL | | 100000 | 452387 | 01/18/18 14:21 | CTH | TAL IRV |
| Total/NA | Analysis | 7199 | | 500 | 452351 | 01/18/18 08:12 | MN | TAL IRV |
| Total Recoverable | Prep | 3005A | | | 453212 | 01/23/18 09:22 | MN1 | TAL IRV |
| Total Recoverable | Analysis | 6010B | | 2 | 453402 | 01/23/18 18:50 | K1E | TAL IRV |

**Laboratory References:**

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

# Accreditation/Certification Summary

Client: Tetra Tech, Inc. TestAmerica Job ID: 440-201313-1
Project/Site: NERT VER Treatability Study

## Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|---|---|---|---|---|
| Alaska | State Program | 10 | CA01531 | 06-30-18 |
| Arizona | State Program | 9 | AZ0671 | 10-14-18 |
| California | LA Cty Sanitation Districts | 9 | 10256 | 06-30-18 |
| California | State Program | 9 | CA ELAP 2706 | 06-30-18 |
| Guam | State Program | 9 | Cert. No. 17-003R | 01-23-18 * |
| Hawaii | State Program | 9 | N/A | 01-29-18 * |
| Kansas | NELAP | 7 | E-10420 | 07-31-18 |
| Nevada | State Program | 9 | CA015312018-1 | 07-31-18 |
| New Mexico | State Program | 6 | N/A | 01-29-18 * |
| Northern Mariana Islands | State Program | 9 | MP0002 | 01-29-17 * |
| Oregon | NELAP | 10 | 4028 | 01-29-18 * |
| USDA | Federal | | P330-15-00184 | 07-08-18 |
| Washington | State Program | 10 | C900 | 09-03-18 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Method Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-201313-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL IRV |
| 300.1B | Disinfection By-Products, (IC) | EPA | TAL IRV |
| 314.0 LL | Perchlorate (IC) | EPA | TAL IRV |
| 7199 | Chromium, Hexavalent (IC) | SW846 | TAL IRV |
| 6010B | Metals (ICP) | SW846 | TAL IRV |

**Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

# Sample Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-201313-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 440-201313-1 | VER-01I-C-48 | Water | 01/17/18 03:31 | 01/17/18 18:15 |
| 440-201313-2 | Trip Blank | Water | 01/17/18 03:30 | 01/17/18 18:15 |
| 440-201313-3 | VER-01I-C-60 | Water | 01/17/18 15:30 | 01/17/18 18:15 |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: GCMS36 Analysis Batch Number: 442013

Lab Sample ID: STD02 440-442013/4 IC Client Sample ID:

Date Analyzed: 11/17/17 01:05 Lab File ID: SFK16034.D GC Column: DB-VRX A ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,4-Dichlorobenzene | 13.19 | Unspecified | | |

Lab Sample ID: STD1 440-442013/7 IC Client Sample ID:

Date Analyzed: 11/17/17 02:22 Lab File ID: SFK16037.D GC Column: DB-VRX A ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chloroethane | 3.87 | Unspecified | | |
| 1,2,3-Trichloropropane | 11.62 | Unspecified | | |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: GCMS58 Analysis Batch Number: 446571

Lab Sample ID: STD04 440-446571/5 IC Client Sample ID:

Date Analyzed: 12/13/17 18:44 Lab File ID: YFL13014.D GC Column: DB-VRX B ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Vinyl chloride | 2.46 | Unspecified | | |

Lab Sample ID: STD1 440-446571/7 IC Client Sample ID:

Date Analyzed: 12/13/17 19:43 Lab File ID: YFL13016.D GC Column: DB-VRX B ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,2-Dibromo-3-Chloropropane | 12.68 | Unspecified | | |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 445955

Lab Sample ID: STD1 440-445955/3 IC Client Sample ID:

Date Analyzed: 12/11/17 05:47 Lab File ID: 440-0097300-003.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.81 | Baseline Smoothing | zakhrabovy | 12/11/17 06:34 |

Lab Sample ID: STD2 440-445955/4 IC Client Sample ID:

Date Analyzed: 12/11/17 06:24 Lab File ID: 440-0097300-004.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 07:02 |

Lab Sample ID: STD3 440-445955/5 IC Client Sample ID:

Date Analyzed: 12/11/17 07:00 Lab File ID: 440-0097300-005.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 07:39 |

Lab Sample ID: STD4 440-445955/6 IC Client Sample ID:

Date Analyzed: 12/11/17 07:36 Lab File ID: 440-0097300-006.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 08:20 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 445955

Lab Sample ID: STD5 440-445955/7 IC Client Sample ID:

Date Analyzed: 12/11/17 08:12 Lab File ID: 440-0097300-007.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 08:53 |

Lab Sample ID: ICV 440-445955/8 Client Sample ID:

Date Analyzed: 12/11/17 09:01 Lab File ID: 440-0097300-008.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.77 | Baseline Smoothing | zakhrabovy | 12/12/17 03:14 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 445956

Lab Sample ID: STD1 440-445956/3 IC Client Sample ID:

Date Analyzed: 12/11/17 05:47 Lab File ID: 440-0097300-003.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.52 | Baseline Smoothing | zakhrabovy | 12/11/17 06:34 |

Lab Sample ID: STD2 440-445956/4 IC Client Sample ID:

Date Analyzed: 12/11/17 06:24 Lab File ID: 440-0097300-004.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.51 | Baseline Smoothing | zakhrabovy | 12/11/17 07:02 |

Lab Sample ID: STD3 440-445956/5 IC Client Sample ID:

Date Analyzed: 12/11/17 07:00 Lab File ID: 440-0097300-005.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.51 | Baseline Smoothing | zakhrabovy | 12/11/17 07:39 |

Lab Sample ID: STD4 440-445956/6 IC Client Sample ID:

Date Analyzed: 12/11/17 07:36 Lab File ID: 440-0097300-006.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.52 | Baseline Smoothing | zakhrabovy | 12/11/17 08:20 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 445956

Lab Sample ID: STD5 440-445956/7 IC Client Sample ID:

Date Analyzed: 12/11/17 08:12 Lab File ID: 440-0097300-007.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.52 | Baseline Smoothing | zakhrabovy | 12/11/17 08:53 |

Lab Sample ID: ICV 440-445956/8 Client Sample ID:

Date Analyzed: 12/11/17 09:01 Lab File ID: 440-0097300-008.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.50 | Baseline Smoothing | zakhrabovy | 12/12/17 03:14 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 452345

Lab Sample ID: CCV 440-452345/1 Client Sample ID:

Date Analyzed: 01/18/18 03:43 Lab File ID: 440-0098772-001.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.75 | Baseline Smoothing | zakhrabovy | 01/18/18 04:57 |

Lab Sample ID: CCV 440-452345/13 Client Sample ID:

Date Analyzed: 01/18/18 11:43 Lab File ID: 440-0098772-013.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.66 | Baseline Smoothing | zakhrabovy | 01/18/18 12:22 |

Lab Sample ID: CCV 440-452345/25 Client Sample ID:

Date Analyzed: 01/18/18 19:01 Lab File ID: 440-0098772-025.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.66 | Baseline Smoothing | nguyennt | 01/18/18 20:21 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 452346

Lab Sample ID: CCV 440-452346/1 Client Sample ID:

Date Analyzed: 01/18/18 03:43 Lab File ID: 440-0098772-001.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.48 | Baseline Smoothing | zakhrabovy | 01/18/18 04:57 |

Lab Sample ID: MRL 440-452346/3 Client Sample ID:

Date Analyzed: 01/18/18 04:55 Lab File ID: 440-0098772-003.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.48 | Baseline Smoothing | zakhrabovy | 01/18/18 05:43 |

Lab Sample ID: LCS 440-452346/4 Client Sample ID:

Date Analyzed: 01/18/18 05:43 Lab File ID: 440-0098772-004.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.48 | Baseline Smoothing | zakhrabovy | 01/18/18 06:27 |

Lab Sample ID: CCV 440-452346/13 Client Sample ID:

Date Analyzed: 01/18/18 11:43 Lab File ID: 440-0098772-013.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.47 | Baseline Smoothing | zakhrabovy | 01/18/18 12:22 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 452346

Lab Sample ID: 440-201200-A-1 MS Client Sample ID:

Date Analyzed: 01/18/18 14:11 Lab File ID: 440-0098772-017.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.40 | Baseline Smoothing | zakhrabovy | 01/19/18 03:47 |

Lab Sample ID: 440-201200-A-1 MSD Client Sample ID:

Date Analyzed: 01/18/18 14:47 Lab File ID: 440-0098772-018.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.41 | Baseline Smoothing | zakhrabovy | 01/19/18 03:48 |

Lab Sample ID: CCV 440-452346/37 Client Sample ID:

Date Analyzed: 01/19/18 02:16 Lab File ID: 440-0098772-037.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.48 | Baseline Smoothing | zakhrabovy | 01/19/18 03:51 |

Lab Sample ID: CCV 440-452346/49 Client Sample ID:

Date Analyzed: 01/19/18 09:31 Lab File ID: 440-0098772-049.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.46 | Baseline Smoothing | zakhrabovy | 01/19/18 10:10 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-16 Analysis Batch Number: 432478

Lab Sample ID: STD2 440-432478/4 IC Client Sample ID:

Date Analyzed: 10/02/17 13:01 Lab File ID: Info 2_TAIIRV0066_Hex Chr GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 7.53 | Incomplete Integration | nickloffn | 10/02/17 13:25 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-20  Analysis Batch Number: 410549

Lab Sample ID: STD1 440-410549/4 IC  Client Sample ID:

Date Analyzed: 06/07/17 10:00  Lab File ID: Info 2_IRVINSTIC20_Hexava  GC Column: AS7 A  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 7.37 | Incomplete Integration | nickloffn | 06/08/17 10:45 |

Lab Sample ID: STD2 440-410549/5 IC  Client Sample ID:

Date Analyzed: 06/07/17 10:13  Lab File ID: Info 2_IRVINSTIC20_Hexava  GC Column: AS7 A  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 7.37 | Incomplete Integration | nickloffn | 06/08/17 10:45 |

Lab Sample ID: ICV 440-410549/11  Client Sample ID:

Date Analyzed: 06/07/17 11:47  Lab File ID: Info 2_IRVINSTIC20_Hexava  GC Column: AS7 A  ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 7.42 | Baseline Smoothing | nikbakhtm | 06/07/17 12:03 |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **ME HCl_00393** | 12/12/18 | Avantor Performance Materials, INc., Lot 0000183197 | | | (Purchased Reagent) | | Stock Chemical | 100 % |
| **ME HNO3_00412** | 01/12/19 | Macron Fine Chemicals, Lot 0000185595 | | | (Purchased Reagent) | | Stock Chemical | 1 % |
| **ME ICP 2X RL_00057** | 01/24/18 | 01/23/18 | 2%HNO3/2%HCl, Lot 211065110 | 100 mL | ME ICP STD3_01854 | 2 mL | Chromium | 0.01 ug/mL |
| .ME ICP STD3_01854 | 01/24/18 | 01/23/18 | 1%HNO3/2%HCL, Lot 211065110 | 100 mL | Custom mix A_00001 | 1 mL | Chromium | 0.5 ug/mL |
| ..Custom mix A_00001 | 10/26/20 | INORGANIC VENTURES, Lot M2-MEB662656 | | | (Purchased Reagent) | | Chromium | 50 mg/L |
| **ME ICP ICV2_01768** | 01/24/18 | 01/23/18 | 1%HNO3/2%HCl, Lot N/A | 50 mL | ME ICP SPKE A_00029 | 0.5 mL | Chromium | 1 mg/L |
| .ME ICP SPKE A_00029 | 03/30/18 | ACCUSTANDARD, Lot 216035030 | | | (Purchased Reagent) | | Chromium | 100 ug/mL |
| **ME ICP IFA_01794** | 01/24/18 | 01/23/18 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Al | 600 mg/L |
| | | | | | | | Ca | 600 mg/L |
| | | | | | | | Fe | 600 mg/L |
| | | | | | | | Mg | 600 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | o2si, Lot 10064997-1 | | | (Purchased Reagent) | | Al | 6000 mg/L |
| | | | | | | | Ca | 6000 mg/L |
| | | | | | | | Fe | 6000 mg/L |
| | | | | | | | Mg | 6000 mg/L |
| **ME ICP IFB_01813** | 01/24/18 | 01/23/18 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Al | 600.5 mg/L |
| | | | | | | | Ca | 602.5 mg/L |
| | | | | | | | Fe | 600.5 mg/L |
| | | | | | | | Mg | 602.5 mg/L |
| | | | | | ME ICP2 ICV1A_00051 | 0.25 mL | Ag | 0.25 mg/L |
| | | | | | | | Al | 600.5 mg/L |
| | | | | | | | As | 0.5 mg/L |
| | | | | | | | B | 0.5 mg/L |
| | | | | | | | Ba | 0.5 mg/L |
| | | | | | | | Be | 0.5 mg/L |
| | | | | | | | Ca | 602.5 mg/L |
| | | | | | | | Cd | 0.5 mg/L |
| | | | | | | | Chromium | 0.5 mg/L |
| | | | | | | | Co | 0.5 mg/L |
| | | | | | | | Cu | 0.5 mg/L |
| | | | | | | | Fe | 600.5 mg/L |
| | | | | | | | K | 10 mg/L |
| | | | | | | | Li | 0.5 mg/L |
| | | | | | | | Mg | 602.5 mg/L |
| | | | | | | | Mn | 0.5 mg/L |
| | | | | | | | Na | 10 mg/L |
| | | | | | | | Ni | 0.5 mg/L |
| | | | | | | | P | 0.5 mg/L |
| | | | | | | | Pb | 0.5 mg/L |
| | | | | | | | Se | 0.5 mg/L |
| | | | | | | | Sr | 0.5 mg/L |
| | | | | | | | Tl | 0.5 mg/L |
| | | | | | | | V | 0.5 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Zn | 0.5 mg/L |
| | | | | | ME ICP2 ICV1B_00045 | 0.25 mL | Mo | 0.5 mg/L |
| | | | | | | | Sb | 0.5 mg/L |
| | | | | | | | Si | 2.5 mg/L |
| | | | | | | | Sn | 0.5 mg/L |
| | | | | | | | Ti | 0.5 mg/L |
| | | | | | | | W | 0.5 mg/L |
| | | | | | | | Zr | 0.5 mg/L |
| | | | | | ME K_00007 | 0.25 mL | K | 10 mg/L |
| | | | | | ME Na_00010 | 0.25 mL | Na | 10 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | o2si, Lot 10064997-1 | | | (Purchased Reagent) | | Al | 6000 mg/L |
| | | | | | | | Ca | 6000 mg/L |
| | | | | | | | Fe | 6000 mg/L |
| | | | | | | | Mg | 6000 mg/L |
| .ME ICP2 ICV1A_00051 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662245 | | | (Purchased Reagent) | | Ag | 50 mg/L |
| | | | | | | | Al | 100 mg/L |
| | | | | | | | As | 100 mg/L |
| | | | | | | | B | 100 mg/L |
| | | | | | | | Ba | 100 mg/L |
| | | | | | | | Be | 100 mg/L |
| | | | | | | | Ca | 500 mg/L |
| | | | | | | | Cd | 100 mg/L |
| | | | | | | | Chromium | 100 mg/L |
| | | | | | | | Co | 100 mg/L |
| | | | | | | | Cu | 100 mg/L |
| | | | | | | | Fe | 100 mg/L |
| | | | | | | | K | 1000 mg/L |
| | | | | | | | Li | 100 mg/L |
| | | | | | | | Mg | 500 mg/L |
| | | | | | | | Mn | 100 mg/L |
| | | | | | | | Na | 1000 mg/L |
| | | | | | | | Ni | 100 mg/L |
| | | | | | | | P | 100 mg/L |
| | | | | | | | Pb | 100 mg/L |
| | | | | | | | Se | 100 mg/L |
| | | | | | | | Sr | 100 mg/L |
| | | | | | | | Tl | 100 mg/L |
| | | | | | | | V | 100 mg/L |
| | | | | | | | Zn | 100 mg/L |
| .ME ICP2 ICV1B_00045 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662246 | | | (Purchased Reagent) | | Mo | 100 mg/L |
| | | | | | | | Sb | 100 mg/L |
| | | | | | | | Si | 500 mg/L |
| | | | | | | | Sn | 100 mg/L |
| | | | | | | | Ti | 100 mg/L |
| | | | | | | | W | 100 mg/L |
| | | | | | | | Zr | 100 mg/L |
| .ME K_00007 | 08/17/18 | O2SI, Lot 1103100 | | | (Purchased Reagent) | | K | 1000 mg/L |
| .ME Na_00010 | 08/17/18 | O2SI, Lot 1103103 | | | (Purchased Reagent) | | Na | 1000 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **ME ICP STD3_01855** | 01/24/18 | 01/23/18 | 1%HNO3/2%HCL, Lot 211065110 | 100 mL | ME ICP2 ICV1A_00051 | 1 mL | Chromium | 1 ug/mL |
| .ME ICP2 ICV1A_00051 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662245 | | | (Purchased Reagent) | | Chromium | 100 mg/L |
| | | | | | | | Ag | 50 mg/L |
| | | | | | | | Al | 100 mg/L |
| | | | | | | | As | 100 mg/L |
| | | | | | | | B | 100 mg/L |
| | | | | | | | Ba | 100 mg/L |
| | | | | | | | Be | 100 mg/L |
| | | | | | | | Ca | 500 mg/L |
| | | | | | | | Cd | 100 mg/L |
| | | | | | | | Chromium | 100 mg/L |
| | | | | | | | Co | 100 mg/L |
| | | | | | | | Cu | 100 mg/L |
| | | | | | | | Fe | 100 mg/L |
| | | | | | | | K | 1000 mg/L |
| | | | | | | | Li | 100 mg/L |
| | | | | | | | Mg | 500 mg/L |
| | | | | | | | Mn | 100 mg/L |
| | | | | | | | Na | 1000 mg/L |
| | | | | | | | Ni | 100 mg/L |
| | | | | | | | P | 100 mg/L |
| | | | | | | | Pb | 100 mg/L |
| | | | | | | | Se | 100 mg/L |
| | | | | | | | Sr | 100 mg/L |
| | | | | | | | Tl | 100 mg/L |
| | | | | | | | V | 100 mg/L |
| | | | | | | | Zn | 100 mg/L |
| **ME ICP2 ICV1B_00045** | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662246 | | | (Purchased Reagent) | | Mo | 100 mg/L |
| | | | | | | | Sb | 100 mg/L |
| | | | | | | | Si | 500 mg/L |
| | | | | | | | SiO2 | 1071.15 mg/L |
| | | | | | | | Sn | 100 mg/L |
| | | | | | | | Ti | 100 mg/L |
| | | | | | | | W | 100 mg/L |
| | | | | | | | Zr | 100 mg/L |
| **VMW8260TUNE1_00409** | | | | | | | 1,2-Dichloroethene, Total | |
| | | | | | | | 1,3-Dichloropropene, Total | |
| | | | | | | | Tentatively Identified Compound | |
| | | | | | | | Total Volatile Organic Compounds | |
| | | | | | | | Trihalomethanes, Total | |
| | | | | | | | Xylenes, Total | |
| | | | | | VMA8260BFB1_00027 | 10 uL | BFB | 25 ug/mL |
| .VMA8260BFB1_00027 | 09/01/18 | Absolute Standards, Lot 112519 | | | (Purchased Reagent) | | BFB | 2500 ug/mL |
| **VMW8260TUNE1_00412** | | | | | | | 1,2-Dichloroethene, Total | |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,3-Dichloropropene, Total | |
| | | | | | | | Tentatively Identified Compound | |
| | | | | | | | Total Volatile Organic Compounds | |
| | | | | | | | Trihalomethanes, Total | |
| | | | | | | | Xylenes, Total | |
| | | | | | VMA8260BFB1_00040 | 10 uL | BFB | 25 ug/mL |
| .VMA8260BFB1_00040 | 06/08/18 | Absolute Standards, Lot 112514 | | | (Purchased Reagent) | | BFB | 2500 ug/mL |
| **VMW8260TUNE1_00415** | | | | | | | 1,2-Dichloroethene, Total | |
| | | | | | | | 1,3-Dichloropropene, Total | |
| | | | | | | | Tentatively Identified Compound | |
| | | | | | | | Total Volatile Organic Compounds | |
| | | | | | | | Trihalomethanes, Total | |
| | | | | | | | Xylenes, Total | |
| | | | | | VMA8260BFB1_00040 | 10 uL | BFB | 25 ug/mL |
| .VMA8260BFB1_00040 | 06/08/18 | Absolute Standards, Lot 112514 | | | (Purchased Reagent) | | BFB | 2500 ug/mL |
| **VMWNU8260002_00482** | 11/21/17 | 11/14/17 | Methanol, Lot 4415769 | 1 mL | VMWNU8260200_00170 | 10 uL | 2-Chloroethyl vinyl ether | 2 ug/mL |
| | | | | | | | Bromomethane | 2 ug/mL |
| | | | | | | | Butadiene | 2 ug/mL |
| | | | | | | | Chloroethane | 2 ug/mL |
| | | | | | | | Chloromethane | 2 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2 ug/mL |
| | | | | | | | Vinyl chloride | 2 ug/mL |
| | | | | | | | 2-Butanone (MEK) | 2 ug/mL |
| | | | | | | | 2-Hexanone | 2 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 2 ug/mL |
| | | | | | | | Acetone | 2 ug/mL |
| | | | | | | | 1,1,1,2-Tetrachloroethane | 2 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2-Dichloroethane | 2 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2 ug/mL |
| | | | | | | | Acrylonitrile | 20 ug/mL |
| | | | | | | | Benzene | 2 ug/mL |
| | | | | | | | Bromobenzene | 2 ug/mL |
| | | | | | | | Bromochloromethane | 2 ug/mL |
| | | | | | | | Bromodichloromethane | 2 ug/mL |
| | | | | | | | Bromoform | 2 ug/mL |
| | | | | | | | Carbon disulfide | 2 ug/mL |
| | | | | | | | Carbon tetrachloride | 2 ug/mL |
| | | | | | | | Chlorobenzene | 2 ug/mL |
| | | | | | | | Chloroform | 2 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2 ug/mL |
| | | | | | | | Cyclohexane | 2 ug/mL |
| | | | | | | | Dibromochloromethane | 2 ug/mL |
| | | | | | | | Dibromomethane | 2 ug/mL |
| | | | | | | | Ethyl ether | 2 ug/mL |
| | | | | | | | Ethyl methacrylate | 2 ug/mL |
| | | | | | | | Ethylbenzene | 2 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2 ug/mL |
| | | | | | | | Hexane | 2 ug/mL |
| | | | | | | | Iodomethane | 2 ug/mL |
| | | | | | | | Isobutyl alcohol | 50 ug/mL |
| | | | | | | | Isopropylbenzene | 2 ug/mL |
| | | | | | | | m,p-Xylene | 2 ug/mL |
| | | | | | | | Methyl acetate | 10 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2 ug/mL |
| | | | | | | | Methylcyclohexane | 2 ug/mL |
| | | | | | | | Methylene Chloride | 2 ug/mL |
| | | | | | | | n-Butylbenzene | 2 ug/mL |
| | | | | | | | n-Heptane | 2 ug/mL |
| | | | | | | | N-Propylbenzene | 2 ug/mL |
| | | | | | | | Naphthalene | 2 ug/mL |
| | | | | | | | o-Xylene | 2 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2 ug/mL |
| | | | | | | | sec-Butylbenzene | 2 ug/mL |
| | | | | | | | Styrene | 2 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 20 ug/mL |
| | | | | | | | tert-Butylbenzene | 2 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Tetrachloroethene | 2 ug/mL |
| | | | | | | | Tetrahydrofuran | 4 ug/mL |
| | | | | | | | Toluene | 2 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2 ug/mL |
| | | | | | | | Trichloroethene | 2 ug/mL |
| | | | | | | | Vinyl acetate | 2 ug/mL |
| | | | | | | | Ethanol | 100 ug/mL |
| | | | | | | | Acetonitrile | 20 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2 ug/mL |
| | | | | | | | Propionitrile | 20 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2 ug/mL |
| | | | | | | | Acrolein | 2 ug/mL |
| .VMWNU8260200_00170 | 11/21/17 | 11/14/17 | Methanol, Lot 4415769 | 1 mL | VMA1582602CV1_00027 | 80 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |
| | | | | | VMA158260GAS1_00198 | 80 uL | Bromomethane | 200 ug/mL |
| | | | | | | | Butadiene | 200 ug/mL |
| | | | | | | | Chloroethane | 200 ug/mL |
| | | | | | | | Chloromethane | 200 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 200 ug/mL |
| | | | | | | | Dichlorofluoromethane | 200 ug/mL |
| | | | | | | | Trichlorofluoromethane | 200 ug/mL |
| | | | | | | | Vinyl chloride | 200 ug/mL |
| | | | | | VMA158260KET1_00041 | 16 uL | 2-Butanone (MEK) | 200 ug/mL |
| | | | | | | | 2-Hexanone | 200 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 200 ug/mL |
| | | | | | | | Acetone | 200 ug/mL |
| | | | | | VMA158260MEG1_00041 | 80 uL | 1,1,1,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 200 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 200 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 200 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 200 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 200 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,3-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 2-Chlorotoluene | 200 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 200 ug/mL |
| | | | | | | | 4-Chlorotoluene | 200 ug/mL |
| | | | | | | | Acrylonitrile | 2000 ug/mL |
| | | | | | | | Benzene | 200 ug/mL |
| | | | | | | | Bromobenzene | 200 ug/mL |
| | | | | | | | Bromochloromethane | 200 ug/mL |
| | | | | | | | Bromodichloromethane | 200 ug/mL |
| | | | | | | | Bromoform | 200 ug/mL |
| | | | | | | | Carbon disulfide | 200 ug/mL |
| | | | | | | | Carbon tetrachloride | 200 ug/mL |
| | | | | | | | Chlorobenzene | 200 ug/mL |
| | | | | | | | Chloroform | 200 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | Cyclohexane | 200 ug/mL |
| | | | | | | | Dibromochloromethane | 200 ug/mL |
| | | | | | | | Dibromomethane | 200 ug/mL |
| | | | | | | | Ethyl ether | 200 ug/mL |
| | | | | | | | Ethyl methacrylate | 200 ug/mL |
| | | | | | | | Ethylbenzene | 200 ug/mL |
| | | | | | | | Hexachlorobutadiene | 200 ug/mL |
| | | | | | | | Hexane | 200 ug/mL |
| | | | | | | | Iodomethane | 200 ug/mL |
| | | | | | | | Isobutyl alcohol | 5000 ug/mL |
| | | | | | | | Isopropylbenzene | 200 ug/mL |
| | | | | | | | m,p-Xylene | 200 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 200 ug/mL |
| | | | | | | | Methylcyclohexane | 200 ug/mL |
| | | | | | | | Methylene Chloride | 200 ug/mL |
| | | | | | | | n-Butylbenzene | 200 ug/mL |
| | | | | | | | n-Heptane | 200 ug/mL |
| | | | | | | | N-Propylbenzene | 200 ug/mL |
| | | | | | | | Naphthalene | 200 ug/mL |
| | | | | | | | o-Xylene | 200 ug/mL |
| | | | | | | | p-Isopropyltoluene | 200 ug/mL |
| | | | | | | | sec-Butylbenzene | 200 ug/mL |
| | | | | | | | Styrene | 200 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 2000 ug/mL |
| | | | | | | | tert-Butylbenzene | 200 ug/mL |
| | | | | | | | Tetrachloroethene | 200 ug/mL |
| | | | | | | | Tetrahydrofuran | 400 ug/mL |
| | | | | | | | Toluene | 200 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | trans-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 200 ug/mL |
| | | | | | | | Trichloroethene | 200 ug/mL |
| | | | | | VMA158260VA1_00044 | 40 uL | Vinyl acetate | 200 ug/mL |
| | | | | | VMA178260ETH1_00007 | 100 uL | Ethanol | 10000 ug/mL |
| | | | | | VMA178260POL1_00007 | 80 uL | Acetonitrile | 2000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 200 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 200 ug/mL |
| | | | | | | | Propionitrile | 2000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 200 ug/mL |
| | | | | | VMANU8260ACR1_00100 | 10 uL | Acrolein | 200 ug/mL |
| ..VMA1582602CV1_00027 | 05/07/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| ..VMA158260GAS1_00198 | 05/14/18 | | Restek, Lot A0124278 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| ..VMA158260KET1_00041 | 05/07/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| ..VMA158260MEG1_00041 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| ..VMA158260VA1_00044 | 12/31/17 | Restek, Lot A0128793 | | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| ..VMA178260ETH1_00007 | 05/07/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| ..VMA178260POL1_00007 | 05/07/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| ..VMANU8260ACR1_00100 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260002_00492** | 12/19/17 | 12/12/17 | Methanol, Lot 4506063 | 1 mL | VMWNU8260200_00174 | 10 uL | 2-Chloroethyl vinyl ether | 2 ug/mL |
| | | | | | | | Bromomethane | 2 ug/mL |
| | | | | | | | Butadiene | 2 ug/mL |
| | | | | | | | Chloroethane | 2 ug/mL |
| | | | | | | | Chloromethane | 2 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2 ug/mL |
| | | | | | | | Vinyl chloride | 2 ug/mL |
| | | | | | | | 2-Butanone (MEK) | 2 ug/mL |
| | | | | | | | 2-Hexanone | 2 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 2 ug/mL |
| | | | | | | | Acetone | 2 ug/mL |
| | | | | | | | 1,1,1,2-Tetrachloroethane | 2 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2 ug/mL |
| | | | | | | | Acrylonitrile | 20 ug/mL |
| | | | | | | | Benzene | 2 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Bromobenzene | 2 ug/mL |
| | | | | | | | Bromochloromethane | 2 ug/mL |
| | | | | | | | Bromodichloromethane | 2 ug/mL |
| | | | | | | | Bromoform | 2 ug/mL |
| | | | | | | | Carbon disulfide | 2 ug/mL |
| | | | | | | | Carbon tetrachloride | 2 ug/mL |
| | | | | | | | Chlorobenzene | 2 ug/mL |
| | | | | | | | Chloroform | 2 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2 ug/mL |
| | | | | | | | Cyclohexane | 2 ug/mL |
| | | | | | | | Dibromochloromethane | 2 ug/mL |
| | | | | | | | Dibromomethane | 2 ug/mL |
| | | | | | | | Ethyl ether | 2 ug/mL |
| | | | | | | | Ethyl methacrylate | 2 ug/mL |
| | | | | | | | Ethylbenzene | 2 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2 ug/mL |
| | | | | | | | Hexane | 2 ug/mL |
| | | | | | | | Iodomethane | 2 ug/mL |
| | | | | | | | Isobutyl alcohol | 50 ug/mL |
| | | | | | | | Isopropylbenzene | 2 ug/mL |
| | | | | | | | m,p-Xylene | 2 ug/mL |
| | | | | | | | Methyl acetate | 10 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2 ug/mL |
| | | | | | | | Methylcyclohexane | 2 ug/mL |
| | | | | | | | Methylene Chloride | 2 ug/mL |
| | | | | | | | n-Butylbenzene | 2 ug/mL |
| | | | | | | | n-Heptane | 2 ug/mL |
| | | | | | | | N-Propylbenzene | 2 ug/mL |
| | | | | | | | Naphthalene | 2 ug/mL |
| | | | | | | | o-Xylene | 2 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2 ug/mL |
| | | | | | | | sec-Butylbenzene | 2 ug/mL |
| | | | | | | | Styrene | 2 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 20 ug/mL |
| | | | | | | | tert-Butylbenzene | 2 ug/mL |
| | | | | | | | Tetrachloroethene | 2 ug/mL |
| | | | | | | | Tetrahydrofuran | 4 ug/mL |
| | | | | | | | Toluene | 2 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2 ug/mL |
| | | | | | | | Trichloroethene | 2 ug/mL |
| | | | | | | | Vinyl acetate | 2 ug/mL |
| | | | | | | | Ethanol | 100 ug/mL |
| | | | | | | | Acetonitrile | 20 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Propionitrile | 20 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2 ug/mL |
| | | | | | | | Acrolein | 2 ug/mL |
| .VMWNU8260200_00174 | 12/19/17 | 12/12/17 | Methanol, Lot 4506063 | 1 mL | VMA1582602CV1_00028 | 80 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |
| | | | | | VMA158260GAS1_00208 | 80 uL | Bromomethane | 200 ug/mL |
| | | | | | | | Butadiene | 200 ug/mL |
| | | | | | | | Chloroethane | 200 ug/mL |
| | | | | | | | Chloromethane | 200 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 200 ug/mL |
| | | | | | | | Dichlorofluoromethane | 200 ug/mL |
| | | | | | | | Trichlorofluoromethane | 200 ug/mL |
| | | | | | | | Vinyl chloride | 200 ug/mL |
| | | | | | VMA158260KET1_00042 | 16 uL | 2-Butanone (MEK) | 200 ug/mL |
| | | | | | | | 2-Hexanone | 200 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 200 ug/mL |
| | | | | | | | Acetone | 200 ug/mL |
| | | | | | VMA158260MEG1_00042 | 80 uL | 1,1,1,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 200 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 200 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 200 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 200 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 2-Chlorotoluene | 200 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 200 ug/mL |
| | | | | | | | 4-Chlorotoluene | 200 ug/mL |
| | | | | | | | Acrylonitrile | 2000 ug/mL |
| | | | | | | | Benzene | 200 ug/mL |
| | | | | | | | Bromobenzene | 200 ug/mL |
| | | | | | | | Bromochloromethane | 200 ug/mL |
| | | | | | | | Bromodichloromethane | 200 ug/mL |
| | | | | | | | Bromoform | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Carbon disulfide | 200 ug/mL |
| | | | | | | | Carbon tetrachloride | 200 ug/mL |
| | | | | | | | Chlorobenzene | 200 ug/mL |
| | | | | | | | Chloroform | 200 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | Cyclohexane | 200 ug/mL |
| | | | | | | | Dibromochloromethane | 200 ug/mL |
| | | | | | | | Dibromomethane | 200 ug/mL |
| | | | | | | | Ethyl ether | 200 ug/mL |
| | | | | | | | Ethyl methacrylate | 200 ug/mL |
| | | | | | | | Ethylbenzene | 200 ug/mL |
| | | | | | | | Hexachlorobutadiene | 200 ug/mL |
| | | | | | | | Hexane | 200 ug/mL |
| | | | | | | | Iodomethane | 200 ug/mL |
| | | | | | | | Isobutyl alcohol | 5000 ug/mL |
| | | | | | | | Isopropylbenzene | 200 ug/mL |
| | | | | | | | m,p-Xylene | 200 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 200 ug/mL |
| | | | | | | | Methylcyclohexane | 200 ug/mL |
| | | | | | | | Methylene Chloride | 200 ug/mL |
| | | | | | | | n-Butylbenzene | 200 ug/mL |
| | | | | | | | n-Heptane | 200 ug/mL |
| | | | | | | | N-Propylbenzene | 200 ug/mL |
| | | | | | | | Naphthalene | 200 ug/mL |
| | | | | | | | o-Xylene | 200 ug/mL |
| | | | | | | | p-Isopropyltoluene | 200 ug/mL |
| | | | | | | | sec-Butylbenzene | 200 ug/mL |
| | | | | | | | Styrene | 200 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 2000 ug/mL |
| | | | | | | | tert-Butylbenzene | 200 ug/mL |
| | | | | | | | Tetrachloroethene | 200 ug/mL |
| | | | | | | | Tetrahydrofuran | 400 ug/mL |
| | | | | | | | Toluene | 200 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 200 ug/mL |
| | | | | | | | Trichloroethene | 200 ug/mL |
| | | | | | VMA158260VA1_00045 | 40 uL | Vinyl acetate | 200 ug/mL |
| | | | | | VMA178260ETH1_00008 | 100 uL | Ethanol | 10000 ug/mL |
| | | | | | VMA178260POL1_00008 | 80 uL | Acetonitrile | 2000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 200 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 200 ug/mL |
| | | | | | | | Propionitrile | 2000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 200 ug/mL |
| | | | | | VMANU8260ACR1_00101 | 10 uL | Acrolein | 200 ug/mL |
| ..VMA1582602CV1_00028 | 06/04/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| ..VMA158260GAS1_00208 | 06/12/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| ..VMA158260KET1_00042 | 06/04/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| ..VMA158260MEG1_00042 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| ..VMA158260VA1_00045 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| ..VMA178260ETH1_00008 | 06/04/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| ..VMA178260POL1_00008 | 06/04/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| ..VMANU8260ACR1_00101 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260200_00170** | 11/21/17 | 11/14/17 | Methanol, Lot 4415769 | 1 mL | VMA1582602CV1_00027 | 80 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |
| | | | | | VMA158260GAS1_00198 | 80 uL | Bromomethane | 200 ug/mL |
| | | | | | | | Butadiene | 200 ug/mL |
| | | | | | | | Chloroethane | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Chloromethane | 200 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 200 ug/mL |
| | | | | | | | Dichlorofluoromethane | 200 ug/mL |
| | | | | | | | Trichlorofluoromethane | 200 ug/mL |
| | | | | | | | Vinyl chloride | 200 ug/mL |
| | | | | | VMA158260KET1_00041 | 16 uL | 2-Butanone (MEK) | 200 ug/mL |
| | | | | | | | 2-Hexanone | 200 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 200 ug/mL |
| | | | | | | | Acetone | 200 ug/mL |
| | | | | | VMA158260MEG1_00041 | 80 uL | 1,1,1,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 200 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 200 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 200 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 200 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 2-Chlorotoluene | 200 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 200 ug/mL |
| | | | | | | | 4-Chlorotoluene | 200 ug/mL |
| | | | | | | | Acrylonitrile | 2000 ug/mL |
| | | | | | | | Benzene | 200 ug/mL |
| | | | | | | | Bromobenzene | 200 ug/mL |
| | | | | | | | Bromochloromethane | 200 ug/mL |
| | | | | | | | Bromodichloromethane | 200 ug/mL |
| | | | | | | | Bromoform | 200 ug/mL |
| | | | | | | | Carbon disulfide | 200 ug/mL |
| | | | | | | | Carbon tetrachloride | 200 ug/mL |
| | | | | | | | Chlorobenzene | 200 ug/mL |
| | | | | | | | Chloroform | 200 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | Cyclohexane | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Dibromochloromethane | 200 ug/mL |
| | | | | | | | Dibromomethane | 200 ug/mL |
| | | | | | | | Ethyl ether | 200 ug/mL |
| | | | | | | | Ethyl methacrylate | 200 ug/mL |
| | | | | | | | Ethylbenzene | 200 ug/mL |
| | | | | | | | Hexachlorobutadiene | 200 ug/mL |
| | | | | | | | Hexane | 200 ug/mL |
| | | | | | | | Iodomethane | 200 ug/mL |
| | | | | | | | Isobutyl alcohol | 5000 ug/mL |
| | | | | | | | Isopropylbenzene | 200 ug/mL |
| | | | | | | | m,p-Xylene | 200 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 200 ug/mL |
| | | | | | | | Methylcyclohexane | 200 ug/mL |
| | | | | | | | Methylene Chloride | 200 ug/mL |
| | | | | | | | n-Butylbenzene | 200 ug/mL |
| | | | | | | | n-Heptane | 200 ug/mL |
| | | | | | | | N-Propylbenzene | 200 ug/mL |
| | | | | | | | Naphthalene | 200 ug/mL |
| | | | | | | | o-Xylene | 200 ug/mL |
| | | | | | | | p-Isopropyltoluene | 200 ug/mL |
| | | | | | | | sec-Butylbenzene | 200 ug/mL |
| | | | | | | | Styrene | 200 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 2000 ug/mL |
| | | | | | | | tert-Butylbenzene | 200 ug/mL |
| | | | | | | | Tetrachloroethene | 200 ug/mL |
| | | | | | | | Tetrahydrofuran | 400 ug/mL |
| | | | | | | | Toluene | 200 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 200 ug/mL |
| | | | | | | | Trichloroethene | 200 ug/mL |
| | | | | | VMA158260VA1_00044 | 40 uL | Vinyl acetate | 200 ug/mL |
| | | | | | VMA178260ETH1_00007 | 100 uL | Ethanol | 10000 ug/mL |
| | | | | | VMA178260POL1_00007 | 80 uL | Acetonitrile | 2000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 200 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 200 ug/mL |
| | | | | | | | Propionitrile | 2000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 200 ug/mL |
| | | | | | VMANU8260ACR1_00100 | 10 uL | Acrolein | 200 ug/mL |
| .VMA1582602CV1_00027 | 05/07/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| .VMA158260GAS1_00198 | 05/14/18 | | Restek, Lot A0124278 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00041 | 05/07/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00041 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA158260VA1_00044 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| .VMA178260ETH1_00007 | 05/07/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| .VMA178260POL1_00007 | 05/07/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| .VMANU8260ACR1_00100 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260200_00174** | 12/19/17 | 12/12/17 | Methanol, Lot 4506063 | 1 mL | VMA1582602CV1_00028 | 80 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |
| | | | | | VMA158260GAS1_00208 | 80 uL | Bromomethane | 200 ug/mL |
| | | | | | | | Butadiene | 200 ug/mL |
| | | | | | | | Chloroethane | 200 ug/mL |
| | | | | | | | Chloromethane | 200 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 200 ug/mL |
| | | | | | | | Dichlorofluoromethane | 200 ug/mL |
| | | | | | | | Trichlorofluoromethane | 200 ug/mL |
| | | | | | | | Vinyl chloride | 200 ug/mL |
| | | | | | VMA158260KET1_00042 | 16 uL | 2-Butanone (MEK) | 200 ug/mL |
| | | | | | | | 2-Hexanone | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 200 ug/mL |
| | | | | | | | Acetone | 200 ug/mL |
| | | | | | VMA158260MEG1_00042 | 80 uL | 1,1,1,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 200 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 200 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 200 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 200 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 2-Chlorotoluene | 200 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 200 ug/mL |
| | | | | | | | 4-Chlorotoluene | 200 ug/mL |
| | | | | | | | Acrylonitrile | 2000 ug/mL |
| | | | | | | | Benzene | 200 ug/mL |
| | | | | | | | Bromobenzene | 200 ug/mL |
| | | | | | | | Bromochloromethane | 200 ug/mL |
| | | | | | | | Bromodichloromethane | 200 ug/mL |
| | | | | | | | Bromoform | 200 ug/mL |
| | | | | | | | Carbon disulfide | 200 ug/mL |
| | | | | | | | Carbon tetrachloride | 200 ug/mL |
| | | | | | | | Chlorobenzene | 200 ug/mL |
| | | | | | | | Chloroform | 200 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | Cyclohexane | 200 ug/mL |
| | | | | | | | Dibromochloromethane | 200 ug/mL |
| | | | | | | | Dibromomethane | 200 ug/mL |
| | | | | | | | Ethyl ether | 200 ug/mL |
| | | | | | | | Ethyl methacrylate | 200 ug/mL |
| | | | | | | | Ethylbenzene | 200 ug/mL |
| | | | | | | | Hexachlorobutadiene | 200 ug/mL |
| | | | | | | | Hexane | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Iodomethane | 200 ug/mL |
| | | | | | | | Isobutyl alcohol | 5000 ug/mL |
| | | | | | | | Isopropylbenzene | 200 ug/mL |
| | | | | | | | m,p-Xylene | 200 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 200 ug/mL |
| | | | | | | | Methylcyclohexane | 200 ug/mL |
| | | | | | | | Methylene Chloride | 200 ug/mL |
| | | | | | | | n-Butylbenzene | 200 ug/mL |
| | | | | | | | n-Heptane | 200 ug/mL |
| | | | | | | | N-Propylbenzene | 200 ug/mL |
| | | | | | | | Naphthalene | 200 ug/mL |
| | | | | | | | o-Xylene | 200 ug/mL |
| | | | | | | | p-Isopropyltoluene | 200 ug/mL |
| | | | | | | | sec-Butylbenzene | 200 ug/mL |
| | | | | | | | Styrene | 200 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 2000 ug/mL |
| | | | | | | | tert-Butylbenzene | 200 ug/mL |
| | | | | | | | Tetrachloroethene | 200 ug/mL |
| | | | | | | | Tetrahydrofuran | 400 ug/mL |
| | | | | | | | Toluene | 200 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 200 ug/mL |
| | | | | | | | Trichloroethene | 200 ug/mL |
| | | | | | VMA158260VA1_00045 | 40 uL | Vinyl acetate | 200 ug/mL |
| | | | | | VMA178260ETH1_00008 | 100 uL | Ethanol | 10000 ug/mL |
| | | | | | VMA178260POL1_00008 | 80 uL | Acetonitrile | 2000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 200 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 200 ug/mL |
| | | | | | | | Propionitrile | 2000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 200 ug/mL |
| | | | | | VMANU8260ACR1_00101 | 10 uL | Acrolein | 200 ug/mL |
| .VMA1582602CV1_00028 | 06/04/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| .VMA158260GAS1_00208 | 06/12/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00042 | 06/04/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00042 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA158260VA1_00045 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| .VMA178260ETH1_00008 | 06/04/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| .VMA178260POL1_00008 | 06/04/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| .VMANU8260ACR1_00101 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260CCV1_00835** | 11/21/17 | 11/14/17 | Methanol, Lot 4415769 | 1 mL | VMA1582602CV1_00027 | 20 uL | 2-Chloroethyl vinyl ether | 50 ug/mL |
| | | | | | VMA158260GAS1_00198 | 20 uL | Bromomethane | 50 ug/mL |
| | | | | | | | Butadiene | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 50 ug/mL |
| | | | | | | | Dichlorofluoromethane | 50 ug/mL |
| | | | | | | | Trichlorofluoromethane | 50 ug/mL |
| | | | | | | | Vinyl chloride | 50 ug/mL |
| | | | | | VMA158260KET1_00041 | 4 uL | 2-Butanone (MEK) | 50 ug/mL |
| | | | | | | | 2-Hexanone | 50 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ug/mL |
| | | | | | | | Acetone | 50 ug/mL |
| | | | | | VMA158260MEG1_00041 | 20 uL | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | Acrylonitrile | 500 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromochloromethane | 50 ug/mL |
| | | | | | | | Bromodichloromethane | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon disulfide | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Cyclohexane | 50 ug/mL |
| | | | | | | | Dibromochloromethane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Ethyl ether | 50 ug/mL |
| | | | | | | | Ethyl methacrylate | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Hexane | 50 ug/mL |
| | | | | | | | Iodomethane | 50 ug/mL |
| | | | | | | | Isobutyl alcohol | 1250 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m,p-Xylene | 50 ug/mL |
| | | | | | | | Methyl acetate | 250 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ug/mL |
| | | | | | | | Methylcyclohexane | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | n-Heptane | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | p-Isopropyltoluene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Tetrahydrofuran | 100 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | VMA158260VA1_00044 | 8 uL | Vinyl acetate | 40 ug/mL |
| | | | | | VMA178260ETH1_00007 | 20 uL | Ethanol | 2000 ug/mL |
| | | | | | VMA178260POL1_00007 | 20 uL | Acetonitrile | 500 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 50 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ug/mL |
| | | | | | | | Propionitrile | 500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ug/mL |
| | | | | | VMANU8260ACR1_00100 | 2.5 uL | Acrolein | 50 ug/mL |
| .VMA1582602CV1_00027 | 05/07/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| .VMA158260GAS1_00198 | 05/14/18 | | Restek, Lot A0124278 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00041 | 05/07/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00041 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA158260VA1_00044 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| .VMA178260ETH1_00007 | 05/07/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| .VMA178260POL1_00007 | 05/07/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| .VMANU8260ACR1_00100 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260CCV1_00855** | 12/19/17 | 12/12/17 | Methanol, Lot 4506063 | 1 mL | VMA1582602CV1_00028 | 20 uL | 2-Chloroethyl vinyl ether | 50 ug/mL |
| | | | | | VMA158260GAS1_00208 | 20 uL | Bromomethane | 50 ug/mL |
| | | | | | | | Butadiene | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 50 ug/mL |
| | | | | | | | Dichlorofluoromethane | 50 ug/mL |
| | | | | | | | Trichlorofluoromethane | 50 ug/mL |
| | | | | | | | Vinyl chloride | 50 ug/mL |
| | | | | | VMA158260KET1_00042 | 4 uL | 2-Butanone (MEK) | 50 ug/mL |
| | | | | | | | 2-Hexanone | 50 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ug/mL |
| | | | | | | | Acetone | 50 ug/mL |
| | | | | | VMA158260MEG1_00042 | 20 uL | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | Acrylonitrile | 500 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromochloromethane | 50 ug/mL |
| | | | | | | | Bromodichloromethane | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon disulfide | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Cyclohexane | 50 ug/mL |
| | | | | | | | Dibromochloromethane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Ethyl ether | 50 ug/mL |
| | | | | | | | Ethyl methacrylate | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Hexane | 50 ug/mL |
| | | | | | | | Iodomethane | 50 ug/mL |
| | | | | | | | Isobutyl alcohol | 1250 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m,p-Xylene | 50 ug/mL |
| | | | | | | | Methyl acetate | 250 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ug/mL |
| | | | | | | | Methylcyclohexane | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | n-Heptane | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | p-Isopropyltoluene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Tetrahydrofuran | 100 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | VMA158260VA1_00045 | 8 uL | Vinyl acetate | 40 ug/mL |
| | | | | | VMA178260ETH1_00008 | 20 uL | Ethanol | 2000 ug/mL |
| | | | | | VMA178260POL1_00008 | 20 uL | Acetonitrile | 500 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 50 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ug/mL |
| | | | | | | | Propionitrile | 500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ug/mL |
| | | | | | VMANU8260ACR1_00101 | 2.5 uL | Acrolein | 50 ug/mL |
| .VMA1582602CV1_00028 | 06/04/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| .VMA158260GAS1_00208 | 06/12/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00042 | 06/04/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00042 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA158260VA1_00045 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| .VMA178260ETH1_00008 | 06/04/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| .VMA178260POL1_00008 | 06/04/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| .VMANU8260ACR1_00101 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260CCV1_00883** | 01/23/18 | 01/16/18 | Methanol, Lot 4506057 | 1 mL | VMA158260GAS1_00213 | 20 uL | Bromomethane | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 50 ug/mL |
| | | | | | | | Trichlorofluoromethane | 50 ug/mL |
| | | | | | | | Vinyl chloride | 50 ug/mL |
| | | | | | VMA158260KET1_00046 | 4 uL | 2-Butanone (MEK) | 50 ug/mL |
| | | | | | | | 2-Hexanone | 50 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ug/mL |
| | | | | | | | Acetone | 50 ug/mL |
| | | | | | VMA158260MEG1_00043 | 20 uL | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromochloromethane | 50 ug/mL |
| | | | | | | | Bromodichloromethane | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Dibromochloromethane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m,p-Xylene | 50 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | p-Isopropyltoluene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | VMA178260POL1_00009 | 20 uL | Ethyl-t-butyl ether (ETBE) | 50 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ug/mL |
| .VMA158260GAS1_00213 | 07/16/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00046 | 06/26/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00043 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL1_00009 | 06/26/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNU8260IS_00170** | 12/09/17 | 11/09/17 | Methanol, Lot 4415761 | 1 mL | VMANU8260ISD1_00185 | 20 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00201 | 25 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00185 | 05/09/18 | | Restek, Lot A0128916 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00201 | 05/09/18 | | Restek, Lot A0128685 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260IS_00172** | 12/28/17 | 11/28/17 | Methanol, Lot 4506064 | 1 mL | VMANU8260ISD1_00185 | 20 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00201 | 25 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00185 | 05/09/18 | | Restek, Lot A0128916 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00201 | 05/09/18 | | Restek, Lot A0128685 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00131** | 12/08/17 | 11/08/17 | Methanol, Lot 4415760 | 40 mL | VMANU8260ISD1_00183 | 800 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00189 | 1000 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00183 | 05/08/18 | | Restek, Lot A0128916 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00189 | 05/08/18 | | Restek, Lot A0123820 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00131** | 12/08/17 | 11/08/17 | Methanol, Lot 4415760 | 40 mL | VMANU8260SUR2_00036 | 800 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR2_00036 | 05/08/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNU8260ISS_00134** | 01/12/18 | 12/12/17 | Methanol, Lot 4506056 | 40 mL | VMANU8260ISD1_00188 | 800 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00200 | 1000 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00188 | 06/12/18 | | Restek, Lot A0128916 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00200 | 06/12/18 | | Restek, Lot A0128685 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **VMWNU8260ISS_00134** | 01/12/18 | 12/12/17 | Methanol, Lot 4506056 | 40 mL | VMANU8260SUR2_00036 | 800 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR2_00036 | 05/08/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNU8260ISS_00135** | 01/27/18 | 12/27/17 | Methanol, Lot 4506063 | 40 mL | VMANU8260ISD1_00191 | 800 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00202 | 1000 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00191 | 06/27/18 | | Restek, Lot A0128916 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00202 | 06/27/18 | | Restek, Lot A0128685 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00135** | 01/27/18 | 12/27/17 | Methanol, Lot 4506063 | 40 mL | VMANU8260SUR2_00036 | 800 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR2_00036 | 05/08/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNU8260LCS2_00164** | 11/22/17 | 11/15/17 | Methanol, Lot 4415769 | 10 mL | VMA158260GAS2_00215 | 200 uL | Bromomethane | 50 ppm |
| | | | | | | | Chloroethane | 50 ppm |
| | | | | | | | Chloromethane | 50 ppm |
| | | | | | | | Dichlorodifluoromethane | 50 ppm |
| | | | | | | | Trichlorofluoromethane | 50 ppm |
| | | | | | | | Vinyl chloride | 50 ppm |
| | | | | | VMA158260KET2_00040 | 40 uL | 2-Butanone (MEK) | 50 ppm |
| | | | | | | | 2-Hexanone | 50 ppm |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ppm |
| | | | | | | | Acetone | 50 ppm |
| | | | | | VMA158260MEG2_00051 | 200 uL | 1,1,1,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,1-Trichloroethane | 50 ppm |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,2-Trichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethene | 50 ppm |
| | | | | | | | 1,1-Dichloropropene | 50 ppm |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,3-Trichloropropane | 50 ppm |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ppm |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ppm |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,2-Dichloroethane | 50 ppm |
| | | | | | | | 1,2-Dichloropropane | 50 ppm |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,3-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,3-Dichloropropane | 50 ppm |
| | | | | | | | 1,4-Dichlorobenzene | 50 ppm |
| | | | | | | | 2,2-Dichloropropane | 50 ppm |
| | | | | | | | 2-Chlorotoluene | 50 ppm |
| | | | | | | | 4-Chlorotoluene | 50 ppm |
| | | | | | | | Benzene | 50 ppm |
| | | | | | | | Bromobenzene | 50 ppm |
| | | | | | | | Bromochloromethane | 50 ppm |
| | | | | | | | Bromodichloromethane | 50 ppm |
| | | | | | | | Bromoform | 50 ppm |
| | | | | | | | Carbon tetrachloride | 50 ppm |
| | | | | | | | Chlorobenzene | 50 ppm |
| | | | | | | | Chloroform | 50 ppm |
| | | | | | | | cis-1,2-Dichloroethene | 50 ppm |
| | | | | | | | cis-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Dibromochloromethane | 50 ppm |
| | | | | | | | Dibromomethane | 50 ppm |
| | | | | | | | Ethylbenzene | 50 ppm |
| | | | | | | | Hexachlorobutadiene | 50 ppm |
| | | | | | | | Isopropylbenzene | 50 ppm |
| | | | | | | | m,p-Xylene | 50 ppm |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ppm |
| | | | | | | | Methylene Chloride | 50 ppm |
| | | | | | | | n-Butylbenzene | 50 ppm |
| | | | | | | | N-Propylbenzene | 50 ppm |
| | | | | | | | Naphthalene | 50 ppm |
| | | | | | | | o-Xylene | 50 ppm |
| | | | | | | | p-Isopropyltoluene | 50 ppm |
| | | | | | | | sec-Butylbenzene | 50 ppm |
| | | | | | | | Styrene | 50 ppm |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ppm |
| | | | | | | | tert-Butylbenzene | 50 ppm |
| | | | | | | | Tetrachloroethene | 50 ppm |
| | | | | | | | Toluene | 50 ppm |
| | | | | | | | trans-1,2-Dichloroethene | 50 ppm |
| | | | | | | | trans-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Trichloroethene | 50 ppm |
| | | | | | VMA178260POL2_00009 | 200 uL | Ethyl-t-butyl ether (ETBE) | 50 ppm |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ppm |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ppm |
| .VMA158260GAS2_00215 | 05/15/18 | | Restek, Lot A0128832 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET2_00040 | 05/08/18 | | Restek, Lot A0123880 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG2_00051 | 05/08/18 | | Restek, Lot A0120604 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL2_00009 | 05/08/18 | | Restek, Lot A0123771 | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNU8260LCS2_00169** | 12/20/17 | 12/13/17 | Methanol, Lot 4506064 | 10 mL | VMA158260GAS2_00224 | 200 uL | Bromomethane | 50 ppm |
| | | | | | | | Chloroethane | 50 ppm |
| | | | | | | | Chloromethane | 50 ppm |
| | | | | | | | Dichlorodifluoromethane | 50 ppm |
| | | | | | | | Trichlorofluoromethane | 50 ppm |
| | | | | | | | Vinyl chloride | 50 ppm |
| | | | | | VMA158260KET2_00041 | 40 uL | 2-Butanone (MEK) | 50 ppm |
| | | | | | | | 2-Hexanone | 50 ppm |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ppm |
| | | | | | | | Acetone | 50 ppm |
| | | | | | VMA158260MEG2_00052 | 200 uL | 1,1,1,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,1-Trichloroethane | 50 ppm |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,2-Trichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethene | 50 ppm |
| | | | | | | | 1,1-Dichloropropene | 50 ppm |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,3-Trichloropropane | 50 ppm |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ppm |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ppm |
| | | | | | | | 1,2-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,2-Dichloroethane | 50 ppm |
| | | | | | | | 1,2-Dichloropropane | 50 ppm |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,3-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,3-Dichloropropane | 50 ppm |
| | | | | | | | 1,4-Dichlorobenzene | 50 ppm |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 2,2-Dichloropropane | 50 ppm |
| | | | | | | | 2-Chlorotoluene | 50 ppm |
| | | | | | | | 4-Chlorotoluene | 50 ppm |
| | | | | | | | Benzene | 50 ppm |
| | | | | | | | Bromobenzene | 50 ppm |
| | | | | | | | Bromochloromethane | 50 ppm |
| | | | | | | | Bromodichloromethane | 50 ppm |
| | | | | | | | Bromoform | 50 ppm |
| | | | | | | | Carbon tetrachloride | 50 ppm |
| | | | | | | | Chlorobenzene | 50 ppm |
| | | | | | | | Chloroform | 50 ppm |
| | | | | | | | cis-1,2-Dichloroethene | 50 ppm |
| | | | | | | | cis-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Dibromochloromethane | 50 ppm |
| | | | | | | | Dibromomethane | 50 ppm |
| | | | | | | | Ethylbenzene | 50 ppm |
| | | | | | | | Hexachlorobutadiene | 50 ppm |
| | | | | | | | Isopropylbenzene | 50 ppm |
| | | | | | | | m,p-Xylene | 50 ppm |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ppm |
| | | | | | | | Methylene Chloride | 50 ppm |
| | | | | | | | n-Butylbenzene | 50 ppm |
| | | | | | | | N-Propylbenzene | 50 ppm |
| | | | | | | | Naphthalene | 50 ppm |
| | | | | | | | o-Xylene | 50 ppm |
| | | | | | | | p-Isopropyltoluene | 50 ppm |
| | | | | | | | sec-Butylbenzene | 50 ppm |
| | | | | | | | Styrene | 50 ppm |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ppm |
| | | | | | | | tert-Butylbenzene | 50 ppm |
| | | | | | | | Tetrachloroethene | 50 ppm |
| | | | | | | | Toluene | 50 ppm |
| | | | | | | | trans-1,2-Dichloroethene | 50 ppm |
| | | | | | | | trans-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Trichloroethene | 50 ppm |
| | | | | | VMA178260POL2_00010 | 200 uL | Ethyl-t-butyl ether (ETBE) | 50 ppm |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ppm |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ppm |
| .VMA158260GAS2_00224 | 06/13/18 | | Restek, Lot A0128832 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET2_00041 | 05/29/18 | | Restek, Lot A0123880 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .VMA158260MEG2_00052 | 05/29/18 | | Restek, Lot A0120604 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL2_00010 | 05/29/18 | Restek, Lot A0126826 | | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNU8260LCS2_00174** | 01/24/18 | 01/17/18 | Methanol, Lot 4506057 | 10 mL | VMA158260GAS2_00232 | 200 uL | Bromomethane | 50 ppm |
| | | | | | | | Chloroethane | 50 ppm |
| | | | | | | | Chloromethane | 50 ppm |
| | | | | | | | Dichlorodifluoromethane | 50 ppm |
| | | | | | | | Trichlorofluoromethane | 50 ppm |
| | | | | | | | Vinyl chloride | 50 ppm |
| | | | | | VMA158260KET2_00042 | 40 uL | 2-Butanone (MEK) | 50 ppm |
| | | | | | | | 2-Hexanone | 50 ppm |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ppm |
| | | | | | | | Acetone | 50 ppm |
| | | | | | VMA158260MEG2_00053 | 200 uL | 1,1,1,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,1-Trichloroethane | 50 ppm |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,2-Trichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethene | 50 ppm |
| | | | | | | | 1,1-Dichloropropene | 50 ppm |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,3-Trichloropropane | 50 ppm |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ppm |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ppm |
| | | | | | | | 1,2-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,2-Dichloroethane | 50 ppm |
| | | | | | | | 1,2-Dichloropropane | 50 ppm |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,3-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,3-Dichloropropane | 50 ppm |
| | | | | | | | 1,4-Dichlorobenzene | 50 ppm |
| | | | | | | | 2,2-Dichloropropane | 50 ppm |
| | | | | | | | 2-Chlorotoluene | 50 ppm |
| | | | | | | | 4-Chlorotoluene | 50 ppm |
| | | | | | | | Benzene | 50 ppm |
| | | | | | | | Bromobenzene | 50 ppm |
| | | | | | | | Bromochloromethane | 50 ppm |
| | | | | | | | Bromodichloromethane | 50 ppm |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Bromoform | 50 ppm |
| | | | | | | | Carbon tetrachloride | 50 ppm |
| | | | | | | | Chlorobenzene | 50 ppm |
| | | | | | | | Chloroform | 50 ppm |
| | | | | | | | cis-1,2-Dichloroethene | 50 ppm |
| | | | | | | | cis-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Dibromochloromethane | 50 ppm |
| | | | | | | | Dibromomethane | 50 ppm |
| | | | | | | | Ethylbenzene | 50 ppm |
| | | | | | | | Hexachlorobutadiene | 50 ppm |
| | | | | | | | Isopropylbenzene | 50 ppm |
| | | | | | | | m,p-Xylene | 50 ppm |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ppm |
| | | | | | | | Methylene Chloride | 50 ppm |
| | | | | | | | n-Butylbenzene | 50 ppm |
| | | | | | | | N-Propylbenzene | 50 ppm |
| | | | | | | | Naphthalene | 50 ppm |
| | | | | | | | o-Xylene | 50 ppm |
| | | | | | | | p-Isopropyltoluene | 50 ppm |
| | | | | | | | sec-Butylbenzene | 50 ppm |
| | | | | | | | Styrene | 50 ppm |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ppm |
| | | | | | | | tert-Butylbenzene | 50 ppm |
| | | | | | | | Tetrachloroethene | 50 ppm |
| | | | | | | | Toluene | 50 ppm |
| | | | | | | | trans-1,2-Dichloroethene | 50 ppm |
| | | | | | | | trans-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Trichloroethene | 50 ppm |
| | | | | | VMA178260POL2_00011 | 200 uL | Ethyl-t-butyl ether (ETBE) | 50 ppm |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ppm |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ppm |
| .VMA158260GAS2_00232 | 07/17/18 | | Restek, Lot A0132373 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET2_00042 | 06/27/18 | | Restek, Lot A0123880 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG2_00053 | 06/27/18 | | Restek, Lot A0120604 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .VMA178260POL2_00011 | 06/27/18 | | Restek, Lot A0126826 | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNUSURR200_00167** | 12/14/17 | 11/14/17 | Methanol, Lot 4415769 | 1 mL | VMANU8260SUR1_00063 | 80 uL | 1,2-Dichloroethane-d4 (Surr) | 200 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 200 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 200 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 200 ug/mL |
| .VMANU8260SUR1_00063 | 04/30/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNUSURR200_00172** | 01/12/18 | 12/12/17 | Methanol, Lot 4506063 | 1 mL | VMANU8260SUR1_00064 | 80 uL | 1,2-Dichloroethane-d4 (Surr) | 200 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 200 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 200 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 200 ug/mL |
| .VMANU8260SUR1_00064 | 05/28/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNUSURR50_00167** | 12/14/17 | 11/14/17 | Methanol, Lot 4415769 | 1 mL | VMANU8260SUR1_00063 | 20 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR1_00063 | 04/30/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNUSURR50_00172** | 01/12/18 | 12/12/17 | Methanol, Lot 4506063 | 1 mL | VMANU8260SUR1_00064 | 20 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR1_00064 | 05/28/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **WC3001ICV_00036** | 05/31/18 | 12/08/17 | Di Water, Lot 20171208 | 100 mL | WC2CHLORATE_00004 | 0.4 mL | Chlorate | 4.004 mg/L |
| | | | | | WC2CHLORITE_00019 | 0.4 mL | Chlorite | 4 mg/L |
| .WC2CHLORATE_00004 | 11/30/20 | | Ultra Scientific, Lot CP-5286 | | (Purchased Reagent) | | Chlorate | 1001 mg/L |
| .WC2CHLORITE_00019 | 05/31/18 | | Ultra Scientific, Lot CR-24923 | | (Purchased Reagent) | | Chlorite | 1000 mg/L |
| **WC3001LCS_00059** | 06/08/18 | 12/08/17 | Di Water, Lot 20171208 | 100 mL | WC1BROMATE_00008 | 0.1 mL | Bromate | 1 mg/L |
| | | | | | WC1CHLORATE_00009 | 0.4 mL | Chlorate | 4 mg/L |
| | | | | | WC1CHLORITE_00008 | 0.4 mL | Chlorite | 4 mg/L |
| | | | | | wcbromide_00014 | 0.1 mL | Bromide | 10 mg/L |
| .WC1BROMATE_00008 | 01/01/19 | | O2Si, Lot 131599-4 | | (Purchased Reagent) | | Bromate | 1000 mg/L |
| .WC1CHLORATE_00009 | 01/01/19 | | O2Si, Lot 142627-2 | | (Purchased Reagent) | | Chlorate | 1000 mg/L |
| .WC1CHLORITE_00008 | 11/27/19 | | O2Si, Lot 146667-16 | | (Purchased Reagent) | | Chlorite | 1000 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .wcbromide_00014 | 09/28/18 | Hgh Purity Standards, Lot 1615819 | | | (Purchased Reagent) | | Bromide | 10000 ug/mL |
| **WC314.INF10_00021** | 01/19/18 | 01/18/18 | DI water, Lot 20180118 | 50 mL | WCCLO41st-10_00013 | 0.05 mL | Perchlorate | 10 ppb |
| .WCCLO41st-10_00013 | 01/29/18 | 11/30/17 | Di Water, Lot 20171130 | 100 mL | WCCLO4-1st_00002 | 1 mL | Perchlorate | 10 mg/L |
| ..WCCLO4-1st_00002 | 01/30/18 | SPEX CERTIPREP, Lot 3-149CLO4-2Y | | | (Purchased Reagent) | | Perchlorate | 1000 mg/L |
| **WCCLO41st-10_00012** | 01/29/18 | 11/29/17 | Di Water, Lot 20171129 | 100 mL | WCCLO4-1st_00002 | 1 mL | Perchlorate | 10 mg/L |
| .WCCLO4-1st_00002 | 01/30/18 | SPEX CERTIPREP, Lot 3-149CLO4-2Y | | | (Purchased Reagent) | | Perchlorate | 1000 mg/L |
| **WCCLO4ICV10_00029** | 03/10/18 | 12/08/17 | Di Water, Lot 12/10/2017 | 100 mL | WCCLO4ICV_00016 | 1 mL | Perchlorate | 10.0002 mg/L |
| .WCCLO4ICV_00016 | 12/10/18 | 12/08/17 | Di Water, Lot 12/10/2017 | 250 mL | WCCLO4ICVSOLI_00002 | 0.3078 g | Perchlorate | 1000.02 mg/L |
| ..WCCLO4ICVSOLI_00002 | 06/01/22 | SPECTRUM, Lot 2FH0070 | | | (Purchased Reagent) | | Perchlorate | 0.81223 g/g |
| **WCCR6ICV5PPM_00048** | 07/07/17 | 06/07/17 | Di Water, Lot 20170607 | 50 mL | WCCR6ICV_00020 | 5 mL | Chromium, hexavalent | 4.99849 mg/L |
| .WCCR6ICV_00020 | 09/23/17 | 03/23/17 | Di Water, Lot 20170323 | 1000 mL | WCK2CR2O7_00003 | 0.1414 g | Chromium, hexavalent | 49.9849 mg/L |
| ..WCK2CR2O7_00003 | 03/22/22 | FISHER, Lot 166724 | | | (Purchased Reagent) | | Chromium, hexavalent | 0.3535 g/g |
| **WCCR6ICV5PPM_00051** | 11/02/17 | 10/02/17 | Di Water, Lot 20171002 | 50 mL | WCCR6ICV_00023 | 5 mL | Chromium, hexavalent | 4.99849 mg/L |
| .WCCR6ICV_00023 | 04/02/18 | 10/02/17 | Di Water, Lot 20170323 | 1000 mL | WCK2CR2O7_00003 | 0.1414 g | Chromium, hexavalent | 49.9849 mg/L |
| ..WCK2CR2O7_00003 | 03/22/22 | FISHER, Lot 166724 | | | (Purchased Reagent) | | Chromium, hexavalent | 0.3535 g/g |
| **WCCR6LCS50PPM_00038** | 05/21/18 | 11/21/17 | Di Water, Lot 20171121 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| .WCCr6 K2Cr2O4_00009 | 04/30/19 | ERA, Lot 040416 | | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCCR6LCS5PPM_00094** | 07/05/17 | 06/05/17 | Di Water, Lot 20170605 | 50 mL | WCCR6LCS50PPM_00037 | 5 mL | Chromium, hexavalent | 5 mg/L |
| .WCCR6LCS50PPM_00037 | 12/03/17 | 06/05/17 | Di Water, Lot 20170605 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| ..WCCr6 K2Cr2O4_00009 | 04/30/19 | ERA, Lot 040416 | | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCCR6LCS5PPM_00098** | 10/21/17 | 09/21/17 | Di Water, Lot 201709021 | 50 mL | WCCR6LCS50PPM_00037 | 5 mL | Chromium, hexavalent | 5 mg/L |
| .WCCR6LCS50PPM_00037 | 12/03/17 | 06/05/17 | Di Water, Lot 20170605 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| ..WCCr6 K2Cr2O4_00009 | 04/30/19 | ERA, Lot 040416 | | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCCR6LCS5PPM_00103** | 01/26/18 | 12/26/17 | Di Water, Lot 20171226 | 50 mL | WCCR6LCS50PPM_00038 | 5 mL | Chromium, hexavalent | 5 mg/L |
| .WCCR6LCS50PPM_00038 | 05/21/18 | 11/21/17 | Di Water, Lot 20171121 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| ..WCCr6 K2Cr2O4_00009 | 04/30/19 | ERA, Lot 040416 | | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCDCA_00055** | 03/08/18 | 12/08/17 | Di Water, Lot 20171208 | 100 mL | WCKDCA_00003 | 0.065 g | Dichloroacetic acid(Surr) | 496.855 mg/L |
| .WCKDCA_00003 | 02/28/20 | Aldrich, Lot MKBR8264V | | | (Purchased Reagent) | | Dichloroacetic acid(Surr) | 0.764393 g/g |
| **WCDCA_00056** | 03/26/18 | 12/26/17 | Di Water, Lot 20171226 | 100 mL | WCKDCA_00003 | 0.065 g | Dichloroacetic acid(Surr) | 496.855 mg/L |
| .WCKDCA_00003 | 02/28/20 | Aldrich, Lot MKBR8264V | | | (Purchased Reagent) | | Dichloroacetic acid(Surr) | 0.764393 g/g |

# Method 8260B Low Level

## Volatile Organic Compounds (GC/MS) by Method 8260B Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-VRX B ID: 0.25(mm)

| Client Sample ID | Lab Sample ID | DBFM # | TOL # | BFB # |
|---|---|---|---|---|
| VER-01I-C-48 | 440-201313-1 | 120 | 96 | 83 |
| VER-01I-C-48 DL | 440-201313-1 DL | 99 | 106 | 101 |
| Trip Blank | 440-201313-2 | 120 | 94 | 84 |
| Trip Blank RA | 440-201313-2 RA | 101 | 106 | 99 |
| VER-01I-C-60 | 440-201313-3 | 123 | 92 | 86 |
| VER-01I-C-60 DL | 440-201313-3 DL | 101 | 106 | 100 |
| | MB 440-452839/4 | 108 | 99 | 89 |
| | MB 440-452937/4 | 97 | 109 | 100 |
| | LCS 440-452839/5 | 105 | 96 | 89 |
| | LCS 440-452937/5 | 98 | 104 | 101 |
| VER-01I-C-48 MS | 440-201313-1 MS | 100 | 103 | 100 |
| | 440-201437-B-3 MS | 107 | 96 | 87 |
| VER-01I-C-48 MSD | 440-201313-1 MSD | 100 | 102 | 102 |
| | 440-201437-B-3 MSD | 107 | 96 | 88 |

| | QC LIMITS |
|---|---|
| DBFM = Dibromofluoromethane (Surr) | 76-132 |
| TOL = Toluene-d8 (Surr) | 80-128 |
| BFB = 4-Bromofluorobenzene (Surr) | 80-120 |

# Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YGA20005.D

Lab ID: LCS 440-452839/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Acetone | 25.0 | 21.6 | 86 | 10-150 | |
| Benzene | 25.0 | 23.8 | 95 | 68-130 | |
| Bromobenzene | 25.0 | 26.2 | 105 | 70-130 | |
| Bromochloromethane | 25.0 | 29.3 | 117 | 70-130 | |
| Bromodichloromethane | 25.0 | 25.8 | 103 | 70-132 | |
| Bromoform | 25.0 | 29.8 | 119 | 60-148 | |
| Bromomethane | 25.0 | 27.8 | 111 | 64-139 | |
| 2-Butanone (MEK) | 25.0 | 24.2 | 97 | 44-150 | |
| Carbon tetrachloride | 25.0 | 28.8 | 115 | 60-150 | |
| Chlorobenzene | 25.0 | 25.1 | 101 | 70-130 | |
| Chloroethane | 25.0 | 21.1 | 85 | 64-135 | |
| Chloromethane | 25.0 | 20.2 | 81 | 47-140 | |
| 2-Chlorotoluene | 25.0 | 23.6 | 95 | 70-130 | |
| 4-Chlorotoluene | 25.0 | 24.3 | 97 | 70-130 | |
| cis-1,2-Dichloroethene | 25.0 | 26.1 | 104 | 70-133 | |
| cis-1,3-Dichloropropene | 25.0 | 23.3 | 93 | 70-133 | |
| Dibromochloromethane | 25.0 | 26.4 | 105 | 69-145 | |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 24.1 | 96 | 52-140 | |
| 1,2-Dibromoethane (EDB) | 25.0 | 24.9 | 100 | 70-130 | |
| Dibromomethane | 25.0 | 24.5 | 98 | 70-130 | |
| 1,2-Dichlorobenzene | 25.0 | 26.7 | 107 | 70-130 | |
| 1,3-Dichlorobenzene | 25.0 | 26.0 | 104 | 70-130 | |
| 1,4-Dichlorobenzene | 25.0 | 25.5 | 102 | 70-130 | |
| Dichlorodifluoromethane | 25.0 | 29.7 | 119 | 29-150 | |
| 1,1-Dichloroethane | 25.0 | 22.8 | 91 | 64-130 | |
| 1,2-Dichloroethane | 25.0 | 25.1 | 100 | 57-138 | |
| 1,1-Dichloroethene | 25.0 | 25.9 | 104 | 70-130 | |
| 1,2-Dichloropropane | 25.0 | 21.9 | 88 | 67-130 | |
| 1,3-Dichloropropane | 25.0 | 21.8 | 87 | 70-130 | |
| 2,2-Dichloropropane | 25.0 | 27.3 | 109 | 68-141 | |
| 1,1-Dichloropropene | 25.0 | 26.9 | 108 | 70-130 | |
| Ethylbenzene | 25.0 | 25.6 | 102 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 24.5 | 98 | 60-136 | |
| Hexachlorobutadiene | 25.0 | 31.2 | 125 | 10-150 | |
| 2-Hexanone | 25.0 | 21.8 | 87 | 10-150 | |
| Isopropylbenzene | 25.0 | 29.0 | 116 | 70-136 | |
| Isopropyl Ether (DIPE) | 25.0 | 20.0 | 80 | 58-139 | |
| Methylene Chloride | 25.0 | 20.0 | 80 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 20.8 | 83 | 59-149 | |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 26.0 | 104 | 63-131 | |
| m,p-Xylene | 25.0 | 27.2 | 109 | 70-130 | |
| Naphthalene | 25.0 | 28.0 | 112 | 60-140 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YGA20005.D

Lab ID: LCS 440-452839/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| n-Butylbenzene | 25.0 | 26.0 | 104 | 65-150 | |
| N-Propylbenzene | 25.0 | 25.0 | 100 | 67-139 | |
| o-Xylene | 25.0 | 27.7 | 111 | 70-130 | |
| p-Isopropyltoluene | 25.0 | 27.1 | 108 | 70-132 | |
| sec-Butylbenzene | 25.0 | 26.1 | 104 | 70-138 | |
| Styrene | 25.0 | 26.2 | 105 | 70-134 | |
| Tert-amyl-methyl ether (TAME) | 25.0 | 24.9 | 100 | 57-139 | |
| tert-Butyl alcohol (TBA) | 250 | 255 | 102 | 70-130 | |
| tert-Butylbenzene | 25.0 | 27.4 | 110 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 25.0 | 27.4 | 110 | 60-141 | |
| 1,1,2,2-Tetrachloroethane | 25.0 | 20.6 | 83 | 63-130 | |
| Tetrachloroethene | 25.0 | 30.0 | 120 | 70-130 | |
| Toluene | 25.0 | 25.2 | 101 | 70-130 | |
| trans-1,2-Dichloroethene | 25.0 | 27.3 | 109 | 70-130 | |
| trans-1,3-Dichloropropene | 25.0 | 23.8 | 95 | 70-132 | |
| 1,2,3-Trichlorobenzene | 25.0 | 30.0 | 120 | 60-140 | |
| 1,2,4-Trichlorobenzene | 25.0 | 29.6 | 118 | 60-140 | |
| 1,1,1-Trichloroethane | 25.0 | 27.8 | 111 | 70-130 | |
| 1,1,2-Trichloroethane | 25.0 | 22.6 | 90 | 70-130 | |
| Trichloroethene | 25.0 | 29.5 | 118 | 70-130 | |
| Trichlorofluoromethane | 25.0 | 29.4 | 117 | 60-150 | |
| 1,2,3-Trichloropropane | 25.0 | 24.1 | 96 | 63-130 | |
| 1,2,4-Trimethylbenzene | 25.0 | 24.6 | 99 | 70-135 | |
| 1,3,5-Trimethylbenzene | 25.0 | 26.6 | 107 | 70-136 | |
| Vinyl chloride | 25.0 | 24.1 | 96 | 59-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: SGA220005.D

Lab ID: LCS 440-452937/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chloroform | 25.0 | 23.3 | 93 | 70-130 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: SGA220008.D

Lab ID: 440-201313-1 MS Client ID: VER-01I-C-48 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chloroform | 250 | 630 | 809 | 73 | 70-130 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YGA20008.D

Lab ID: 440-201437-B-3 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Acetone | 25.0 | ND | 24.1 | 96 | 10-150 | |
| Benzene | 25.0 | ND | 24.4 | 98 | 66-130 | |
| Bromobenzene | 25.0 | ND | 26.8 | 107 | 70-130 | |
| Bromochloromethane | 25.0 | ND | 30.9 | 123 | 70-130 | |
| Bromodichloromethane | 25.0 | 0.67 | 27.9 | 109 | 70-138 | |
| Bromoform | 25.0 | 0.66 J | 31.7 | 124 | 59-150 | |
| Bromomethane | 25.0 | ND | 28.1 | 113 | 62-131 | |
| 2-Butanone (MEK) | 25.0 | ND | 23.3 | 93 | 48-140 | |
| Carbon tetrachloride | 25.0 | 0.92 | 31.1 | 121 | 60-150 | |
| Chlorobenzene | 25.0 | ND | 25.9 | 104 | 70-130 | |
| Chloroethane | 25.0 | ND | 21.9 | 88 | 68-130 | |
| Chloroform | 25.0 | 660 | 645 | -49 | 70-130 | E 4 |
| Chloromethane | 25.0 | ND | 20.5 | 82 | 39-144 | |
| 2-Chlorotoluene | 25.0 | ND | 24.1 | 96 | 70-130 | |
| 4-Chlorotoluene | 25.0 | ND | 25.2 | 101 | 70-130 | |
| cis-1,2-Dichloroethene | 25.0 | ND | 26.8 | 107 | 70-130 | |
| cis-1,3-Dichloropropene | 25.0 | ND | 23.8 | 95 | 70-133 | |
| Dibromochloromethane | 25.0 | 0.26 J | 27.9 | 111 | 70-148 | |
| 1,2-Dibromo-3-Chloropropane | 25.0 | ND | 22.8 | 91 | 48-140 | |
| 1,2-Dibromoethane (EDB) | 25.0 | ND | 25.4 | 101 | 70-131 | |
| Dibromomethane | 25.0 | ND | 25.4 | 102 | 70-130 | |
| 1,2-Dichlorobenzene | 25.0 | 5.4 | 33.0 | 111 | 70-130 | |
| 1,3-Dichlorobenzene | 25.0 | 0.28 J | 27.2 | 108 | 70-130 | |
| 1,4-Dichlorobenzene | 25.0 | 1.3 | 28.1 | 107 | 70-130 | |
| Dichlorodifluoromethane | 25.0 | ND | 28.4 | 114 | 25-142 | |
| 1,1-Dichloroethane | 25.0 | ND | 23.3 | 93 | 65-130 | |
| 1,2-Dichloroethane | 25.0 | ND | 26.5 | 106 | 56-146 | |
| 1,1-Dichloroethene | 25.0 | ND | 26.9 | 108 | 70-130 | |
| 1,2-Dichloropropane | 25.0 | ND | 22.5 | 90 | 69-130 | |
| 1,3-Dichloropropane | 25.0 | ND | 22.3 | 89 | 70-130 | |
| 2,2-Dichloropropane | 25.0 | ND | 28.8 | 115 | 69-138 | |
| 1,1-Dichloropropene | 25.0 | ND | 27.1 | 109 | 64-130 | |
| Ethylbenzene | 25.0 | ND | 26.1 | 104 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 25.0 | ND | 26.1 | 104 | 70-130 | |
| Hexachlorobutadiene | 25.0 | ND | 31.2 | 125 | 10-150 | |
| 2-Hexanone | 25.0 | ND | 20.7 | 83 | 10-150 | |
| Isopropylbenzene | 25.0 | ND | 29.7 | 119 | 70-132 | |
| Isopropyl Ether (DIPE) | 25.0 | ND | 21.1 | 84 | 64-138 | |
| Methylene Chloride | 25.0 | ND | 23.1 | 92 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | ND | 20.3 | 81 | 52-150 | |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | ND | 27.1 | 108 | 70-130 | |
| m,p-Xylene | 25.0 | ND | 27.9 | 112 | 70-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YGA20008.D

Lab ID: 440-201437-B-3 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Naphthalene | 25.0 | ND | 27.4 | 109 | 60-140 | |
| n-Butylbenzene | 25.0 | ND | 26.6 | 107 | 61-149 | |
| N-Propylbenzene | 25.0 | ND | 25.6 | 102 | 66-135 | |
| o-Xylene | 25.0 | ND | 28.5 | 114 | 70-133 | |
| p-Isopropyltoluene | 25.0 | ND | 28.1 | 112 | 70-130 | |
| sec-Butylbenzene | 25.0 | ND | 26.6 | 106 | 67-134 | |
| Styrene | 25.0 | ND | 18.1 | 72 | 29-150 | |
| Tert-amyl-methyl ether (TAME) | 25.0 | ND | 25.7 | 103 | 68-133 | |
| tert-Butyl alcohol (TBA) | 250 | ND | 284 | 113 | 70-130 | |
| tert-Butylbenzene | 25.0 | ND | 28.1 | 112 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 25.0 | ND | 28.6 | 115 | 60-149 | |
| 1,1,2,2-Tetrachloroethane | 25.0 | ND | 20.4 | 81 | 63-130 | |
| Tetrachloroethene | 25.0 | 0.95 | 30.8 | 119 | 70-137 | |
| Toluene | 25.0 | ND | 25.9 | 103 | 70-130 | |
| trans-1,2-Dichloroethene | 25.0 | ND | 27.9 | 112 | 70-130 | |
| trans-1,3-Dichloropropene | 25.0 | ND | 24.7 | 99 | 70-138 | |
| 1,2,3-Trichlorobenzene | 25.0 | ND | 29.6 | 118 | 60-140 | |
| 1,2,4-Trichlorobenzene | 25.0 | ND | 29.6 | 118 | 60-140 | |
| 1,1,1-Trichloroethane | 25.0 | ND | 28.9 | 116 | 70-130 | |
| 1,1,2-Trichloroethane | 25.0 | ND | 23.0 | 92 | 70-130 | |
| Trichloroethene | 25.0 | 1.5 | 32.0 | 122 | 70-130 | |
| Trichlorofluoromethane | 25.0 | ND | 30.3 | 121 | 60-150 | |
| 1,2,3-Trichloropropane | 25.0 | ND | 24.1 | 96 | 60-130 | |
| 1,2,4-Trimethylbenzene | 25.0 | ND | 25.3 | 101 | 70-130 | |
| 1,3,5-Trimethylbenzene | 25.0 | ND | 27.1 | 108 | 70-130 | |
| Vinyl chloride | 25.0 | ND | 23.6 | 94 | 50-137 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: SGA220009.D

Lab ID: 440-201313-1 MSD Client ID: VER-01I-C-48 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chloroform | 250 | 819 | 76 | 1 | 20 | 70-130 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YGA20009.D

Lab ID: 440-201437-B-3 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Acetone | 25.0 | 24.7 | 99 | 3 | 35 | 10-150 | |
| Benzene | 25.0 | 23.6 | 95 | 3 | 20 | 66-130 | |
| Bromobenzene | 25.0 | 26.4 | 106 | 1 | 20 | 70-130 | |
| Bromochloromethane | 25.0 | 30.2 | 121 | 2 | 25 | 70-130 | |
| Bromodichloromethane | 25.0 | 27.4 | 107 | 2 | 20 | 70-138 | |
| Bromoform | 25.0 | 31.4 | 123 | 1 | 25 | 59-150 | |
| Bromomethane | 25.0 | 28.2 | 113 | 0 | 25 | 62-131 | |
| 2-Butanone (MEK) | 25.0 | 24.0 | 96 | 3 | 40 | 48-140 | |
| Carbon tetrachloride | 25.0 | 29.8 | 116 | 4 | 25 | 60-150 | |
| Chlorobenzene | 25.0 | 25.4 | 102 | 2 | 20 | 70-130 | |
| Chloroethane | 25.0 | 21.4 | 85 | 3 | 25 | 68-130 | |
| Chloroform | 25.0 | 614 | -173 | 5 | 20 | 70-130 | E 4 |
| Chloromethane | 25.0 | 20.2 | 81 | 1 | 25 | 39-144 | |
| 2-Chlorotoluene | 25.0 | 23.0 | 92 | 5 | 20 | 70-130 | |
| 4-Chlorotoluene | 25.0 | 23.6 | 95 | 6 | 20 | 70-130 | |
| cis-1,2-Dichloroethene | 25.0 | 25.9 | 103 | 4 | 20 | 70-130 | |
| cis-1,3-Dichloropropene | 25.0 | 23.4 | 94 | 2 | 20 | 70-133 | |
| Dibromochloromethane | 25.0 | 27.8 | 110 | 0 | 25 | 70-148 | |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 23.2 | 93 | 2 | 30 | 48-140 | |
| 1,2-Dibromoethane (EDB) | 25.0 | 25.7 | 103 | 1 | 25 | 70-131 | |
| Dibromomethane | 25.0 | 25.6 | 102 | 1 | 25 | 70-130 | |
| 1,2-Dichlorobenzene | 25.0 | 32.2 | 107 | 3 | 20 | 70-130 | |
| 1,3-Dichlorobenzene | 25.0 | 26.3 | 104 | 3 | 20 | 70-130 | |
| 1,4-Dichlorobenzene | 25.0 | 27.0 | 103 | 4 | 20 | 70-130 | |
| Dichlorodifluoromethane | 25.0 | 28.3 | 113 | 0 | 30 | 25-142 | |
| 1,1-Dichloroethane | 25.0 | 23.0 | 92 | 1 | 20 | 65-130 | |
| 1,2-Dichloroethane | 25.0 | 26.1 | 104 | 2 | 20 | 56-146 | |
| 1,1-Dichloroethene | 25.0 | 26.1 | 105 | 3 | 20 | 70-130 | |
| 1,2-Dichloropropane | 25.0 | 22.3 | 89 | 1 | 20 | 69-130 | |
| 1,3-Dichloropropane | 25.0 | 22.0 | 88 | 1 | 25 | 70-130 | |
| 2,2-Dichloropropane | 25.0 | 27.3 | 109 | 5 | 25 | 69-138 | |
| 1,1-Dichloropropene | 25.0 | 26.1 | 104 | 4 | 20 | 64-130 | |
| Ethylbenzene | 25.0 | 25.3 | 101 | 3 | 20 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 26.0 | 104 | 0 | 25 | 70-130 | |
| Hexachlorobutadiene | 25.0 | 30.0 | 120 | 4 | 20 | 10-150 | |
| 2-Hexanone | 25.0 | 20.9 | 84 | 1 | 35 | 10-150 | |
| Isopropylbenzene | 25.0 | 28.6 | 115 | 4 | 20 | 70-132 | |
| Isopropyl Ether (DIPE) | 25.0 | 20.9 | 84 | 1 | 25 | 64-138 | |
| Methylene Chloride | 25.0 | 22.5 | 90 | 3 | 20 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 20.2 | 81 | 0 | 35 | 52-150 | |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 27.4 | 110 | 1 | 25 | 70-130 | |
| m,p-Xylene | 25.0 | 27.5 | 110 | 2 | 25 | 70-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YGA20009.D

Lab ID: 440-201437-B-3 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Naphthalene | 25.0 | 27.6 | 110 | 1 | 30 | 60-140 | |
| n-Butylbenzene | 25.0 | 25.4 | 101 | 5 | 20 | 61-149 | |
| N-Propylbenzene | 25.0 | 24.4 | 98 | 5 | 20 | 66-135 | |
| o-Xylene | 25.0 | 27.8 | 111 | 3 | 20 | 70-133 | |
| p-Isopropyltoluene | 25.0 | 26.9 | 108 | 4 | 20 | 70-130 | |
| sec-Butylbenzene | 25.0 | 25.5 | 102 | 4 | 20 | 67-134 | |
| Styrene | 25.0 | 16.3 | 65 | 11 | 35 | 29-150 | |
| Tert-amyl-methyl ether (TAME) | 25.0 | 25.9 | 104 | 1 | 30 | 68-133 | |
| tert-Butyl alcohol (TBA) | 250 | 265 | 106 | 7 | 25 | 70-130 | |
| tert-Butylbenzene | 25.0 | 26.9 | 108 | 4 | 20 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 25.0 | 28.0 | 112 | 2 | 20 | 60-149 | |
| 1,1,2,2-Tetrachloroethane | 25.0 | 20.3 | 81 | 0 | 30 | 63-130 | |
| Tetrachloroethene | 25.0 | 29.9 | 116 | 3 | 20 | 70-137 | |
| Toluene | 25.0 | 25.2 | 101 | 3 | 20 | 70-130 | |
| trans-1,2-Dichloroethene | 25.0 | 26.8 | 107 | 4 | 20 | 70-130 | |
| trans-1,3-Dichloropropene | 25.0 | 24.6 | 98 | 0 | 25 | 70-138 | |
| 1,2,3-Trichlorobenzene | 25.0 | 29.7 | 119 | 0 | 20 | 60-140 | |
| 1,2,4-Trichlorobenzene | 25.0 | 29.4 | 118 | 1 | 20 | 60-140 | |
| 1,1,1-Trichloroethane | 25.0 | 28.0 | 112 | 3 | 20 | 70-130 | |
| 1,1,2-Trichloroethane | 25.0 | 23.1 | 93 | 0 | 25 | 70-130 | |
| Trichloroethene | 25.0 | 30.8 | 117 | 4 | 20 | 70-130 | |
| Trichlorofluoromethane | 25.0 | 29.7 | 119 | 2 | 25 | 60-150 | |
| 1,2,3-Trichloropropane | 25.0 | 24.1 | 96 | 0 | 30 | 60-130 | |
| 1,2,4-Trimethylbenzene | 25.0 | 24.5 | 98 | 3 | 25 | 70-130 | |
| 1,3,5-Trimethylbenzene | 25.0 | 25.7 | 103 | 5 | 20 | 70-130 | |
| Vinyl chloride | 25.0 | 23.3 | 93 | 1 | 30 | 50-137 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab File ID: YGA20004.D Lab Sample ID: MB 440-452839/4

Matrix: Water Heated Purge:(Y/N) Y

Instrument ID: GCMS58 Date Analyzed: 01/20/2018 10:17

GC Column: DB-VRX B ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 440-452839/5 | YGA20005.D | 01/20/2018 10:46 |
| | 440-201437-B-3 MS | YGA20008.D | 01/20/2018 12:35 |
| | 440-201437-B-3 MSD | YGA20009.D | 01/20/2018 13:04 |
| VER-01I-C-48 | 440-201313-1 | YGA20019.D | 01/20/2018 17:58 |
| Trip Blank | 440-201313-2 | YGA20020.D | 01/20/2018 18:28 |
| VER-01I-C-60 | 440-201313-3 | YGA20021.D | 01/20/2018 18:57 |

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab File ID: SGA220004.D Lab Sample ID: MB 440-452937/4

Matrix: Water Heated Purge:(Y/N) Y

Instrument ID: GCMS36 Date Analyzed: 01/22/2018 08:42

GC Column: DB-VRX A ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 440-452937/5 | SGA220005.D | 01/22/2018 09:07 |
| VER-01I-C-48 DL | 440-201313-1 DL | SGA220007.D | 01/22/2018 09:58 |
| VER-01I-C-48 MS | 440-201313-1 MS | SGA220008.D | 01/22/2018 10:24 |
| VER-01I-C-48 MSD | 440-201313-1 MSD | SGA220009.D | 01/22/2018 10:49 |
| Trip Blank RA | 440-201313-2 RA | SGA220010.D | 01/22/2018 11:14 |
| VER-01I-C-60 DL | 440-201313-3 DL | SGA220011.D | 01/22/2018 11:40 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab File ID: SFK16031.D BFB Injection Date: 11/16/2017

Instrument ID: GCMS36 BFB Injection Time: 23:42

Analysis Batch No.: 442013

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 20.3 | |
| 75 | 30.0 - 60.0 % of mass 95 | 47.2 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 7.5 | |
| 173 | Less than 2.0 % of mass 174 | 0.0 | (0.0) 1 |
| 174 | 50.0 - 120.00 % of mass 95 | 108.9 | |
| 175 | 5.0 - 9.0 % of mass 174 | 9.4 | (8.7) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 107.6 | (98.7) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 7.4 | (6.9) 2 |

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | STD02 440-442013/4 | SFK16034.D | 11/17/2017 | 01:05 |
| | STD04 440-442013/5 | SFK16035.D | 11/17/2017 | 01:31 |
| | STD05 440-442013/6 | SFK16036.D | 11/17/2017 | 01:56 |
| | STD1 440-442013/7 | SFK16037.D | 11/17/2017 | 02:22 |
| | STD2 440-442013/8 | SFK16038.D | 11/17/2017 | 02:47 |
| | STD5 440-442013/9 | SFK16039.D | 11/17/2017 | 03:13 |
| | STD10 440-442013/10 | SFK16040.D | 11/17/2017 | 03:38 |
| | ICIS 440-442013/11 | SFK16041.D | 11/17/2017 | 04:04 |
| | STD50 440-442013/12 | SFK16042.D | 11/17/2017 | 04:29 |
| | STD100 440-442013/13 | SFK16043.D | 11/17/2017 | 04:54 |
| | STD200 440-442013/14 | SFK16044.D | 11/17/2017 | 05:20 |
| | STD300 440-442013/15 | SFK16045.D | 11/17/2017 | 05:45 |
| | ICV 440-442013/18 | SFK16048.D | 11/17/2017 | 07:01 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Lab File ID: SGA220001.D  BFB Injection Date: 01/22/2018

Instrument ID: GCMS36  BFB Injection Time: 07:08

Analysis Batch No.: 452937

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 15.6 | |
| 75 | 30.0 - 60.0 % of mass 95 | 44.3 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 6.4 | |
| 173 | Less than 2.0 % of mass 174 | 0.0 | (0.0) 1 |
| 174 | 50.0 - 120.00 % of mass 95 | 109.7 | |
| 175 | 5.0 - 9.0 % of mass 174 | 8.5 | (7.8) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 107.2 | (97.7) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 7.1 | (6.6) 2 |

1-Value is % mass 174  2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | CCVIS 440-452937/2 | SGA220002.D | 01/22/2018 | 07:51 |
| | MB 440-452937/4 | SGA220004.D | 01/22/2018 | 08:42 |
| | LCS 440-452937/5 | SGA220005.D | 01/22/2018 | 09:07 |
| VER-01I-C-48 DL | 440-201313-1 DL | SGA220007.D | 01/22/2018 | 09:58 |
| VER-01I-C-48 MS | 440-201313-1 MS | SGA220008.D | 01/22/2018 | 10:24 |
| VER-01I-C-48 MSD | 440-201313-1 MSD | SGA220009.D | 01/22/2018 | 10:49 |
| Trip Blank RA | 440-201313-2 RA | SGA220010.D | 01/22/2018 | 11:14 |
| VER-01I-C-60 DL | 440-201313-3 DL | SGA220011.D | 01/22/2018 | 11:40 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab File ID: YFL13010.D BFB Injection Date: 12/13/2017

Instrument ID: GCMS58 BFB Injection Time: 16:39

Analysis Batch No.: 446571

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 20.1 | |
| 75 | 30.0 - 60.0 % of mass 95 | 43.0 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 6.6 | |
| 173 | Less than 2.0 % of mass 174 | 0.0 | (0.0) 1 |
| 174 | 50.0 - 120.00 % of mass 95 | 89.9 | |
| 175 | 5.0 - 9.0 % of mass 174 | 6.7 | (7.4) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 85.7 | (95.3) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 5.7 | (6.6) 2 |

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | STD02 440-446571/4 | YFL13013.D | 12/13/2017 | 18:15 |
| | STD04 440-446571/5 | YFL13014.D | 12/13/2017 | 18:44 |
| | STD05 440-446571/6 | YFL13015.D | 12/13/2017 | 19:14 |
| | STD1 440-446571/7 | YFL13016.D | 12/13/2017 | 19:43 |
| | STD2 440-446571/8 | YFL13017.D | 12/13/2017 | 20:13 |
| | STD5 440-446571/9 | YFL13018.D | 12/13/2017 | 20:42 |
| | STD10 440-446571/10 | YFL13019.D | 12/13/2017 | 21:12 |
| | ICIS 440-446571/11 | YFL13020.D | 12/13/2017 | 21:41 |
| | STD50 440-446571/12 | YFL13021.D | 12/13/2017 | 22:11 |
| | STD100 440-446571/13 | YFL13022.D | 12/13/2017 | 22:41 |
| | STD200 440-446571/14 | YFL13023.D | 12/13/2017 | 23:10 |
| | STD300 440-446571/15 | YFL13024.D | 12/13/2017 | 23:40 |
| | ICV 440-446571/18 | YFL13027.D | 12/14/2017 | 01:08 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab File ID: YGA20001.D BFB Injection Date: 01/20/2018

Instrument ID: GCMS58 BFB Injection Time: 08:49

Analysis Batch No.: 452839

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 18.4 | |
| 75 | 30.0 - 60.0 % of mass 95 | 42.3 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 6.6 | |
| 173 | Less than 2.0 % of mass 174 | 0.0 | (0.0) 1 |
| 174 | 50.0 - 120.00 % of mass 95 | 101.9 | |
| 175 | 5.0 - 9.0 % of mass 174 | 7.6 | (7.4) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 98.1 | (96.2) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 6.5 | (6.6) 2 |

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | CCVIS 440-452839/2 | YGA20002.D | 01/20/2018 | 09:18 |
| | MB 440-452839/4 | YGA20004.D | 01/20/2018 | 10:17 |
| | LCS 440-452839/5 | YGA20005.D | 01/20/2018 | 10:46 |
| | 440-201437-B-3 MS | YGA20008.D | 01/20/2018 | 12:35 |
| | 440-201437-B-3 MSD | YGA20009.D | 01/20/2018 | 13:04 |
| VER-01I-C-48 | 440-201313-1 | YGA20019.D | 01/20/2018 | 17:58 |
| Trip Blank | 440-201313-2 | YGA20020.D | 01/20/2018 | 18:28 |
| VER-01I-C-60 | 440-201313-3 | YGA20021.D | 01/20/2018 | 18:57 |

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Sample No.: ICIS 440-442013/11 Date Analyzed: 11/17/2017 04:04

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm)

Lab File ID (Standard): SFK16041.D Heated Purge: (Y/N) Y

Calibration ID: 17986

| | | TBAd9 | | FB | | CBNZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 120596 | 5.00 | 550812 | 7.92 | 473710 | 10.70 |
| UPPER LIMIT | | 241192 | 5.30 | 1101624 | 8.22 | 947420 | 11.00 |
| LOWER LIMIT | | 60298 | 4.70 | 275406 | 7.62 | 236855 | 10.40 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 440-442013/18 | | 130806 | 5.00 | 528854 | 7.93 | 467228 | 10.70 |
| CCVIS 440-452937/2 | | 189719 | 4.99 | 649261 | 7.92 | 553223 | 10.69 |

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Sample No.: ICIS 440-442013/11 Date Analyzed: 11/17/2017 04:04

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm)

Lab File ID (Standard): SFK16041.D Heated Purge: (Y/N) Y

Calibration ID: 17986

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 261405 | 13.16 | | | | |
| UPPER LIMIT | | 522810 | 13.46 | | | | |
| LOWER LIMIT | | 130703 | 12.86 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 440-442013/18 | | 274430 | 13.16 | | | | |
| CCVIS 440-452937/2 | | 320225 | 13.16 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Sample No.: CCVIS 440-452937/2 Date Analyzed: 01/22/2018 07:51

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm)

Lab File ID (Standard): SGA220002.D Heated Purge: (Y/N) Y

Calibration ID: 18373

| | | TBAd9 | | FB | | CBNZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 189719 | 4.99 | 649261 | 7.92 | 553223 | 10.69 |
| UPPER LIMIT | | 379438 | 5.29 | 1298522 | 8.22 | 1106446 | 10.99 |
| LOWER LIMIT | | 94860 | 4.69 | 324631 | 7.62 | 276612 | 10.39 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 440-452937/4 | | 145149 | 4.99 | 677450 | 7.92 | 555884 | 10.70 |
| LCS 440-452937/5 | | 169249 | 5.00 | 642851 | 7.92 | 553842 | 10.70 |
| 440-201313-1 DL | VER-01I-C-48 DL | 159448 | 5.00 | 702496 | 7.92 | 589554 | 10.70 |
| 440-201313-1 MS | VER-01I-C-48 MS | 146498 | 5.00 | 702272 | 7.92 | 620064 | 10.70 |
| 440-201313-1 MSD | VER-01I-C-48 MSD | 155862 | 4.99 | 693267 | 7.92 | 611495 | 10.70 |
| 440-201313-2 RA | Trip Blank RA | 134977 | 4.99 | 699835 | 7.92 | 593333 | 10.69 |
| 440-201313-3 DL | VER-01I-C-60 DL | 127239 | 5.00 | 659872 | 7.92 | 563397 | 10.70 |

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Sample No.: CCVIS 440-452937/2 Date Analyzed: 01/22/2018 07:51

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm)

Lab File ID (Standard): SGA220002.D Heated Purge: (Y/N) Y

Calibration ID: 18373

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 320225 | 13.16 | | | | |
| UPPER LIMIT | | 640450 | 13.46 | | | | |
| LOWER LIMIT | | 160113 | 12.86 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 440-452937/4 | | 330274 | 13.15 | | | | |
| LCS 440-452937/5 | | 316228 | 13.16 | | | | |
| 440-201313-1 DL | VER-01I-C-48 DL | 356422 | 13.15 | | | | |
| 440-201313-1 MS | VER-01I-C-48 MS | 356578 | 13.15 | | | | |
| 440-201313-1 MSD | VER-01I-C-48 MSD | 350837 | 13.15 | | | | |
| 440-201313-2 RA | Trip Blank RA | 360085 | 13.16 | | | | |
| 440-201313-3 DL | VER-01I-C-60 DL | 336003 | 13.15 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Sample No.: ICIS 440-446571/11 Date Analyzed: 12/13/2017 21:41

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm)

Lab File ID (Standard): YFL13020.D Heated Purge: (Y/N) Y

Calibration ID: 18193

| | | TBAd9 | | FB | | CBNZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 165512 | 3.92 | 635241 | 6.75 | 527850 | 9.40 |
| UPPER LIMIT | | 331024 | 4.22 | 1270482 | 7.05 | 1055700 | 9.70 |
| LOWER LIMIT | | 82756 | 3.62 | 317621 | 6.45 | 263925 | 9.10 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 440-446571/18 | | 192583 | 3.92 | 744275 | 6.75 | 638444 | 9.40 |
| CCVIS 440-452839/2 | | 147604 | 3.93 | 570217 | 6.76 | 513750 | 9.41 |

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Sample No.: ICIS 440-446571/11  Date Analyzed: 12/13/2017  21:41

Instrument ID: GCMS58  GC Column: DB-VRX B  ID: 0.25(mm)

Lab File ID (Standard): YFL13020.D  Heated Purge: (Y/N) Y

Calibration ID: 18193

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 291696 | 11.82 | | | | |
| UPPER LIMIT | | 583392 | 12.12 | | | | |
| LOWER LIMIT | | 145848 | 11.52 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 440-446571/18 | | 341430 | 11.82 | | | | |
| CCVIS 440-452839/2 | | 314029 | 11.82 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Sample No.: CCVIS 440-452839/2 Date Analyzed: 01/20/2018 09:18

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm)

Lab File ID (Standard): YGA20002.D Heated Purge: (Y/N) Y

Calibration ID: 18415

| | | TBAd9 | | FB | | CBNZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 147604 | 3.93 | 570217 | 6.76 | 513750 | 9.41 |
| UPPER LIMIT | | 295208 | 4.23 | 1140434 | 7.06 | 1027500 | 9.71 |
| LOWER LIMIT | | 73802 | 3.63 | 285109 | 6.46 | 256875 | 9.11 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 440-452839/4 | | 129449 | 3.93 | 497890 | 6.76 | 434989 | 9.41 |
| LCS 440-452839/5 | | 135049 | 3.93 | 485785 | 6.76 | 437207 | 9.41 |
| 440-201437-B-3 MS | | 114225 | 3.92 | 484242 | 6.76 | 436319 | 9.41 |
| 440-201437-B-3 MSD | | 133736 | 3.93 | 509393 | 6.76 | 458886 | 9.41 |
| 440-201313-1 | VER-01I-C-48 | 122187 | 3.93 | 456558 | 6.76 | 414361 | 9.41 |
| 440-201313-2 | Trip Blank | 112255 | 3.93 | 415549 | 6.76 | 387937 | 9.41 |
| 440-201313-3 | VER-01I-C-60 | 122248 | 3.93 | 437263 | 6.76 | 405934 | 9.41 |

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Sample No.: CCVIS 440-452839/2 Date Analyzed: 01/20/2018 09:18

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm)

Lab File ID (Standard): YGA20002.D Heated Purge: (Y/N) Y

Calibration ID: 18415

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 314029 | 11.82 | | | | |
| UPPER LIMIT | | 628058 | 12.12 | | | | |
| LOWER LIMIT | | 157015 | 11.52 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 440-452839/4 | | 257388 | 11.82 | | | | |
| LCS 440-452839/5 | | 266874 | 11.82 | | | | |
| 440-201437-B-3 MS | | 266815 | 11.82 | | | | |
| 440-201437-B-3 MSD | | 285306 | 11.82 | | | | |
| 440-201313-1 | VER-01I-C-48 | 248729 | 11.82 | | | | |
| 440-201313-2 | Trip Blank | 230053 | 11.82 | | | | |
| 440-201313-3 | VER-01I-C-60 | 237640 | 11.82 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: VER-01I-C-48 | Lab Sample ID: 440-201313-1

Matrix: Water | Lab File ID: YGA20019.D

Analysis Method: 8260B | Date Collected: 01/17/2018 03:31

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 17:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 0.71 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 0.82 | J | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 1.1 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 5.0 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 1.2 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: VER-01I-C-48 | Lab Sample ID: 440-201313-1

Matrix: Water | Lab File ID: YGA20019.D

Analysis Method: 8260B | Date Collected: 01/17/2018 03:31

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 17:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 0.90 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 1.5 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Client Sample ID: VER-01I-C-48 Lab Sample ID: 440-201313-1

Matrix: Water Lab File ID: YGA20019.D

Analysis Method: 8260B Date Collected: 01/17/2018 03:31

Sample wt/vol: 10(mL) Date Analyzed: 01/20/2018 17:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452839 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 83 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 120 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 96 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: VER-01I-C-48 DL | Lab Sample ID: 440-201313-1 DL

Matrix: Water | Lab File ID: SGA220007.D

Analysis Method: 8260B | Date Collected: 01/17/2018 03:31

Sample wt/vol: 10(mL) | Date Analyzed: 01/22/2018 09:58

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452937 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-66-3 | Chloroform | 630 | | 5.0 | 2.5 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 101 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 99 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 106 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: Trip Blank | Lab Sample ID: 440-201313-2

Matrix: Water | Lab File ID: YGA20020.D

Analysis Method: 8260B | Date Collected: 01/17/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 18:28

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: Trip Blank | Lab Sample ID: 440-201313-2

Matrix: Water | Lab File ID: YGA20020.D

Analysis Method: 8260B | Date Collected: 01/17/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 18:28

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Client Sample ID: Trip Blank Lab Sample ID: 440-201313-2

Matrix: Water Lab File ID: YGA20020.D

Analysis Method: 8260B Date Collected: 01/17/2018 03:30

Sample wt/vol: 10(mL) Date Analyzed: 01/20/2018 18:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452839 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 84 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 120 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 94 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: Trip Blank RA | Lab Sample ID: 440-201313-2 RA

Matrix: Water | Lab File ID: SGA220010.D

Analysis Method: 8260B | Date Collected: 01/17/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/22/2018 11:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452937 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-66-3 | Chloroform | ND | | 0.50 | 0.25 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 99 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 101 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 106 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: VER-01I-C-60 | Lab Sample ID: 440-201313-3

Matrix: Water | Lab File ID: YGA20021.D

Analysis Method: 8260B | Date Collected: 01/17/2018 15:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 18:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 0.74 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 1.2 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 0.86 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 0.34 | J | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 6.3 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 0.28 | J | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 1.5 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: VER-01I-C-60 | Lab Sample ID: 440-201313-3

Matrix: Water | Lab File ID: YGA20021.D

Analysis Method: 8260B | Date Collected: 01/17/2018 15:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 18:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 0.80 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 1.4 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Client Sample ID: VER-01I-C-60 Lab Sample ID: 440-201313-3

Matrix: Water Lab File ID: YGA20021.D

Analysis Method: 8260B Date Collected: 01/17/2018 15:30

Sample wt/vol: 10(mL) Date Analyzed: 01/20/2018 18:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452839 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 86 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 123 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 92 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: VER-01I-C-60 DL | Lab Sample ID: 440-201313-3 DL

Matrix: Water | Lab File ID: SGA220011.D

Analysis Method: 8260B | Date Collected: 01/17/2018 15:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/22/2018 11:40

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452937 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-66-3 | Chloroform | 670 | | 5.0 | 2.5 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 100 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 101 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 106 | | 80-128 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD02 440-442013/4 | SFK16034.D |
| Level 2 | STD04 440-442013/5 | SFK16035.D |
| Level 3 | STD05 440-442013/6 | SFK16036.D |
| Level 4 | STD1 440-442013/7 | SFK16037.D |
| Level 5 | STD2 440-442013/8 | SFK16038.D |
| Level 6 | STD5 440-442013/9 | SFK16039.D |
| Level 7 | STD10 440-442013/10 | SFK16040.D |
| Level 8 | ICIS 440-442013/11 | SFK16041.D |
| Level 9 | STD50 440-442013/12 | SFK16042.D |
| Level 10 | STD100 440-442013/13 | SFK16043.D |
| Level 11 | STD200 440-442013/14 | SFK16044.D |
| Level 12 | STD300 440-442013/15 | SFK16045.D |

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 LVL 11 | LVL 2 LVL 7 LVL 12 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dichlorodifluoromethane | +++++ 0.3390 0.2916 | +++++ 0.3459 0.2891 | 0.2552 0.3330 | 0.2718 0.3171 | 0.2851 0.3145 | Ave | | 0.3042 | | | | 9.9 | | 15.0 | | | |
| Chloromethane | +++++ 0.3891 +++++ | +++++ 0.3830 +++++ | 0.4072 0.3711 | 0.3989 0.3537 | 0.3925 0.3283 | Ave | | 0.3780 | | | 0.1000 | 6.9 | | 15.0 | | | |
| Vinyl chloride | +++++ 0.3252 0.2804 | 0.3199 0.3348 0.2710 | 0.3430 0.3231 | 0.3429 0.3145 | 0.3306 0.3031 | Ave | | 0.3171 | | | | 7.5 | | 30.0 | | | |
| 1,3-Butadiene | +++++ 0.3225 0.2658 | +++++ 0.3250 0.2498 | +++++ 0.3214 | 0.3006 0.3098 | 0.3248 0.2928 | Ave | | 0.3014 | | | | 9.1 | | 15.0 | | | |
| Bromomethane | +++++ 0.2027 0.1894 | +++++ 0.2101 0.1798 | 0.1981 0.2045 | 0.1981 0.2049 | 0.2034 0.1988 | Ave | | 0.1990 | | | | 4.4 | | 15.0 | | | |
| Chloroethane | +++++ 0.1608 0.1501 | +++++ 0.1652 0.1453 | +++++ 0.1673 | 0.1458 0.1630 | 0.1582 0.1591 | Ave | | 0.1572 | | | | 5.2 | | 15.0 | | | |
| Ethanol | +++++ 0.1055 0.1284 | +++++ 0.1206 0.1260 | +++++ 0.0992 | +++++ 0.1162 | 0.1016 0.1168 | Ave | | 0.1143 | | | | 9.6 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dichlorofluoromethane | +++++<br>0.4214<br>0.3343 | +++++<br>0.4169<br>+++++ | 0.4156<br>0.4095 | 0.4282<br>0.3999 | 0.4097<br>0.3732 | Ave | | 0.4010 | | | | 7.4 | | 15.0 | | | |
| Acrolein | +++++<br>0.0236<br>0.0270 | +++++<br>0.0235<br>0.0291 | +++++<br>0.0251 | +++++<br>0.0270 | +++++<br>0.0270 | Ave | | 0.0260 | | | | 7.9 | | 15.0 | | | |
| Acetonitrile | +++++<br>0.0269<br>0.0257 | +++++<br>0.0292<br>0.0257 | +++++<br>0.0275 | 0.0226<br>0.0281 | 0.0261<br>0.0284 | Ave | | 0.0267 | | | | 7.4 | | 15.0 | | | |
| Trichlorofluoromethane | +++++<br>0.4898<br>0.4053 | +++++<br>0.4915<br>0.3820 | 0.4770<br>0.4774 | 0.4860<br>0.4726 | 0.4885<br>0.4447 | Ave | | 0.4615 | | | | 8.4 | | 15.0 | | | |
| Acetone | +++++<br>0.0742<br>0.0665 | +++++<br>0.0696<br>0.0674 | +++++<br>0.0663 | +++++<br>0.0676 | +++++<br>0.0713 | Ave | | 0.0690 | | | | 4.2 | | 15.0 | | | |
| Diethyl ether | +++++<br>0.1876<br>0.1778 | +++++<br>0.1875<br>0.1706 | +++++<br>0.1926 | 0.1592<br>0.1940 | 0.1810<br>0.1852 | Ave | | 0.1817 | | | | 6.1 | | 15.0 | | | |
| 1,1-Dichloroethene | +++++<br>0.2705<br>0.2335 | +++++<br>0.2708<br>0.2208 | 0.2626<br>0.2639 | 0.2601<br>0.2641 | 0.2791<br>0.2540 | Ave | | 0.2579 | | | | 6.9 | | 30.0 | | | |
| tert-Butyl alcohol (TBA) | +++++<br>1.1775<br>1.1642 | +++++<br>1.2301<br>1.0636 | +++++<br>1.2540 | 1.0936<br>1.2570 | 1.1108<br>1.1981 | Ave | | 1.1721 | | | | 6.0 | | 15.0 | | | |
| Iodomethane | +++++<br>0.7467<br>+++++ | +++++<br>0.6966<br>+++++ | +++++<br>0.6566 | +++++<br>0.6288 | 0.8685<br>+++++ | Ave | | 0.7194 | | | | 13.1 | | 15.0 | | | |
| Acrylonitrile | 0.0700<br>0.0800<br>+++++ | 0.0723<br>0.0806<br>+++++ | 0.0782<br>0.0776 | 0.0736<br>0.0724 | 0.0772<br>0.0657 | Ave | | 0.0748 | | | | 6.4 | | 15.0 | | | |
| Methylene Chloride | +++++<br>0.2733<br>0.2194 | +++++<br>0.2701<br>+++++ | +++++<br>0.2585 | 0.2931<br>0.2507 | 0.2888<br>0.2387 | Ave | | 0.2616 | | | | 9.6 | | 15.0 | | | |
| Methyl acetate | +++++<br>0.1750<br>+++++ | +++++<br>0.1750<br>+++++ | 0.1632<br>0.1672 | 0.1608<br>0.1546 | 0.1759<br>0.1400 | Ave | | 0.1640 | | | | 7.5 | | 15.0 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | +++++<br>0.2997<br>0.2605 | +++++<br>0.3046<br>0.2484 | 0.2483<br>0.2940 | 0.2852<br>0.2919 | 0.3050<br>0.2826 | Ave | | 0.2820 | | | | 7.8 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Allyl chloride | +++++<br>0.4414<br>0.3694 | +++++<br>0.4525<br>+++++ | +++++<br>0.4518 | 0.4100<br>0.4412 | 0.4603<br>0.4197 | Ave | | 0.4308 | | | | 7.0 | | 15.0 | | | |
| Carbon disulfide | +++++<br>0.8471<br>+++++ | +++++<br>0.8276<br>+++++ | 0.9253<br>0.8004 | 0.8614<br>0.7589 | 0.8210<br>0.6692 | Ave | | 0.8139 | | | | 9.3 | | 15.0 | | | |
| trans-1,2-Dichloroethene | +++++<br>0.2880<br>0.2447 | 0.2832<br>0.2970<br>+++++ | 0.2696<br>0.2888 | 0.2984<br>0.2854 | 0.3123<br>0.2708 | Ave | | 0.2838 | | | | 6.6 | | 15.0 | | | |
| Methyl-t-Butyl Ether (MTBE) | +++++<br>0.5677<br>0.4509 | +++++<br>0.5770<br>+++++ | 0.5712<br>0.5728 | 0.5342<br>0.5567 | 0.5960<br>0.5213 | Ave | | 0.5498 | | | | 7.9 | | 15.0 | | | |
| Propionitrile | +++++<br>0.0303<br>0.0271 | +++++<br>0.0315<br>0.0259 | +++++<br>0.0307 | 0.0243<br>0.0306 | 0.0304<br>0.0301 | Ave | | 0.0290 | | | | 8.9 | | 15.0 | | | |
| 1,1-Dichloroethane | +++++<br>0.4858<br>0.3720 | +++++<br>0.4948<br>+++++ | 0.4583<br>0.4712 | 0.4572<br>0.4650 | 0.4839<br>0.4274 | Ave | | 0.4573 | | | 0.1000 | 8.2 | | 15.0 | | | |
| Vinyl acetate | +++++<br>0.4962<br>0.3815 | +++++<br>0.5091<br>+++++ | +++++<br>0.4975 | +++++<br>0.5016 | 0.4533<br>0.4418 | Ave | | 0.4687 | | | | 9.9 | | 15.0 | | | |
| Hexane | +++++<br>0.4311<br>0.3544 | +++++<br>0.4366<br>+++++ | +++++<br>0.4413 | 0.4189<br>0.4269 | 0.4285<br>0.4031 | Ave | | 0.4176 | | | | 6.7 | | 15.0 | | | |
| 2-Butanone (MEK) | +++++<br>0.0172<br>0.0274 | +++++<br>0.0209<br>0.0288 | +++++<br>0.0253 | +++++<br>0.0255 | +++++<br>0.0284 | Lin2 | -0.057 | 0.0279 | | | | | | | 0.9980 | | 0.9900 |
| Isopropyl Ether (DIPE) | +++++<br>0.8949<br>+++++ | +++++<br>0.9048<br>+++++ | 0.8877<br>0.8738 | 0.8002<br>0.8251 | 0.8682<br>0.7300 | Ave | | 0.8481 | | | | 7.0 | | 15.0 | | | |
| cis-1,2-Dichloroethene | +++++<br>0.3142<br>0.2648 | 0.2753<br>0.3234<br>+++++ | 0.3002<br>0.3170 | 0.3124<br>0.3132 | 0.3304<br>0.2936 | Ave | | 0.3045 | | | | 6.9 | | 15.0 | | | |
| Bromochloromethane | +++++<br>0.1708<br>0.1628 | +++++<br>0.1777<br>0.1564 | 0.1425<br>0.1800 | 0.1460<br>0.1784 | 0.1659<br>0.1726 | Ave | | 0.1653 | | | | 8.1 | | 15.0 | | | |
| Chloroform | +++++<br>0.4882<br>+++++ | +++++<br>0.4893<br>+++++ | 0.4824<br>0.4708 | 0.4920<br>0.4567 | 0.4924<br>0.4194 | Ave | | 0.4739 | | | | 5.3 | | 30.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Ethyl-t-butyl ether (ETBE) | +++++<br>0.7164<br>+++++ | +++++<br>0.7161<br>+++++ | 0.6806<br>0.7191 | 0.6696<br>0.6872 | 0.7138<br>0.6208 | Ave | | 0.6904 | | | | 4.9 | | 15.0 | | | |
| 2,2-Dichloropropane | +++++<br>0.3246<br>+++++ | +++++<br>0.3282<br>+++++ | +++++<br>0.3179 | 0.3086<br>0.3073 | 0.3241<br>0.2816 | Ave | | 0.3132 | | | | 5.1 | | 15.0 | | | |
| Isobutyl alcohol | +++++<br>0.6532<br>0.6300 | +++++<br>0.6871<br>0.5405 | 0.6014<br>0.7190 | 0.5827<br>0.7117 | 0.6160<br>0.6549 | Ave | | 0.6397 | | | | 8.9 | | 15.0 | | | |
| Tetrahydrofuran | +++++<br>0.0768<br>0.0699 | +++++<br>0.0760<br>0.0694 | +++++<br>0.0797 | +++++<br>0.0764 | 0.0854<br>0.0759 | Ave | | 0.0762 | | | | 6.7 | | 15.0 | | | |
| 1,2-Dichloroethane | +++++<br>0.3270<br>0.2711 | 0.3129<br>0.3424<br>+++++ | 0.3485<br>0.3365 | 0.3302<br>0.3273 | 0.3325<br>0.3057 | Ave | | 0.3234 | | | | 6.9 | | 15.0 | | | |
| 1,1,1-Trichloroethane | +++++<br>0.4496<br>0.3640 | +++++<br>0.4533<br>+++++ | 0.4579<br>0.4444 | 0.4158<br>0.4404 | 0.4647<br>0.4113 | Ave | | 0.4335 | | | | 7.3 | | 15.0 | | | |
| 1,1-Dichloropropene | +++++<br>0.3542<br>0.2914 | +++++<br>0.3644<br>+++++ | 0.3346<br>0.3535 | 0.3415<br>0.3518 | 0.3670<br>0.3291 | Ave | | 0.3430 | | | | 6.7 | | 15.0 | | | |
| Cyclohexane | +++++<br>0.4675<br>0.3695 | +++++<br>0.4639<br>+++++ | +++++<br>0.4607 | 0.4563<br>0.4512 | 0.4597<br>0.4221 | Ave | | 0.4439 | | | | 7.5 | | 15.0 | | | |
| Carbon tetrachloride | +++++<br>0.4623<br>0.3755 | +++++<br>0.4638<br>+++++ | 0.4205<br>0.4605 | 0.4058<br>0.4515 | 0.4464<br>0.4241 | Ave | | 0.4345 | | | | 7.0 | | 15.0 | | | |
| Benzene | +++++<br>0.9680<br>+++++ | +++++<br>0.9751<br>+++++ | 1.0707<br>0.9189 | 0.9647<br>0.8545 | 1.0052<br>0.7429 | Ave | | 0.9375 | | | | 10.7 | | 15.0 | | | |
| Tert-amyl-methyl ether (TAME) | +++++<br>0.5793<br>+++++ | +++++<br>0.5923<br>+++++ | 0.5841<br>0.5897 | 0.5220<br>0.5767 | 0.5838<br>0.5184 | Ave | | 0.5683 | | | | 5.3 | | 15.0 | | | |
| n-Heptane | +++++<br>0.4696<br>+++++ | +++++<br>0.4754<br>+++++ | +++++<br>0.4674 | 0.4516<br>0.4551 | 0.4670<br>0.4185 | Ave | | 0.4578 | | | | 4.2 | | 15.0 | | | |
| Dibromomethane | +++++<br>0.1618<br>0.1561 | +++++<br>0.1752<br>0.1478 | 0.1345<br>0.1737 | 0.1523<br>0.1714 | 0.1640<br>0.1659 | Ave | | 0.1603 | | | | 8.0 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| 1,2-Dichloropropane | +++++<br>0.2557<br>0.2251 | +++++<br>0.2627<br>0.2092 | 0.2347<br>0.2601 | 0.2474<br>0.2597 | 0.2617<br>0.2476 | Ave | | 0.2464 | | | | 7.3 | | 30.0 | | | |
| Trichloroethene | +++++<br>0.3743<br>0.3045 | +++++<br>0.3827<br>+++++ | 0.3985<br>0.3747 | 0.3514<br>0.3672 | 0.3646<br>0.3444 | Ave | | 0.3625 | | | | 7.4 | | 15.0 | | | |
| Bromodichloromethane | +++++<br>0.3266<br>0.2892 | +++++<br>0.3362<br>0.2650 | 0.2967<br>0.3505 | 0.3087<br>0.3480 | 0.3406<br>0.3228 | Ave | | 0.3184 | | | | 8.8 | | 15.0 | | | |
| 2-Chloroethyl vinyl ether | +++++<br>0.1374<br>0.1293 | +++++<br>0.1435<br>0.1348 | +++++<br>0.1518 | +++++<br>0.1468 | 0.1363<br>0.1367 | Ave | | 0.1396 | | | | 5.2 | | 15.0 | | | |
| Methylcyclohexane | +++++<br>0.4656<br>+++++ | +++++<br>0.4651<br>+++++ | +++++<br>0.4658 | 0.4593<br>0.4533 | 0.4593<br>0.4157 | Ave | | 0.4549 | | | | 3.9 | | 15.0 | | | |
| cis-1,3-Dichloropropene | +++++<br>0.4317<br>0.3722 | +++++<br>0.4498<br>0.3495 | 0.4064<br>0.4486 | 0.4019<br>0.4514 | 0.4246<br>0.4057 | Ave | | 0.4142 | | | | 8.2 | | 15.0 | | | |
| 4-Methyl-2-pentanone (MIBK) | +++++<br>0.2579<br>0.2506 | +++++<br>0.2572<br>0.2485 | +++++<br>0.2573 | +++++<br>0.2838 | 0.2750<br>0.2669 | Ave | | 0.2621 | | | | 4.7 | | 15.0 | | | |
| trans-1,3-Dichloropropene | +++++<br>0.3845<br>0.3372 | +++++<br>0.3919<br>0.3193 | 0.3195<br>0.4012 | 0.3663<br>0.4012 | 0.3791<br>0.3647 | Ave | | 0.3665 | | | | 8.5 | | 15.0 | | | |
| 1,1,2-Trichloroethane | +++++<br>0.2075<br>0.1875 | +++++<br>0.2029<br>0.1848 | 0.1863<br>0.2052 | 0.2060<br>0.2091 | 0.2027<br>0.1925 | Ave | | 0.1985 | | | | 4.8 | | 15.0 | | | |
| Toluene | +++++<br>1.3060<br>+++++ | +++++<br>1.3130<br>+++++ | 1.4450<br>1.2010 | 1.3492<br>1.1291 | 1.3191<br>+++++ | Ave | | 1.2946 | | | | 7.9 | | 30.0 | | | |
| Ethyl methacrylate | +++++<br>0.2722<br>0.2701 | +++++<br>0.2960<br>0.2621 | +++++<br>0.3015 | 0.2224<br>0.3061 | 0.2648<br>0.2841 | Ave | | 0.2755 | | | | 9.3 | | 15.0 | | | |
| 1,3-Dichloropropane | +++++<br>0.4080<br>0.3281 | +++++<br>0.4122<br>0.3105 | 0.4230<br>0.3940 | 0.3492<br>0.3953 | 0.3893<br>0.3534 | Ave | | 0.3763 | | | | 10.2 | | 15.0 | | | |
| 2-Hexanone | +++++<br>0.1838<br>0.1871 | +++++<br>0.1826<br>0.1865 | +++++<br>0.1852 | +++++<br>0.2004 | 0.1845<br>0.1982 | Ave | | 0.1885 | | | | 3.6 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dibromochloromethane | +++++<br>0.3623<br>0.3443 | +++++<br>0.3877<br>0.3293 | 0.3822<br>0.3867 | 0.3192<br>0.3969 | 0.3577<br>0.3659 | Ave | | 0.3632 | | | | 7.2 | | 15.0 | | | |
| 1,2-Dibromoethane (EDB) | +++++<br>0.2855<br>0.2539 | +++++<br>0.2903<br>0.2465 | 0.2208<br>0.2930 | 0.2615<br>0.2910 | 0.2876<br>0.2693 | Ave | | 0.2699 | | | | 8.9 | | 15.0 | | | |
| Tetrachloroethene | +++++<br>0.3719<br>0.3150 | +++++<br>0.3713<br>0.3036 | 0.3434<br>0.3642 | 0.3833<br>0.3645 | 0.3781<br>0.3327 | Ave | | 0.3528 | | | | 7.8 | | 15.0 | | | |
| 1,1,1,2-Tetrachloroethane | +++++<br>0.3871<br>0.3378 | +++++<br>0.4024<br>0.3233 | 0.3854<br>0.3933 | 0.3857<br>0.4000 | 0.4090<br>0.3612 | Ave | | 0.3785 | | | | 7.6 | | 15.0 | | | |
| Chlorobenzene | +++++<br>1.0174<br>+++++ | +++++<br>1.0016<br>+++++ | 1.0779<br>0.9402 | 1.0381<br>0.8915 | 1.0149<br>+++++ | Ave | | 0.9974 | | | 0.3000 | 6.3 | | 15.0 | | | |
| Ethylbenzene | +++++<br>1.4722<br>+++++ | +++++<br>1.4438<br>+++++ | 1.5031<br>1.3325 | 1.4526<br>1.2419 | 1.5179<br>+++++ | Ave | | 1.4234 | | | | 7.0 | | 30.0 | | | |
| m,p-Xylene | +++++<br>0.6115<br>0.4739 | +++++<br>0.6110<br>+++++ | 0.6380<br>0.5984 | 0.6340<br>0.5917 | 0.6120<br>0.5217 | Ave | | 0.5880 | | | | 9.3 | | 15.0 | | | |
| Bromoform | +++++<br>0.2412<br>0.2525 | +++++<br>0.2550<br>0.2508 | 0.1930<br>0.2625 | 0.2151<br>0.2763 | 0.2345<br>0.2590 | Ave | | 0.2440 | | | 0.1000 | 10.0 | | 15.0 | | | |
| Styrene | +++++<br>0.8556<br>+++++ | +++++<br>0.8951<br>+++++ | 0.8624<br>0.8737 | 0.8067<br>0.8456 | 0.8294<br>0.7158 | Ave | | 0.8355 | | | | 6.6 | | 15.0 | | | |
| 1,1,2,2-Tetrachloroethane | +++++<br>0.5609<br>0.5091 | +++++<br>0.5685<br>0.5102 | 0.5243<br>0.5666 | 0.5344<br>0.5634 | 0.5603<br>0.5515 | Ave | | 0.5449 | | | 0.3000 | 4.3 | | 15.0 | | | |
| o-Xylene | +++++<br>0.5977<br>+++++ | 0.5383<br>0.6181<br>+++++ | 0.5880<br>0.5869 | 0.6105<br>0.5707 | 0.6179<br>0.4996 | Ave | | 0.5809 | | | | 6.8 | | 15.0 | | | |
| 1,2,3-Trichloropropane | +++++<br>0.1679<br>0.1772 | +++++<br>0.1693<br>0.1862 | +++++<br>0.1799 | 0.1267<br>0.1779 | 0.1623<br>0.1833 | Ave | | 0.1701 | | | | 10.6 | | 15.0 | | | |
| trans-1,4-Dichloro-2-butene | +++++<br>0.1165<br>0.1562 | +++++<br>0.1265<br>0.1670 | +++++<br>0.1362 | +++++<br>0.1493 | +++++<br>0.1573 | Ave | | 0.1441 | | | | 12.7 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Isopropylbenzene | +++++<br>1.5387<br>+++++ | +++++<br>1.5344<br>+++++ | 1.5486<br>1.4289 | 1.5162<br>1.3108 | 1.5606<br>+++++ | Ave | | 1.4912 | | | | 6.1 | | 15.0 | | | |
| Bromobenzene | +++++<br>0.8412<br>0.7168 | +++++<br>0.8822<br>0.6778 | 0.8787<br>0.8775 | 0.8502<br>0.8521 | 0.8627<br>0.8040 | Ave | | 0.8243 | | | | 8.7 | | 15.0 | | | |
| n-Propylbenzene | +++++<br>2.9617<br>+++++ | +++++<br>3.0133<br>+++++ | 3.0990<br>2.8061 | 3.0314<br>2.5007 | 3.0037<br>+++++ | Ave | | 2.9166 | | | | 7.0 | | 15.0 | | | |
| 2-Chlorotoluene | +++++<br>1.7569<br>+++++ | +++++<br>1.7497<br>+++++ | 1.8996<br>1.7115 | 1.7783<br>1.5925 | 1.7888<br>1.4313 | Ave | | 1.7136 | | | | 8.3 | | 15.0 | | | |
| 4-Chlorotoluene | +++++<br>1.7748<br>+++++ | +++++<br>1.8039<br>+++++ | 1.9692<br>1.7414 | 1.8066<br>1.6231 | 1.8034<br>1.4519 | Ave | | 1.7468 | | | | 8.7 | | 15.0 | | | |
| 1,3,5-Trimethylbenzene | +++++<br>2.1735<br>+++++ | +++++<br>2.2571<br>+++++ | 2.0400<br>2.1365 | 2.1385<br>1.9558 | 2.2013<br>1.6765 | Ave | | 2.0724 | | | | 8.9 | | 15.0 | | | |
| tert-Butylbenzene | +++++<br>2.0815<br>+++++ | +++++<br>2.1235<br>+++++ | 2.1083<br>2.0241 | 2.0725<br>1.8712 | 2.1148<br>1.6023 | Ave | | 1.9998 | | | | 9.0 | | 15.0 | | | |
| 1,2,4-Trimethylbenzene | +++++<br>2.2307<br>+++++ | +++++<br>2.2598<br>+++++ | 2.2029<br>2.1453 | 2.1363<br>1.9575 | 2.2338<br>+++++ | Ave | | 2.1666 | | | | 4.8 | | 15.0 | | | |
| sec-Butylbenzene | +++++<br>2.9949<br>+++++ | +++++<br>3.0096<br>+++++ | 3.0044<br>2.7601 | 3.0496<br>2.4450 | 3.0350<br>+++++ | Ave | | 2.8998 | | | | 7.7 | | 15.0 | | | |
| 1,3-Dichlorobenzene | +++++<br>1.5888<br>+++++ | +++++<br>1.5979<br>+++++ | 1.6917<br>1.5092 | 1.6085<br>1.4101 | 1.6359<br>1.2570 | Ave | | 1.5374 | | | | 9.2 | | 15.0 | | | |
| 1,4-Dichlorobenzene | +++++<br>1.5947<br>+++++ | +++++<br>1.5932<br>+++++ | 1.8103<br>1.5219 | 1.6184<br>1.4046 | 1.6800<br>1.2478 | Ave | | 1.5589 | | | | 11.0 | | 15.0 | | | |
| p-Isopropyltoluene | +++++<br>2.6661<br>+++++ | +++++<br>2.6870<br>+++++ | 2.8536<br>2.4594 | 2.6092<br>2.1956 | 2.7134<br>+++++ | Ave | | 2.5978 | | | | 8.2 | | 15.0 | | | |
| 1,2-Dichlorobenzene | +++++<br>1.4711<br>+++++ | +++++<br>1.4660<br>+++++ | 1.5669<br>1.4061 | 1.5314<br>1.3288 | 1.4842<br>1.1831 | Ave | | 1.4297 | | | | 8.6 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| n-Butylbenzene | +++++<br>2.1779<br>+++++ | +++++<br>2.1762<br>+++++ | 2.1775<br>1.9952 | 2.1569<br>1.7794 | 2.1996<br>+++++ | Ave | | 2.0947 | | | | 7.4 | | 15.0 | | | |
| 1,2-Dibromo-3-Chloropropane | +++++<br>0.0924<br>0.1057 | +++++<br>0.0898<br>0.1153 | +++++<br>0.0941 | 0.0488<br>0.1005 | 0.0636<br>0.1084 | Lin2 | -0.060 | 0.1036 | | | | | | | 0.9940 | | 0.9900 |
| 1,2,4-Trichlorobenzene | +++++<br>1.0725<br>+++++ | +++++<br>1.0709<br>+++++ | 1.1939<br>0.9816 | 1.1070<br>0.9590 | 1.0708<br>0.8405 | Ave | | 1.0370 | | | | 10.4 | | 15.0 | | | |
| Naphthalene | +++++<br>2.0237<br>+++++ | +++++<br>2.0337<br>+++++ | 2.4624<br>1.8812 | 2.0641<br>1.8340 | 2.0948<br>1.6187 | Ave | | 2.0016 | | | | 12.2 | | 15.0 | | | |
| Hexachlorobutadiene | +++++<br>0.6743<br>0.4989 | +++++<br>0.6746<br>0.5096 | 0.7207<br>0.6182 | 0.6789<br>0.6038 | 0.7076<br>0.5248 | Ave | | 0.6211 | | | | 13.5 | | 15.0 | | | |
| 1,2,3-Trichlorobenzene | +++++<br>0.9368<br>+++++ | +++++<br>0.9601<br>+++++ | 1.0544<br>0.8887 | 0.9719<br>0.8798 | 0.9554<br>0.7724 | Ave | | 0.9274 | | | | 8.9 | | 15.0 | | | |
| Dibromofluoromethane (Surr) | 0.3210 | 0.3253 | 0.3183 | 0.3107 | 0.2952 | Ave | | 0.3141 | | | | 3.8 | | 15.0 | | | |
| 1,2-Dichloroethane-d4 (Surr) | 0.2960 | 0.2887 | 0.2822 | 0.2742 | 0.2588 | Ave | | 0.2800 | | | | 5.1 | | 15.0 | | | |
| Toluene-d8 (Surr) | 1.2200 | 1.1958 | 1.1083 | 1.0195 | 0.8501 | Ave | | 1.0787 | | | | 13.9 | | 15.0 | | | |
| 4-Bromofluorobenzene (Surr) | 0.7742 | 0.7774 | 0.7626 | 0.7359 | 0.7224 | Ave | | 0.7545 | | | | 3.2 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD02 440-442013/4 | SFK16034.D |
| Level 2 | STD04 440-442013/5 | SFK16035.D |
| Level 3 | STD05 440-442013/6 | SFK16036.D |
| Level 4 | STD1 440-442013/7 | SFK16037.D |
| Level 5 | STD2 440-442013/8 | SFK16038.D |
| Level 6 | STD5 440-442013/9 | SFK16039.D |
| Level 7 | STD10 440-442013/10 | SFK16040.D |
| Level 8 | ICIS 440-442013/11 | SFK16041.D |
| Level 9 | STD50 440-442013/12 | SFK16042.D |
| Level 10 | STD100 440-442013/13 | SFK16043.D |
| Level 11 | STD200 440-442013/14 | SFK16044.D |
| Level 12 | STD300 440-442013/15 | SFK16045.D |

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Dichlorodifluoromethane | FB | Ave | +++++<br>35523<br>1328439 | +++++<br>73838<br>1943535 | 2679<br>183395 | 5798<br>347927 | 12167<br>692904 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloromethane | FB | Ave | +++++<br>40772<br>+++++ | +++++<br>81759<br>+++++ | 4274<br>204424 | 8509<br>388139 | 16751<br>723207 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Vinyl chloride | FB | Ave | +++++<br>34075<br>1277275 | 2736<br>71461<br>1821882 | 3600<br>177970 | 7314<br>345121 | 14110<br>667778 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Butadiene | FB | Ave | +++++<br>33790<br>1210571 | +++++<br>69366<br>1679309 | +++++<br>177040 | 6411<br>339997 | 13862<br>644985 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromomethane | FB | Ave | +++++<br>21244<br>862532 | +++++<br>44851<br>1208655 | 2079<br>112668 | 4226<br>224861 | 8679<br>437886 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloroethane | FB | Ave | +++++<br>16854<br>683548 | +++++<br>35256<br>976797 | +++++<br>92126 | 3110<br>178852 | 6751<br>350402 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethanol | TBAd 9 | Ave | +++++<br>10202<br>632879 | +++++<br>23099<br>1059340 | +++++<br>47871 | +++++<br>139761 | 4996<br>300558 | +++++<br>200<br>10000 | +++++<br>400<br>15000 | +++++<br>1000 | +++++<br>2500 | 100<br>5000 |
| Dichlorofluoromethane | FB | Ave | +++++<br>44156<br>1522842 | +++++<br>88996<br>+++++ | 4362<br>225566 | 9132<br>438881 | 17484<br>822081 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Acrolein | FB | Ave | +++++<br>2468<br>122883 | +++++<br>5013<br>195619 | +++++<br>13838 | +++++<br>29617 | +++++<br>59413 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Acetonitrile | FB | Ave | +++++<br>28221<br>1170355 | +++++<br>62302<br>1724894 | +++++<br>151583 | 4828<br>308898 | 11137<br>625777 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Trichlorofluoromethane | FB | Ave | +++++<br>51329<br>1846280 | +++++<br>104916<br>2568202 | 5006<br>262966 | 10365<br>518575 | 20849<br>979649 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Acetone | FB | Ave | +++++<br>7779<br>302802 | +++++<br>14866<br>453335 | +++++<br>36524 | +++++<br>74218 | +++++<br>156968 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Diethyl ether | FB | Ave | +++++<br>19662<br>809805 | +++++<br>40031<br>1146836 | +++++<br>106069 | 3396<br>212892 | 7724<br>407938 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloroethene | FB | Ave | +++++<br>28346<br>1063795 | +++++<br>57813<br>1484512 | 2756<br>145354 | 5548<br>289773 | 11913<br>559425 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| tert-Butyl alcohol (TBA) | TBAd 9 | Ave | +++++<br>28475<br>1147630 | +++++<br>58913<br>1788546 | +++++<br>151230 | 4982<br>302367 | 10923<br>616730 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Iodomethane | FB | Ave | +++++<br>78251<br>+++++ | +++++<br>148682<br>+++++ | +++++<br>361671 | +++++<br>690054 | 37066<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>+++++ |
| Acrylonitrile | FB | Ave | 3024<br>83869<br>+++++ | 6182<br>172094<br>+++++ | 8203<br>427683 | 15695<br>794429 | 32968<br>1448064 | 2.00<br>50.0<br>+++++ | 4.00<br>100<br>+++++ | 5.00<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Methylene Chloride | FB | Ave | +++++<br>28641<br>999485 | +++++<br>57652<br>+++++ | +++++<br>142386 | 6252<br>275089 | 12325<br>525763 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methyl acetate | FB | Ave | +++++<br>91678<br>+++++ | +++++<br>186788<br>+++++ | 8567<br>460497 | 17152<br>848312 | 37531<br>1542167 | +++++<br>25.0<br>+++++ | +++++<br>50.0<br>+++++ | 2.50<br>125 | 5.00<br>250 | 10.0<br>500 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | FB | Ave | +++++<br>31402<br>1186765 | +++++<br>65022<br>1669905 | 2606<br>161957 | 6084<br>320283 | 13019<br>622598 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Allyl chloride | FB | Ave | +++++<br>46259<br>1682606 | +++++<br>96594<br>+++++ | +++++<br>248859 | 8745<br>484163 | 19644<br>924449 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Carbon disulfide | FB | Ave | +++++<br>88770<br>+++++ | +++++<br>176650<br>+++++ | 9712<br>440861 | 18372<br>832795 | 35040<br>1474148 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| trans-1,2-Dichloroethene | FB | Ave | +++++<br>30178<br>1114746 | 2422<br>63403<br>+++++ | 2830<br>159097 | 6364<br>313243 | 13329<br>596546 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methyl-t-Butyl Ether (MTBE) | FB | Ave | +++++<br>59488<br>2053696 | +++++<br>123166<br>+++++ | 5995<br>315526 | 11394<br>610932 | 25437<br>1148388 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Propionitrile | FB | Ave | +++++<br>31738<br>1233451 | +++++<br>67305<br>1738607 | +++++<br>169189 | 5180<br>335898 | 12978<br>664153 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| 1,1-Dichloroethane | FB | Ave | +++++<br>50906<br>1694632 | +++++<br>105618<br>+++++ | 4810<br>259539 | 9752<br>510275 | 20652<br>941543 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Vinyl acetate | FB | Ave | +++++<br>41597<br>1737639 | +++++<br>86934<br>+++++ | +++++<br>219232 | +++++<br>550485 | 19346<br>973310 | +++++<br>4.00<br>200 | +++++<br>8.00<br>+++++ | +++++<br>20.0 | +++++<br>50.0 | 2.00<br>100 |
| Hexane | FB | Ave | +++++<br>45176<br>1614234 | +++++<br>93203<br>+++++ | +++++<br>243074 | 8935<br>468502 | 18290<br>888079 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Butanone (MEK) | FB | Lin2 | +++++<br>1807<br>124934 | +++++<br>4469<br>193799 | +++++<br>13937 | +++++<br>28015 | +++++<br>62467 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Isopropyl Ether (DIPE) | FB | Ave | +++++<br>93779<br>+++++ | +++++<br>193123<br>+++++ | 9317<br>481289 | 17068<br>905415 | 37053<br>1608173 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| cis-1,2-Dichloroethene | FB | Ave | +++++<br>32927<br>1206276 | 2355<br>69028<br>+++++ | 3151<br>174617 | 6664<br>343691 | 14102<br>646699 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromochloromethane | FB | Ave | +++++<br>17899<br>741421 | +++++<br>37925<br>1051866 | 1496<br>99170 | 3114<br>195723 | 7081<br>380274 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloroform | FB | Ave | +++++<br>51159<br>+++++ | +++++<br>104440<br>+++++ | 5063<br>259298 | 10494<br>501137 | 21014<br>923959 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethyl-t-butyl ether (ETBE) | FB | Ave | +++++<br>75071<br>+++++ | +++++<br>152843<br>+++++ | 7143<br>396103 | 14282<br>754073 | 30464<br>1367585 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 2,2-Dichloropropane | FB | Ave | +++++<br>34011<br>+++++ | +++++<br>70050<br>+++++ | +++++<br>175095 | 6581<br>337266 | 13834<br>620276 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Isobutyl alcohol | TBAd9 | Ave | +++++<br>39493<br>1552602 | +++++<br>82268<br>2272055 | 3489<br>216776 | 6637<br>427998 | 15144<br>842756 | +++++<br>125<br>5000 | +++++<br>250<br>7500 | 12.5<br>625 | 25.0<br>1250 | 50.0<br>2500 |
| Tetrahydrofuran | FB | Ave | +++++<br>16086<br>636336 | +++++<br>32444<br>932890 | +++++<br>87799 | +++++<br>167749 | 7287<br>334348 | +++++<br>10.0<br>400 | +++++<br>20.0<br>600 | +++++<br>50.0 | +++++<br>100 | 4.00<br>200 |
| 1,2-Dichloroethane | FB | Ave | +++++<br>34266<br>1234826 | 2676<br>73094<br>+++++ | 3658<br>185355 | 7043<br>359184 | 14192<br>673444 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,1-Trichloroethane | FB | Ave | +++++<br>47108<br>1657906 | +++++<br>96758<br>+++++ | 4806<br>244804 | 8869<br>483270 | 19834<br>906110 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloropropene | FB | Ave | +++++<br>37119<br>1327460 | +++++<br>77775<br>+++++ | 3512<br>194693 | 7283<br>386050 | 15663<br>724871 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Cyclohexane | FB | Ave | +++++<br>48989<br>1682943 | +++++<br>99021<br>+++++ | +++++<br>253760 | 9733<br>495146 | 19621<br>929755 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Carbon tetrachloride | FB | Ave | +++++<br>48443<br>1710323 | +++++<br>98998<br>+++++ | 4413<br>253642 | 8655<br>495426 | 19052<br>934235 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Benzene | FB | Ave | +++++<br>101441<br>+++++ | +++++<br>208144<br>+++++ | 11238<br>506153 | 20576<br>937670 | 42900<br>1636448 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Tert-amyl-methyl ether (TAME) | FB | Ave | +++++<br>60702<br>+++++ | +++++<br>126433<br>+++++ | 6131<br>324830 | 11134<br>632832 | 24917<br>1141903 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Heptane | FB | Ave | +++++<br>49213<br>+++++ | +++++<br>101466<br>+++++ | +++++<br>257472 | 9631<br>499405 | 19932<br>921849 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Dibromomethane | FB | Ave | +++++<br>16950<br>710922 | +++++<br>37387<br>993505 | 1412<br>95680 | 3249<br>188073 | 6998<br>365468 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2-Dichloropropane | FB | Ave | +++++<br>26799<br>1025439 | +++++<br>56075<br>1406911 | 2463<br>143248 | 5276<br>285022 | 11171<br>545373 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Trichloroethene | FB | Ave | +++++<br>39218<br>1387117 | +++++<br>81688<br>+++++ | 4183<br>206390 | 7495<br>403005 | 15563<br>758593 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromodichloromethane | FB | Ave | +++++<br>34219<br>1317097 | +++++<br>71756<br>1781600 | 3114<br>193084 | 6584<br>381859 | 14537<br>711022 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Chloroethyl vinyl ether | CBNZ d5 | Ave | +++++<br>11984<br>496836 | +++++<br>25920<br>723755 | +++++<br>71932 | +++++<br>136994 | 4837<br>265273 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Methylcyclohexane | FB | Ave | +++++<br>48790<br>+++++ | +++++<br>99270<br>+++++ | +++++<br>256568 | 9796<br>497455 | 19602<br>915678 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| cis-1,3-Dichloropropene | CBNZ d5 | Ave | +++++<br>37652<br>1430755 | +++++<br>81265<br>1876256 | 3484<br>212507 | 7027<br>421272 | 15066<br>787035 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 4-Methyl-2-pentanone (MIBK) | CBNZ d5 | Ave | +++++<br>22495<br>963048 | +++++<br>46459<br>1333938 | +++++<br>121900 | +++++<br>264913 | 9757<br>517776 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| trans-1,3-Dichloropropene | CBNZ d5 | Ave | +++++<br>33537<br>1296160 | +++++<br>70807<br>1713786 | 2739<br>190053 | 6406<br>374431 | 13451<br>707445 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2-Trichloroethane | CBNZ d5 | Ave | +++++<br>18100<br>720797 | +++++<br>36646<br>992165 | 1597<br>97225 | 3603<br>195191 | 7192<br>373449 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Toluene | CBNZ d5 | Ave | +++++<br>113917<br>+++++ | +++++<br>237199<br>+++++ | 12387<br>568949 | 23593<br>1053807 | 46810<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>+++++ |
| Ethyl methacrylate | CBNZ d5 | Ave | +++++<br>23746<br>1038118 | +++++<br>53482<br>1407203 | +++++<br>142835 | 3889<br>285669 | 9396<br>551118 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Dichloropropane | CBNZ d5 | Ave | +++++<br>35588<br>1260895 | +++++<br>74470<br>1666761 | 3626<br>186653 | 6107<br>368958 | 13816<br>685600 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Hexanone | CBNZ d5 | Ave | +++++<br>16029<br>719281 | +++++<br>32985<br>1000984 | +++++<br>87722 | +++++<br>187034 | 6546<br>384433 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Dibromochloromethane | CBNZ d5 | Ave | +++++<br>31600<br>1323194 | +++++<br>70048<br>1767785 | 3276<br>183192 | 5582<br>370482 | 12695<br>709818 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 1,2-Dibromoethane (EDB) | CBNZ d5 | Ave | +++++<br>24902<br>975859 | +++++<br>52439<br>1323218 | 1893<br>138776 | 4573<br>271626 | 10205<br>522372 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Tetrachloroethene | CBNZ d5 | Ave | +++++<br>32442<br>1210543 | +++++<br>67085<br>1629967 | 2944<br>172503 | 6702<br>340182 | 13416<br>645342 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,1,2-Tetrachloroethane | CBNZ d5 | Ave | +++++<br>33768<br>1298452 | +++++<br>72689<br>1735602 | 3304<br>186317 | 6745<br>373349 | 14513<br>700588 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chlorobenzene | CBNZ d5 | Ave | +++++<br>88749<br>+++++ | +++++<br>180944<br>+++++ | 9240<br>445403 | 18153<br>832099 | 36015<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>+++++ |
| Ethylbenzene | CBNZ d5 | Ave | +++++<br>128414<br>+++++ | +++++<br>260836<br>+++++ | 12885<br>631226 | 25401<br>1159151 | 53863<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>+++++ |
| m,p-Xylene | CBNZ d5 | Ave | +++++<br>53337<br>1821421 | +++++<br>110373<br>+++++ | 5469<br>283470 | 11086<br>552217 | 21719<br>1011950 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromoform | CBNZ d5 | Ave | +++++<br>21043<br>970583 | +++++<br>46058<br>1346485 | 1654<br>124359 | 3762<br>257918 | 8321<br>502380 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Styrene | CBNZ d5 | Ave | +++++<br>74634<br>+++++ | +++++<br>161706<br>+++++ | 7393<br>413892 | 14106<br>789213 | 29433<br>1388545 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2,2-Tetrachloroethane | DCBd 4 | Ave | +++++<br>28290<br>1026963 | +++++<br>58529<br>1431250 | 2600<br>148113 | 5345<br>292528 | 11311<br>544845 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| o-Xylene | CBNZ d5 | Ave | +++++<br>52134<br>+++++ | 3824<br>111662<br>+++++ | 5040<br>278019 | 10675<br>532701 | 21925<br>969256 | +++++<br>5.00<br>+++++ | 0.400<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,3-Trichloropropane | DCBd 4 | Ave | +++++<br>8466<br>357390 | +++++<br>17433<br>522223 | +++++<br>47027 | 1267<br>92363 | 3276<br>181082 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| trans-1,4-Dichloro-2-butene | DCBd 4 | Ave | +++++<br>5875<br>315157 | +++++<br>13019<br>468358 | +++++<br>35599 | +++++<br>77494 | +++++<br>155390 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Isopropylbenzene | CBNZ d5 | Ave | +++++<br>134218<br>+++++ | +++++<br>277189<br>+++++ | 13275<br>676882 | 26512<br>1223418 | 55380<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>+++++ |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Bromobenzene | DCBd 4 | Ave | +++++<br>42423<br>1445883 | +++++<br>90829<br>1901288 | 4358<br>229388 | 8503<br>442438 | 17414<br>794268 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Propylbenzene | DCBd 4 | Ave | +++++<br>149370<br>+++++ | +++++<br>310231<br>+++++ | 15369<br>733535 | 30319<br>1298395 | 60632<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>+++++ |
| 2-Chlorotoluene | DCBd 4 | Ave | +++++<br>88608<br>+++++ | +++++<br>180134<br>+++++ | 9421<br>447405 | 17786<br>826846 | 36108<br>1413947 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 4-Chlorotoluene | DCBd 4 | Ave | +++++<br>89511<br>+++++ | +++++<br>185720<br>+++++ | 9766<br>455201 | 18069<br>842740 | 36403<br>1434374 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3,5-Trimethylbenzene | DCBd 4 | Ave | +++++<br>109621<br>+++++ | +++++<br>232371<br>+++++ | 10117<br>558486 | 21388<br>1015473 | 44436<br>1656219 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| tert-Butylbenzene | DCBd 4 | Ave | +++++<br>104981<br>+++++ | +++++<br>218623<br>+++++ | 10456<br>529105 | 20728<br>971568 | 42689<br>1582892 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,4-Trimethylbenzene | DCBd 4 | Ave | +++++<br>112505<br>+++++ | +++++<br>232652<br>+++++ | 10925<br>560789 | 21366<br>1016374 | 45092<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>+++++ |
| sec-Butylbenzene | DCBd 4 | Ave | +++++<br>151045<br>+++++ | +++++<br>309851<br>+++++ | 14900<br>721512 | 30501<br>1269457 | 61264<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>+++++ |
| 1,3-Dichlorobenzene | DCBd 4 | Ave | +++++<br>80130<br>+++++ | +++++<br>164505<br>+++++ | 8390<br>394516 | 16087<br>732144 | 33023<br>1241762 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,4-Dichlorobenzene | DCBd 4 | Ave | +++++<br>80427<br>+++++ | +++++<br>164022<br>+++++ | 8978<br>397840 | 16186<br>729265 | 33913<br>1232674 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| p-Isopropyltoluene | DCBd 4 | Ave | +++++<br>134463<br>+++++ | +++++<br>276633<br>+++++ | 14152<br>642908 | 26096<br>1139992 | 54773<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>+++++ |
| 1,2-Dichlorobenzene | DCBd 4 | Ave | +++++<br>74193<br>+++++ | +++++<br>150924<br>+++++ | 7771<br>367554 | 15316<br>689952 | 29960<br>1168816 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Butylbenzene | DCBd 4 | Ave | +++++<br>109842<br>+++++ | +++++<br>224046<br>+++++ | 10799<br>521546 | 21572<br>923874 | 44400<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>+++++ |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 1,2-Dibromo-3-Chloropropane | DCBd 4 | Lin2 | +++++<br>4660<br>213226 | +++++<br>9243<br>323386 | +++++<br>24586 | 488<br>52183 | 1283<br>107071 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,4-Trichlorobenzene | DCBd 4 | Ave | +++++<br>54089<br>+++++ | +++++<br>110250<br>+++++ | 5921<br>256597 | 11072<br>497947 | 21616<br>830342 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Naphthalene | DCBd 4 | Ave | +++++<br>102066<br>+++++ | +++++<br>209379<br>+++++ | 12212<br>491765 | 20644<br>952252 | 42286<br>1599114 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Hexachlorobutadiene | DCBd 4 | Ave | +++++<br>34006<br>1006462 | +++++<br>69456<br>1429408 | 3574<br>161608 | 6790<br>313515 | 14283<br>518476 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,3-Trichlorobenzene | DCBd 4 | Ave | +++++<br>47245<br>+++++ | +++++<br>98844<br>+++++ | 5229<br>232305 | 9720<br>456801 | 19285<br>763018 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Dibromofluoromethane (Surr) | FB | Ave | 33642 | 69435 | 175317 | 340946 | 650322 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| 1,2-Dichloroethane-d4 (Surr) | FB | Ave | 31015 | 61616 | 155419 | 300922 | 570017 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| Toluene-d8 (Surr) | CBNZ d5 | Ave | 106416 | 216018 | 525014 | 951546 | 1649090 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| 4-Bromofluorobenzene (Surr) | DCBd 4 | Ave | 39046 | 80035 | 199349 | 382107 | 713612 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |

Curve Type Legend:

| |
|---|
| Ave = Average ISTD |
| Lin2 = Linear 1/conc^2 ISTD |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD02 440-446571/4 | YFL13013.D |
| Level 2 | STD04 440-446571/5 | YFL13014.D |
| Level 3 | STD05 440-446571/6 | YFL13015.D |
| Level 4 | STD1 440-446571/7 | YFL13016.D |
| Level 5 | STD2 440-446571/8 | YFL13017.D |
| Level 6 | STD5 440-446571/9 | YFL13018.D |
| Level 7 | STD10 440-446571/10 | YFL13019.D |
| Level 8 | ICIS 440-446571/11 | YFL13020.D |
| Level 9 | STD50 440-446571/12 | YFL13021.D |
| Level 10 | STD100 440-446571/13 | YFL13022.D |
| Level 11 | STD200 440-446571/14 | YFL13023.D |
| Level 12 | STD300 440-446571/15 | YFL13024.D |

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 LVL 11 | LVL 2 LVL 7 LVL 12 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dichlorodifluoromethane | +++++ 0.2625 0.2917 | +++++ 0.3076 0.2833 | +++++ 0.3185 | 0.2707 0.2702 | 0.2562 0.3021 | Ave | | 0.2847 | | | | 7.6 | | 15.0 | | | |
| Chloromethane | +++++ 0.3966 0.3782 | +++++ 0.4344 0.3520 | 0.3478 0.4188 | 0.3770 0.3816 | 0.3849 0.3871 | Ave | | 0.3858 | | | 0.1000 | 6.9 | | 15.0 | | | |
| Vinyl chloride | +++++ 0.2874 0.2819 | 0.2431 0.3111 0.2565 | 0.2541 0.3065 | 0.3044 0.2863 | 0.2776 0.2909 | Ave | | 0.2818 | | | | 8.0 | | 30.0 | | | |
| 1,3-Butadiene | +++++ 0.3505 0.3281 | +++++ 0.3651 0.2993 | +++++ 0.3667 | 0.3614 0.3302 | 0.3475 0.3435 | Ave | | 0.3436 | | | | 6.3 | | 15.0 | | | |
| Bromomethane | +++++ 0.1871 0.2019 | +++++ 0.2054 0.1921 | 0.1332 0.2120 | 0.1629 0.1920 | 0.2023 0.2048 | Ave | | 0.1894 | | | | 12.7 | | 15.0 | | | |
| Chloroethane | +++++ 0.1664 0.1722 | +++++ 0.1778 0.1653 | +++++ 0.1854 | 0.1803 0.1628 | 0.1853 0.1788 | Ave | | 0.1749 | | | | 4.9 | | 15.0 | | | |
| Ethanol | +++++ 0.1748 0.1723 | +++++ 0.1956 0.1579 | +++++ 0.1942 | +++++ 0.1759 | 0.1976 0.1813 | Ave | | 0.1812 | | | | 7.6 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dichlorofluoromethane | +++++<br>0.4138<br>0.4286 | +++++<br>0.4453<br>0.4047 | 0.4471<br>0.4507 | 0.4304<br>0.4108 | 0.4496<br>0.4419 | Ave | | 0.4323 | | | | 4.0 | | 15.0 | | | |
| Acrolein | +++++<br>0.0248<br>0.0359 | +++++<br>0.0278<br>0.0353 | +++++<br>0.0320 | +++++<br>0.0322 | +++++<br>0.0374 | Ave | | 0.0322 | | | | 14.1 | | 15.0 | | | |
| Trichlorofluoromethane | +++++<br>0.4064<br>0.4266 | +++++<br>0.4477<br>0.4091 | 0.4197<br>0.4557 | 0.4420<br>0.4137 | 0.4393<br>0.4442 | Ave | | 0.4304 | | | | 4.1 | | 15.0 | | | |
| Acetonitrile | +++++<br>0.0433<br>0.0420 | +++++<br>0.0478<br>0.0403 | +++++<br>0.0475 | 0.0435<br>0.0422 | 0.0488<br>0.0449 | Ave | | 0.0445 | | | | 6.7 | | 15.0 | | | |
| Acetone | +++++<br>0.0986<br>0.0828 | +++++<br>0.0888<br>0.0845 | +++++<br>0.0828 | +++++<br>0.0849 | +++++<br>0.0884 | Ave | | 0.0872 | | | | 6.4 | | 15.0 | | | |
| Diethyl ether | +++++<br>0.1982<br>0.2356 | +++++<br>0.2263<br>0.2359 | +++++<br>0.2367 | 0.1858<br>0.2235 | 0.1915<br>0.2385 | Ave | | 0.2191 | | | | 9.7 | | 15.0 | | | |
| 1,1-Dichloroethene | +++++<br>0.2155<br>0.2376 | +++++<br>0.2338<br>0.2373 | 0.2088<br>0.2442 | 0.2013<br>0.2253 | 0.2099<br>0.2422 | Ave | | 0.2256 | | | | 6.9 | | 30.0 | | | |
| Iodomethane | +++++<br>0.4552<br>0.4958 | +++++<br>0.5036<br>0.4789 | +++++<br>0.5100 | 0.4736<br>0.4737 | 0.4751<br>0.4997 | Ave | | 0.4851 | | | | 3.7 | | 15.0 | | | |
| tert-Butyl alcohol (TBA) | +++++<br>1.1246<br>1.3006 | +++++<br>1.2411<br>1.2550 | +++++<br>1.2924 | 1.0463<br>1.2180 | 1.1218<br>1.3073 | Ave | | 1.2119 | | | | 7.7 | | 15.0 | | | |
| Acrylonitrile | 0.0851<br>0.1059<br>0.1056 | 0.0982<br>0.1146<br>0.0979 | 0.1032<br>0.1171 | 0.1026<br>0.1083 | 0.1138<br>0.1149 | Ave | | 0.1056 | | | | 8.7 | | 15.0 | | | |
| Methylene Chloride | +++++<br>0.2387<br>0.2600 | +++++<br>0.2452<br>0.2563 | +++++<br>0.2734 | 0.3367<br>0.2504 | 0.2878<br>0.2649 | Ave | | 0.2682 | | | | 11.1 | | 15.0 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | +++++<br>0.2502<br>0.2643 | +++++<br>0.2739<br>0.2531 | 0.2589<br>0.2761 | 0.2869<br>0.2486 | 0.2832<br>0.2775 | Ave | | 0.2673 | | | | 5.3 | | 15.0 | | | |
| Methyl acetate | +++++<br>0.1996<br>0.2161 | +++++<br>0.2345<br>0.1968 | 0.2115<br>0.2395 | 0.2175<br>0.2231 | 0.2312<br>0.2363 | Ave | | 0.2206 | | | | 6.8 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Allyl chloride | +++++<br>0.5129<br>0.5529 | +++++<br>0.5636<br>0.5045 | +++++<br>0.5804 | 0.4555<br>0.5343 | 0.4995<br>0.5660 | Ave | | 0.5300 | | | | 7.6 | | 15.0 | | | |
| Carbon disulfide | +++++<br>0.7454<br>0.7689 | +++++<br>0.8001<br>0.7364 | 0.8154<br>0.8222 | 0.7670<br>0.7465 | 0.7663<br>0.7871 | Ave | | 0.7755 | | | | 3.8 | | 15.0 | | | |
| trans-1,2-Dichloroethene | +++++<br>0.2342<br>0.2580 | 0.2044<br>0.2585<br>0.2570 | 0.2046<br>0.2664 | 0.2249<br>0.2474 | 0.2486<br>0.2605 | Ave | | 0.2422 | | | | 9.2 | | 15.0 | | | |
| Methyl-t-Butyl Ether (MTBE) | +++++<br>0.5159<br>0.6584 | +++++<br>0.5994<br>0.6657 | 0.5159<br>0.6482 | 0.5009<br>0.6015 | 0.5667<br>0.6656 | Ave | | 0.5938 | | | | 11.1 | | 15.0 | | | |
| 1,1-Dichloroethane | +++++<br>0.4270<br>0.4566 | +++++<br>0.4688<br>0.4470 | 0.4320<br>0.4788 | 0.4141<br>0.4399 | 0.4453<br>0.4623 | Ave | | 0.4472 | | | 0.1000 | 4.5 | | 15.0 | | | |
| Propionitrile | +++++<br>0.0390<br>0.0418 | +++++<br>0.0428<br>0.0413 | +++++<br>0.0441 | 0.0341<br>0.0404 | 0.0404<br>0.0442 | Ave | | 0.0409 | | | | 7.5 | | 15.0 | | | |
| Vinyl acetate | +++++<br>0.5005<br>0.6475 | +++++<br>0.6024<br>0.6059 | +++++<br>0.6363 | +++++<br>0.6207 | 0.5254<br>0.6770 | Ave | | 0.6020 | | | | 10.0 | | 15.0 | | | |
| Hexane | +++++<br>0.3943<br>0.4479 | +++++<br>0.4355<br>0.4316 | +++++<br>0.4735 | 0.3911<br>0.4369 | 0.4174<br>0.4632 | Ave | | 0.4324 | | | | 6.5 | | 15.0 | | | |
| 2-Butanone (MEK) | +++++<br>0.0151<br>0.0263 | +++++<br>0.0188<br>0.0276 | +++++<br>0.0236 | +++++<br>0.0257 | +++++<br>0.0289 | Lin2 | -0.066 | 0.0273 | | | | | | | 0.9960 | | 0.9900 |
| Isopropyl Ether (DIPE) | +++++<br>0.9844<br>1.0627 | +++++<br>1.1116<br>0.9815 | 0.9284<br>1.1624 | 0.9238<br>1.0575 | 1.0250<br>1.1136 | Ave | | 1.0351 | | | | 7.8 | | 15.0 | | | |
| cis-1,2-Dichloroethene | +++++<br>0.2617<br>0.2983 | 0.2670<br>0.2889<br>0.2905 | 0.2588<br>0.3057 | 0.2501<br>0.2824 | 0.2691<br>0.2959 | Ave | | 0.2789 | | | | 6.6 | | 15.0 | | | |
| Bromochloromethane | +++++<br>0.1396<br>0.1619 | +++++<br>0.1582<br>+++++ | 0.1026<br>0.1624 | 0.1373<br>0.1523 | 0.1388<br>0.1615 | Ave | | 0.1461 | | | | 13.3 | | 15.0 | | | |
| Chloroform | +++++<br>0.4047<br>0.4479 | +++++<br>0.4463<br>0.4388 | 0.4710<br>0.4647 | 0.4155<br>0.4288 | 0.4482<br>0.4508 | Ave | | 0.4417 | | | | 4.7 | | 30.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| 2,2-Dichloropropane | +++++<br>0.2923<br>0.3250 | +++++<br>0.3200<br>0.3122 | +++++<br>0.3344 | 0.3036<br>0.3076 | 0.3078<br>0.3328 | Ave | | 0.3151 | | | | 4.5 | | 15.0 | | | |
| Ethyl-t-butyl ether (ETBE) | +++++<br>0.6799<br>0.8589 | +++++<br>0.7770<br>0.8273 | 0.6039<br>0.8516 | 0.6469<br>0.7908 | 0.6960<br>0.8788 | Ave | | 0.7611 | | | | 12.8 | | 15.0 | | | |
| Isobutyl alcohol | +++++<br>0.5824<br>0.7068 | +++++<br>0.6935<br>0.6586 | 0.4959<br>0.7355 | 0.5557<br>0.6810 | 0.5803<br>0.7464 | Ave | | 0.6436 | | | | 13.1 | | 15.0 | | | |
| Tetrahydrofuran | +++++<br>0.0967<br>0.0980 | +++++<br>0.0995<br>0.0970 | +++++<br>0.1034 | +++++<br>0.0956 | 0.0986<br>0.1040 | Ave | | 0.0991 | | | | 3.1 | | 15.0 | | | |
| 1,2-Dichloroethane | +++++<br>0.3111<br>0.3270 | 0.2619<br>0.3348<br>0.3210 | 0.2916<br>0.3439 | 0.3098<br>0.3141 | 0.3318<br>0.3336 | Ave | | 0.3164 | | | | 7.4 | | 15.0 | | | |
| 1,1,1-Trichloroethane | +++++<br>0.3747<br>0.4200 | +++++<br>0.4137<br>0.4092 | 0.3985<br>0.4223 | 0.3948<br>0.3948 | 0.3997<br>0.4265 | Ave | | 0.4054 | | | | 3.9 | | 15.0 | | | |
| 1,1-Dichloropropene | +++++<br>0.2589<br>0.3052 | +++++<br>0.2898<br>0.3007 | 0.2429<br>0.3080 | 0.2556<br>0.2921 | 0.2591<br>0.3084 | Ave | | 0.2821 | | | | 8.9 | | 15.0 | | | |
| Cyclohexane | +++++<br>0.4466<br>0.5154 | +++++<br>0.5075<br>0.4954 | +++++<br>0.5290 | 0.4544<br>0.4898 | 0.4514<br>0.5314 | Ave | | 0.4912 | | | | 6.8 | | 15.0 | | | |
| Carbon tetrachloride | +++++<br>0.3571<br>0.4031 | +++++<br>0.3968<br>0.3905 | 0.3730<br>0.4090 | 0.3931<br>0.3838 | 0.3855<br>0.4119 | Ave | | 0.3904 | | | | 4.3 | | 15.0 | | | |
| Benzene | +++++<br>0.8720<br>0.9214 | +++++<br>0.9392<br>0.8550 | 0.9195<br>0.9645 | 0.8976<br>0.8913 | 0.9279<br>0.9411 | Ave | | 0.9129 | | | | 3.7 | | 15.0 | | | |
| Tert-amyl-methyl ether (TAME) | +++++<br>0.5366<br>0.6583 | +++++<br>0.6044<br>0.6545 | 0.9948<br>0.6368 | 0.7715<br>0.5907 | 0.6378<br>0.6646 | Lin2 | 0.1788 | 0.6056 | | | | | | | 0.9910 | | 0.9900 |
| Dibromomethane | +++++<br>0.1424<br>0.1559 | +++++<br>0.1528<br>0.1533 | 0.1288<br>0.1560 | 0.1322<br>0.1482 | 0.1437<br>0.1580 | Ave | | 0.1471 | | | | 6.9 | | 15.0 | | | |
| n-Heptane | +++++<br>0.4516<br>0.5309 | +++++<br>0.5217<br>0.4819 | 0.4614<br>0.5558 | 0.4723<br>0.5235 | 0.4777<br>0.5591 | Ave | | 0.5036 | | | | 7.8 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| 1,2-Dichloropropane | +++++<br>0.2358<br>0.2711 | +++++<br>0.2586<br>0.2657 | 0.2370<br>0.2733 | 0.2472<br>0.2533 | 0.2510<br>0.2702 | Ave | | 0.2563 | | | | 5.4 | | 30.0 | | | |
| Trichloroethene | +++++<br>0.2983<br>0.3217 | +++++<br>0.3190<br>0.3130 | 0.2980<br>0.3309 | 0.2978<br>0.3106 | 0.3167<br>0.3260 | Ave | | 0.3132 | | | | 3.8 | | 15.0 | | | |
| Bromodichloromethane | +++++<br>0.2950<br>0.3548 | +++++<br>0.3346<br>0.3500 | 0.3129<br>0.3481 | 0.2906<br>0.3296 | 0.3284<br>0.3544 | Ave | | 0.3298 | | | | 7.2 | | 15.0 | | | |
| 2-Chloroethyl vinyl ether | +++++<br>0.0957<br>0.1545 | +++++<br>0.1173<br>+++++ | +++++<br>0.1430 | +++++<br>0.1273 | 0.0853<br>0.1503 | Lin1 | -0.209 | 0.1509 | | | | | | | 0.9960 | | 0.9900 |
| Methylcyclohexane | +++++<br>0.3639<br>0.4329 | +++++<br>0.4218<br>0.4151 | +++++<br>0.4434 | 0.3537<br>0.4118 | 0.3724<br>0.4475 | Ave | | 0.4069 | | | | 8.6 | | 15.0 | | | |
| cis-1,3-Dichloropropene | +++++<br>0.3934<br>0.4416 | +++++<br>0.4357<br>0.4236 | 0.3625<br>0.4545 | 0.3765<br>0.4111 | 0.3879<br>0.4410 | Ave | | 0.4128 | | | | 7.6 | | 15.0 | | | |
| 4-Methyl-2-pentanone (MIBK) | +++++<br>0.2765<br>0.3552 | +++++<br>0.3108<br>0.3466 | +++++<br>0.3291 | +++++<br>0.3370 | 0.3067<br>0.3750 | Ave | | 0.3296 | | | | 9.4 | | 15.0 | | | |
| trans-1,3-Dichloropropene | +++++<br>0.3319<br>0.4053 | +++++<br>0.3815<br>0.3925 | 0.3189<br>0.4115 | 0.3250<br>0.3721 | 0.3411<br>0.4098 | Ave | | 0.3690 | | | | 9.9 | | 15.0 | | | |
| 1,1,2-Trichloroethane | +++++<br>0.1923<br>0.2034 | +++++<br>0.2090<br>0.1999 | 0.2011<br>0.2133 | 0.2012<br>0.1879 | 0.1999<br>0.2034 | Ave | | 0.2011 | | | | 3.6 | | 15.0 | | | |
| Toluene | +++++<br>1.1941<br>1.1434 | +++++<br>1.3069<br>0.9946 | 1.1399<br>1.3495 | 1.1255<br>1.1746 | 1.1741<br>1.2292 | Ave | | 1.1832 | | | | 8.3 | | 30.0 | | | |
| 1,3-Dichloropropane | +++++<br>0.3954<br>0.3924 | +++++<br>0.4207<br>0.3814 | 0.3981<br>0.4367 | 0.3862<br>0.3742 | 0.4132<br>0.3976 | Ave | | 0.3996 | | | | 4.7 | | 15.0 | | | |
| Ethyl methacrylate | +++++<br>0.2603<br>0.3408 | +++++<br>0.3095<br>0.3341 | +++++<br>0.3381 | +++++<br>0.3088 | 0.2424<br>0.3464 | Ave | | 0.3101 | | | | 12.6 | | 15.0 | | | |
| 2-Hexanone | +++++<br>0.1801<br>0.2558 | +++++<br>0.2146<br>0.2475 | +++++<br>0.2337 | +++++<br>0.2369 | +++++<br>0.2688 | Ave | | 0.2339 | | | | 12.5 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dibromochloromethane | +++++<br>0.3463<br>0.3796 | +++++<br>0.3820<br>0.3616 | 0.3218<br>0.3977 | 0.3570<br>0.3547 | 0.3673<br>0.3848 | Ave | | 0.3653 | | | | 6.0 | | 15.0 | | | |
| 1,2-Dibromoethane (EDB) | +++++<br>0.2582<br>0.2788 | +++++<br>0.2755<br>0.2701 | 0.2539<br>0.2899 | 0.2518<br>0.2578 | 0.2673<br>0.2806 | Ave | | 0.2684 | | | | 4.8 | | 15.0 | | | |
| Tetrachloroethene | +++++<br>0.2655<br>0.2756 | +++++<br>0.2796<br>0.2657 | 0.2966<br>0.2891 | 0.2785<br>0.2564 | 0.2856<br>0.2785 | Ave | | 0.2771 | | | | 4.3 | | 15.0 | | | |
| 1,1,1,2-Tetrachloroethane | +++++<br>0.3366<br>0.3708 | +++++<br>0.3687<br>0.3534 | 0.3413<br>0.3826 | 0.3512<br>0.3401 | 0.3755<br>0.3740 | Ave | | 0.3594 | | | | 4.7 | | 15.0 | | | |
| Chlorobenzene | +++++<br>0.9223<br>0.8925 | +++++<br>0.9949<br>0.7944 | 1.0483<br>1.0052 | 0.9702<br>0.8785 | 1.0079<br>0.9367 | Ave | | 0.9451 | | | 0.3000 | 8.0 | | 15.0 | | | |
| Ethylbenzene | +++++<br>1.2593<br>1.2977 | +++++<br>1.4156<br>+++++ | 1.3006<br>1.5017 | 1.2614<br>1.3298 | 1.2749<br>1.4098 | Ave | | 1.3390 | | | | 6.3 | | 30.0 | | | |
| m,p-Xylene | +++++<br>0.5247<br>0.6002 | +++++<br>0.5972<br>0.5554 | 0.4818<br>0.6376 | 0.4858<br>0.5658 | 0.5023<br>0.6177 | Ave | | 0.5568 | | | | 10.1 | | 15.0 | | | |
| Bromoform | +++++<br>0.2003<br>0.2443 | +++++<br>0.2217<br>0.2418 | 0.1809<br>0.2325 | 0.1999<br>0.2107 | 0.1997<br>0.2429 | Ave | | 0.2175 | | | 0.1000 | 10.3 | | 15.0 | | | |
| Styrene | +++++<br>0.7478<br>0.9488 | +++++<br>0.9002<br>0.8413 | 0.6227<br>0.9939 | 0.6316<br>0.8934 | 0.7012<br>0.9865 | Lin1 | -0.201 | 0.9047 | | | | | | | 0.9950 | | 0.9900 |
| 1,1,2,2-Tetrachloroethane | +++++<br>0.5815<br>0.6013 | +++++<br>0.6255<br>0.5966 | 0.5820<br>0.6280 | 0.5683<br>0.5833 | 0.5944<br>0.6301 | Ave | | 0.5991 | | | 0.3000 | 3.7 | | 15.0 | | | |
| o-Xylene | +++++<br>0.5380<br>0.5872 | 0.4328<br>0.6176<br>0.5290 | 0.4620<br>0.6373 | 0.4786<br>0.5622 | 0.5250<br>0.6120 | Ave | | 0.5438 | | | | 12.3 | | 15.0 | | | |
| 1,2,3-Trichloropropane | +++++<br>0.1993<br>0.2078 | +++++<br>0.2104<br>0.2124 | +++++<br>0.2183 | 0.1756<br>0.2015 | 0.2041<br>0.2160 | Ave | | 0.2051 | | | | 6.2 | | 15.0 | | | |
| trans-1,4-Dichloro-2-butene | +++++<br>0.1648<br>0.2179 | +++++<br>0.2002<br>0.2239 | +++++<br>0.2102 | +++++<br>0.2023 | 0.1533<br>0.2247 | Ave | | 0.1997 | | | | 13.4 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Isopropylbenzene | +++++<br>1.3605<br>1.4444 | +++++<br>1.5437<br>1.2074 | 1.2359<br>1.6474 | 1.2192<br>1.4610 | 1.2974<br>1.5782 | Ave | | 1.3995 | | | | 11.4 | | 15.0 | | | |
| Bromobenzene | +++++<br>0.6891<br>0.7824 | +++++<br>0.7698<br>0.7795 | 0.6409<br>0.7963 | 0.6661<br>0.7484 | 0.7144<br>0.7990 | Ave | | 0.7386 | | | | 7.7 | | 15.0 | | | |
| N-Propylbenzene | +++++<br>2.5920<br>2.7655 | +++++<br>3.0345<br>2.4214 | 2.2975<br>3.1956 | 2.3048<br>2.9805 | 2.5022<br>3.1000 | Ave | | 2.7194 | | | | 12.5 | | 15.0 | | | |
| 2-Chlorotoluene | +++++<br>1.6954<br>1.8022 | +++++<br>1.9364<br>1.6903 | 1.5827<br>1.9541 | 1.5619<br>1.8008 | 1.7566<br>1.8903 | Ave | | 1.7671 | | | | 7.7 | | 15.0 | | | |
| 4-Chlorotoluene | +++++<br>1.7218<br>1.8706 | +++++<br>1.9977<br>1.7458 | 1.5377<br>2.0216 | 1.5894<br>1.8847 | 1.7736<br>1.9769 | Ave | | 1.8120 | | | | 9.3 | | 15.0 | | | |
| 1,3,5-Trimethylbenzene | +++++<br>2.0218<br>2.2988 | +++++<br>2.3926<br>2.0581 | 1.6371<br>2.5286 | 1.7776<br>2.3623 | 1.9330<br>2.4944 | Ave | | 2.1504 | | | | 14.4 | | 15.0 | | | |
| tert-Butylbenzene | +++++<br>1.8787<br>2.1097 | +++++<br>2.1945<br>1.9149 | 1.5774<br>2.3142 | 1.7029<br>2.1744 | 1.8329<br>2.2886 | Ave | | 1.9988 | | | | 12.7 | | 15.0 | | | |
| 1,2,4-Trimethylbenzene | +++++<br>2.1312<br>2.3582 | +++++<br>2.5086<br>2.1170 | 1.6428<br>2.6443 | 1.7466<br>2.4590 | 2.0376<br>2.5749 | Lin2 | -0.445 | 2.3946 | | | | | | | 0.9920 | | 0.9900 |
| sec-Butylbenzene | +++++<br>2.8694<br>2.8399 | +++++<br>3.2782<br>2.4587 | 2.3362<br>3.3366 | 2.6025<br>3.1229 | 2.8858<br>3.2392 | Ave | | 2.8970 | | | | 12.1 | | 15.0 | | | |
| 1,3-Dichlorobenzene | +++++<br>1.4861<br>1.5166 | +++++<br>1.6053<br>1.4436 | 1.5286<br>1.6309 | 1.5052<br>1.5163 | 1.5599<br>1.6022 | Ave | | 1.5395 | | | | 3.8 | | 15.0 | | | |
| 1,4-Dichlorobenzene | +++++<br>1.5266<br>1.5343 | +++++<br>1.6671<br>1.4427 | 1.6822<br>1.6891 | 1.6873<br>1.5600 | 1.6429<br>1.6207 | Ave | | 1.6053 | | | | 5.3 | | 15.0 | | | |
| p-Isopropyltoluene | +++++<br>2.5211<br>2.6034 | +++++<br>2.9006<br>2.2446 | 2.3572<br>3.0281 | 2.4194<br>2.8330 | 2.5606<br>2.9301 | Ave | | 2.6398 | | | | 10.2 | | 15.0 | | | |
| 1,2-Dichlorobenzene | +++++<br>1.3379<br>1.4569 | +++++<br>1.4986<br>1.3842 | 1.3978<br>1.5433 | 1.3216<br>1.4541 | 1.3969<br>1.5276 | Ave | | 1.4319 | | | | 5.3 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| n-Butylbenzene | +++++<br>1.9772<br>2.1896 | +++++<br>2.3177<br>1.9435 | 1.6895<br>2.4308 | 1.7550<br>2.2881 | 1.8683<br>2.4127 | Ave | | 2.0872 | | | | 13.1 | | 15.0 | | | |
| 1,2-Dibromo-3-Chloropropane | +++++<br>0.0955<br>0.1230 | +++++<br>0.1124<br>0.1258 | +++++<br>0.1193 | 0.0523<br>0.1155 | 0.1024<br>0.1268 | Lin2 | -0.066 | 0.1218 | | | | | | | 0.9950 | | 0.9900 |
| 1,2,4-Trichlorobenzene | +++++<br>0.8260<br>1.0299 | +++++<br>0.9433<br>0.9952 | 0.8939<br>1.0236 | 0.8148<br>0.9961 | 0.8515<br>1.0503 | Ave | | 0.9424 | | | | 9.5 | | 15.0 | | | |
| Naphthalene | +++++<br>2.0716<br>2.3828 | +++++<br>2.5428<br>+++++ | 1.7066<br>2.7952 | 1.6662<br>2.6976 | 1.8776<br>2.7585 | Lin1 | -0.642 | 2.5540 | | | | | | | 0.9940 | | 0.9900 |
| Hexachlorobutadiene | +++++<br>0.4875<br>0.5583 | +++++<br>0.5357<br>0.5489 | 0.5675<br>0.5459 | 0.5547<br>0.5298 | 0.5066<br>0.5623 | Ave | | 0.5397 | | | | 4.7 | | 15.0 | | | |
| 1,2,3-Trichlorobenzene | +++++<br>0.8418<br>0.9637 | +++++<br>0.9505<br>0.9425 | 0.8181<br>0.9701 | 0.7648<br>0.9355 | 0.8724<br>1.0001 | Ave | | 0.9059 | | | | 8.5 | | 15.0 | | | |
| Dibromofluoromethane (Surr) | 0.2722 | 0.2783 | 0.2770 | 0.2672 | 0.2826 | Ave | | 0.2755 | | | | 2.1 | | 15.0 | | | |
| 1,2-Dichloroethane-d4 (Surr) | 0.2737 | 0.2745 | 0.2732 | 0.2596 | 0.2773 | Ave | | 0.2717 | | | | 2.5 | | 15.0 | | | |
| Toluene-d8 (Surr) | 1.1299 | 1.1385 | 1.1536 | 1.0345 | 1.0861 | Ave | | 1.1085 | | | | 4.4 | | 15.0 | | | |
| 4-Bromofluorobenzene (Surr) | 0.7794 | 0.8300 | 0.8223 | 0.7893 | 0.8386 | Ave | | 0.8119 | | | | 3.2 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD02 440-446571/4 | YFL13013.D |
| Level 2 | STD04 440-446571/5 | YFL13014.D |
| Level 3 | STD05 440-446571/6 | YFL13015.D |
| Level 4 | STD1 440-446571/7 | YFL13016.D |
| Level 5 | STD2 440-446571/8 | YFL13017.D |
| Level 6 | STD5 440-446571/9 | YFL13018.D |
| Level 7 | STD10 440-446571/10 | YFL13019.D |
| Level 8 | ICIS 440-446571/11 | YFL13020.D |
| Level 9 | STD50 440-446571/12 | YFL13021.D |
| Level 10 | STD100 440-446571/13 | YFL13022.D |
| Level 11 | STD200 440-446571/14 | YFL13023.D |
| Level 12 | STD300 440-446571/15 | YFL13024.D |

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Dichlorodifluoromethane | FB | Ave | +++++<br>32748<br>1592401 | +++++<br>77025<br>2513627 | +++++<br>202305 | 6984<br>347033 | 12487<br>796750 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloromethane | FB | Ave | +++++<br>49483<br>2064093 | +++++<br>108778<br>3122313 | 4574<br>266023 | 9728<br>490231 | 18763<br>1020736 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Vinyl chloride | FB | Ave | +++++<br>35860<br>1538681 | 2707<br>77895<br>2275358 | 3342<br>194695 | 7855<br>367779 | 13529<br>767125 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Butadiene | FB | Ave | +++++<br>43735<br>1790693 | +++++<br>91428<br>2654982 | +++++<br>232965 | 9324<br>424155 | 16937<br>905899 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromomethane | FB | Ave | +++++<br>23347<br>1102167 | +++++<br>51436<br>1704141 | 1751<br>134691 | 4203<br>246590 | 9859<br>540037 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloroethane | FB | Ave | +++++<br>20759<br>940071 | +++++<br>44515<br>1466068 | +++++<br>117747 | 4653<br>209070 | 9033<br>471485 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethanol | TBAd 9 | Ave | +++++<br>23253<br>1277148 | +++++<br>50957<br>2002745 | +++++<br>128547 | +++++<br>295311 | 13158<br>674662 | +++++<br>200<br>10000 | +++++<br>400<br>15000 | +++++<br>1000 | +++++<br>2500 | 100<br>5000 |
| Dichlorofluoromethane | FB | Ave | +++++<br>51633<br>2339446 | +++++<br>111510<br>3589799 | 5879<br>286333 | 11106<br>527660 | 21914<br>1165416 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Acrolein | FB | Ave | +++++<br>3095<br>196179 | +++++<br>6966<br>313346 | +++++<br>20322 | +++++<br>41403 | +++++<br>98605 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Trichlorofluoromethane | FB | Ave | +++++<br>50709<br>2328309 | +++++<br>112100<br>3628761 | 5519<br>289484 | 11404<br>531475 | 21415<br>1171367 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Acetonitrile | FB | Ave | +++++<br>54006<br>2294825 | +++++<br>119620<br>3576502 | +++++<br>301664 | 11213<br>541621 | 23809<br>1184923 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Acetone | FB | Ave | +++++<br>12298<br>452001 | +++++<br>22243<br>749291 | +++++<br>52594 | +++++<br>109002 | +++++<br>233154 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Diethyl ether | FB | Ave | +++++<br>24737<br>1285886 | +++++<br>56677<br>2093020 | +++++<br>150349 | 4794<br>287134 | 9333<br>628849 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloroethene | FB | Ave | +++++<br>26889<br>1296670 | +++++<br>58543<br>2104829 | 2746<br>155126 | 5193<br>289365 | 10232<br>638681 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Iodomethane | FB | Ave | +++++<br>56795<br>2706352 | +++++<br>126104<br>4248339 | +++++<br>323959 | 12219<br>608473 | 23156<br>1317920 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| tert-Butyl alcohol (TBA) | TBAd 9 | Ave | +++++<br>37390<br>1928695 | +++++<br>80852<br>3184609 | +++++<br>213902 | 6824<br>408999 | 14939<br>973099 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Acrylonitrile | FB | Ave | 4664<br>132192<br>5765120 | 10935<br>287081<br>8683217 | 13576<br>744006 | 26467<br>1391667 | 55471<br>3031251 | 2.00<br>50.0<br>2000 | 4.00<br>100<br>3000 | 5.00<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Methylene Chloride | FB | Ave | +++++<br>29785<br>1419191 | +++++<br>61404<br>2274060 | +++++<br>173682 | 8688<br>321656 | 14027<br>698576 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | FB | Ave | +++++<br>31215<br>1442382 | +++++<br>68598<br>2245349 | 3405<br>175360 | 7402<br>319298 | 13802<br>731912 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methyl acetate | FB | Ave | +++++<br>124537<br>5896219 | +++++<br>293653<br>8728723 | 13906<br>760793 | 28058<br>1433104 | 56337<br>3115238 | +++++<br>25.0<br>1000 | +++++<br>50.0<br>1500 | 2.50<br>125 | 5.00<br>250 | 10.0<br>500 |
| Allyl chloride | FB | Ave | +++++<br>64004<br>3017941 | +++++<br>141138<br>4475460 | +++++<br>368709 | 11753<br>686363 | 24346<br>1492553 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Carbon disulfide | FB | Ave | +++++<br>93011<br>4196812 | +++++<br>200350<br>6533040 | 10723<br>522301 | 19789<br>958921 | 37350<br>2075837 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| trans-1,2-Dichloroethene | FB | Ave | +++++<br>29225<br>1408305 | 2277<br>64730<br>2280018 | 2690<br>169204 | 5802<br>317802 | 12117<br>686931 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methyl-t-Butyl Ether (MTBE) | FB | Ave | +++++<br>64368<br>3593610 | +++++<br>150104<br>5905205 | 6784<br>411761 | 12925<br>772628 | 27622<br>1755327 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloroethane | FB | Ave | +++++<br>53280<br>2492046 | +++++<br>117398<br>3965177 | 5681<br>304137 | 10684<br>565087 | 21705<br>1219067 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Propionitrile | FB | Ave | +++++<br>48707<br>2280753 | +++++<br>107192<br>3664476 | +++++<br>280356 | 8800<br>518988 | 19696<br>1166368 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Vinyl acetate | FB | Ave | +++++<br>49965<br>3533937 | +++++<br>120677<br>5375303 | +++++<br>323347 | +++++<br>797286 | 25610<br>1785310 | +++++<br>4.00<br>200 | +++++<br>8.00<br>300 | +++++<br>20.0 | +++++<br>50.0 | 2.00<br>100 |
| Hexane | FB | Ave | +++++<br>49196<br>2444778 | +++++<br>109042<br>3828816 | +++++<br>300791 | 10092<br>561222 | 20343<br>1221425 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Butanone (MEK) | FB | Lin2 | +++++<br>1890<br>143400 | +++++<br>4706<br>245194 | +++++<br>14965 | +++++<br>32968 | +++++<br>76214 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Isopropyl Ether (DIPE) | FB | Ave | +++++<br>122830<br>5800384 | +++++<br>278353<br>8706862 | 12208<br>738377 | 23836<br>1358498 | 49962<br>2936740 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| cis-1,2-Dichloroethene | FB | Ave | +++++<br>32650<br>1628249 | 2974<br>72341<br>2577054 | 3403<br>194193 | 6454<br>362759 | 13118<br>780245 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromochloromethane | FB | Ave | +++++<br>17421<br>883908 | +++++<br>39615<br>+++++ | 1349<br>103194 | 3542<br>195606 | 6765<br>425933 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloroform | FB | Ave | +++++<br>50494<br>2444831 | +++++<br>111769<br>3892466 | 6194<br>295219 | 10721<br>550840 | 21845<br>1188945 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2,2-Dichloropropane | FB | Ave | +++++<br>36474<br>1773699 | +++++<br>80141<br>2769917 | +++++<br>212407 | 7833<br>395171 | 15002<br>877653 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Ethyl-t-butyl ether (ETBE) | FB | Ave | +++++<br>84837<br>4688079 | +++++<br>194556<br>7339275 | 7941<br>540982 | 16692<br>1015910 | 33924<br>2317653 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Isobutyl alcohol | TBAd9 | Ave | +++++<br>48406<br>2620103 | +++++<br>112948<br>4177738 | 4397<br>304346 | 9060<br>571740 | 19320<br>1389051 | +++++<br>125<br>5000 | +++++<br>250<br>7500 | 12.5<br>625 | 25.0<br>1250 | 50.0<br>2500 |
| Tetrahydrofuran | FB | Ave | +++++<br>24133<br>1070232 | +++++<br>49838<br>1721055 | +++++<br>131424 | +++++<br>245487 | 9608<br>548345 | +++++<br>10.0<br>400 | +++++<br>20.0<br>600 | +++++<br>50.0 | +++++<br>100 | 4.00<br>200 |
| 1,2-Dichloroethane | FB | Ave | +++++<br>38823<br>1784859 | 2917<br>83835<br>2847240 | 3835<br>218449 | 7993<br>403512 | 16175<br>879639 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,1-Trichloroethane | FB | Ave | +++++<br>46758<br>2292481 | +++++<br>103598<br>3630019 | 5240<br>268260 | 10187<br>507206 | 19483<br>1124747 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloropropene | FB | Ave | +++++<br>32311<br>1665626 | +++++<br>72577<br>2667981 | 3194<br>195633 | 6594<br>375214 | 12630<br>813345 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Cyclohexane | FB | Ave | +++++<br>55720<br>2813000 | +++++<br>127094<br>4394499 | +++++<br>336062 | 11724<br>629222 | 22002<br>1401495 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Carbon tetrachloride | FB | Ave | +++++<br>44562<br>2200273 | +++++<br>99373<br>3463844 | 4905<br>259841 | 10143<br>493022 | 18790<br>1086220 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Benzene | FB | Ave | +++++<br>108804<br>5029405 | +++++<br>235186<br>7584632 | 12091<br>612704 | 23159<br>1144994 | 45227<br>2481882 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Tert-amyl-methyl ether (TAME) | FB | Lin2 | +++++<br>66962<br>3592917 | +++++<br>151342<br>5806155 | 13081<br>404519 | 19906<br>758846 | 31088<br>1752551 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Dibromomethane | FB | Ave | +++++<br>17763<br>850740 | +++++<br>38258<br>1359537 | 1694<br>99107 | 3410<br>190340 | 7004<br>416742 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Heptane | FB | Ave | +++++<br>56349<br>2897958 | +++++<br>130630<br>4275264 | 6067<br>353061 | 12187<br>672459 | 23282<br>1474414 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2-Dichloropropane | FB | Ave | +++++<br>29417<br>1479908 | +++++<br>64763<br>2357140 | 3116<br>173611 | 6378<br>325342 | 12234<br>712585 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Trichloroethene | FB | Ave | +++++<br>37218<br>1755911 | +++++<br>79877<br>2776779 | 3919<br>210202 | 7685<br>398938 | 15439<br>859819 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromodichloromethane | FB | Ave | +++++<br>36810<br>1936352 | +++++<br>83787<br>3105220 | 4114<br>221113 | 7499<br>423419 | 16008<br>934588 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Chloroethyl vinyl ether | CBNZ d5 | Lin1 | +++++<br>9558<br>751848 | +++++<br>24097<br>+++++ | +++++<br>75466 | +++++<br>143974 | 3382<br>351300 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Methylcyclohexane | FB | Ave | +++++<br>45408<br>2362728 | +++++<br>105616<br>3682651 | +++++<br>281635 | 9126<br>528971 | 18154<br>1180140 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| cis-1,3-Dichloropropene | CBNZ d5 | Ave | +++++<br>39294<br>2149303 | +++++<br>89508<br>3407309 | 3852<br>239929 | 7800<br>464956 | 15380<br>1030466 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 4-Methyl-2-pentanone (MIBK) | CBNZ d5 | Ave | +++++<br>27613<br>1728858 | +++++<br>63858<br>2788115 | +++++<br>173717 | +++++<br>381163 | 12160<br>876297 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| trans-1,3-Dichloropropene | CBNZ d5 | Ave | +++++<br>33151<br>1972425 | +++++<br>78373<br>3157331 | 3388<br>217203 | 6733<br>420793 | 13525<br>957628 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2-Trichloroethane | CBNZ d5 | Ave | +++++<br>19207<br>989900 | +++++<br>42947<br>1607543 | 2137<br>112574 | 4168<br>212476 | 7927<br>475395 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Toluene | CBNZ d5 | Ave | +++++<br>119256<br>5564640 | +++++<br>268514<br>8000120 | 12112<br>712320 | 23318<br>1328373 | 46553<br>2872553 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Dichloropropane | CBNZ d5 | Ave | +++++<br>39492<br>1909928 | +++++<br>86432<br>3068045 | 4230<br>230513 | 8002<br>423194 | 16382<br>929048 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethyl methacrylate | CBNZ d5 | Ave | +++++<br>25995<br>1658653 | +++++<br>63596<br>2687619 | +++++<br>178490 | +++++<br>349229 | 9611<br>809410 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| 2-Hexanone | CBNZ d5 | Ave | +++++<br>17982<br>1245018 | +++++<br>44093<br>1990741 | +++++<br>123375 | +++++<br>267894 | +++++<br>628182 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Dibromochloromethane | CBNZ d5 | Ave | +++++<br>34583<br>1847486 | +++++<br>78486<br>2908381 | 3419<br>209914 | 7397<br>401173 | 14563<br>899190 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 1,2-Dibromoethane (EDB) | CBNZ d5 | Ave | +++++<br>25789<br>1356839 | +++++<br>56604<br>2172761 | 2698<br>153014 | 5216<br>291516 | 10598<br>655617 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Tetrachloroethene | CBNZ d5 | Ave | +++++<br>26516<br>1341447 | +++++<br>57436<br>2136871 | 3152<br>152581 | 5769<br>289953 | 11326<br>650809 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,1,2-Tetrachloroethane | CBNZ d5 | Ave | +++++<br>33616<br>1804466 | +++++<br>75760<br>2842218 | 3627<br>201952 | 7276<br>384650 | 14890<br>874072 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chlorobenzene | CBNZ d5 | Ave | +++++<br>92110<br>4343696 | +++++<br>204414<br>6389378 | 11139<br>530594 | 20099<br>993549 | 39963<br>2188994 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethylbenzene | CBNZ d5 | Ave | +++++<br>125764<br>6315582 | +++++<br>290856<br>+++++ | 13820<br>792686 | 26132<br>1503944 | 50549<br>3294417 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| m,p-Xylene | CBNZ d5 | Ave | +++++<br>52398<br>2920979 | +++++<br>122697<br>4467133 | 5119<br>336576 | 10065<br>639906 | 19915<br>1443457 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromoform | CBNZ d5 | Ave | +++++<br>20007<br>1188925 | +++++<br>45560<br>1945022 | 1922<br>122719 | 4142<br>238326 | 7917<br>567616 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Styrene | CBNZ d5 | Lin1 | +++++<br>74682<br>4617359 | +++++<br>184943<br>6766673 | 6617<br>524609 | 13085<br>1010395 | 27802<br>2305235 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2,2-Tetrachloroethane | DCBd 4 | Ave | +++++<br>32047<br>1616985 | +++++<br>69790<br>2507850 | 3338<br>183183 | 6444<br>345564 | 12924<br>807148 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| o-Xylene | CBNZ d5 | Ave | +++++<br>53729<br>2857844 | 3851<br>126891<br>4254884 | 4909<br>336417 | 9915<br>635828 | 20817<br>1430032 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,3-Trichloropropane | DCBd 4 | Ave | +++++<br>10984<br>558773 | +++++<br>23474<br>892791 | +++++<br>63680 | 1991<br>119406 | 4438<br>276717 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| trans-1,4-Dichloro-2-butene | DCBd 4 | Ave | +++++<br>9080<br>586115 | +++++<br>22341<br>941167 | +++++<br>61303 | +++++<br>119857 | 3334<br>287848 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Isopropylbenzene | CBNZ d5 | Ave | +++++<br>135876<br>7029773 | +++++<br>317160<br>9711278 | 13132<br>869571 | 25258<br>1652338 | 51444<br>3688023 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Bromobenzene | DCBd 4 | Ave | +++++<br>37973<br>2104175 | +++++<br>85890<br>3276453 | 3676<br>232282 | 7553<br>443385 | 15533<br>1023474 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| N-Propylbenzene | DCBd 4 | Ave | +++++<br>142838<br>7437145 | +++++<br>338555<br>10178257 | 13177<br>932141 | 26133<br>1765855 | 54404<br>3970790 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Chlorotoluene | DCBd 4 | Ave | +++++<br>93430<br>4846575 | +++++<br>216042<br>7105153 | 9077<br>569994 | 17709<br>1066912 | 38194<br>2421345 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 4-Chlorotoluene | DCBd 4 | Ave | +++++<br>94883<br>5030412 | +++++<br>222883<br>7338648 | 8819<br>589694 | 18021<br>1116630 | 38563<br>2532242 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3,5-Trimethylbenzene | DCBd 4 | Ave | +++++<br>111416<br>6182011 | +++++<br>266938<br>8651259 | 9389<br>737593 | 20155<br>1399600 | 42029<br>3195023 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| tert-Butylbenzene | DCBd 4 | Ave | +++++<br>103527<br>5673654 | +++++<br>244831<br>8049250 | 9047<br>675039 | 19308<br>1288234 | 39853<br>2931529 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,4-Trimethylbenzene | DCBd 4 | Lin2 | +++++<br>117442<br>6341786 | +++++<br>279884<br>8898647 | 9422<br>771345 | 19804<br>1456902 | 44302<br>3298226 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| sec-Butylbenzene | DCBd 4 | Ave | +++++<br>158121<br>7637368 | +++++<br>365745<br>10335081 | 13399<br>973279 | 29508<br>1850192 | 62746<br>4149128 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Dichlorobenzene | DCBd 4 | Ave | +++++<br>81892<br>4078559 | +++++<br>179104<br>6067994 | 8767<br>475737 | 17066<br>898337 | 33917<br>2052271 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,4-Dichlorobenzene | DCBd 4 | Ave | +++++<br>84127<br>4126225 | +++++<br>185989<br>6064350 | 9648<br>492694 | 19131<br>924230 | 35722<br>2075952 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| p-Isopropyltoluene | DCBd 4 | Ave | +++++<br>138929<br>7001141 | +++++<br>323618<br>9435325 | 13519<br>883295 | 27432<br>1678457 | 55674<br>3753177 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2-Dichlorobenzene | DCBd 4 | Ave | +++++<br>73725<br>3917999 | +++++<br>167197<br>5818562 | 8017<br>450181 | 14985<br>861519 | 30373<br>1956714 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Butylbenzene | DCBd 4 | Ave | +++++<br>108959<br>5888368 | +++++<br>258575<br>8169485 | 9690<br>709063 | 19899<br>1355612 | 40622<br>3090410 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 1,2-Dibromo-3-Chloropropane | DCBd 4 | Lin2 | +++++<br>5264<br>330913 | +++++<br>12535<br>528829 | +++++<br>34790 | 593<br>68422 | 2226<br>162389 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,4-Trichlorobenzene | DCBd 4 | Ave | +++++<br>45517<br>2769663 | +++++<br>105246<br>4183181 | 5127<br>298586 | 9238<br>590129 | 18513<br>1345292 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Naphthalene | DCBd 4 | Lin1 | +++++<br>114157<br>6407987 | +++++<br>283695<br>+++++ | 9788<br>815347 | 18892<br>1598232 | 40824<br>3533382 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Hexachlorobutadiene | DCBd 4 | Ave | +++++<br>26866<br>1501467 | +++++<br>59765<br>2307424 | 3255<br>159223 | 6289<br>313875 | 11015<br>720187 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,3-Trichlorobenzene | DCBd 4 | Ave | +++++<br>46390<br>2591535 | +++++<br>106042<br>3961620 | 4692<br>282966 | 8671<br>554272 | 18968<br>1281032 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Dibromofluoromethane (Surr) | FB | Ave | 33967 | 69691 | 175933 | 343285 | 745317 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| 1,2-Dichloroethane-d4 (Surr) | FB | Ave | 34146 | 68728 | 173556 | 333537 | 731283 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| Toluene-d8 (Surr) | CBNZ d5 | Ave | 112844 | 233914 | 608913 | 1170013 | 2538162 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| 4-Bromofluorobenzene (Surr) | DCBd 4 | Ave | 42951 | 92599 | 239872 | 467651 | 1074191 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |

Curve Type Legend:

| |
|---|
| Ave = Average ISTD |
| Lin1 = Linear 1/conc ISTD |
| Lin2 = Linear 1/conc^2 ISTD |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: ICV 440-442013/18 Calibration Date: 11/17/2017 07:01

Instrument ID: GCMS36 Calib Start Date: 11/17/2017 01:05

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 11/17/2017 05:45

Lab File ID: SFK16048.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.3042 | 0.2546 | | 20.9 | 25.0 | -16.3 | 40.0 |
| Chloromethane | Ave | 0.3780 | 0.3153 | 0.1000 | 20.9 | 25.0 | -16.6 | 40.0 |
| Vinyl chloride | Ave | 0.3171 | 0.2837 | | 22.4 | 25.0 | -10.5 | 30.0 |
| 1,3-Butadiene | Ave | 0.3014 | 0.2610 | | 21.6 | 25.0 | -13.4 | 30.0 |
| Bromomethane | Ave | 0.1990 | 0.1778 | | 22.3 | 25.0 | -10.7 | 30.0 |
| Chloroethane | Ave | 0.1572 | 0.1512 | | 24.0 | 25.0 | -3.8 | 30.0 |
| Ethanol | Ave | 0.1143 | 0.1067 | | 934 | 1000 | -6.6 | 40.0 |
| Dichlorofluoromethane | Ave | 0.4010 | 0.4215 | | 26.3 | 25.0 | 5.1 | 40.0 |
| Acrolein | Ave | 0.0260 | 0.0193 | | 18.5 | 25.0 | -25.8 | 40.0 |
| Acetonitrile | Ave | 0.0267 | 0.0264 | | 247 | 250 | -1.3 | 40.0 |
| Trichlorofluoromethane | Ave | 0.4615 | 0.4431 | | 24.0 | 25.0 | -4.0 | 40.0 |
| Acetone | Ave | 0.0690 | 0.0679 | | 24.6 | 25.0 | -1.6 | 40.0 |
| Diethyl ether | Ave | 0.1817 | 0.1827 | | 25.1 | 25.0 | 0.5 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.2579 | 0.2441 | | 23.7 | 25.0 | -5.4 | 30.0 |
| tert-Butyl alcohol (TBA) | Ave | 1.172 | 1.093 | | 233 | 250 | -6.7 | 30.0 |
| Iodomethane | Ave | 0.7194 | 0.6119 | | 21.3 | 25.0 | -15.0 | 40.0 |
| Acrylonitrile | Ave | 0.0748 | 0.0739 | | 247 | 250 | -1.2 | 40.0 |
| Methylene Chloride | Ave | 0.2616 | 0.2470 | | 23.6 | 25.0 | -5.6 | 30.0 |
| Methyl acetate | Ave | 0.1640 | 0.1541 | | 117 | 125 | -6.0 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.2820 | 0.2671 | | 23.7 | 25.0 | -5.3 | 40.0 |
| Allyl chloride | Ave | 0.4308 | 0.4271 | | 24.8 | 25.0 | -0.9 | 40.0 |
| Carbon disulfide | Ave | 0.8139 | 0.7277 | | 22.4 | 25.0 | -10.6 | 40.0 |
| trans-1,2-Dichloroethene | Ave | 0.2838 | 0.2776 | | 24.5 | 25.0 | -2.2 | 30.0 |
| Methyl-t-Butyl Ether (MTBE) | Ave | 0.5498 | 0.5455 | | 24.8 | 25.0 | -0.8 | 30.0 |
| Propionitrile | Ave | 0.0290 | 0.0296 | | 256 | 250 | 2.2 | 40.0 |
| 1,1-Dichloroethane | Ave | 0.4573 | 0.4532 | 0.1000 | 24.8 | 25.0 | -0.9 | 30.0 |
| Vinyl acetate | Ave | 0.4687 | 0.5138 | | 27.4 | 25.0 | 9.6 | 40.0 |
| Hexane | Ave | 0.4176 | 0.4078 | | 24.4 | 25.0 | -2.3 | 40.0 |
| 2-Butanone (MEK) | Lin2 | | 0.0261 | | 25.4 | 25.0 | 1.7 | 40.0 |
| Isopropyl Ether (DIPE) | Ave | 0.8481 | 0.8373 | | 24.7 | 25.0 | -1.3 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.3045 | 0.3021 | | 24.8 | 25.0 | -0.8 | 30.0 |
| Bromochloromethane | Ave | 0.1653 | 0.1711 | | 25.9 | 25.0 | 3.5 | 30.0 |
| Chloroform | Ave | 0.4739 | 0.4473 | | 23.6 | 25.0 | -5.6 | 30.0 |
| Ethyl-t-butyl ether (ETBE) | Ave | 0.6904 | 0.6722 | | 24.3 | 25.0 | -2.6 | 30.0 |
| 2,2-Dichloropropane | Ave | 0.3132 | 0.2896 | | 23.1 | 25.0 | -7.5 | 30.0 |
| Isobutyl alcohol | Ave | 0.6397 | 0.5972 | | 584 | 625 | -6.6 | 40.0 |
| Tetrahydrofuran | Ave | 0.0762 | 0.0717 | | 47.0 | 50.0 | -5.9 | 40.0 |
| 1,2-Dichloroethane | Ave | 0.3234 | 0.3186 | | 24.6 | 25.0 | -1.5 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.4335 | 0.4307 | | 24.8 | 25.0 | -0.7 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.3430 | 0.3507 | | 25.6 | 25.0 | 2.2 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: ICV 440-442013/18 Calibration Date: 11/17/2017 07:01

Instrument ID: GCMS36 Calib Start Date: 11/17/2017 01:05

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 11/17/2017 05:45

Lab File ID: SFK16048.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Cyclohexane | Ave | 0.4439 | 0.4345 | | 24.5 | 25.0 | -2.1 | 30.0 |
| Carbon tetrachloride | Ave | 0.4345 | 0.4402 | | 25.3 | 25.0 | 1.3 | 40.0 |
| Benzene | Ave | 0.9375 | 0.8968 | | 23.9 | 25.0 | -4.3 | 30.0 |
| Tert-amyl-methyl ether (TAME) | Ave | 0.5683 | 0.5577 | | 24.5 | 25.0 | -1.9 | 30.0 |
| n-Heptane | Ave | 0.4578 | 0.4392 | | 24.0 | 25.0 | -4.1 | 30.0 |
| Dibromomethane | Ave | 0.1603 | 0.1625 | | 25.4 | 25.0 | 1.4 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.2464 | 0.2514 | | 25.5 | 25.0 | 2.0 | 30.0 |
| Trichloroethene | Ave | 0.3625 | 0.3623 | | 25.0 | 25.0 | -0.0 | 30.0 |
| Bromodichloromethane | Ave | 0.3184 | 0.3385 | | 26.6 | 25.0 | 6.3 | 30.0 |
| 2-Chloroethyl vinyl ether | Ave | 0.1396 | 0.1208 | | 21.6 | 25.0 | -13.4 | 40.0 |
| Methylcyclohexane | Ave | 0.4549 | 0.4379 | | 24.1 | 25.0 | -3.7 | 30.0 |
| cis-1,3-Dichloropropene | Ave | 0.4142 | 0.4187 | | 25.3 | 25.0 | 1.1 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.2621 | 0.2652 | | 25.3 | 25.0 | 1.2 | 40.0 |
| trans-1,3-Dichloropropene | Ave | 0.3665 | 0.3667 | | 25.0 | 25.0 | 0.0 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.1985 | 0.1974 | | 24.9 | 25.0 | -0.6 | 30.0 |
| Toluene | Ave | 1.295 | 1.153 | | 22.3 | 25.0 | -10.9 | 30.0 |
| Ethyl methacrylate | Ave | 0.2755 | 0.2889 | | 26.2 | 25.0 | 4.9 | 40.0 |
| 1,3-Dichloropropane | Ave | 0.3763 | 0.3654 | | 24.3 | 25.0 | -2.9 | 30.0 |
| 2-Hexanone | Ave | 0.1885 | 0.1914 | | 25.4 | 25.0 | 1.5 | 40.0 |
| Dibromochloromethane | Ave | 0.3632 | 0.3616 | | 24.9 | 25.0 | -0.4 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2699 | 0.2690 | | 24.9 | 25.0 | -0.4 | 30.0 |
| Tetrachloroethene | Ave | 0.3528 | 0.3408 | | 24.1 | 25.0 | -3.4 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.3785 | 0.3834 | | 25.3 | 25.0 | 1.3 | 40.0 |
| Chlorobenzene | Ave | 0.997 | 0.8775 | 0.3000 | 22.0 | 25.0 | -12.0 | 30.0 |
| Ethylbenzene | Ave | 1.423 | 1.257 | | 22.1 | 25.0 | -11.7 | 30.0 |
| m,p-Xylene | Ave | 0.5880 | 0.5673 | | 24.1 | 25.0 | -3.5 | 30.0 |
| Bromoform | Ave | 0.2440 | 0.2495 | 0.1000 | 25.6 | 25.0 | 2.3 | 40.0 |
| Styrene | Ave | 0.8355 | 0.8326 | | 24.9 | 25.0 | -0.4 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5449 | 0.5044 | 0.3000 | 23.1 | 25.0 | -7.4 | 30.0 |
| o-Xylene | Ave | 0.5809 | 0.5578 | | 24.0 | 25.0 | -4.0 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.1701 | 0.1614 | | 23.7 | 25.0 | -5.1 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.1441 | 0.1353 | | 23.5 | 25.0 | -6.1 | 40.0 |
| Isopropylbenzene | Ave | 1.491 | 1.364 | | 22.9 | 25.0 | -8.5 | 30.0 |
| Bromobenzene | Ave | 0.8243 | 0.7787 | | 23.6 | 25.0 | -5.5 | 30.0 |
| n-Propylbenzene | Ave | 2.917 | 2.501 | | 21.4 | 25.0 | -14.2 | 30.0 |
| 2-Chlorotoluene | Ave | 1.714 | 1.543 | | 22.5 | 25.0 | -10.0 | 30.0 |
| 4-Chlorotoluene | Ave | 1.747 | 1.582 | | 22.6 | 25.0 | -9.4 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.072 | 1.910 | | 23.0 | 25.0 | -7.8 | 30.0 |
| tert-Butylbenzene | Ave | 2.000 | 1.820 | | 22.8 | 25.0 | -9.0 | 30.0 |
| 1,2,4-Trimethylbenzene | Ave | 2.167 | 1.902 | | 22.0 | 25.0 | -12.2 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: ICV 440-442013/18 Calibration Date: 11/17/2017 07:01

Instrument ID: GCMS36 Calib Start Date: 11/17/2017 01:05

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 11/17/2017 05:45

Lab File ID: SFK16048.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | Ave | 2.900 | 2.441 | | 21.0 | 25.0 | -15.8 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.537 | 1.369 | | 22.3 | 25.0 | -11.0 | 30.0 |
| 1,4-Dichlorobenzene | Ave | 1.559 | 1.380 | | 22.1 | 25.0 | -11.5 | 30.0 |
| p-Isopropyltoluene | Ave | 2.598 | 2.190 | | 21.1 | 25.0 | -15.7 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.430 | 1.283 | | 22.4 | 25.0 | -10.2 | 30.0 |
| n-Butylbenzene | Ave | 2.095 | 1.787 | | 21.3 | 25.0 | -14.7 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Lin2 | | 0.0870 | | 21.6 | 25.0 | -13.6 | 40.0 |
| 1,2,4-Trichlorobenzene | Ave | 1.037 | 0.8810 | | 21.2 | 25.0 | -15.0 | 40.0 |
| Naphthalene | Ave | 2.002 | 1.721 | | 21.5 | 25.0 | -14.0 | 40.0 |
| Hexachlorobutadiene | Ave | 0.6211 | 0.5512 | | 22.2 | 25.0 | -11.3 | 40.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.9274 | 0.8114 | | 21.9 | 25.0 | -12.5 | 40.0 |
| Dibromofluoromethane (Surr) | Ave | 0.3141 | 0.3161 | | 25.2 | 25.0 | 0.6 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.2800 | 0.2713 | | 24.2 | 25.0 | -3.1 | |
| Toluene-d8 (Surr) | Ave | 1.079 | 1.084 | | 25.1 | 25.0 | 0.4 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.7545 | 0.7462 | | 24.7 | 25.0 | -1.1 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCVIS 440-452937/2 Calibration Date: 01/22/2018 07:51

Instrument ID: GCMS36 Calib Start Date: 11/17/2017 01:05

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 11/17/2017 05:45

Lab File ID: SGA220002.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.3042 | 0.2902 | | 23.8 | 25.0 | -4.6 | 40.0 |
| Chloromethane | Ave | 0.3780 | 0.2550 | 0.1000 | 16.9 | 25.0 | -32.5 | 40.0 |
| Vinyl chloride | Ave | 0.3171 | 0.2571 | | 20.3 | 25.0 | -18.9 | 20.0 |
| 1,3-Butadiene | Ave | 0.3014 | 0.2227 | | 18.5 | 25.0 | -26.1 | 30.0 |
| Bromomethane | Ave | 0.1990 | 0.2209 | | 27.7 | 25.0 | 11.0 | 30.0 |
| Chloroethane | Ave | 0.1572 | 0.1615 | | 25.7 | 25.0 | 2.8 | 30.0 |
| Ethanol | Ave | 0.1143 | 0.1024 | | 896 | 1000 | -10.4 | 40.0 |
| Dichlorofluoromethane | Ave | 0.4010 | 0.4296 | | 26.8 | 25.0 | 7.1 | 40.0 |
| Acrolein | Ave | 0.0260 | 0.0216 | | 20.8 | 25.0 | -16.9 | 40.0 |
| Acetonitrile | Ave | 0.0267 | 0.0270 | | 253 | 250 | 1.2 | 40.0 |
| Trichlorofluoromethane | Ave | 0.4615 | 0.4934 | | 26.7 | 25.0 | 6.9 | 40.0 |
| Acetone | Ave | 0.0690 | 0.0666 | | 24.1 | 25.0 | -3.5 | 40.0 |
| Diethyl ether | Ave | 0.1817 | 0.1716 | | 23.6 | 25.0 | -5.6 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.2579 | 0.2645 | | 25.6 | 25.0 | 2.5 | 20.0 |
| tert-Butyl alcohol (TBA) | Ave | 1.172 | 1.115 | | 238 | 250 | -4.9 | 30.0 |
| Iodomethane | Ave | 0.7194 | 0.5871 | | 20.4 | 25.0 | -18.4 | 40.0 |
| Acrylonitrile | Ave | 0.0748 | 0.0738 | | 247 | 250 | -1.4 | 40.0 |
| Methylene Chloride | Ave | 0.2616 | 0.2516 | | 24.0 | 25.0 | -3.8 | 30.0 |
| Methyl acetate | Ave | 0.1640 | 0.1476 | | 113 | 125 | -10.0 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.2820 | 0.3013 | | 26.7 | 25.0 | 6.8 | 40.0 |
| Allyl chloride | Ave | 0.4308 | 0.3550 | | 20.6 | 25.0 | -17.6 | 40.0 |
| Carbon disulfide | Ave | 0.8139 | 0.7874 | | 24.2 | 25.0 | -3.3 | 40.0 |
| trans-1,2-Dichloroethene | Ave | 0.2838 | 0.2859 | | 25.2 | 25.0 | 0.7 | 30.0 |
| Methyl-t-Butyl Ether (MTBE) | Ave | 0.5498 | 0.5896 | | 26.8 | 25.0 | 7.2 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.4573 | 0.4359 | 0.1000 | 23.8 | 25.0 | -4.7 | 30.0 |
| Propionitrile | Ave | 0.0290 | 0.0312 | | 269 | 250 | 7.6 | 40.0 |
| Vinyl acetate | Ave | 0.4687 | 0.4465 | | 19.1 | 20.0 | -4.7 | 40.0 |
| Hexane | Ave | 0.4176 | 0.3790 | | 22.7 | 25.0 | -9.2 | 40.0 |
| 2-Butanone (MEK) | Lin2 | | 0.0288 | | 27.9 | 25.0 | 11.5 | 40.0 |
| Isopropyl Ether (DIPE) | Ave | 0.8481 | 0.6709 | | 19.8 | 25.0 | -20.9 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.3045 | 0.3077 | | 25.3 | 25.0 | 1.1 | 30.0 |
| Bromochloromethane | Ave | 0.1653 | 0.1665 | | 25.2 | 25.0 | 0.7 | 30.0 |
| Chloroform | Ave | 0.4739 | 0.4592 | | 24.2 | 25.0 | -3.1 | 20.0 |
| Ethyl-t-butyl ether (ETBE) | Ave | 0.6904 | 0.6249 | | 22.6 | 25.0 | -9.5 | 30.0 |
| 2,2-Dichloropropane | Ave | 0.3132 | 0.3701 | | 29.5 | 25.0 | 18.2 | 30.0 |
| Isobutyl alcohol | Ave | 0.6397 | 0.5117 | | 500 | 625 | -20.0 | 40.0 |
| Tetrahydrofuran | Ave | 0.0762 | 0.0723 | | 47.4 | 50.0 | -5.1 | 40.0 |
| 1,2-Dichloroethane | Ave | 0.3234 | 0.2979 | | 23.0 | 25.0 | -7.9 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.4335 | 0.4416 | | 25.5 | 25.0 | 1.9 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.3430 | 0.3519 | | 25.6 | 25.0 | 2.6 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCVIS 440-452937/2 Calibration Date: 01/22/2018 07:51

Instrument ID: GCMS36 Calib Start Date: 11/17/2017 01:05

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 11/17/2017 05:45

Lab File ID: SGA220002.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Cyclohexane | Ave | 0.4439 | 0.4127 | | 23.2 | 25.0 | -7.0 | 30.0 |
| Carbon tetrachloride | Ave | 0.4345 | 0.4495 | | 25.9 | 25.0 | 3.5 | 40.0 |
| Benzene | Ave | 0.9375 | 0.8985 | | 24.0 | 25.0 | -4.2 | 30.0 |
| Tert-amyl-methyl ether (TAME) | Ave | 0.5683 | 0.5877 | | 25.9 | 25.0 | 3.4 | 30.0 |
| n-Heptane | Ave | 0.4578 | 0.3615 | | 19.7 | 25.0 | -21.0 | 30.0 |
| Dibromomethane | Ave | 0.1603 | 0.1648 | | 25.7 | 25.0 | 2.8 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.2464 | 0.2302 | | 23.4 | 25.0 | -6.6 | 20.0 |
| Trichloroethene | Ave | 0.3625 | 0.3576 | | 24.7 | 25.0 | -1.4 | 30.0 |
| Bromodichloromethane | Ave | 0.3184 | 0.3328 | | 26.1 | 25.0 | 4.5 | 30.0 |
| 2-Chloroethyl vinyl ether | Ave | 0.1396 | 0.1176 | | 21.1 | 25.0 | -15.7 | 40.0 |
| Methylcyclohexane | Ave | 0.4549 | 0.4553 | | 25.0 | 25.0 | 0.1 | 30.0 |
| cis-1,3-Dichloropropene | Ave | 0.4142 | 0.4567 | | 27.6 | 25.0 | 10.3 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.2621 | 0.2434 | | 23.2 | 25.0 | -7.2 | 40.0 |
| trans-1,3-Dichloropropene | Ave | 0.3665 | 0.4031 | | 27.5 | 25.0 | 10.0 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.1985 | 0.2074 | | 26.1 | 25.0 | 4.5 | 30.0 |
| Toluene | Ave | 1.295 | 1.142 | | 22.1 | 25.0 | -11.8 | 20.0 |
| Ethyl methacrylate | Ave | 0.2755 | 0.3117 | | 28.3 | 25.0 | 13.1 | 40.0 |
| 1,3-Dichloropropane | Ave | 0.3763 | 0.3786 | | 25.2 | 25.0 | 0.6 | 30.0 |
| 2-Hexanone | Ave | 0.1885 | 0.1776 | | 23.6 | 25.0 | -5.8 | 40.0 |
| Dibromochloromethane | Ave | 0.3632 | 0.3883 | | 26.7 | 25.0 | 6.9 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2699 | 0.2849 | | 26.4 | 25.0 | 5.5 | 30.0 |
| Tetrachloroethene | Ave | 0.3528 | 0.3704 | | 26.2 | 25.0 | 5.0 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.3785 | 0.3904 | | 25.8 | 25.0 | 3.1 | 40.0 |
| Chlorobenzene | Ave | 0.997 | 0.8979 | 0.3000 | 22.5 | 25.0 | -10.0 | 30.0 |
| Ethylbenzene | Ave | 1.423 | 1.313 | | 23.1 | 25.0 | -7.8 | 20.0 |
| m,p-Xylene | Ave | 0.5880 | 0.5883 | | 25.0 | 25.0 | 0.0 | 30.0 |
| Bromoform | Ave | 0.2440 | 0.2824 | 0.1000 | 28.9 | 25.0 | 15.7 | 40.0 |
| Styrene | Ave | 0.8355 | 0.8735 | | 26.1 | 25.0 | 4.5 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5449 | 0.5750 | 0.3000 | 26.4 | 25.0 | 5.5 | 30.0 |
| o-Xylene | Ave | 0.5809 | 0.5644 | | 24.3 | 25.0 | -2.8 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.1701 | 0.1852 | | 27.2 | 25.0 | 8.9 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.1441 | 0.1457 | | 25.3 | 25.0 | 1.1 | 40.0 |
| Isopropylbenzene | Ave | 1.491 | 1.428 | | 23.9 | 25.0 | -4.2 | 30.0 |
| Bromobenzene | Ave | 0.8243 | 0.8185 | | 24.8 | 25.0 | -0.7 | 30.0 |
| n-Propylbenzene | Ave | 2.917 | 2.663 | | 22.8 | 25.0 | -8.7 | 30.0 |
| 2-Chlorotoluene | Ave | 1.714 | 1.630 | | 23.8 | 25.0 | -4.9 | 30.0 |
| 4-Chlorotoluene | Ave | 1.747 | 1.665 | | 23.8 | 25.0 | -4.7 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.072 | 2.067 | | 24.9 | 25.0 | -0.3 | 30.0 |
| tert-Butylbenzene | Ave | 2.000 | 1.995 | | 24.9 | 25.0 | -0.2 | 30.0 |
| 1,2,4-Trimethylbenzene | Ave | 2.167 | 2.079 | | 24.0 | 25.0 | -4.0 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCVIS 440-452937/2 Calibration Date: 01/22/2018 07:51

Instrument ID: GCMS36 Calib Start Date: 11/17/2017 01:05

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 11/17/2017 05:45

Lab File ID: SGA220002.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | Ave | 2.900 | 2.680 | | 23.1 | 25.0 | -7.6 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.537 | 1.455 | | 23.7 | 25.0 | -5.4 | 30.0 |
| 1,4-Dichlorobenzene | Ave | 1.559 | 1.454 | | 23.3 | 25.0 | -6.7 | 30.0 |
| p-Isopropyltoluene | Ave | 2.598 | 2.429 | | 23.4 | 25.0 | -6.5 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.430 | 1.367 | | 23.9 | 25.0 | -4.4 | 30.0 |
| n-Butylbenzene | Ave | 2.095 | 1.980 | | 23.6 | 25.0 | -5.5 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Lin2 | | 0.1197 | | 29.5 | 25.0 | 17.9 | 40.0 |
| 1,2,4-Trichlorobenzene | Ave | 1.037 | 1.060 | | 25.5 | 25.0 | 2.2 | 40.0 |
| Naphthalene | Ave | 2.002 | 2.082 | | 26.0 | 25.0 | 4.0 | 40.0 |
| Hexachlorobutadiene | Ave | 0.6211 | 0.7255 | | 29.2 | 25.0 | 16.8 | 40.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.9274 | 0.9586 | | 25.8 | 25.0 | 3.4 | 40.0 |
| Dibromofluoromethane (Surr) | Ave | 0.3141 | 0.3090 | | 24.6 | 25.0 | -1.6 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.2800 | 0.2754 | | 24.6 | 25.0 | -1.6 | |
| Toluene-d8 (Surr) | Ave | 1.079 | 1.129 | | 26.2 | 25.0 | 4.6 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.7545 | 0.7539 | | 25.0 | 25.0 | -0.0 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: ICV 440-446571/18 Calibration Date: 12/14/2017 01:08

Instrument ID: GCMS58 Calib Start Date: 12/13/2017 18:15

GC Column: DB-VRX B ID: 0.25(mm) Calib End Date: 12/13/2017 23:40

Lab File ID: YFL13027.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.2847 | 0.2828 | | 24.8 | 25.0 | -0.7 | 40.0 |
| Chloromethane | Ave | 0.3858 | 0.3953 | 0.1000 | 25.6 | 25.0 | 2.5 | 40.0 |
| Vinyl chloride | Ave | 0.2818 | 0.2765 | | 24.5 | 25.0 | -1.9 | 30.0 |
| 1,3-Butadiene | Ave | 0.3436 | 0.3006 | | 21.9 | 25.0 | -12.5 | 30.0 |
| Bromomethane | Ave | 0.1894 | 0.1891 | | 25.0 | 25.0 | -0.1 | 30.0 |
| Chloroethane | Ave | 0.1749 | 0.1646 | | 23.5 | 25.0 | -5.9 | 30.0 |
| Ethanol | Ave | 0.1812 | 0.1864 | | 1030 | 1000 | 2.9 | 40.0 |
| Dichlorofluoromethane | Ave | 0.4323 | 0.4234 | | 24.5 | 25.0 | -2.1 | 40.0 |
| Acrolein | Ave | 0.0322 | 0.0269 | | 20.9 | 25.0 | -16.4 | 40.0 |
| Acetonitrile | Ave | 0.0445 | 0.0417 | | 235 | 250 | -6.2 | 40.0 |
| Trichlorofluoromethane | Ave | 0.4304 | 0.3939 | | 22.9 | 25.0 | -8.5 | 40.0 |
| Acetone | Ave | 0.0872 | 0.0825 | | 23.6 | 25.0 | -5.4 | 40.0 |
| Diethyl ether | Ave | 0.2191 | 0.2265 | | 25.8 | 25.0 | 3.4 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.2256 | 0.2146 | | 23.8 | 25.0 | -4.9 | 30.0 |
| Iodomethane | Ave | 0.4851 | 0.4642 | | 23.9 | 25.0 | -4.3 | 40.0 |
| tert-Butyl alcohol (TBA) | Ave | 1.212 | 1.352 | | 279 | 250 | 11.5 | 30.0 |
| Acrylonitrile | Ave | 0.1056 | 0.1048 | | 248 | 250 | -0.8 | 40.0 |
| Methylene Chloride | Ave | 0.2682 | 0.2572 | | 24.0 | 25.0 | -4.1 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.2673 | 0.2342 | | 21.9 | 25.0 | -12.4 | 40.0 |
| Methyl acetate | Ave | 0.2206 | 0.2101 | | 119 | 125 | -4.8 | 30.0 |
| Allyl chloride | Ave | 0.5300 | 0.4945 | | 23.3 | 25.0 | -6.7 | 40.0 |
| Carbon disulfide | Ave | 0.7755 | 0.7167 | | 23.1 | 25.0 | -7.6 | 40.0 |
| trans-1,2-Dichloroethene | Ave | 0.2422 | 0.2550 | | 26.3 | 25.0 | 5.3 | 30.0 |
| Methyl-t-Butyl Ether (MTBE) | Ave | 0.5938 | 0.6214 | | 26.2 | 25.0 | 4.6 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.4472 | 0.4378 | 0.1000 | 24.5 | 25.0 | -2.1 | 30.0 |
| Propionitrile | Ave | 0.0409 | 0.0423 | | 259 | 250 | 3.4 | 40.0 |
| Vinyl acetate | Ave | 0.6020 | 0.6323 | | 26.3 | 25.0 | 5.0 | 40.0 |
| Hexane | Ave | 0.4324 | 0.4206 | | 24.3 | 25.0 | -2.7 | 40.0 |
| 2-Butanone (MEK) | Lin2 | | 0.0255 | | 25.8 | 25.0 | 3.1 | 40.0 |
| Isopropyl Ether (DIPE) | Ave | 1.035 | 1.111 | | 26.8 | 25.0 | 7.3 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.2789 | 0.2893 | | 25.9 | 25.0 | 3.7 | 30.0 |
| Bromochloromethane | Ave | 0.1461 | 0.1547 | | 26.5 | 25.0 | 5.9 | 30.0 |
| Chloroform | Ave | 0.4417 | 0.4240 | | 24.0 | 25.0 | -4.0 | 30.0 |
| 2,2-Dichloropropane | Ave | 0.3151 | 0.2815 | | 22.3 | 25.0 | -10.7 | 30.0 |
| Ethyl-t-butyl ether (ETBE) | Ave | 0.7611 | 0.8264 | | 27.1 | 25.0 | 8.6 | 30.0 |
| Isobutyl alcohol | Ave | 0.6436 | 0.7424 | | 721 | 625 | 15.4 | 40.0 |
| Tetrahydrofuran | Ave | 0.0991 | 0.0927 | | 46.8 | 50.0 | -6.4 | 40.0 |
| 1,2-Dichloroethane | Ave | 0.3164 | 0.3072 | | 24.3 | 25.0 | -2.9 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.4054 | 0.3847 | | 23.7 | 25.0 | -5.1 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.2821 | 0.2979 | | 26.4 | 25.0 | 5.6 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: ICV 440-446571/18 Calibration Date: 12/14/2017 01:08

Instrument ID: GCMS58 Calib Start Date: 12/13/2017 18:15

GC Column: DB-VRX B ID: 0.25(mm) Calib End Date: 12/13/2017 23:40

Lab File ID: YFL13027.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Cyclohexane | Ave | 0.4912 | 0.4704 | | 23.9 | 25.0 | -4.2 | 30.0 |
| Carbon tetrachloride | Ave | 0.3904 | 0.3628 | | 23.2 | 25.0 | -7.1 | 40.0 |
| Benzene | Ave | 0.9129 | 0.9269 | | 25.4 | 25.0 | 1.5 | 30.0 |
| Tert-amyl-methyl ether (TAME) | Lin2 | | 0.6307 | | 25.7 | 25.0 | 3.0 | 30.0 |
| Dibromomethane | Ave | 0.1471 | 0.1475 | | 25.1 | 25.0 | 0.3 | 30.0 |
| n-Heptane | Ave | 0.5036 | 0.4854 | | 24.1 | 25.0 | -3.6 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.2563 | 0.2581 | | 25.2 | 25.0 | 0.7 | 30.0 |
| Trichloroethene | Ave | 0.3132 | 0.3141 | | 25.1 | 25.0 | 0.3 | 30.0 |
| Bromodichloromethane | Ave | 0.3298 | 0.3360 | | 25.5 | 25.0 | 1.9 | 30.0 |
| 2-Chloroethyl vinyl ether | Lin1 | | 0.1268 | | 22.4 | 25.0 | -10.4 | 40.0 |
| Methylcyclohexane | Ave | 0.4069 | 0.4067 | | 25.0 | 25.0 | -0.0 | 30.0 |
| cis-1,3-Dichloropropene | Ave | 0.4128 | 0.4246 | | 25.7 | 25.0 | 2.9 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.3296 | 0.3513 | | 26.6 | 25.0 | 6.6 | 40.0 |
| trans-1,3-Dichloropropene | Ave | 0.3690 | 0.3740 | | 25.3 | 25.0 | 1.4 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.2011 | 0.2095 | | 26.0 | 25.0 | 4.2 | 30.0 |
| Toluene | Ave | 1.183 | 1.235 | | 26.1 | 25.0 | 4.4 | 30.0 |
| 1,3-Dichloropropane | Ave | 0.3996 | 0.3937 | | 24.6 | 25.0 | -1.5 | 30.0 |
| Ethyl methacrylate | Ave | 0.3101 | 0.3333 | | 26.9 | 25.0 | 7.5 | 40.0 |
| 2-Hexanone | Ave | 0.2339 | 0.2553 | | 27.3 | 25.0 | 9.2 | 40.0 |
| Dibromochloromethane | Ave | 0.3653 | 0.3711 | | 25.4 | 25.0 | 1.6 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2684 | 0.2698 | | 25.1 | 25.0 | 0.5 | 30.0 |
| Tetrachloroethene | Ave | 0.2771 | 0.2638 | | 23.8 | 25.0 | -4.8 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.3594 | 0.3753 | | 26.1 | 25.0 | 4.4 | 40.0 |
| Chlorobenzene | Ave | 0.9451 | 0.9408 | 0.3000 | 24.9 | 25.0 | -0.5 | 30.0 |
| Ethylbenzene | Ave | 1.339 | 1.389 | | 25.9 | 25.0 | 3.7 | 30.0 |
| m,p-Xylene | Ave | 0.5568 | 0.5906 | | 26.5 | 25.0 | 6.1 | 30.0 |
| Bromoform | Ave | 0.2175 | 0.2342 | 0.1000 | 26.9 | 25.0 | 7.7 | 40.0 |
| Styrene | Lin1 | | 0.9528 | | 26.6 | 25.0 | 6.2 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5991 | 0.6719 | 0.3000 | 28.0 | 25.0 | 12.1 | 30.0 |
| o-Xylene | Ave | 0.5438 | 0.5907 | | 27.2 | 25.0 | 8.6 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.2051 | 0.2279 | | 27.8 | 25.0 | 11.1 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.1997 | 0.2131 | | 26.7 | 25.0 | 6.7 | 40.0 |
| Isopropylbenzene | Ave | 1.400 | 1.515 | | 27.1 | 25.0 | 8.2 | 30.0 |
| Bromobenzene | Ave | 0.7386 | 0.7964 | | 27.0 | 25.0 | 7.8 | 30.0 |
| N-Propylbenzene | Ave | 2.719 | 3.058 | | 28.1 | 25.0 | 12.4 | 30.0 |
| 2-Chlorotoluene | Ave | 1.767 | 1.894 | | 26.8 | 25.0 | 7.2 | 30.0 |
| 4-Chlorotoluene | Ave | 1.812 | 1.989 | | 27.4 | 25.0 | 9.7 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.150 | 2.420 | | 28.1 | 25.0 | 12.5 | 30.0 |
| tert-Butylbenzene | Ave | 1.999 | 2.232 | | 27.9 | 25.0 | 11.7 | 30.0 |
| 1,2,4-Trimethylbenzene | Lin2 | | 2.525 | | 26.6 | 25.0 | 6.2 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: ICV 440-446571/18 Calibration Date: 12/14/2017 01:08

Instrument ID: GCMS58 Calib Start Date: 12/13/2017 18:15

GC Column: DB-VRX B ID: 0.25(mm) Calib End Date: 12/13/2017 23:40

Lab File ID: YFL13027.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | Ave | 2.897 | 3.183 | | 27.5 | 25.0 | 9.9 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.539 | 1.621 | | 26.3 | 25.0 | 5.3 | 30.0 |
| 1,4-Dichlorobenzene | Ave | 1.605 | 1.699 | | 26.5 | 25.0 | 5.9 | 30.0 |
| p-Isopropyltoluene | Ave | 2.640 | 2.865 | | 27.1 | 25.0 | 8.5 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.432 | 1.604 | | 28.0 | 25.0 | 12.0 | 30.0 |
| n-Butylbenzene | Ave | 2.087 | 2.293 | | 27.5 | 25.0 | 9.8 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Lin2 | | 0.1328 | | 27.8 | 25.0 | 11.2 | 40.0 |
| 1,2,4-Trichlorobenzene | Ave | 0.9424 | 1.115 | | 29.6 | 25.0 | 18.3 | 40.0 |
| Naphthalene | Lin1 | | 3.090 | | 30.5 | 25.0 | 22.0 | 40.0 |
| Hexachlorobutadiene | Ave | 0.5397 | 0.5763 | | 26.7 | 25.0 | 6.8 | 40.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.9059 | 1.132 | | 31.2 | 25.0 | 25.0 | 40.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2755 | 0.2758 | | 25.0 | 25.0 | 0.1 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.2717 | 0.2610 | | 24.0 | 25.0 | -3.9 | |
| Toluene-d8 (Surr) | Ave | 1.109 | 1.116 | | 25.2 | 25.0 | 0.7 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.8119 | 0.8254 | | 25.4 | 25.0 | 1.7 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCVIS 440-452839/2 Calibration Date: 01/20/2018 09:18

Instrument ID: GCMS58 Calib Start Date: 12/13/2017 18:15

GC Column: DB-VRX B ID: 0.25(mm) Calib End Date: 12/13/2017 23:40

Lab File ID: YGA20002.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.2847 | 0.3291 | | 28.9 | 25.0 | 15.6 | 40.0 |
| Chloromethane | Ave | 0.3858 | 0.3040 | 0.1000 | 19.7 | 25.0 | -21.2 | 40.0 |
| Vinyl chloride | Ave | 0.2818 | 0.2782 | | 24.7 | 25.0 | -1.3 | 20.0 |
| 1,3-Butadiene | Ave | 0.3436 | 0.2809 | | 20.4 | 25.0 | -18.2 | 30.0 |
| Bromomethane | Ave | 0.1894 | 0.2094 | | 27.6 | 25.0 | 10.6 | 30.0 |
| Chloroethane | Ave | 0.1749 | 0.1515 | | 21.7 | 25.0 | -13.4 | 30.0 |
| Ethanol | Ave | 0.1812 | 0.1203 | | 664 | 1000 | -33.6 | 40.0 |
| Dichlorofluoromethane | Ave | 0.4323 | 0.4124 | | 23.9 | 25.0 | -4.6 | 40.0 |
| Acrolein | Ave | 0.0322 | 0.0181 | | 14.1 | 25.0 | -43.7* | 40.0 |
| Acetonitrile | Ave | 0.0445 | 0.0295 | | 166 | 250 | -33.7 | 40.0 |
| Trichlorofluoromethane | Ave | 0.4304 | 0.4936 | | 28.7 | 25.0 | 14.7 | 40.0 |
| Acetone | Ave | 0.0872 | 0.0620 | | 17.8 | 25.0 | -28.9 | 40.0 |
| Diethyl ether | Ave | 0.2191 | 0.1943 | | 22.2 | 25.0 | -11.3 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.2256 | 0.2418 | | 26.8 | 25.0 | 7.2 | 20.0 |
| Iodomethane | Ave | 0.4851 | 0.5501 | | 28.3 | 25.0 | 13.4 | 40.0 |
| tert-Butyl alcohol (TBA) | Ave | 1.212 | 1.198 | | 247 | 250 | -1.2 | 30.0 |
| Acrylonitrile | Ave | 0.1056 | 0.0885 | | 209 | 250 | -16.2 | 40.0 |
| Methylene Chloride | Ave | 0.2682 | 0.2237 | | 20.9 | 25.0 | -16.6 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.2673 | 0.2866 | | 26.8 | 25.0 | 7.2 | 40.0 |
| Methyl acetate | Ave | 0.2206 | 0.1651 | | 93.5 | 125 | -25.2 | 30.0 |
| Allyl chloride | Ave | 0.5300 | 0.4232 | | 20.0 | 25.0 | -20.1 | 40.0 |
| Carbon disulfide | Ave | 0.7755 | 0.7083 | | 22.8 | 25.0 | -8.7 | 40.0 |
| trans-1,2-Dichloroethene | Ave | 0.2422 | 0.2505 | | 25.9 | 25.0 | 3.4 | 30.0 |
| Methyl-t-Butyl Ether (MTBE) | Ave | 0.5938 | 0.6074 | | 25.6 | 25.0 | 2.3 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.4472 | 0.3982 | 0.1000 | 22.3 | 25.0 | -11.0 | 30.0 |
| Propionitrile | Ave | 0.0409 | 0.0338 | | 206 | 250 | -17.5 | 40.0 |
| Vinyl acetate | Ave | 0.6020 | 0.4951 | | 16.5 | 20.0 | -17.7 | 40.0 |
| Hexane | Ave | 0.4324 | 0.3874 | | 22.4 | 25.0 | -10.4 | 40.0 |
| 2-Butanone (MEK) | Lin2 | | 0.0200 | | 20.7 | 25.0 | -17.2 | 40.0 |
| Isopropyl Ether (DIPE) | Ave | 1.035 | 0.8048 | | 19.4 | 25.0 | -22.2 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.2789 | 0.2846 | | 25.5 | 25.0 | 2.0 | 30.0 |
| Bromochloromethane | Ave | 0.1461 | 0.1648 | | 28.2 | 25.0 | 12.8 | 30.0 |
| Chloroform | Ave | 0.4417 | 0.4232 | | 24.0 | 25.0 | -4.2 | 20.0 |
| 2,2-Dichloropropane | Ave | 0.3151 | 0.3368 | | 26.7 | 25.0 | 6.9 | 30.0 |
| Ethyl-t-butyl ether (ETBE) | Ave | 0.7611 | 0.7411 | | 24.3 | 25.0 | -2.6 | 30.0 |
| Isobutyl alcohol | Ave | 0.6436 | 0.5491 | | 533 | 625 | -14.7 | 40.0 |
| Tetrahydrofuran | Ave | 0.0991 | 0.0744 | | 37.5 | 50.0 | -24.9 | 40.0 |
| 1,2-Dichloroethane | Ave | 0.3164 | 0.3037 | | 24.0 | 25.0 | -4.0 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.4054 | 0.4286 | | 26.4 | 25.0 | 5.7 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.2821 | 0.2838 | | 25.1 | 25.0 | 0.6 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCVIS 440-452839/2 Calibration Date: 01/20/2018 09:18

Instrument ID: GCMS58 Calib Start Date: 12/13/2017 18:15

GC Column: DB-VRX B ID: 0.25(mm) Calib End Date: 12/13/2017 23:40

Lab File ID: YGA20002.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Cyclohexane | Ave | 0.4912 | 0.4479 | | 22.8 | 25.0 | -8.8 | 30.0 |
| Carbon tetrachloride | Ave | 0.3904 | 0.4275 | | 27.4 | 25.0 | 9.5 | 40.0 |
| Benzene | Ave | 0.9129 | 0.8410 | | 23.0 | 25.0 | -7.9 | 30.0 |
| Tert-amyl-methyl ether (TAME) | Lin2 | | 0.6033 | | 24.6 | 25.0 | -1.6 | 30.0 |
| Dibromomethane | Ave | 0.1471 | 0.1462 | | 24.8 | 25.0 | -0.6 | 30.0 |
| n-Heptane | Ave | 0.5036 | 0.4182 | | 20.8 | 25.0 | -17.0 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.2563 | 0.2175 | | 21.2 | 25.0 | -15.2 | 20.0 |
| Trichloroethene | Ave | 0.3132 | 0.3484 | | 27.8 | 25.0 | 11.2 | 30.0 |
| Bromodichloromethane | Ave | 0.3298 | 0.3257 | | 24.7 | 25.0 | -1.3 | 30.0 |
| 2-Chloroethyl vinyl ether | Lin1 | | 0.1476 | | 25.8 | 25.0 | 3.4 | 40.0 |
| Methylcyclohexane | Ave | 0.4069 | 0.4244 | | 26.1 | 25.0 | 4.3 | 30.0 |
| cis-1,3-Dichloropropene | Ave | 0.4128 | 0.3863 | | 23.4 | 25.0 | -6.4 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.3296 | 0.2413 | | 18.3 | 25.0 | -26.8 | 40.0 |
| trans-1,3-Dichloropropene | Ave | 0.3690 | 0.3577 | | 24.2 | 25.0 | -3.0 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.2011 | 0.1787 | | 22.2 | 25.0 | -11.2 | 30.0 |
| Toluene | Ave | 1.183 | 1.147 | | 24.2 | 25.0 | -3.0 | 20.0 |
| 1,3-Dichloropropane | Ave | 0.3996 | 0.3475 | | 21.7 | 25.0 | -13.0 | 30.0 |
| Ethyl methacrylate | Ave | 0.3101 | 0.2762 | | 22.3 | 25.0 | -10.9 | 40.0 |
| 2-Hexanone | Ave | 0.2339 | 0.1702 | | 18.2 | 25.0 | -27.2 | 40.0 |
| Dibromochloromethane | Ave | 0.3653 | 0.3760 | | 25.7 | 25.0 | 2.9 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2684 | 0.2638 | | 24.6 | 25.0 | -1.7 | 30.0 |
| Tetrachloroethene | Ave | 0.2771 | 0.3100 | | 28.0 | 25.0 | 11.9 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.3594 | 0.3722 | | 25.9 | 25.0 | 3.6 | 40.0 |
| Chlorobenzene | Ave | 0.9451 | 0.9265 | 0.3000 | 24.5 | 25.0 | -2.0 | 30.0 |
| Ethylbenzene | Ave | 1.339 | 1.324 | | 24.7 | 25.0 | -1.1 | 20.0 |
| m,p-Xylene | Ave | 0.5568 | 0.5836 | | 26.2 | 25.0 | 4.8 | 30.0 |
| Bromoform | Ave | 0.2175 | 0.2534 | 0.1000 | 29.1 | 25.0 | 16.5 | 40.0 |
| Styrene | Lin1 | | 0.9155 | | 25.5 | 25.0 | 2.1 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5991 | 0.4848 | 0.3000 | 20.2 | 25.0 | -19.1 | 30.0 |
| o-Xylene | Ave | 0.5438 | 0.5744 | | 26.4 | 25.0 | 5.6 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.2051 | 0.1861 | | 22.7 | 25.0 | -9.2 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.1997 | 0.1658 | | 20.8 | 25.0 | -17.0 | 40.0 |
| Isopropylbenzene | Ave | 1.400 | 1.551 | | 27.7 | 25.0 | 10.8 | 30.0 |
| Bromobenzene | Ave | 0.7386 | 0.7501 | | 25.4 | 25.0 | 1.6 | 30.0 |
| N-Propylbenzene | Ave | 2.719 | 2.629 | | 24.2 | 25.0 | -3.3 | 30.0 |
| 2-Chlorotoluene | Ave | 1.767 | 1.586 | | 22.4 | 25.0 | -10.2 | 30.0 |
| 4-Chlorotoluene | Ave | 1.812 | 1.661 | | 22.9 | 25.0 | -8.3 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.150 | 2.177 | | 25.3 | 25.0 | 1.2 | 30.0 |
| tert-Butylbenzene | Ave | 1.999 | 2.107 | | 26.3 | 25.0 | 5.4 | 30.0 |
| 1,2,4-Trimethylbenzene | Lin2 | | 2.273 | | 23.9 | 25.0 | -4.3 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCVIS 440-452839/2  Calibration Date: 01/20/2018 09:18

Instrument ID: GCMS58  Calib Start Date: 12/13/2017 18:15

GC Column: DB-VRX B  ID: 0.25(mm)  Calib End Date: 12/13/2017 23:40

Lab File ID: YGA20002.D  Conc. Units: ug/L  Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | Ave | 2.897 | 2.933 | | 25.3 | 25.0 | 1.2 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.539 | 1.548 | | 25.1 | 25.0 | 0.5 | 30.0 |
| 1,4-Dichlorobenzene | Ave | 1.605 | 1.580 | | 24.6 | 25.0 | -1.6 | 30.0 |
| p-Isopropyltoluene | Ave | 2.640 | 2.777 | | 26.3 | 25.0 | 5.2 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.432 | 1.473 | | 25.7 | 25.0 | 2.9 | 30.0 |
| n-Butylbenzene | Ave | 2.087 | 2.119 | | 25.4 | 25.0 | 1.5 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Lin2 | | 0.1020 | | 21.5 | 25.0 | -14.1 | 40.0 |
| 1,2,4-Trichlorobenzene | Ave | 0.9424 | 1.107 | | 29.4 | 25.0 | 17.4 | 40.0 |
| Naphthalene | Lin1 | | 2.635 | | 26.0 | 25.0 | 4.2 | 40.0 |
| Hexachlorobutadiene | Ave | 0.5397 | 0.6413 | | 29.7 | 25.0 | 18.8 | 40.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.9059 | 1.028 | | 28.4 | 25.0 | 13.5 | 40.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2755 | 0.2912 | | 26.4 | 25.0 | 5.7 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.2717 | 0.2670 | | 24.6 | 25.0 | -1.7 | |
| Toluene-d8 (Surr) | Ave | 1.109 | 1.087 | | 24.5 | 25.0 | -1.9 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.8119 | 0.7174 | | 22.1 | 25.0 | -11.6 | 20.0 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452839/4

Matrix: Water | Lab File ID: YGA20004.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 10:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452839/4

Matrix: Water | Lab File ID: YGA20004.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 10:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 440-452839/4

Matrix: Water  Lab File ID: YGA20004.D

Analysis Method: 8260B  Date Collected:

Sample wt/vol: 10(mL)  Date Analyzed: 01/20/2018 10:17

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX B  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 452839  Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 89 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 108 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 99 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 440-452937/4

Matrix: Water  Lab File ID: SGA220004.D

Analysis Method: 8260B  Date Collected:

Sample wt/vol: 10(mL)  Date Analyzed: 01/22/2018 08:42

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX A  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 452937  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-66-3 | Chloroform | ND | | 0.50 | 0.25 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 100 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 97 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 109 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-452839/5

Matrix: Water | Lab File ID: YGA20005.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 10:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 21.6 | | 20 | 10 |
| 71-43-2 | Benzene | 23.8 | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | 26.2 | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | 29.3 | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 25.8 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 29.8 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | 27.8 | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | 24.2 | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 28.8 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | 25.1 | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | 21.1 | | 1.0 | 0.40 |
| 74-87-3 | Chloromethane | 20.2 | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | 23.6 | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | 24.3 | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | 26.1 | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | 23.3 | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 26.4 | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 24.1 | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 24.9 | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | 24.5 | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 26.7 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 26.0 | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 25.5 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | 29.7 | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | 22.8 | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | 25.1 | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | 25.9 | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | 21.9 | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | 21.8 | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | 27.3 | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | 26.9 | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | 25.6 | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 24.5 | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | 31.2 | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | 21.8 | | 5.0 | 2.5 |
| 98-82-8 | Isopropylbenzene | 29.0 | | 0.50 | 0.25 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-452839/5

Matrix: Water | Lab File ID: YGA20005.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 10:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 108-20-3 | Isopropyl Ether (DIPE) | 20.0 | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 20.0 | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 20.8 | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 26.0 | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | 27.2 | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | 28.0 | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | 26.0 | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | 25.0 | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | 27.7 | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | 27.1 | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | 26.1 | | 0.50 | 0.25 |
| 100-42-5 | Styrene | 26.2 | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 24.9 | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 255 | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | 27.4 | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 27.4 | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 20.6 | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 30.0 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | 25.2 | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | 27.3 | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | 23.8 | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 30.0 | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 29.6 | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | 27.8 | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | 22.6 | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 29.5 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | 29.4 | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | 24.1 | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 24.6 | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 26.6 | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | 24.1 | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | 54.9 | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 440-452839/5

Matrix: Water  Lab File ID: YGA20005.D

Analysis Method: 8260B  Date Collected:

Sample wt/vol: 10(mL)  Date Analyzed: 01/20/2018 10:46

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX B  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 452839  Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 89 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 105 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 96 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 440-452937/5

Matrix: Water  Lab File ID: SGA220005.D

Analysis Method: 8260B  Date Collected:

Sample wt/vol: 10(mL)  Date Analyzed: 01/22/2018 09:07

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX A  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 452937  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-66-3 | Chloroform | 23.3 | | 0.50 | 0.25 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 101 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 98 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 104 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: VER-01I-C-48 MS | Lab Sample ID: 440-201313-1 MS

Matrix: Water | Lab File ID: SGA220008.D

Analysis Method: 8260B | Date Collected: 01/17/2018 03:31

Sample wt/vol: 10(mL) | Date Analyzed: 01/22/2018 10:24

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452937 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-66-3 | Chloroform | 809 | | 5.0 | 2.5 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 100 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 103 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201437-B-3 MS

Matrix: Water | Lab File ID: YGA20008.D

Analysis Method: 8260B | Date Collected: 01/18/2018 09:00

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 12:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 24.1 | | 20 | 10 |
| 71-43-2 | Benzene | 24.4 | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | 26.8 | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | 30.9 | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 27.9 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 31.7 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | 28.1 | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | 23.3 | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 31.1 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | 25.9 | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | 21.9 | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 645 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | 20.5 | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | 24.1 | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | 25.2 | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | 26.8 | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | 23.8 | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 27.9 | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 22.8 | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 25.4 | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | 25.4 | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 33.0 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 27.2 | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 28.1 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | 28.4 | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | 23.3 | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | 26.5 | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | 26.9 | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | 22.5 | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | 22.3 | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | 28.8 | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | 27.1 | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | 26.1 | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 26.1 | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | 31.2 | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | 20.7 | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201437-B-3 MS

Matrix: Water | Lab File ID: YGA20008.D

Analysis Method: 8260B | Date Collected: 01/18/2018 09:00

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 12:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 29.7 | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | 21.1 | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 23.1 | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 20.3 | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 27.1 | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | 27.9 | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | 27.4 | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | 26.6 | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | 25.6 | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | 28.5 | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | 28.1 | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | 26.6 | | 0.50 | 0.25 |
| 100-42-5 | Styrene | 18.1 | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 25.7 | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 284 | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | 28.1 | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 28.6 | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 20.4 | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 30.8 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | 25.9 | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | 27.9 | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | 24.7 | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 29.6 | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 29.6 | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | 28.9 | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | 23.0 | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 32.0 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | 30.3 | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | 24.1 | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 25.3 | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 27.1 | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | 23.6 | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | 56.4 | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Client Sample ID:  Lab Sample ID: 440-201437-B-3 MS

Matrix: Water  Lab File ID: YGA20008.D

Analysis Method: 8260B  Date Collected: 01/18/2018 09:00

Sample wt/vol: 10(mL)  Date Analyzed: 01/20/2018 12:35

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX B  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 452839  Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 87 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 107 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 96 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: VER-01I-C-48 MSD | Lab Sample ID: 440-201313-1 MSD

Matrix: Water | Lab File ID: SGA220009.D

Analysis Method: 8260B | Date Collected: 01/17/2018 03:31

Sample wt/vol: 10(mL) | Date Analyzed: 01/22/2018 10:49

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452937 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-66-3 | Chloroform | 819 | | 5.0 | 2.5 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 102 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 102 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201437-B-3 MSD

Matrix: Water | Lab File ID: YGA20009.D

Analysis Method: 8260B | Date Collected: 01/18/2018 09:00

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 13:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 24.7 | | 20 | 10 |
| 71-43-2 | Benzene | 23.6 | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | 26.4 | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | 30.2 | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 27.4 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 31.4 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | 28.2 | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | 24.0 | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 29.8 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | 25.4 | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | 21.4 | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 614 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | 20.2 | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | 23.0 | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | 23.6 | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | 25.9 | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | 23.4 | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 27.8 | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 23.2 | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 25.7 | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | 25.6 | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 32.2 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 26.3 | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 27.0 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | 28.3 | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | 23.0 | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | 26.1 | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | 26.1 | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | 22.3 | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | 22.0 | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | 27.3 | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | 26.1 | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | 25.3 | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 26.0 | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | 30.0 | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | 20.9 | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201437-B-3 MSD

Matrix: Water | Lab File ID: YGA20009.D

Analysis Method: 8260B | Date Collected: 01/18/2018 09:00

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 13:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 28.6 | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | 20.9 | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 22.5 | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 20.2 | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 27.4 | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | 27.5 | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | 27.6 | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | 25.4 | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | 24.4 | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | 27.8 | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | 26.9 | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | 25.5 | | 0.50 | 0.25 |
| 100-42-5 | Styrene | 16.3 | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 25.9 | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 265 | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | 26.9 | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 28.0 | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 20.3 | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 29.9 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | 25.2 | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | 26.8 | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | 24.6 | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 29.7 | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 29.4 | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | 28.0 | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | 23.1 | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 30.8 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | 29.7 | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | 24.1 | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 24.5 | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25.7 | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | 23.3 | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | 55.3 | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Client Sample ID:  Lab Sample ID: 440-201437-B-3 MSD

Matrix: Water  Lab File ID: YGA20009.D

Analysis Method: 8260B  Date Collected: 01/18/2018 09:00

Sample wt/vol: 10(mL)  Date Analyzed: 01/20/2018 13:04

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX B  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 452839  Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 88 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 107 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 96 | | 80-128 |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: GCMS36 Start Date: 11/16/2017 23:42

Analysis Batch Number: 442013 End Date: 11/17/2017 07:01

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-442013/1 | | 11/16/2017 23:42 | 1 | SFK16031.D | DB-VRX A 0.25(mm) |
| ZZZZZ | | 11/17/2017 00:15 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 11/17/2017 00:40 | 1 | | DB-VRX A 0.25(mm) |
| STD02 440-442013/4 IC | | 11/17/2017 01:05 | 1 | SFK16034.D | DB-VRX A 0.25(mm) |
| STD04 440-442013/5 IC | | 11/17/2017 01:31 | 1 | SFK16035.D | DB-VRX A 0.25(mm) |
| STD05 440-442013/6 IC | | 11/17/2017 01:56 | 1 | SFK16036.D | DB-VRX A 0.25(mm) |
| STD1 440-442013/7 IC | | 11/17/2017 02:22 | 1 | SFK16037.D | DB-VRX A 0.25(mm) |
| STD2 440-442013/8 IC | | 11/17/2017 02:47 | 1 | SFK16038.D | DB-VRX A 0.25(mm) |
| STD5 440-442013/9 IC | | 11/17/2017 03:13 | 1 | SFK16039.D | DB-VRX A 0.25(mm) |
| STD10 440-442013/10 IC | | 11/17/2017 03:38 | 1 | SFK16040.D | DB-VRX A 0.25(mm) |
| ICIS 440-442013/11 | | 11/17/2017 04:04 | 1 | SFK16041.D | DB-VRX A 0.25(mm) |
| STD50 440-442013/12 IC | | 11/17/2017 04:29 | 1 | SFK16042.D | DB-VRX A 0.25(mm) |
| STD100 440-442013/13 IC | | 11/17/2017 04:54 | 1 | SFK16043.D | DB-VRX A 0.25(mm) |
| STD200 440-442013/14 IC | | 11/17/2017 05:20 | 1 | SFK16044.D | DB-VRX A 0.25(mm) |
| STD300 440-442013/15 IC | | 11/17/2017 05:45 | 1 | SFK16045.D | DB-VRX A 0.25(mm) |
| ZZZZZ | | 11/17/2017 06:11 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 11/17/2017 06:36 | 1 | | DB-VRX A 0.25(mm) |
| ICV 440-442013/18 | | 11/17/2017 07:01 | 1 | SFK16048.D | DB-VRX A 0.25(mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: GCMS36 Start Date: 01/22/2018 07:08

Analysis Batch Number: 452937 End Date: 01/22/2018 14:13

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-452937/1 | | 01/22/2018 07:08 | 1 | SGA220001.D | DB-VRX A 0.25(mm) |
| CCVIS 440-452937/2 | | 01/22/2018 07:51 | 1 | SGA220002.D | DB-VRX A 0.25(mm) |
| MB 440-452937/4 | | 01/22/2018 08:42 | 1 | SGA220004.D | DB-VRX A 0.25(mm) |
| LCS 440-452937/5 | | 01/22/2018 09:07 | 1 | SGA220005.D | DB-VRX A 0.25(mm) |
| 440-201313-1 DL | | 01/22/2018 09:58 | 10 | SGA220007.D | DB-VRX A 0.25(mm) |
| 440-201313-1 MS | | 01/22/2018 10:24 | 10 | SGA220008.D | DB-VRX A 0.25(mm) |
| 440-201313-1 MSD | | 01/22/2018 10:49 | 10 | SGA220009.D | DB-VRX A 0.25(mm) |
| 440-201313-2 RA | | 01/22/2018 11:14 | 1 | SGA220010.D | DB-VRX A 0.25(mm) |
| 440-201313-3 DL | | 01/22/2018 11:40 | 10 | SGA220011.D | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/22/2018 12:05 | 2 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/22/2018 12:31 | 10 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/22/2018 12:56 | 20 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/22/2018 13:22 | 10 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/22/2018 13:47 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/22/2018 14:13 | 10 | | DB-VRX A 0.25(mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: GCMS58 Start Date: 12/13/2017 16:39

Analysis Batch Number: 446571 End Date: 12/14/2017 01:08

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-446571/1 | | 12/13/2017 16:39 | 1 | YFL13010.D | DB-VRX B 0.25(mm) |
| ZZZZZ | | 12/13/2017 17:16 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 12/13/2017 17:45 | 1 | | DB-VRX B 0.25(mm) |
| STD02 440-446571/4 IC | | 12/13/2017 18:15 | 1 | YFL13013.D | DB-VRX B 0.25(mm) |
| STD04 440-446571/5 IC | | 12/13/2017 18:44 | 1 | YFL13014.D | DB-VRX B 0.25(mm) |
| STD05 440-446571/6 IC | | 12/13/2017 19:14 | 1 | YFL13015.D | DB-VRX B 0.25(mm) |
| STD1 440-446571/7 IC | | 12/13/2017 19:43 | 1 | YFL13016.D | DB-VRX B 0.25(mm) |
| STD2 440-446571/8 IC | | 12/13/2017 20:13 | 1 | YFL13017.D | DB-VRX B 0.25(mm) |
| STD5 440-446571/9 IC | | 12/13/2017 20:42 | 1 | YFL13018.D | DB-VRX B 0.25(mm) |
| STD10 440-446571/10 IC | | 12/13/2017 21:12 | 1 | YFL13019.D | DB-VRX B 0.25(mm) |
| ICIS 440-446571/11 | | 12/13/2017 21:41 | 1 | YFL13020.D | DB-VRX B 0.25(mm) |
| STD50 440-446571/12 IC | | 12/13/2017 22:11 | 1 | YFL13021.D | DB-VRX B 0.25(mm) |
| STD100 440-446571/13 IC | | 12/13/2017 22:41 | 1 | YFL13022.D | DB-VRX B 0.25(mm) |
| STD200 440-446571/14 IC | | 12/13/2017 23:10 | 1 | YFL13023.D | DB-VRX B 0.25(mm) |
| STD300 440-446571/15 IC | | 12/13/2017 23:40 | 1 | YFL13024.D | DB-VRX B 0.25(mm) |
| ZZZZZ | | 12/14/2017 00:09 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 12/14/2017 00:39 | 1 | | DB-VRX B 0.25(mm) |
| ICV 440-446571/18 | | 12/14/2017 01:08 | 1 | YFL13027.D | DB-VRX B 0.25(mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: GCMS58 Start Date: 01/20/2018 08:49

Analysis Batch Number: 452839 End Date: 01/20/2018 18:57

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-452839/1 | | 01/20/2018 08:49 | 1 | YGA20001.D | DB-VRX B 0.25(mm) |
| CCVIS 440-452839/2 | | 01/20/2018 09:18 | 1 | YGA20002.D | DB-VRX B 0.25(mm) |
| CCV 440-452839/3 | | 01/20/2018 09:48 | 1 | | DB-VRX B 0.25(mm) |
| MB 440-452839/4 | | 01/20/2018 10:17 | 1 | YGA20004.D | DB-VRX B 0.25(mm) |
| LCS 440-452839/5 | | 01/20/2018 10:46 | 1 | YGA20005.D | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 11:36 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 12:06 | 1 | | DB-VRX B 0.25(mm) |
| 440-201437-B-3 MS | | 01/20/2018 12:35 | 1 | YGA20008.D | DB-VRX B 0.25(mm) |
| 440-201437-B-3 MSD | | 01/20/2018 13:04 | 1 | YGA20009.D | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 13:34 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 14:03 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 14:33 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 15:02 | 25 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 15:31 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 16:01 | 4 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 16:30 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 17:00 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 17:29 | 1 | | DB-VRX B 0.25(mm) |
| 440-201313-1 | | 01/20/2018 17:58 | 1 | YGA20019.D | DB-VRX B 0.25(mm) |
| 440-201313-2 | | 01/20/2018 18:28 | 1 | YGA20020.D | DB-VRX B 0.25(mm) |
| 440-201313-3 | | 01/20/2018 18:57 | 1 | YGA20021.D | DB-VRX B 0.25(mm) |

# GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Batch Number: 452839  Batch Start Date: 01/20/18 08:49  Batch Analyst: Nguyen, Tammy C

Batch Method: 8260B  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | Initial pH | VMW8260TUNE1 00415 | VMWNU8260CCV1 00883 | VMWNU8260ISS 00135 |
|---|---|---|---|---|---|---|---|---|---|
| BFB 440-452839/1 | | 8260B | | 10 mL | 10 mL | | 2 uL | | |
| CCVIS 440-452839/2 | | 8260B | | 10 mL | 10 mL | | | 5 uL | 5 uL |
| MB 440-452839/4 | | 8260B | | 10 mL | 10 mL | | | | 5 uL |
| LCS 440-452839/5 | | 8260B | | 10 mL | 10 mL | | | | 5 uL |
| 440-201437-B-3 MS | VER-01I-C-77.5 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-201437-B-3 MSD | VER-01I-C-77.5 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-201313-B-1 | VER-01I-C-48 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-201313-B-2 | Trip Blank | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-201313-B-3 | VER-01I-C-60 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | VMWNU8260LCS2 00174 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BFB 440-452839/1 | | 8260B | | | | | | | |
| CCVIS 440-452839/2 | | 8260B | | | | | | | |
| MB 440-452839/4 | | 8260B | | | | | | | |
| LCS 440-452839/5 | | 8260B | | 5 uL | | | | | |
| 440-201437-B-3 MS | VER-01I-C-77.5 | 8260B | T | 5 uL | | | | | |
| 440-201437-B-3 MSD | VER-01I-C-77.5 | 8260B | T | 5 uL | | | | | |
| 440-201313-B-1 | VER-01I-C-48 | 8260B | T | | | | | | |
| 440-201313-B-2 | Trip Blank | 8260B | T | | | | | | |
| 440-201313-B-3 | VER-01I-C-60 | 8260B | T | | | | | | |

| Batch Notes | |
|---|---|
| | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Batch Number: 452839  Batch Start Date: 01/20/18 08:49  Batch Analyst: Nguyen, Tammy C

Batch Method: 8260B  Batch End Date:

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Batch Number: 452937  Batch Start Date: 01/22/18 07:08  Batch Analyst: Nguyen, Tammy C

Batch Method: 8260B  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | Initial pH | VMW8260TUNE1 00415 | VMWNU8260CCV1 00883 | VMWNU8260ISS 00135 |
|---|---|---|---|---|---|---|---|---|---|
| BFB 440-452937/1 | | 8260B | | 10 mL | 10 mL | | 2 uL | | |
| CCVIS 440-452937/2 | | 8260B | | 10 mL | 10 mL | | | 5 uL | 5 uL |
| MB 440-452937/4 | | 8260B | | 10 mL | 10 mL | | | | 5 uL |
| LCS 440-452937/5 | | 8260B | | 10 mL | 10 mL | | | | 5 uL |
| 440-201313-A-1 | VER-01I-C-48 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-201313-A-1 MS | VER-01I-C-48 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-201313-A-1 MSD | VER-01I-C-48 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-201313-A-2 | Trip Blank | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-201313-A-3 | VER-01I-C-60 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | VMWNU8260LCS2 00174 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BFB 440-452937/1 | | 8260B | | | | | | | |
| CCVIS 440-452937/2 | | 8260B | | | | | | | |
| MB 440-452937/4 | | 8260B | | | | | | | |
| LCS 440-452937/5 | | 8260B | | 5 uL | | | | | |
| 440-201313-A-1 | VER-01I-C-48 | 8260B | T | | | | | | |
| 440-201313-A-1 MS | VER-01I-C-48 | 8260B | T | 5 uL | | | | | |
| 440-201313-A-1 MSD | VER-01I-C-48 | 8260B | T | 5 uL | | | | | |
| 440-201313-A-2 | Trip Blank | 8260B | T | | | | | | |
| 440-201313-A-3 | VER-01I-C-60 | 8260B | T | | | | | | |

| Batch Notes | |
|---|---|
| | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Batch Number: 452937  Batch Start Date: 01/22/18 07:08  Batch Analyst: Nguyen, Tammy C

Batch Method: 8260B  Batch End Date:

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# 314.0_LL

## Perchlorate (IC)

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098788-005_5_ECD_1.d

Lab ID: LCS 440-452387/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 10.0 | 8.66 | 87 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098788-004_4_ECD_1.d

Lab ID: MRL 440-452387/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 1.00 | 1.02 | 102 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098788-009_9_ECD_1.d

Lab ID: 440-200551-D-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | ND | 9.07 | 91 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098788-010_10_ECD_1.d

Lab ID: 440-200551-D-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 9.28 | 93 | 2 | 20 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098788-007_7_ECD_1.d

Lab ID: INF 440-452387/7 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | INF CONCENTRATION (ug/L) | INF % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 10.0 | 9.58 | 96 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab File ID: 440-0098788-006_6_ECD_1.d Lab Sample ID: MB 440-452387/6

Matrix: Water Date Extracted:

Instrument ID: IC-25 Date Analyzed: 01/18/2018 10:37

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-452387/3 | 440-0098788-003_3_ECD_1.d | 01/18/2018 09:08 |
| | LCS 440-452387/5 | 440-0098788-005_5_ECD_1.d | 01/18/2018 10:18 |
| | 440-200551-D-1 MS | 440-0098788-009_9_ECD_1.d | 01/18/2018 11:42 |
| | 440-200551-D-1 MSD | 440-0098788-010_10_ECD_1.d | 01/18/2018 12:01 |
| | CCB 440-452387/13 | 440-0098788-013_13_ECD_1.d | 01/18/2018 12:56 |
| VER-01I-C-48 | 440-201313-1 | 440-0098788-016_16_ECD_1.d | 01/18/2018 14:03 |
| VER-01I-C-60 | 440-201313-3 | 440-0098788-017_17_ECD_1.d | 01/18/2018 14:21 |
| | CCB 440-452387/23 | 440-0098788-023_23_ECD_1.d | 01/18/2018 16:27 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: VER-01I-C-48 | Lab Sample ID: 440-201313-1

Matrix: Water | Lab File ID: 440-0098788-016_16_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/17/2018 03:31

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/18/2018 14:03

Con. Extract Vol.: | Dilution Factor: 100000

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452387 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1200000 | | 100000 | 50000 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: VER-01I-C-60 | Lab Sample ID: 440-201313-3

Matrix: Water | Lab File ID: 440-0098788-017_17_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/17/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/18/2018 14:21

Con. Extract Vol.: | Dilution Factor: 100000

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452387 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1200000 | | 100000 | 50000 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 447839

SDG No.:

Instrument ID: IC-25 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/20/2017 11:10 Calibration End Date: 12/20/2017 13:16 Calibration ID: 18248

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-447839/1 | 440-0097758-001_1_ECD_1.d |
| Level 2 | STD1 440-447839/2 | 440-0097758-002_2_ECD_1.d |
| Level 3 | STD2 440-447839/3 | 440-0097758-003_3_ECD_1.d |
| Level 4 | STD3 440-447839/4 | 440-0097758-004_4_ECD_1.d |
| Level 5 | STD4 440-447839/5 | 440-0097758-005_5_ECD_1.d |
| Level 6 | STD5 440-447839/6 | 440-0097758-006_6_ECD_1.d |
| Level 7 | STD6 440-447839/7 | 440-0097758-007_7_ECD_1.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | | 11.814 | 11.814 | 11.804 | 11.804 | 11.804 | 11.810 | | | | 0.000 - 0.000 | 11.808 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1  Analy Batch No.: 447839

SDG No.:

Instrument ID: IC-25  GC Column: AS7 A  ID: 4(mm)  Heated Purge: (Y/N) N

Calibration Start Date: 12/20/2017 11:10  Calibration End Date: 12/20/2017 13:16  Calibration ID: 18248

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-447839/1 | 440-0097758-001_1_ECD_1.d |
| Level 2 | STD1 440-447839/2 | 440-0097758-002_2_ECD_1.d |
| Level 3 | STD2 440-447839/3 | 440-0097758-003_3_ECD_1.d |
| Level 4 | STD3 440-447839/4 | 440-0097758-004_4_ECD_1.d |
| Level 5 | STD4 440-447839/5 | 440-0097758-005_5_ECD_1.d |
| Level 6 | STD5 440-447839/6 | 440-0097758-006_6_ECD_1.d |
| Level 7 | STD6 440-447839/7 | 440-0097758-007_7_ECD_1.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Perchlorate | 137199 | 193691<br>140806 | 172072<br>133109 | 150105 | Lin | 57064.1722 | 132466.839 | | | | | | | 0.9990 | | 0.9950 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 447839

SDG No.:

Instrument ID: IC-25 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/20/2017 11:10 Calibration End Date: 12/20/2017 13:16 Calibration ID: 18248

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-447839/1 | 440-0097758-001_1_ECD_1.d |
| Level 2 | STD1 440-447839/2 | 440-0097758-002_2_ECD_1.d |
| Level 3 | STD2 440-447839/3 | 440-0097758-003_3_ECD_1.d |
| Level 4 | STD3 440-447839/4 | 440-0097758-004_4_ECD_1.d |
| Level 5 | STD4 440-447839/5 | 440-0097758-005_5_ECD_1.d |
| Level 6 | STD5 440-447839/6 | 440-0097758-006_6_ECD_1.d |
| Level 7 | STD6 440-447839/7 | 440-0097758-007_7_ECD_1.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| Perchlorate | Lin | 2112096 | 193691<br>3327719 | 344144 | 600421 | 1371988 | 0.000000<br>15.0 | 1.00<br>25.0 | 2.00 | 4.00 | 10.0 |

Curve Type Legend:
Lin = Linear

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: ICV 440-447839/8 Calibration Date: 12/20/2017 13:40

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0097758-008_8_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 10.1 | 10.0 | 101 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: ICV 440-447839/8 Calibration Date: 12/20/2017 13:40

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0097758-008_8_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.81 | 11.22 | 12.41 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452387/2 Calibration Date: 01/18/2018 08:46

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098788-002_2_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 8.85 | 10.0 | 89 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452387/2 Calibration Date: 01/18/2018 08:46

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098788-002_2_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.67 | 12.03 | 13.30 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452387/12 Calibration Date: 01/18/2018 12:37

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098788-012_12_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 9.72 | 10.0 | 97 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452387/12 Calibration Date: 01/18/2018 12:37

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098788-012_12_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.81 | 12.17 | 13.46 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452387/22 Calibration Date: 01/18/2018 16:08

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098788-022_22_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Lin | | | | 20.0 | 20.0 | 100 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452387/22 Calibration Date: 01/18/2018 16:08

Instrument ID: IC-25 Calib Start Date: 12/20/2017 11:10

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/20/2017 13:16

Lab File ID: 440-0098788-022_22_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.91 | 12.27 | 13.56 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452387/6

Matrix: Water | Lab File ID: 440-0098788-006_6_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/18/2018 10:37

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452387 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452387/3

Matrix: Water | Lab File ID: 440-0098788-003_3_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/18/2018 09:08

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452387 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452387/13

Matrix: Water | Lab File ID: 440-0098788-013_13_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/18/2018 12:56

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452387 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452387/23

Matrix: Water | Lab File ID: 440-0098788-023_23_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/18/2018 16:27

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452387 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-452387/5

Matrix: Water | Lab File ID: 440-0098788-005_5_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/18/2018 10:18

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452387 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 8.66 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-452387/4

Matrix: Water | Lab File ID: 440-0098788-004_4_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/18/2018 09:26

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452387 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1.02 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: INF 440-452387/7

Matrix: Water | Lab File ID: 440-0098788-007_7_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/18/2018 10:55

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452387 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 9.58 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-200551-D-1 MS

Matrix: Water | Lab File ID: 440-0098788-009_9_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/11/2018 14:30

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/18/2018 11:42

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452387 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 9.07 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-200551-D-1 MSD

Matrix: Water | Lab File ID: 440-0098788-010_10_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/11/2018 14:30

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/18/2018 12:01

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452387 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 9.28 | | 1.0 | 0.50 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-25 Start Date: 12/20/2017 11:10

Analysis Batch Number: 447839 End Date: 12/20/2017 19:55

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| STD0 440-447839/1 IC | | 12/20/2017 11:10 | 1 | 440-0097758-001 1 ECD 1.d | AS7 A 4(mm) |
| STD1 440-447839/2 IC | | 12/20/2017 11:28 | 1 | 440-0097758-002 2 ECD 1.d | AS7 A 4(mm) |
| STD2 440-447839/3 IC | | 12/20/2017 12:02 | 1 | 440-0097758-003 3 ECD 1.d | AS7 A 4(mm) |
| STD3 440-447839/4 IC | | 12/20/2017 12:21 | 1 | 440-0097758-004 4 ECD 1.d | AS7 A 4(mm) |
| STD4 440-447839/5 IC | | 12/20/2017 12:39 | 1 | 440-0097758-005 5 ECD 1.d | AS7 A 4(mm) |
| STD5 440-447839/6 IC | | 12/20/2017 12:57 | 1 | 440-0097758-006 6 ECD 1.d | AS7 A 4(mm) |
| STD6 440-447839/7 IC | | 12/20/2017 13:16 | 1 | 440-0097758-007 7 ECD 1.d | AS7 A 4(mm) |
| ICV 440-447839/8 | | 12/20/2017 13:40 | 1 | 440-0097758-008 8 ECD 1.d | AS7 A 4(mm) |
| ICB 440-447839/9 | | 12/20/2017 13:58 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 14:16 | 1 | | AS7 A 4(mm) |
| CCV 440-447839/11 | | 12/20/2017 14:34 | 1 | | AS7 A 4(mm) |
| CCB 440-447839/12 | | 12/20/2017 14:58 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 15:17 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 15:35 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 15:53 | 1 | | AS7 A 4(mm) |
| INF 440-447839/16 | | 12/20/2017 16:12 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 16:38 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 16:55 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 17:14 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 17:46 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 18:04 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 18:23 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 18:41 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 18:59 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/20/2017 19:18 | 1 | | AS7 A 4(mm) |
| CCV 440-447839/26 | | 12/20/2017 19:36 | 1 | | AS7 A 4(mm) |
| CCB 440-447839/27 | | 12/20/2017 19:55 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-25 Start Date: 01/18/2018 08:28

Analysis Batch Number: 452387 End Date: 01/18/2018 22:46

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/18/2018 08:28 | 1 | | AS16 4(mm) |
| CCV 440-452387/2 | | 01/18/2018 08:46 | 1 | 440-0098788-002 2 ECD 1.d | AS16 4(mm) |
| CCB 440-452387/3 | | 01/18/2018 09:08 | 1 | 440-0098788-003 3 ECD 1.d | AS16 4(mm) |
| MRL 440-452387/4 | | 01/18/2018 09:26 | 1 | 440-0098788-004 4 ECD 1.d | AS16 4(mm) |
| LCS 440-452387/5 | | 01/18/2018 10:18 | 1 | 440-0098788-005 5 ECD 1.d | AS16 4(mm) |
| MB 440-452387/6 | | 01/18/2018 10:37 | 1 | 440-0098788-006 6 ECD 1.d | AS16 4(mm) |
| INF 440-452387/7 | | 01/18/2018 10:55 | 1 | 440-0098788-007 7 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 11:24 | 1 | | AS16 4(mm) |
| 440-200551-D-1 MS | | 01/18/2018 11:42 | 1 | 440-0098788-009 9 ECD 1.d | AS16 4(mm) |
| 440-200551-D-1 MSD | | 01/18/2018 12:01 | 1 | 440-0098788-010 10 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 12:19 | 1 | | AS16 4(mm) |
| CCV 440-452387/12 | | 01/18/2018 12:37 | 1 | 440-0098788-012 12 ECD 1.d | AS16 4(mm) |
| CCB 440-452387/13 | | 01/18/2018 12:56 | 1 | 440-0098788-013 13 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 13:14 | 50 | | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 13:32 | 50 | | AS16 4(mm) |
| 440-201313-1 | | 01/18/2018 14:03 | 100000 | 440-0098788-016 16 ECD 1.d | AS16 4(mm) |
| 440-201313-3 | | 01/18/2018 14:21 | 100000 | 440-0098788-017 17 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 14:39 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 14:58 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 15:32 | 10 | | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 15:50 | 10 | | AS16 4(mm) |
| CCV 440-452387/22 | | 01/18/2018 16:08 | 1 | 440-0098788-022 22 ECD 1.d | AS16 4(mm) |
| CCB 440-452387/23 | | 01/18/2018 16:27 | 1 | 440-0098788-023 23 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 16:58 | 100 | | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 17:16 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 17:34 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 17:52 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 18:11 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 18:29 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 18:48 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 19:06 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 19:24 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 19:43 | 5 | | AS16 4(mm) |
| CCV 440-452387/34 | | 01/18/2018 20:01 | 1 | | AS16 4(mm) |
| CCB 440-452387/35 | | 01/18/2018 20:19 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 20:38 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 20:56 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 21:14 | 50 | | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 21:33 | 1 | | AS16 4(mm) |

314.0 LL

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-25 Start Date: 01/18/2018 08:28

Analysis Batch Number: 452387 End Date: 01/18/2018 22:46

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/18/2018 21:51 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/18/2018 22:09 | 50 | | AS16 4(mm) |
| CCV 440-452387/42 | | 01/18/2018 22:28 | 1 | | AS16 4(mm) |
| CCB 440-452387/43 | | 01/18/2018 22:46 | 1 | | AS16 4(mm) |

# Method 7199

## Chromium, Hexavalent (IC) by Method 7199

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Lab ID: LCS 440-452103/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 50.0 | 100 | 90-110 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: LCS 440-452351/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 50.7 | 101 | 90-110 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Lab ID: MRL 440-452103/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 1.00 | 1.05 J | 105 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: MRL 440-452351/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chromium, hexavalent | 1.00 | 1.04 J | 104 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: 440-201313-3 MS Client ID: VER-01I-C-60 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chromium, hexavalent | 1500 | 13000 | 14100 | 72 | 85-115 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Lab ID: 440-201270-F-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | ND | 48.3 | 97 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2

Lab ID: 440-201313-3 MSD Client ID: VER-01I-C-60 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 1500 | 13700 | 46 | 3 | 20 | 85-115 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Lab ID: 440-201270-F-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 48.8 | 98 | 1 | 20 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 7199

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_2 Lab Sample ID: MB 440-452351/6

Matrix: Water Date Extracted:

Instrument ID: IC-16 Date Analyzed: 01/18/2018 06:40

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-452351/3 | Info 2_TAIIRV0066_Hex Chrom_20180118-061643.d | 01/18/2018 06:05 |
| | LCS 440-452351/5 | Info 2_TAIIRV0066_Hex Chrom_20180118-063959.d | 01/18/2018 06:28 |
| | CCB 440-452351/10 | Info 2_TAIIRV0066_Hex Chrom_20180118-075742.d | 01/18/2018 07:46 |
| VER-01I-C-60 | 440-201313-3 | Info 2_TAIIRV0066_Hex Chrom_20180118-082411.d | 01/18/2018 08:12 |
| VER-01I-C-60 MS | 440-201313-3 MS | Info 2_TAIIRV0066_Hex Chrom_20180118-084727.d | 01/18/2018 08:35 |
| VER-01I-C-60 MSD | 440-201313-3 MSD | Info 2_TAIIRV0066_Hex Chrom_20180118-085905.d | 01/18/2018 08:47 |
| | CCB 440-452351/16 | Info 2_TAIIRV0066_Hex Chrom_20180118-093252.d | 01/18/2018 09:21 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Lab Sample ID: MB 440-452103/6

Matrix: Water Date Extracted:

Instrument ID: IC-20 Date Analyzed: 01/17/2018 06:58

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-452103/3 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 180117-0632 40.d | 01/17/2018 06:19 |
| | LCS 440-452103/5 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 180117-0658 45.d | 01/17/2018 06:45 |
| | CCB 440-452103/9 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 180117-1306 13.d | 01/17/2018 12:53 |
| | CCB 440-452103/16 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 180117-2103 45.d | 01/17/2018 20:50 |
| VER-01I-C-48 | 440-201313-1 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 180117-2136 58.d | 01/17/2018 21:24 |
| | 440-201270-F-1 MS | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 180117-2203 42.d | 01/17/2018 21:50 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Lab Sample ID: MB 440-452103/6

Matrix: Water Date Extracted:

Instrument ID: IC-20 Date Analyzed: 01/17/2018 06:58

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | 440-201270-F-1 MSD | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 180117-2216 50.d | 01/17/2018 22:03 |
| | CCB 440-452103/26 | Info 2_IRVINSTIC 20_Hexavale nt Chromium_20 180117-2346 18.d | 01/17/2018 23:33 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: VER-01I-C-48 | Lab Sample ID: 440-201313-1

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected: 01/17/2018 03:31

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/17/2018 21:24

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452103 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 12000 | | 1000 | 130 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: VER-01I-C-60 | Lab Sample ID: 440-201313-3

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/17/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/18/2018 08:12

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452351 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 13000 | | 1000 | 130 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 432478

SDG No.:

Instrument ID: IC-16 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2017 12:38 Calibration End Date: 10/02/2017 13:59 Calibration ID: 17606

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-432478/3 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d |
| Level 2 | STD2 440-432478/4 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d |
| Level 3 | STD3 440-432478/5 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d |
| Level 4 | STD4 440-432478/6 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d |
| Level 5 | STD5 440-432478/7 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d |
| Level 6 | STD6 440-432478/8 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d |
| Level 7 | STD7 440-432478/9 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 7.528 | 7.528 | 7.528 | 7.528 | 7.523 | 7.523 | 7.523 | | | | 7.151 - 7.904 | 7.526 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 432478

SDG No.:

Instrument ID: IC-16 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2017 12:38 Calibration End Date: 10/02/2017 13:59 Calibration ID: 17606

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-432478/3 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d |
| Level 2 | STD2 440-432478/4 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d |
| Level 3 | STD3 440-432478/5 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d |
| Level 4 | STD4 440-432478/6 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d |
| Level 5 | STD5 440-432478/7 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d |
| Level 6 | STD6 440-432478/8 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d |
| Level 7 | STD7 440-432478/9 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Chromium, hexavalent | 48520<br>43927 | 45274<br>44791 | 45566<br>44690 | 43498 | Lin1 | 1102.44248 | 44469.5021 | | | | | | | 1.0000 | | 0.9990 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 432478

SDG No.:

Instrument ID: IC-16 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/02/2017 12:38 Calibration End Date: 10/02/2017 13:59 Calibration ID: 17606

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-432478/3 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d |
| Level 2 | STD2 440-432478/4 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d |
| Level 3 | STD3 440-432478/5 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d |
| Level 4 | STD4 440-432478/6 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d |
| Level 5 | STD5 440-432478/7 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d |
| Level 6 | STD6 440-432478/8 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d |
| Level 7 | STD7 440-432478/9 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| Chromium, hexavalent | Lin1 | 14556<br>3359349 | 45274<br>4468974 | 455662 | 1087448 | 2196335 | 0.300<br>75.0 | 1.00<br>100 | 10.0 | 25.0 | 50.0 |

Curve Type Legend:
Lin1 = Linear 1/conc

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 410549

SDG No.:

Instrument ID: IC-20 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/07/2017 09:47 Calibration End Date: 06/07/2017 11:17 Calibration ID: 16876

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-410549/4 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-101305.d |
| Level 2 | STD2 440-410549/5 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-102559.d |
| Level 3 | STD3 440-410549/6 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-103854.d |
| Level 4 | STD4 440-410549/7 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-105148.d |
| Level 5 | STD5 440-410549/8 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-110442.d |
| Level 6 | STD6 440-410549/9 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-111737.d |
| Level 7 | STD7 440-410549/10 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-113032.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 7.371 | 7.371 | 7.371 | 7.371 | 7.371 | 7.358 | 7.371 | | | | 7.002 - 7.740 | 7.369 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 410549

SDG No.:

Instrument ID: IC-20 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/07/2017 09:47 Calibration End Date: 06/07/2017 11:17 Calibration ID: 16876

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-410549/4 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-101305.d |
| Level 2 | STD2 440-410549/5 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-102559.d |
| Level 3 | STD3 440-410549/6 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-103854.d |
| Level 4 | STD4 440-410549/7 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-105148.d |
| Level 5 | STD5 440-410549/8 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-110442.d |
| Level 6 | STD6 440-410549/9 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-111737.d |
| Level 7 | STD7 440-410549/10 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-113032.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Chromium, hexavalent | 39603<br>30033 | 33986<br>30081 | 32664<br>29991 | 30361 | Lin1 | 3556.70380 | 30093.5173 | | | | | | | 1.0000 | | 0.9990 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 410549

SDG No.:

Instrument ID: IC-20 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/07/2017 09:47 Calibration End Date: 06/07/2017 11:17 Calibration ID: 16876

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-410549/4 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-101305.d |
| Level 2 | STD2 440-410549/5 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-102559.d |
| Level 3 | STD3 440-410549/6 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-103854.d |
| Level 4 | STD4 440-410549/7 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-105148.d |
| Level 5 | STD5 440-410549/8 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-110442.d |
| Level 6 | STD6 440-410549/9 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-111737.d |
| Level 7 | STD7 440-410549/10 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-113032.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| Chromium, hexavalent | Lin1 | 11881<br>2256046 | 33986<br>2999122 | 326644 | 759021 | 1501633 | 0.300<br>75.0 | 1.00<br>100 | 10.0 | 25.0 | 50.0 |

Curve Type Legend:
Lin1 = Linear 1/conc

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: ICV 440-432478/10 Calibration Date: 10/02/2017 14:26

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20171 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 50.1 | 50.0 | 100 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: ICV 440-432478/10 Calibration Date: 10/02/2017 14:26

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20171

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.52 | 7.15 | 7.90 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452351/2 Calibration Date: 01/18/2018 05:48

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 50.3 | 50.0 | 101 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452351/2 Calibration Date: 01/18/2018 05:48

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.15 | 6.53 | 7.22 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452351/9 Calibration Date: 01/18/2018 07:34

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 51.2 | 50.0 | 102 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452351/9 Calibration Date: 01/18/2018 07:34

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.14 | 6.53 | 7.22 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452351/15 Calibration Date: 01/18/2018 09:09

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180 Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 51.6 | 50.0 | 103 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452351/15 Calibration Date: 01/18/2018 09:09

Instrument ID: IC-16 Calib Start Date: 10/02/2017 12:38

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 10/02/2017 13:59

Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20180

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.14 | 6.53 | 7.22 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: ICV 440-410549/11 Calibration Date: 06/07/2017 11:47

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 48.3 | 50.0 | 97 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: ICV 440-410549/11 Calibration Date: 06/07/2017 11:47

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 7.42 | 7.00 | 7.74 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452103/2 Calibration Date: 01/17/2018 06:02

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 49.2 | 50.0 | 98 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452103/2 Calibration Date: 01/17/2018 06:02

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 6.67 | 6.33 | 7.00 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452103/8 Calibration Date: 01/17/2018 12:40

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 47.0 | 50.0 | 94 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452103/8 Calibration Date: 01/17/2018 12:40

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 6.59 | 6.26 | 6.92 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452103/15 Calibration Date: 01/17/2018 20:37

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 49.1 | 50.0 | 98 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452103/15 Calibration Date: 01/17/2018 20:37

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 6.59 | 6.26 | 6.92 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452103/25 Calibration Date: 01/17/2018 23:20

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | Lin1 | | | | 48.0 | 50.0 | 96 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452103/25 Calibration Date: 01/17/2018 23:20

Instrument ID: IC-20 Calib Start Date: 06/07/2017 09:47

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 06/07/2017 11:17

Lab File ID: Info 2_IRVINSTIC20_Hexavalent Chr

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chromium, hexavalent | 6.57 | 6.33 | 7.00 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452103/6

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/17/2018 06:58

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452103 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452351/6

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/18/2018 06:40

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452351 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452103/3

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/17/2018 06:19

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452103 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452103/9

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/17/2018 12:53

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452103 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452103/16

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/17/2018 20:50

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452103 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452103/26

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/17/2018 23:33

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452103 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452351/3

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/18/2018 06:05

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452351 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452351/10

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/18/2018 07:46

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452351 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452351/16

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/18/2018 09:21

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452351 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | ND | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-452103/5

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/17/2018 06:45

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452103 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 50.0 | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-452351/5

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/18/2018 06:28

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452351 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 50.7 | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-452103/4

Matrix: Water | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/17/2018 06:32

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452103 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 1.05 | J | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-452351/4

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/18/2018 06:16

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452351 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 1.04 | J | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: VER-01I-C-60 MS | Lab Sample ID: 440-201313-3 MS

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/17/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/18/2018 08:35

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452351 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 14100 | | 1000 | 130 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201270-F-1 MS

Matrix: | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected: 01/17/2018 08:50

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/17/2018 21:50

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452103 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 48.3 | | 2.0 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: VER-01I-C-60 MSD | Lab Sample ID: 440-201313-3 MSD

Matrix: Water | Lab File ID: Info 2_TAIIRV0066_Hex Chrom_20

Analysis Method: 7199 | Date Collected: 01/17/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/18/2018 08:47

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452351 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 13700 | | 1000 | 130 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201270-F-1 MSD

Matrix: | Lab File ID: Info 2_IRVINSTIC20_Hexavalent

Analysis Method: 7199 | Date Collected: 01/17/2018 08:50

Extraction Method: | Date Extracted:

Sample wt/vol: 10(mL) | Date Analyzed: 01/17/2018 22:03

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1000(uL) | GC Column: AS7 A ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452103 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 18540-29-9 | Chromium, hexavalent | 48.8 | | 2.0 | 0.25 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-16 Start Date: 10/02/2017 12:38

Analysis Batch Number: 432478 End Date: 10/03/2017 04:27

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| STD0 440-432478/2 IC | | 10/02/2017 12:38 | 1 | | AS7 A 4(mm) |
| STD1 440-432478/3 IC | | 10/02/2017 12:50 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-130150.d | AS7 A 4(mm) |
| STD2 440-432478/4 IC | | 10/02/2017 13:01 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-131327.d | AS7 A 4(mm) |
| STD3 440-432478/5 IC | | 10/02/2017 13:13 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-132505.d | AS7 A 4(mm) |
| STD4 440-432478/6 IC | | 10/02/2017 13:25 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-133643.d | AS7 A 4(mm) |
| STD5 440-432478/7 IC | | 10/02/2017 13:36 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-134820.d | AS7 A 4(mm) |
| STD6 440-432478/8 IC | | 10/02/2017 13:48 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-135958.d | AS7 A 4(mm) |
| STD7 440-432478/9 IC | | 10/02/2017 13:59 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-141136.d | AS7 A 4(mm) |
| ICV 440-432478/10 | | 10/02/2017 14:26 | 1 | Info 2_TAIIRV0066_Hex Chrom_20171002-143755.d | AS7 A 4(mm) |
| ICB 440-432478/11 | | 10/02/2017 14:47 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 14:59 | 1 | | AS7 A 4(mm) |
| CCV 440-432478/1012 | | 10/02/2017 14:59 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 15:10 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/1013 | | 10/02/2017 15:10 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 15:22 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 15:34 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 20:53 | 1 | | AS7 A 4(mm) |
| CCV 440-432478/17 | | 10/02/2017 21:05 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/18 | | 10/02/2017 21:16 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:03 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:15 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:26 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:38 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 22:50 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-16 Start Date: 10/02/2017 12:38

Analysis Batch Number: 432478 End Date: 10/03/2017 04:27

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 10/02/2017 23:01 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:13 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:25 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:36 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/02/2017 23:48 | 10 | | AS7 A 4(mm) |
| CCV 440-432478/29 | | 10/02/2017 23:59 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/30 | | 10/03/2017 00:11 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:23 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:34 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:46 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 00:58 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:09 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:21 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:32 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:44 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 01:56 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 02:07 | 1 | | AS7 A 4(mm) |
| CCV 440-432478/41 | | 10/03/2017 02:19 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/42 | | 10/03/2017 02:31 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 02:42 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 02:54 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 03:29 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 03:40 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 10/03/2017 03:52 | 2 | | AS7 A 4(mm) |
| CCV 440-432478/51 | | 10/03/2017 04:15 | 1 | | AS7 A 4(mm) |
| CCB 440-432478/52 | | 10/03/2017 04:27 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-16 Start Date: 01/18/2018 05:48

Analysis Batch Number: 452351 End Date: 01/19/2018 01:45

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-452351/2 | | 01/18/2018 05:48 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180118-055956.d | AS7 A 4(mm) |
| CCB 440-452351/3 | | 01/18/2018 06:05 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180118-061643.d | AS7 A 4(mm) |
| MRL 440-452351/4 | | 01/18/2018 06:16 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180118-062821.d | AS7 A 4(mm) |
| LCS 440-452351/5 | | 01/18/2018 06:28 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180118-063959.d | AS7 A 4(mm) |
| MB 440-452351/6 | | 01/18/2018 06:40 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180118-065137.d | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 06:51 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 07:05 | 3 | | AS7 A 4(mm) |
| CCV 440-452351/9 | | 01/18/2018 07:34 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180118-074604.d | AS7 A 4(mm) |
| CCB 440-452351/10 | | 01/18/2018 07:46 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180118-075742.d | AS7 A 4(mm) |
| 440-201313-3 | | 01/18/2018 08:12 | 500 | Info 2_TAIIRV0066_Hex Chrom_20180118-082411.d | AS7 A 4(mm) |
| 440-201313-3 | | 01/18/2018 08:24 | 500 | Info 2_TAIIRV0066_Hex Chrom_20180118-083549.d | AS7 A 4(mm) |
| 440-201313-3 MS | | 01/18/2018 08:35 | 500 | Info 2_TAIIRV0066_Hex Chrom_20180118-084727.d | AS7 A 4(mm) |
| 440-201313-3 MSD | | 01/18/2018 08:47 | 500 | Info 2_TAIIRV0066_Hex Chrom_20180118-085905.d | AS7 A 4(mm) |
| CCV 440-452351/15 | | 01/18/2018 09:09 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180118-092114.d | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-16 Start Date: 01/18/2018 05:48

Analysis Batch Number: 452351 End Date: 01/19/2018 01:45

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCB 440-452351/16 | | 01/18/2018 09:21 | 1 | Info 2_TAIIRV0066_Hex Chrom_20180118-093252.d | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 18:06 | 1 | | AS7 A 4(mm) |
| CCV 440-452351/18 | | 01/18/2018 18:17 | 1 | | AS7 A 4(mm) |
| CCB 440-452351/19 | | 01/18/2018 18:29 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 19:32 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 19:44 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 19:56 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 20:07 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 20:19 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 20:31 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 20:42 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 20:54 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 21:06 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 21:17 | 500 | | AS7 A 4(mm) |
| CCV 440-452351/30 | | 01/18/2018 21:29 | 1 | | AS7 A 4(mm) |
| CCB 440-452351/31 | | 01/18/2018 21:40 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 21:52 | 500 | | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 22:04 | 500 | | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 22:15 | 500 | | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 22:27 | 1 | | AS7 A 4(mm) |
| CCV 440-452351/36 | | 01/18/2018 22:39 | 1 | | AS7 A 4(mm) |
| CCB 440-452351/37 | | 01/18/2018 22:50 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 23:37 | 500 | | AS7 A 4(mm) |
| ZZZZZ | | 01/18/2018 23:49 | 500 | | AS7 A 4(mm) |
| ZZZZZ | | 01/19/2018 00:01 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 01/19/2018 00:12 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 01/19/2018 00:24 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 01/19/2018 00:36 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 01/19/2018 00:47 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 01/19/2018 00:59 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 01/19/2018 01:10 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 01/19/2018 01:22 | 5 | | AS7 A 4(mm) |
| CCV 440-452351/48 | | 01/19/2018 01:34 | 1 | | AS7 A 4(mm) |
| CCB 440-452351/49 | | 01/19/2018 01:45 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-20 Start Date: 06/07/2017 09:21

Analysis Batch Number: 410549 End Date: 06/08/2017 03:31

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 06/07/2017 09:21 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 09:34 | 1 | | AS7 A 4(mm) |
| STD0 440-410549/3 IC | | 06/07/2017 09:47 | 1 | | AS7 A 4(mm) |
| STD1 440-410549/4 IC | | 06/07/2017 10:00 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-101305.d | AS7 A 4(mm) |
| STD2 440-410549/5 IC | | 06/07/2017 10:13 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-102559.d | AS7 A 4(mm) |
| STD3 440-410549/6 IC | | 06/07/2017 10:26 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-103854.d | AS7 A 4(mm) |
| STD4 440-410549/7 IC | | 06/07/2017 10:38 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-105148.d | AS7 A 4(mm) |
| STD5 440-410549/8 IC | | 06/07/2017 10:51 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-110442.d | AS7 A 4(mm) |
| STD6 440-410549/9 IC | | 06/07/2017 11:04 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-111737.d | AS7 A 4(mm) |
| STD7 440-410549/10 IC | | 06/07/2017 11:17 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-113032.d | AS7 A 4(mm) |
| ICV 440-410549/11 | | 06/07/2017 11:47 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20170607-120018.d | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 12:06 | 1 | | AS7 A 4(mm) |
| CCV 440-410549/1012 | | 06/07/2017 12:06 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 12:19 | 1 | | AS7 A 4(mm) |
| CCB 440-410549/1013 | | 06/07/2017 12:19 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 12:32 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 12:45 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 21:46 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 22:38 | 1 | | AS7 A 4(mm) |
| CCV 440-410549/26 | | 06/07/2017 22:51 | 1 | | AS7 A 4(mm) |
| CCB 440-410549/27 | | 06/07/2017 23:04 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 23:25 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 23:38 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/07/2017 23:51 | 1 | | AS7 A 4(mm) |

7199

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-20 Start Date: 06/07/2017 09:21

Analysis Batch Number: 410549 End Date: 06/08/2017 03:31

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 06/08/2017 00:04 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 00:17 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 00:30 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 00:43 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 00:56 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 01:09 | 1 | | AS7 A 4(mm) |
| CCV 440-410549/38 | | 06/08/2017 01:35 | 1 | | AS7 A 4(mm) |
| CCB 440-410549/39 | | 06/08/2017 01:48 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 02:01 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 02:14 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 02:27 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 02:40 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 02:53 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 06/08/2017 03:06 | 1 | | AS7 A 4(mm) |
| CCV 440-410549/46 | | 06/08/2017 03:18 | 1 | | AS7 A 4(mm) |
| CCB 440-410549/47 | | 06/08/2017 03:31 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-20 Start Date: 01/17/2018 06:02

Analysis Batch Number: 452103 End Date: 01/17/2018 23:33

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-452103/2 | | 01/17/2018 06:02 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20180117-061516.d | AS7 A 4(mm) |
| CCB 440-452103/3 | | 01/17/2018 06:19 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20180117-063240.d | AS7 A 4(mm) |
| MRL 440-452103/4 | | 01/17/2018 06:32 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20180117-064542.d | AS7 A 4(mm) |
| LCS 440-452103/5 | | 01/17/2018 06:45 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20180117-065845.d | AS7 A 4(mm) |
| MB 440-452103/6 | | 01/17/2018 06:58 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20180117-071146.d | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 07:11 | 1 | | AS7 A 4(mm) |
| CCV 440-452103/8 | | 01/17/2018 12:40 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20180117-125309.d | AS7 A 4(mm) |
| CCB 440-452103/9 | | 01/17/2018 12:53 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20180117-130613.d | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 13:06 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 15:27 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 20:11 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 20:24 | 1 | | AS7 A 4(mm) |
| CCV 440-452103/15 | | 01/17/2018 20:37 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20180117-205038.d | AS7 A 4(mm) |
| CCB 440-452103/16 | | 01/17/2018 20:50 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20180117-210345.d | AS7 A 4(mm) |
| 440-201313-1 | | 01/17/2018 21:10 | 500 | Info 2_IRVINSTIC20_Hexavalent Chromium_20180117-212350.d | AS7 A 4(mm) |
| 440-201313-1 | | 01/17/2018 21:24 | 500 | Info 2_IRVINSTIC20_Hexavalent Chromium_20180117-213658.d | AS7 A 4(mm) |
| ZZZZZ | | 01/17/2018 21:37 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-20 Start Date: 01/17/2018 06:02

Analysis Batch Number: 452103 End Date: 01/17/2018 23:33

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| 440-201270-F-1 MS | | 01/17/2018 21:50 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20180117-220342.d | AS7 A 4(mm) |
| 440-201270-F-1 MSD | | 01/17/2018 22:03 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20180117-221650.d | AS7 A 4(mm) |
| CCV 440-452103/25 | | 01/17/2018 23:20 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20180117-233309.d | AS7 A 4(mm) |
| CCB 440-452103/26 | | 01/17/2018 23:33 | 1 | Info 2_IRVINSTIC20_Hexavalent Chromium_20180117-234618.d | AS7 A 4(mm) |

# Method 300.1

## Disinfection By-Products (IC) by Method 300.1

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): AS9-HC ID: 4 (mm)

| Client Sample ID | Lab Sample ID | DCAA # |
|---|---|---|
| VER-01I-C-48 | 440-201313-1 | 99 |
| VER-01I-C-48 | 440-201313-1 | 98 |
| VER-01I-C-60 | 440-201313-3 | 101 |
| VER-01I-C-60 | 440-201313-3 | 101 |
| | MB 440-452345/5 | 102 |
| | MB 440-452346/5 | 102 |
| | LCS 440-452345/4 | 101 |
| | LCS 440-452346/4 | 101 |
| | MRL 440-452345/3 | 101 |
| | MRL 440-452346/3 | 101 |
| | 440-201200-A-1 MS | 98 |
| | 440-201200-A-1 MS | 98 |
| | 440-201200-A-1 MSD | 100 |
| | 440-201200-A-1 MSD | 100 |

| | QC LIMITS |
|---|---|
| DCAA = Dichloroacetic acid(Surr) | 90-115 |

# Column to be used to flag recovery values

FORM II 300.1B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-004.d

Lab ID: LCS 440-452345/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 100 | 99.0 | 99 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-004.d

Lab ID: LCS 440-452346/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorite | 100 | 101 | 101 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-003.d

Lab ID: MRL 440-452345/3 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorate | 20.0 | 20.8 | 104 | 50-150 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-003.d

Lab ID: MRL 440-452346/3 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chlorite | 20.0 | 21.2 | 106 | 10-200 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-017.d

Lab ID: 440-201200-A-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorate | 200 | 190 | 398 | 104 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-017.d

Lab ID: 440-201200-A-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chlorite | 200 | ND | 190 | 95 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-018.d

Lab ID: 440-201200-A-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chlorate | 200 | 394 | 102 | 1 | 25 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0098772-018.d

Lab ID: 440-201200-A-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chlorite | 200 | 189 | 94 | 1 | 25 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 300.1B

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab File ID: 440-0098772-005.d Lab Sample ID: MB 440-452345/5

Matrix: Water Date Extracted:

Instrument ID: IC-8 Date Analyzed: 01/18/2018 06:19

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-452345/2 | 440-0098772-002.d | 01/18/2018 04:18 |
| | LCS 440-452345/4 | 440-0098772-004.d | 01/18/2018 05:43 |
| | CCB 440-452345/14 | 440-0098772-014.d | 01/18/2018 12:19 |
| | 440-201200-A-1 MS | 440-0098772-017.d | 01/18/2018 14:11 |
| | 440-201200-A-1 MSD | 440-0098772-018.d | 01/18/2018 14:47 |
| VER-01I-C-48 | 440-201313-1 | 440-0098772-022.d | 01/18/2018 17:12 |
| VER-01I-C-60 | 440-201313-3 | 440-0098772-023.d | 01/18/2018 17:48 |
| | CCB 440-452345/26 | 440-0098772-026.d | 01/18/2018 19:37 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab File ID: 440-0098772-005.d Lab Sample ID: MB 440-452346/5

Matrix: Water Date Extracted:

Instrument ID: IC-8 Date Analyzed: 01/18/2018 06:19

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-452346/2 | 440-0098772-002.d | 01/18/2018 04:18 |
| | LCS 440-452346/4 | 440-0098772-004.d | 01/18/2018 05:43 |
| | CCB 440-452346/14 | 440-0098772-014.d | 01/18/2018 12:19 |
| | 440-201200-A-1 MS | 440-0098772-017.d | 01/18/2018 14:11 |
| | 440-201200-A-1 MSD | 440-0098772-018.d | 01/18/2018 14:47 |
| | CCB 440-452346/26 | 440-0098772-026.d | 01/18/2018 19:37 |
| | CCB 440-452346/38 | 440-0098772-038.d | 01/19/2018 02:52 |
| VER-01I-C-48 | 440-201313-1 | 440-0098772-047.d | 01/19/2018 08:18 |
| VER-01I-C-60 | 440-201313-3 | 440-0098772-048.d | 01/19/2018 08:54 |
| | CCB 440-452346/50 | 440-0098772-050.d | 01/19/2018 10:07 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: VER-01I-C-48 | Lab Sample ID: 440-201313-1

Matrix: Water | Lab File ID: 440-0098772-047.d

Analysis Method: 300.1B | Date Collected: 01/17/2018 03:31

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/19/2018 08:18

Con. Extract Vol.: | Dilution Factor: 1000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20000 | 10000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 98 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: VER-01I-C-48 | Lab Sample ID: 440-201313-1

Matrix: Water | Lab File ID: 440-0098772-022.d

Analysis Method: 300.1B | Date Collected: 01/17/2018 03:31

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 17:12

Con. Extract Vol.: | Dilution Factor: 10000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 2900000 | | 200000 | 100000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 99 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: VER-01I-C-60 | Lab Sample ID: 440-201313-3

Matrix: Water | Lab File ID: 440-0098772-048.d

Analysis Method: 300.1B | Date Collected: 01/17/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/19/2018 08:54

Con. Extract Vol.: | Dilution Factor: 1000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20000 | 10000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: VER-01I-C-60 | Lab Sample ID: 440-201313-3

Matrix: Water | Lab File ID: 440-0098772-023.d

Analysis Method: 300.1B | Date Collected: 01/17/2018 15:30

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 17:48

Con. Extract Vol.: | Dilution Factor: 10000

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 3400000 | | 200000 | 100000 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 445955

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18157

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445955/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445955/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445955/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445955/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445955/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445955/7 | 440-0097300-007.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromate | | 8.809 | 8.800 | 8.800 | 8.800 | 8.800 | | | | | 0.000 - 0.000 | 8.802 |
| Bromide | | 18.375 | 18.334 | 18.325 | 18.358 | 18.275 | | | | | 0.000 - 0.000 | 18.333 |
| Chlorate | | 20.175 | 20.134 | 20.117 | 20.158 | 20.075 | | | | | 0.000 - 0.000 | 20.132 |
| Dichloroacetic acid(Surr) | 14.975 | 14.967 | 14.975 | 14.967 | 14.983 | 14.975 | | | | | 13.919 - 16.015 | 14.974 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 445955

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18157

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445955/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445955/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445955/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445955/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445955/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445955/7 | 440-0097300-007.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Bromate | 85030 | 84777<br>83932 | 83142 | 85924 | Lin | 13316.2536 | 84031.2285 | | | | | | | 1.0000 | | 0.9950 |
| Bromide | 155080 | 170331<br>157285 | 156910 | 155772 | Lin | 6334.71702 | 156810.286 | | | | | | | 1.0000 | | 0.9950 |
| Chlorate | 137286 | 122469<br>136488 | 132031 | 134495 | Lin | -163510.51 | 137057.039 | | | | | | | 1.0000 | | 0.9950 |
| Dichloroacetic acid(Surr) | 82131<br>81437 | 81949<br>82824 | 82576 | 83010 | Ave | | 82321.1870 | | | | 0.7 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 445955

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18157

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445955/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445955/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445955/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445955/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445955/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445955/7 | 440-0097300-007.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Bromate | Lin | 8393172 | 423885 | 1039271 | 2148106 | 4251475 | 0.000000<br>100 | 5.00 | 12.5 | 25.0 | 50.0 |
| Bromide | Lin | 157284596 | 8516526 | 19613766 | 38942890 | 77540030 | 0.000000<br>1000 | 50.0 | 125 | 250 | 500 |
| Chlorate | Lin | 54595205 | 2449371 | 6601552 | 13449523 | 27457206 | 0.000000<br>400 | 20.0 | 50.0 | 100 | 200 |
| Dichloroacetic acid(Surr) | Ave | 81614796<br>82303494 | 81433893 | 82056259 | 82487538 | 80924785 | 994<br>994 | 994 | 994 | 994 | 994 |

Curve Type Legend:

Ave = Average
Lin = Linear

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 445956

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18158

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445956/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445956/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445956/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445956/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445956/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445956/7 | 440-0097300-007.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | 7.517 | 7.509 | 7.509 | 7.517 | 7.517 | | | | | 0.000 - 0.000 | 7.514 |
| Dichloroacetic acid(Surr) | 14.975 | 14.967 | 14.975 | 14.967 | 14.983 | 14.975 | | | | | 13.919 - 16.015 | 14.974 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 445956

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18158

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445956/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445956/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445956/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445956/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445956/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445956/7 | 440-0097300-007.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Chlorite | 159315 | 144620<br>163366 | 153703 | 157087 | Lin | -425656.25 | 163700.877 | | | | | | | 1.0000 | | 0.9950 |
| Dichloroacetic acid(Surr) | 82131<br>81437 | 81949<br>82824 | 82576 | 83010 | Ave | | 82321.1870 | | | | 0.7 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201313-1 Analy Batch No.: 445956

SDG No.:

Instrument ID: IC-8 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/11/2017 05:11 Calibration End Date: 12/11/2017 08:12 Calibration ID: 18158

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-445956/2 | 440-0097300-002.d |
| Level 2 | STD1 440-445956/3 | 440-0097300-003.d |
| Level 3 | STD2 440-445956/4 | 440-0097300-004.d |
| Level 4 | STD3 440-445956/5 | 440-0097300-005.d |
| Level 5 | STD4 440-445956/6 | 440-0097300-006.d |
| Level 6 | STD5 440-445956/7 | 440-0097300-007.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Chlorite | Lin | 65346431 | 2892398 | 7685136 | 15708703 | 31863070 | 0.000000<br>400 | 20.0 | 50.0 | 100 | 200 |
| Dichloroacetic acid(Surr) | Ave | 81614796<br>82303494 | 81433893 | 82056259 | 82487538 | 80924785 | 994<br>994 | 994 | 994 | 994 | 994 |

Curve Type Legend:

Ave = Average
Lin = Linear

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Lab Sample ID: ICV 440-445955/8  Calibration Date: 12/11/2017 09:01

Instrument ID: IC-8  Calib Start Date: 12/11/2017 05:11

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0097300-008.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 83178 | | 29.6 | 30.1 | -1.5 | 15.0 |
| Bromide | Lin | | 155600 | | 298 | 300 | -0.8 | 15.0 |
| Chlorate | Lin | | 134468 | | 119 | 120 | -0.9 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82190 | | 992 | 994 | -0.2 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: ICV 440-445955/8 Calibration Date: 12/11/2017 09:01

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS14 ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0097300-008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.77 | 8.19 | 9.43 |
| Bromide | 18.03 | 16.57 | 19.06 |
| Chlorate | 19.86 | 18.64 | 20.60 |
| Dichloroacetic acid(Surr) | 14.99 | 13.80 | 15.87 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: ICV 440-445956/8 Calibration Date: 12/11/2017 09:01

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS14 ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0097300-008.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 155519 | | 117 | 120 | -2.8 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82190 | | 992 | 994 | -0.2 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: ICV 440-445956/8 Calibration Date: 12/11/2017 09:01

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS14 ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0097300-008.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.50 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.99 | 13.80 | 15.87 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452345/1  Calibration Date: 01/18/2018 03:43

Instrument ID: IC-8  Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC  ID: 4.00(mm)  Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-001.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 84694 | | 30.1 | 30.0 | 0.3 | 15.0 |
| Bromide | Lin | | 160520 | | 307 | 300 | 2.4 | 15.0 |
| Chlorate | Lin | | 140567 | | 124 | 120 | 3.6 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83505 | | 1010 | 994 | 1.4 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452345/1 Calibration Date: 01/18/2018 03:43

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.75 | 8.07 | 9.28 |
| Bromide | 18.09 | 16.55 | 19.05 |
| Chlorate | 19.66 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.58 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452346/1  Calibration Date: 01/18/2018 03:43

Instrument ID: IC-8  Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC  ID: 4.00(mm)  Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-001.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 157624 | | 118 | 120 | -1.5 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83505 | | 1010 | 994 | 1.4 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452346/1 Calibration Date: 01/18/2018 03:43

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.48 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.58 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452345/13 Calibration Date: 01/18/2018 11:43

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-013.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 83991 | | 49.8 | 50.0 | -0.4 | 15.0 |
| Bromide | Lin | | 155749 | | 497 | 500 | -0.7 | 15.0 |
| Chlorate | Lin | | 138058 | | 203 | 200 | 1.3 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83097 | | 1000 | 994 | 0.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452345/13 Calibration Date: 01/18/2018 11:43

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-013.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.66 | 8.07 | 9.28 |
| Bromide | 17.40 | 16.55 | 19.05 |
| Chlorate | 19.07 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.66 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452346/13 Calibration Date: 01/18/2018 11:43

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-013.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 164552 | | 204 | 200 | 1.8 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83097 | | 1000 | 994 | 0.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452346/13 Calibration Date: 01/18/2018 11:43

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-013.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.47 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.66 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452345/25 Calibration Date: 01/18/2018 19:01

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-025.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Bromate | Lin | | 87408 | | 25.8 | 25.0 | 3.4 | 15.0 |
| Bromide | Lin | | 160519 | | 256 | 250 | 2.3 | 15.0 |
| Chlorate | Lin | | 143179 | | 106 | 100 | 5.7 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83023 | | 1000 | 994 | 0.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452345/25 Calibration Date: 01/18/2018 19:01

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-025.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Bromate | 8.66 | 8.07 | 9.28 |
| Bromide | 17.41 | 16.55 | 19.05 |
| Chlorate | 19.08 | 18.56 | 20.51 |
| Dichloroacetic acid(Surr) | 14.67 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452346/25 Calibration Date: 01/18/2018 19:01

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-025.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 173026 | | 108 | 100 | 8.3 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 83023 | | 1000 | 994 | 0.9 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452346/25 Calibration Date: 01/18/2018 19:01

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-025.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.48 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.67 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452346/37 Calibration Date: 01/19/2018 02:16

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-037.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 166143 | | 206 | 200 | 2.8 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82532 | | 996 | 994 | 0.3 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452346/37 Calibration Date: 01/19/2018 02:16

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-037.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.48 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.61 | 13.75 | 15.82 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452346/49 Calibration Date: 01/19/2018 09:31

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-049.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Chlorite | Lin | | 155435 | | 97.6 | 100 | -2.4 | 15.0 |
| Dichloroacetic acid(Surr) | Ave | 82321 | 82333 | | 994 | 994 | 0.0 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Lab Sample ID: CCV 440-452346/49 Calibration Date: 01/19/2018 09:31

Instrument ID: IC-8 Calib Start Date: 12/11/2017 05:11

GC Column: AS9-HC ID: 4.00(mm) Calib End Date: 12/11/2017 08:12

Lab File ID: 440-0098772-049.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Chlorite | 7.46 | 7.00 | 8.00 |
| Dichloroacetic acid(Surr) | 14.60 | 13.75 | 15.82 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452345/5

Matrix: Water | Lab File ID: 440-0098772-005.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 06:19

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 440-452346/5

Matrix: Water  Lab File ID: 440-0098772-005.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/18/2018 06:19

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452345/2

Matrix: Water | Lab File ID: 440-0098772-002.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 04:18

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452345/14

Matrix: Water | Lab File ID: 440-0098772-014.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 12:19

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452345/26

Matrix: Water | Lab File ID: 440-0098772-026.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 19:37

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452346/2

Matrix: Water | Lab File ID: 440-0098772-002.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 04:18

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452346/14

Matrix: Water | Lab File ID: 440-0098772-014.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 12:19

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-452346/26

Matrix: Water  Lab File ID: 440-0098772-026.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/18/2018 19:37

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452346/38

Matrix: Water | Lab File ID: 440-0098772-038.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/19/2018 02:52

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Client Sample ID:  Lab Sample ID: CCB 440-452346/50

Matrix: Water  Lab File ID: 440-0098772-050.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/19/2018 10:07

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | ND | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 102 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 440-452345/4

Matrix: Water  Lab File ID: 440-0098772-004.d

Analysis Method: 300.1B  Date Collected:

Extraction Method:  Date Extracted:

Sample wt/vol: 5(mL)  Date Analyzed: 01/18/2018 05:43

Con. Extract Vol.:  Dilution Factor: 1

Injection Volume: 1(uL)  GC Column: AS9-HC  ID: 4(mm)

% Moisture:  GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 99.0 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-452346/4

Matrix: Water | Lab File ID: 440-0098772-004.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 05:43

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 101 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-452345/3

Matrix: Water | Lab File ID: 440-0098772-003.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 04:55

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 20.8 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-452346/3

Matrix: Water | Lab File ID: 440-0098772-003.d

Analysis Method: 300.1B | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 04:55

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 21.2 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 101 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201200-A-1 MS

Matrix: Water | Lab File ID: 440-0098772-017.d

Analysis Method: 300.1B | Date Collected: 01/13/2018 08:50

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 14:11

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 398 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 98 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201200-A-1 MS

Matrix: Water | Lab File ID: 440-0098772-017.d

Analysis Method: 300.1B | Date Collected: 01/13/2018 08:50

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 14:11

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 190 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 98 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201200-A-1 MSD

Matrix: Water | Lab File ID: 440-0098772-018.d

Analysis Method: 300.1B | Date Collected: 01/13/2018 08:50

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 14:47

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452345 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14866-68-3 | Chlorate | 394 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201313-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201200-A-1 MSD

Matrix: Water | Lab File ID: 440-0098772-018.d

Analysis Method: 300.1B | Date Collected: 01/13/2018 08:50

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 14:47

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS9-HC ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452346 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14998-27-7 | Chlorite | 189 | | 20 | 10 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 79-43-6 | Dichloroacetic acid(Surr) | 100 | | 90-115 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-8 Start Date: 12/11/2017 04:35

Analysis Batch Number: 445955 End Date: 12/12/2017 11:51

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 12/11/2017 04:35 | 1 | | AS14 4(mm) |
| STD0 440-445955/2 IC | | 12/11/2017 05:11 | 1 | 440-0097300-002.d | AS14 4(mm) |
| STD1 440-445955/3 IC | | 12/11/2017 05:47 | 1 | 440-0097300-003.d | AS14 4(mm) |
| STD2 440-445955/4 IC | | 12/11/2017 06:24 | 1 | 440-0097300-004.d | AS14 4(mm) |
| STD3 440-445955/5 IC | | 12/11/2017 07:00 | 1 | 440-0097300-005.d | AS14 4(mm) |
| STD4 440-445955/6 IC | | 12/11/2017 07:36 | 1 | 440-0097300-006.d | AS14 4(mm) |
| STD5 440-445955/7 IC | | 12/11/2017 08:12 | 1 | 440-0097300-007.d | AS14 4(mm) |
| ICV 440-445955/8 | | 12/11/2017 09:01 | 1 | 440-0097300-008.d | AS14 4(mm) |
| ICB 440-445955/9 | | 12/11/2017 09:37 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 10:14 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 10:50 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 11:26 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 12:39 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 13:15 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 13:51 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 15:40 | 1 | | AS14 4(mm) |
| CCV 440-445955/20 | | 12/11/2017 16:16 | 1 | | AS14 4(mm) |
| CCB 440-445955/21 | | 12/11/2017 16:52 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 18:05 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 18:41 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 19:17 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 22:55 | 10 | | AS14 4(mm) |
| CCV 440-445955/32 | | 12/11/2017 23:31 | 1 | | AS14 4(mm) |
| CCB 440-445955/33 | | 12/12/2017 00:07 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 01:20 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 01:56 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 02:32 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 03:08 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 03:45 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 04:33 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 05:09 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 05:45 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 06:21 | 1 | | AS14 4(mm) |
| CCV 440-445955/44 | | 12/12/2017 06:58 | 1 | | AS14 4(mm) |
| CCB 440-445955/45 | | 12/12/2017 07:34 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 08:14 | 2 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 08:49 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 09:26 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 10:02 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 10:38 | 5 | | AS14 4(mm) |
| CCV 440-445955/51 | | 12/12/2017 11:14 | 1 | | AS14 4(mm) |
| CCB 440-445955/52 | | 12/12/2017 11:51 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-8 Start Date: 12/11/2017 04:35

Analysis Batch Number: 445956 End Date: 12/12/2017 07:34

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 12/11/2017 04:35 | 1 | | AS14 4(mm) |
| STD0 440-445956/2 IC | | 12/11/2017 05:11 | 1 | 440-0097300-002.d | AS14 4(mm) |
| STD1 440-445956/3 IC | | 12/11/2017 05:47 | 1 | 440-0097300-003.d | AS14 4(mm) |
| STD2 440-445956/4 IC | | 12/11/2017 06:24 | 1 | 440-0097300-004.d | AS14 4(mm) |
| STD3 440-445956/5 IC | | 12/11/2017 07:00 | 1 | 440-0097300-005.d | AS14 4(mm) |
| STD4 440-445956/6 IC | | 12/11/2017 07:36 | 1 | 440-0097300-006.d | AS14 4(mm) |
| STD5 440-445956/7 IC | | 12/11/2017 08:12 | 1 | 440-0097300-007.d | AS14 4(mm) |
| ICV 440-445956/8 | | 12/11/2017 09:01 | 1 | 440-0097300-008.d | AS14 4(mm) |
| ICB 440-445956/9 | | 12/11/2017 09:37 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 10:14 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 10:50 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 11:26 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 12:02 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 12:39 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 13:15 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 13:51 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 14:27 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 15:04 | 5 | | AS14 4(mm) |
| CCV 440-445956/20 | | 12/11/2017 16:16 | 1 | | AS14 4(mm) |
| CCB 440-445956/21 | | 12/11/2017 16:52 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 17:29 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 18:05 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 18:41 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 19:17 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 19:54 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 20:30 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 21:06 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 21:42 | 5 | | AS14 4(mm) |
| ZZZZZ | | 12/11/2017 22:19 | 5 | | AS14 4(mm) |
| CCV 440-445956/32 | | 12/11/2017 23:31 | 1 | | AS14 4(mm) |
| CCB 440-445956/33 | | 12/12/2017 00:07 | 1 | | AS14 4(mm) |
| ZZZZZ | | 12/12/2017 00:44 | 1 | | AS14 4(mm) |
| CCV 440-445956/44 | | 12/12/2017 06:58 | 1 | | AS14 4(mm) |
| CCB 440-445956/45 | | 12/12/2017 07:34 | 1 | | AS14 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-8 Start Date: 01/18/2018 03:43

Analysis Batch Number: 452345 End Date: 01/19/2018 12:07

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-452345/1 | | 01/18/2018 03:43 | 1 | 440-0098772-001.d | AS9-HC 4(mm) |
| CCB 440-452345/2 | | 01/18/2018 04:18 | 1 | 440-0098772-002.d | AS9-HC 4(mm) |
| MRL 440-452345/3 | | 01/18/2018 04:55 | 1 | 440-0098772-003.d | AS9-HC 4(mm) |
| LCS 440-452345/4 | | 01/18/2018 05:43 | 1 | 440-0098772-004.d | AS9-HC 4(mm) |
| MB 440-452345/5 | | 01/18/2018 06:19 | 1 | 440-0098772-005.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 06:56 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 07:32 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 08:16 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 09:08 | 100 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 09:44 | 20 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 10:31 | 20 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 11:07 | 20 | | AS9-HC 4(mm) |
| CCV 440-452345/13 | | 01/18/2018 11:43 | 1 | 440-0098772-013.d | AS9-HC 4(mm) |
| CCB 440-452345/14 | | 01/18/2018 12:19 | 1 | 440-0098772-014.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 12:59 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 13:35 | 1 | | AS9-HC 4(mm) |
| 440-201200-A-1 MS | | 01/18/2018 14:11 | 1 | 440-0098772-017.d | AS9-HC 4(mm) |
| 440-201200-A-1 MSD | | 01/18/2018 14:47 | 1 | 440-0098772-018.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 15:23 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 16:00 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 16:36 | 1 | | AS9-HC 4(mm) |
| 440-201313-1 | | 01/18/2018 17:12 | 10000 | 440-0098772-022.d | AS9-HC 4(mm) |
| 440-201313-3 | | 01/18/2018 17:48 | 10000 | 440-0098772-023.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 18:25 | 1 | | AS9-HC 4(mm) |
| CCV 440-452345/25 | | 01/18/2018 19:01 | 1 | 440-0098772-025.d | AS9-HC 4(mm) |
| CCB 440-452345/26 | | 01/18/2018 19:37 | 1 | 440-0098772-026.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 20:13 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 20:50 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 21:26 | 10000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 23:14 | 50 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 23:51 | 50 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 00:27 | 50 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 01:03 | 50 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 01:39 | 10000 | | AS9-HC 4(mm) |
| CCV 440-452345/37 | | 01/19/2018 02:16 | 1 | | AS9-HC 4(mm) |
| CCB 440-452345/38 | | 01/19/2018 02:52 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 04:41 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 05:17 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 05:53 | 20000 | | AS9-HC 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-8 Start Date: 01/18/2018 03:43

Analysis Batch Number: 452345 End Date: 01/19/2018 12:07

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-452345/49 | | 01/19/2018 09:31 | 1 | | AS9-HC 4(mm) |
| CCB 440-452345/50 | | 01/19/2018 10:07 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 10:47 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 11:23 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 12:07 | 10 | | AS9-HC 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Instrument ID: IC-8 Start Date: 01/18/2018 03:43

Analysis Batch Number: 452346 End Date: 01/19/2018 12:07

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 440-452346/1 | | 01/18/2018 03:43 | 1 | 440-0098772-001.d | AS9-HC 4(mm) |
| CCB 440-452346/2 | | 01/18/2018 04:18 | 1 | 440-0098772-002.d | AS9-HC 4(mm) |
| MRL 440-452346/3 | | 01/18/2018 04:55 | 1 | 440-0098772-003.d | AS9-HC 4(mm) |
| LCS 440-452346/4 | | 01/18/2018 05:43 | 1 | 440-0098772-004.d | AS9-HC 4(mm) |
| MB 440-452346/5 | | 01/18/2018 06:19 | 1 | 440-0098772-005.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 08:16 | 5 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 09:08 | 100 | | AS9-HC 4(mm) |
| CCV 440-452346/13 | | 01/18/2018 11:43 | 1 | 440-0098772-013.d | AS9-HC 4(mm) |
| CCB 440-452346/14 | | 01/18/2018 12:19 | 1 | 440-0098772-014.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 13:35 | 1 | | AS9-HC 4(mm) |
| 440-201200-A-1 MS | | 01/18/2018 14:11 | 1 | 440-0098772-017.d | AS9-HC 4(mm) |
| 440-201200-A-1 MSD | | 01/18/2018 14:47 | 1 | 440-0098772-018.d | AS9-HC 4(mm) |
| CCV 440-452346/25 | | 01/18/2018 19:01 | 1 | 440-0098772-025.d | AS9-HC 4(mm) |
| CCB 440-452346/26 | | 01/18/2018 19:37 | 1 | 440-0098772-026.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 22:02 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 22:38 | 1 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 23:14 | 50 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/18/2018 23:51 | 50 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 00:27 | 50 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 01:03 | 50 | | AS9-HC 4(mm) |
| CCV 440-452346/37 | | 01/19/2018 02:16 | 1 | 440-0098772-037.d | AS9-HC 4(mm) |
| CCB 440-452346/38 | | 01/19/2018 02:52 | 1 | 440-0098772-038.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 03:28 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 04:04 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 06:29 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 07:06 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 07:42 | 1000 | | AS9-HC 4(mm) |
| 440-201313-1 | | 01/19/2018 08:18 | 1000 | 440-0098772-047.d | AS9-HC 4(mm) |
| 440-201313-3 | | 01/19/2018 08:54 | 1000 | 440-0098772-048.d | AS9-HC 4(mm) |
| CCV 440-452346/49 | | 01/19/2018 09:31 | 1 | 440-0098772-049.d | AS9-HC 4(mm) |
| CCB 440-452346/50 | | 01/19/2018 10:07 | 1 | 440-0098772-050.d | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 10:47 | 1000 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 11:23 | 10 | | AS9-HC 4(mm) |
| ZZZZZ | | 01/19/2018 12:07 | 10 | | AS9-HC 4(mm) |

# METALS

COVER PAGE
METALS

Lab Name: TestAmerica Irvine Job Number: 440-201313-1

SDG No.:

Project: NERT VER Treatability Study

| Client Sample ID | Lab Sample ID |
|---|---|
| VER-01I-C-48 | 440-201313-1 |
| VER-01I-C-60 | 440-201313-3 |

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: VER-01I-C-48 Lab Sample ID: 440-201313-1

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG ID.:

Matrix: Water Date Sampled: 01/17/2018 03:31

Reporting Basis: WET Date Received: 01/17/2018 18:15

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 11 | 0.025 | 0.013 | mg/L | | | 5 | 6010B |

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: VER-01I-C-60 Lab Sample ID: 440-201313-3

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG ID.:

Matrix: Water Date Sampled: 01/17/2018 15:30

Reporting Basis: WET Date Received: 01/17/2018 18:15

| CAS No. | Analyte | Result | RL | MDL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| 7440-47-3 | Chromium | 12 | 0.010 | 0.0050 | mg/L | | | 2 | 6010B |

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

ICV Source: ME ICP ICV2_01768  Concentration Units: mg/L

CCV Source: ME ICP STD3_01855

| Analyte | ICV 440-453402/5 01/23/2018 15:41 | | | | CCV 440-453402/15 01/23/2018 18:18 | | | | CCV 440-453402/27 01/23/2018 18:57 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Found | C | True | %R | Found | C | True | %R | Found | C | True | %R |
| **Chromium** | 1.03 | | 1.00 | 103 | 1.00 | | 1.00 | 100 | 0.966 | | 1.00 | 97 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Method: 6010B Instrument ID: ICP9

Lab Sample ID: CRI 440-453402/14 Concentration Units: mg/L

CRQL Check Standard Source: ME ICP 2X RL_00057

| Analyte | CRQL Check Standard | | | | |
|---|---|---|---|---|---|
| | True | Found | Qualifiers | %R(1) | Limits |
| Chromium | 0.0100 | 0.0104 | | 104 | 50-150 |

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Concentration Units: mg/L

| Analyte | RL | ICB 440-453402/8 01/23/2018 16:13 | | CCB 440-453402/16 01/23/2018 18:20 | | CCB 440-453402/28 01/23/2018 18:59 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Found | C | Found | C | Found | C | Found | C |
| **Chromium** | 0.0050 | ND | | ND | | ND | | | |

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 440-453212/1-A

Instrument Code: ICP9 Batch No.: 453402

| CAS No. | Analyte | Concentration | C | Q | Method |
|---|---|---|---|---|---|
| 7440-47-3 | Chromium | ND | | | 6010B |

FORM III-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Lab Sample ID: ICSA 440-453402/9  Instrument ID: ICP9

Lab File ID: 180123-3B.csv  ICS Source: ME ICP IFA_01794

Concentration Units: mg/L

| Analyte | True Solution A | Found Solution A | Percent Recovery |
|---|---|---|---|
| **Chromium** | | **0.0014** | |
| *Aluminum* | *600* | *624* | *104* |
| *Antimony* | | *-0.0146* | |
| *Arsenic* | | *0.0070* | |
| *Barium* | | *0.0041* | |
| *Beryllium* | | *0.0001* | |
| *Boron* | | *0.0201* | |
| *Cadmium* | | *0.0044* | |
| *Calcium* | *600* | *623* | *104* |
| *Cobalt* | | *0.0057* | |
| *Copper* | | *0.0003* | |
| *Iron* | *600* | *551* | *92* |
| *Lead* | | *-0.0087* | |
| *Lithium* | | *-0.0096* | |
| *Magnesium* | *600* | *604* | *101* |
| *Manganese* | | *0.0003* | |
| *Molybdenum* | | *0.0019* | |
| *Nickel* | | *0.0094* | |
| *Phosphorus* | | *-0.0188* | |
| *Potassium* | | *-0.0183* | |
| *Selenium* | | *-0.0003* | |
| *Silicon* | | *-0.0428* | |
| *Silver* | | *-0.0020* | |
| *Sodium* | | *-0.436* | |
| *Strontium* | | *-0.0174* | |
| *Thallium* | | *-0.0085* | |
| *Tin* | | *-0.0016* | |
| *Titanium* | | *0.0014* | |
| *Tungsten* | | *0.0064* | |
| *Vanadium* | | *0.0008* | |
| *Zinc* | | *-0.0105* | |
| *Zirconium* | | *0.0018* | |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Lab Sample ID: ICSAB 440-453402/10  Instrument ID: ICP9

Lab File ID: 180123-3B.csv  ICS Source: ME ICP IFB_01813

Concentration Units: mg/L

| Analyte | True Solution AB | Found Solution AB | Percent Recovery |
|---|---|---|---|
| **Chromium** | **0.500** | **0.498** | **100** |
| *Aluminum* | *601* | *621* | *103* |
| *Antimony* | *0.500* | *0.503* | *101* |
| *Arsenic* | *0.500* | *0.516* | *103* |
| *Barium* | *0.500* | *0.470* | *94* |
| *Beryllium* | *0.500* | *0.522* | *104* |
| *Boron* | *0.500* | *0.485* | *97* |
| *Cadmium* | *0.500* | *0.464* | *93* |
| *Calcium* | *603* | *617* | *102* |
| *Cobalt* | *0.500* | *0.471* | *94* |
| *Copper* | *0.500* | *0.537* | *107* |
| *Iron* | *601* | *540* | *90* |
| *Lead* | *0.500* | *0.471* | *94* |
| *Lithium* | *0.500* | *0.532* | *106* |
| *Magnesium* | *603* | *595* | *99* |
| *Manganese* | *0.500* | *0.497* | *99* |
| *Molybdenum* | *0.500* | *0.497* | *99* |
| *Nickel* | *0.500* | *0.468* | *94* |
| *Phosphorus* | *0.500* | *0.497* | *99* |
| *Potassium* | *10.0* | *10.8* | *108* |
| *Selenium* | *0.500* | *0.473* | *95* |
| *Silicon* | *2.50* | *2.16* | *86* |
| *Silver* | *0.250* | *0.269* | *108* |
| *Sodium* | *10.0* | *9.99* | *100* |
| *Strontium* | *0.500* | *0.487* | *97* |
| *Thallium* | *0.500* | *0.447* | *89* |
| *Tin* | *0.500* | *0.462* | *92* |
| *Titanium* | *0.500* | *0.515* | *103* |
| *Tungsten* | *0.500* | *0.490* | *98* |
| *Vanadium* | *0.500* | *0.502* | *100* |
| *Zinc* | *0.500* | *0.433* | *87* |
| *Zirconium* | *0.500* | *0.501* | *100* |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: VER-01I-C-48 MS
Lab ID: 440-201313-1 MS
Lab Name: TestAmerica Irvine
Job No.: 440-201313-1
SDG No.:
Matrix: Water
Concentration Units: mg/L
% Solids:

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 11.5 | | 11 | | 1.00 | 57 | 75-125 | 4 | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: VER-01I-C-48 MSD
Lab ID: 440-201313-1 MSD
Lab Name: TestAmerica Irvine
Job No.: 440-201313-1
SDG No.:
Matrix: Water
Concentration Units: mg/L
% Solids:

| Analyte | (SDR) C | | Spike Added (SA) | %R | Control Limit %R | RPD | RPD Limit | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 11.9 | | 1.00 | 92 | 75-125 | 3 | 20 | 4 | 6010B |

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - TOTAL RECOVERABLE

Client ID: VER-01I-C-48 PDS  Lab ID: 440-201313-1 PDS

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Matrix: Water  Concentration Units: mg/L

| Analyte | SSR | C | Sample Result (SR) | C | Spike Added (SA) | %R | Control Limit %R | Q | Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 11.5 | | 11 | | 1.00 | NC | 80-120 | | 6010B |

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 440-453212/2-A

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

Sample Matrix: Water  LCS Source: ME ICP2 ICV1A_00051

| Analyte | Water(mg/L) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | True | Found | C | %R | Limits | | Q | Method |
| Chromium | 1.00 | 0.997 | | 100 | 80 | 120 | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TOTAL RECOVERABLE

Lab ID: 440-201313-1

SDG No:

Lab Name: TestAmerica Irvine Job No: 440-201313-1

Matrix: Water Concentration Units: mg/L

| Analyte | Initial Sample Result (I) | C | Serial Dilution Result (S) | C | % Difference | Q | Method |
|---|---|---|---|---|---|---|---|
| Chromium | 11 | | 11.2 | | 2.5 | | 6010B |

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine  Job Number: 440-201313-1

SDG Number:

Matrix: Water  Instrument ID: ICP9

Method: 6010B  MDL Date: 06/15/2017 17:45

Prep Method: 3005A

| Analyte | Wavelength/ Mass | RL (mg/L) | MDL (mg/L) |
|---|---|---|---|
| Chromium | 205.552 | 0.005 | 0.0025 |

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Irvine Job Number: 440-201313-1

SDG Number:

Matrix: Water Instrument ID: ICP9

Method: 6010B XMDL Date: 06/15/2017 17:46

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Chromium | 205.552 | 0.005 | 0.0025 |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-201313-1

SDG No.:

ICP-AES Instrument ID: ICP9 Date: 01/22/2018

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 396.152 | | -0.000113 | 0.000335 | 0.000181 | 0.000104 | -0.000033 | 0.000059 | 0.000156 | 0.027697 | 0.000141 | 0.000151 | 0.0001 | 0.000149 | 0.001271 |
| Antimony | 206.834 | -0.00004 | -0.000006 | 0.00011 | 0.011494 | 0.000046 | -0.00003 | -0.000008 | -0.000015 | -0.016976 | 0.000031 | 0.000285 | 0.000246 | 0.000194 | -0.000311 |
| Arsenic | 188.980 | -0.000001 | 0.000004 | 0.00001 | -0.011892 | -0.000057 | 0.000047 | 0.000003 | -0.000097 | -0.000247 | -0.000118 | -0.000045 | -0.0003 | -0.000181 | 0.000746 |
| Barium | 233.527 | 0 | 0 | -0.000008 | 0.000005 | 0.000003 | 0.000002 | 0.000002 | 0.000003 | -0.0002 | -0.000001 | -0.000013 | -0.000001 | -0.000166 | 0.000131 |
| Beryllium | 234.861 | 0 | 0 | 0.000005 | -0.000003 | -0.000001 | 0.00015 | 0 | -0.000065 | -0.000283 | -0.000005 | 0 | 0.000001 | -0.000001 | -0.000002 |
| Boron | 249.678 | 0 | 0 | 0.000864 | 0.000331 | -0.000038 | -0.00009 | -0.000003 | -0.000106 | -0.000041 | -0.000044 | -0.000044 | -0.000026 | -0.000044 | -0.010089 |
| Cadmium | 214.439 | -0.000001 | 0 | -0.000005 | -0.000016 | -0.000003 | 0.00003 | 0 | -0.000001 | -0.000015 | -0.000002 | -0.000003 | 0 | -0.000004 | -0.000105 |
| Calcium | 422.673 | -0.00001 | | 0.000994 | 0.000535 | -0.000109 | -0.00006 | 0.000043 | 0.00015 | -0.000274 | 0.00001 | 0.000023 | -0.000301 | 0.000679 | -0.000279 |
| Chromium | 205.560 | 0.000002 | 0.000001 | -0.000004 | | 0.000103 | 0.000001 | 0.000001 | 0.000002 | -0.000689 | -0.000347 | -0.000006 | 0.000025 | -0.000003 | 0.000429 |
| Cobalt | 228.615 | -0.000074 | -0.000001 | | 0.000295 | 0.000012 | 0.000079 | 0.000001 | 0.000008 | 0.000035 | 0.000122 | 0.000003 | 0.00196 | 0.000006 | 0.000203 |
| Copper | 324.754 | 0.000001 | -0.000036 | 0.000007 | -0.000005 | | 0.000017 | 0.000003 | 0.000004 | 0.00028 | -0.000017 | 0.000003 | -0.000201 | -0.000162 | 0.000005 |
| Iron | 238.204 | -0.000001 | 0.000002 | -0.000563 | -0.000085 | -0.000005 | | 0.000038 | 0.000026 | -0.000037 | -0.00012 | -0.00005 | -0.000012 | -0.000018 | -0.000026 |
| Lead | 220.353 | -0.000075 | 0 | 0.00001 | -0.00002 | 0.000012 | 0.000021 | 0.00003 | 0.000163 | -0.001276 | 0.000103 | 0.000085 | -0.000369 | -0.000017 | -0.001029 |
| Lithium | 670.783 | -0.000008 | 0.000091 | -0.000403 | -0.000358 | -0.000417 | 0.000007 | -0.000043 | -0.000191 | -0.000044 | 0.000649 | -0.000155 | 0.000322 | -0.000365 | -0.000287 |
| Magnesium | 279.078 | -0.000008 | 0.000004 | -0.000345 | -0.000396 | -0.00006 | -0.000154 | | 0.000619 | -0.000486 | -0.000082 | -0.000084 | -0.000074 | 0.000166 | -0.000444 |
| Manganese | 259.372 | 0 | 0.000001 | 0.000014 | -0.000012 | 0.000001 | 0.0014 | 0.0014 | | 0.00506 | 0.000001 | 0.000001 | 0.000019 | 0.000008 | 0.000003 |
| Molybdenum | 204.598 | 0.00002 | -0.000002 | -0.000026 | 0.000026 | -0.000025 | 0.000001 | -0.000003 | -0.000008 | | -0.000008 | 0.000011 | -0.000055 | -0.000071 | -0.000042 |
| Nickel | 231.604 | -0.000054 | -0.000002 | -0.000729 | -0.000004 | -0.000007 | 0.000068 | 0.000003 | -0.000086 | -0.000043 | | 0.000055 | 0.000025 | -0.000031 | -0.000076 |
| Phosphorus | 213.618 | 0.00001 | -0.000003 | 0.000107 | -0.000002 | -0.049125 | -0.000015 | 0.000002 | -0.000009 | -0.022058 | 0.000016 | -0.000101 | 0.000039 | 0.000032 | -0.000338 |
| Potassium | 766.491 | 0 | 0 | -0.002978 | -0.00312 | -0.002577 | 0 | 0.000377 | -0.003299 | -0.003487 | -0.001449 | -0.002276 | -0.001505 | -0.002888 | -0.003948 |
| Selenium | 196.026 | -0.000002 | 0.000001 | -0.000473 | -0.00005 | -0.000118 | -0.00027 | 0.000003 | 0.000473 | -0.000001 | -0.000076 | 0.00001 | -0.000029 | -0.000143 | 0.008371 |
| Silicon | 251.611 | 0.000025 | 0.000032 | 0.000226 | 0.000128 | 0.000078 | -0.000059 | 0.000052 | 0.000244 | 0.011459 | 0.00022 | 0.000666 | 0.003874 | 0.000343 | 0.066637 |
| Silver | 328.068 | 0 | -0.000002 | 0.000013 | -0.000014 | 0.000008 | -0.000006 | -0.000001 | 0.000077 | 0.000057 | 0.000007 | -0.000002 | -0.000079 | 0.000092 | 0.000005 |
| Sodium | 589.592 | 0.000011 | 0.000027 | -0.000151 | 0.000095 | -0.000181 | -0.000033 | 0.000018 | 0.000103 | 0.001732 | -0.000426 | -0.000326 | -0.000135 | -0.000514 | 0.002616 |
| Strontium | 421.552 | 0 | 0.000032 | 0 | -0.000002 | -0.000001 | 0.000001 | 0 | 0.000001 | 0 | -0.000003 | 0.000004 | 0.000002 | 0.000002 | 0.000015 |
| Thallium | 190.794 | 0.000008 | 0.000006 | 0.00333 | 0.000217 | 0.000096 | 0.000009 | 0.000005 | 0.001473 | 0.000248 | -0.000006 | 0.000051 | -0.013168 | -0.022591 | 0.000561 |
| Tin | 189.925 | -0.000002 | 0.000001 | 0.000038 | 0.000046 | 0.000048 | 0.000002 | 0.000006 | 0.000043 | 0.000032 | 0.000087 | | 0.000059 | 0.000459 | 0.000154 |
| Titanium | 336.122 | 0 | -0.000009 | -0.000016 | -0.000021 | 0.000001 | 0 | 0.000001 | 0.000001 | -0.000126 | -0.000041 | 0 | | -0.000256 | 0.000448 |
| Tungsten | 207.912 | 0.000002 | -0.000007 | -0.00009 | -0.000027 | -0.000032 | 0.000002 | -0.000002 | -0.000039 | 0.00016 | -0.000017 | 0.000023 | -0.000013 | -0.000051 | |
| Vanadium | 292.401 | 0 | 0.000004 | 0.000002 | 0.000275 | 0.000012 | 0.000033 | 0.000002 | 0.000011 | -0.009648 | 0.000021 | 0.000013 | 0.000804 | | 0.000223 |

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-201313-1

SDG No.:

ICP-AES Instrument ID: ICP9 Date: 01/22/2018

| Analyte | Wave Length | Al | Ca | Co | Cr | Cu | Fe | Mg | Mn | Mo | Ni | Sn | Ti | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Zinc | 202.548 | 0.000003 | 0.000003 | -0.000028 | -0.001505 | 0.007594 | -0.0000366 | 0.000008 | 0.000073 | 0.000042 | -0.000032 | 0.000032 | 0.000063 | 0.000033 | 0.0003 |
| Zirconium | 343.823 | 0 | 0.000002 | -0.000094 | -0.000006 | 0 | 0.000011 | 0 | -0.000024 | 0.000007 | -0.000004 | 0.000016 | 0 | -0.000003 | 0.000114 |

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-201313-1

SDG No.:

ICP-AES Instrument ID: ICP9 Date: 01/22/2018

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 396.152 | 0.000144 | 0.008724 | | | | | | | | | | | | |
| Antimony | 206.834 | 0.00016 | -0.000045 | | | | | | | | | | | | |
| Arsenic | 188.980 | -0.00006 | -0.000056 | | | | | | | | | | | | |
| Barium | 233.527 | 0.000001 | 0.000002 | | | | | | | | | | | | |
| Beryllium | 234.861 | 0.000001 | 0.000008 | | | | | | | | | | | | |
| Boron | 249.678 | -0.000001 | 0.000463 | | | | | | | | | | | | |
| Cadmium | 214.439 | -0.000002 | -0.000004 | | | | | | | | | | | | |
| Calcium | 422.673 | -0.00032 | -0.00005 | | | | | | | | | | | | |
| Chromium | 205.560 | -0.000026 | 0.000017 | | | | | | | | | | | | |
| Cobalt | 228.615 | -0.000005 | 0.000009 | | | | | | | | | | | | |
| Copper | 324.754 | -0.000013 | 0.000007 | | | | | | | | | | | | |
| Iron | 238.204 | -0.00003 | 0.000223 | | | | | | | | | | | | |
| Lead | 220.353 | -0.000019 | -0.00027 | | | | | | | | | | | | |
| Lithium | 670.783 | -0.000044 | -0.000041 | | | | | | | | | | | | |
| Magnesium | 279.078 | -0.000127 | -0.000031 | | | | | | | | | | | | |
| Manganese | 259.372 | 0.000002 | 0.000041 | | | | | | | | | | | | |
| Molybdenum | 204.598 | -0.00003 | 0.000023 | | | | | | | | | | | | |
| Nickel | 231.604 | -0.000011 | -0.000035 | | | | | | | | | | | | |
| Phosphorus | 213.618 | 0.00003 | 0.000123 | | | | | | | | | | | | |
| Potassium | 766.491 | -0.003593 | -0.003514 | | | | | | | | | | | | |
| Selenium | 196.026 | -0.000005 | -0.000021 | | | | | | | | | | | | |
| Silicon | 251.611 | 0.002002 | 0.0079 | | | | | | | | | | | | |
| Silver | 328.068 | 0.000017 | 0.003635 | | | | | | | | | | | | |
| Sodium | 589.592 | -0.00036 | -0.000181 | | | | | | | | | | | | |
| Strontium | 421.552 | -0.000002 | -0.000021 | | | | | | | | | | | | |
| Thallium | 190.794 | 0.000009 | -0.000081 | | | | | | | | | | | | |
| Tin | 189.925 | 0.000176 | 0.000611 | | | | | | | | | | | | |
| Titanium | 336.122 | 0.000008 | 0.000128 | | | | | | | | | | | | |
| Tungsten | 207.912 | 0.009684 | 0.000018 | | | | | | | | | | | | |
| Vanadium | 292.401 | 0.000017 | -0.000005 | | | | | | | | | | | | |

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Irvine Job Number: 440-201313-1

SDG No.:

ICP-AES Instrument ID: ICP9 Date: 01/22/2018

| Analyte | Wave Length | Zn | Zr | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yttrium | 371.029 | 0 | 0 | | | | | | | | | | | | |
| Zinc | 202.548 | | 0.000211 | | | | | | | | | | | | |
| Zirconium | 343.823 | 0.000006 | | | | | | | | | | | | | |

X-IN

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Irvine Job No: 440-201313-1

SDG No.:

Instrument ID: ICP9 Date: 06/15/2017 18:17

| Analyte | Integ. Time (Sec.) | Concentration (mg/L) | Method |
|---|---|---|---|
| Chromium | | 30 | 6010B |

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Irvine Job No.: 440-201313-1

SDG No.:

Prep Method: 3005A

| Lab Sample ID | Preparation Date | Prep Batch | Initial Weight | Initial Volume (mL) | Final Volume (mL) |
|---|---|---|---|---|---|
| MB 440-453212/1-A | 01/23/2018 09:22 | 453212 | | 25 | 25 |
| LCS 440-453212/2-A | 01/23/2018 09:22 | 453212 | | 25 | 25 |
| 440-201313-1 | 01/23/2018 09:22 | 453212 | | 25 | 25 |
| 440-201313-1 MS | 01/23/2018 09:22 | 453212 | | 25 | 25 |
| 440-201313-1 MSD | 01/23/2018 09:22 | 453212 | | 25 | 25 |
| 440-201313-3 | 01/23/2018 09:22 | 453212 | | 25 | 25 |

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Instrument ID: ICP9  Analysis Method: 6010B

Start Date: 01/23/2018 15:13  End Date: 01/23/2018 19:16

| Lab Sample Id | D/F | Type | Time | Analytes |
|---|---|---|---|---|
| | | | | Cr |
| ICIS 440-453402/1 | 1 | | 15:13 | X |
| STD1 440-453402/2 IC | | | 15:15 | X |
| STD2 440-453402/3 IC | | | 15:17 | X |
| STD3 440-453402/4 IC | | | 15:19 | X |
| ICV 440-453402/5 | 1 | | 15:41 | X |
| ZZZZZZ | | | 15:59 | |
| ZZZZZZ | | | 16:01 | |
| ICB 440-453402/8 | 1 | | 16:13 | X |
| ICSA 440-453402/9 | 1 | | 16:15 | X |
| ICSAB 440-453402/10 | 1 | | 16:17 | X |
| ZZZZZZ | | | 16:27 | |
| RINSE 440-453402/12 | | | 16:29 | |
| ZZZZZZ | | | 16:31 | |
| CRI 440-453402/14 | 1 | | 16:33 | X |
| CCV 440-453402/15 | 1 | | 18:18 | X |
| CCB 440-453402/16 | 1 | | 18:20 | X |
| MB 440-453212/1-A | 1 | R | 18:35 | X |
| LCS 440-453212/2-A | 1 | R | 18:37 | X |
| 440-201313-1 | 5 | R | 18:39 | X |
| 440-201313-1 MS | 5 | R | 18:41 | X |
| 440-201313-1 MSD | 5 | R | 18:44 | X |
| 440-201313-1 PDS | 5 | R | 18:46 | X |
| 440-201313-1 SD | 25 | R | 18:48 | X |
| 440-201313-3 | 2 | R | 18:50 | X |
| ZZZZZZ | | | 18:53 | |
| ZZZZZZ | | | 18:55 | |
| CCV 440-453402/27 | 1 | | 18:57 | X |
| CCB 440-453402/28 | 1 | | 18:59 | X |
| ZZZZZZ | | | 19:05 | |
| ZZZZZZ | | | 19:07 | |
| ZZZZZZ | | | 19:09 | |
| ZZZZZZ | | | 19:12 | |
| CCV 440-453402/33 | | | 19:14 | |
| CCB 440-453402/34 | | | 19:16 | |

Prep Types:
R = Total Recoverable

FORM XIII-IN

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Batch Number: 453212  Batch Start Date: 01/23/18 09:22  Batch Analyst: Nakhaei, Mahmoud

Batch Method: 3005A  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | Initial pH | InitialAmount | FinalAmount | ME HCl 00393 | ME HNO3 00412 | ME ICP2 ICV1A 00051 |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-453212/1 | | 3005A, 6010B | | | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| LCS 440-453212/2 | | 3005A, 6010B | | | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 0.25 mL |
| 440-201313-G-1 | VER-01I-C-48 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| 440-201313-G-1 MS | VER-01I-C-48 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 0.25 mL |
| 440-201313-G-1 MSD | VER-01I-C-48 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 0.25 mL |
| 440-201313-G-3 | VER-01I-C-60 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | |
| 440-201313-G-1 PDS | VER-01I-C-48 | 3005A, 6010B | R | <2 SU | 25 mL | 25 mL | 1.25 mL | 0.5 mL | 0.25 mL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | ME ICP2 ICV1B 00045 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 440-453212/1 | | 3005A, 6010B | | | | | | | |
| LCS 440-453212/2 | | 3005A, 6010B | | 0.25 mL | | | | | |
| 440-201313-G-1 | VER-01I-C-48 | 3005A, 6010B | R | | | | | | |
| 440-201313-G-1 MS | VER-01I-C-48 | 3005A, 6010B | R | 0.25 mL | | | | | |
| 440-201313-G-1 MSD | VER-01I-C-48 | 3005A, 6010B | R | 0.25 mL | | | | | |
| 440-201313-G-3 | VER-01I-C-60 | 3005A, 6010B | R | | | | | | |
| 440-201313-G-1 PDS | VER-01I-C-48 | 3005A, 6010B | R | 0.25 mL | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# METALS BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201313-1

SDG No.:

Batch Number: 453212  Batch Start Date: 01/23/18 09:22  Batch Analyst: Nakhaei, Mahmoud

Batch Method: 3005A  Batch End Date:

| Batch Notes | |
|---|---|
| Temperature - Corrected - End | 93 Degrees C |
| Temperature - Corrected - Start | 93 Degrees C |
| Digestion End Time | 01/23/2018 15:35 |
| Digestion Start Time | 01/23/2018 11:35 |
| Digestion Unit ID | 4 |
| Hydrochloric Acid ID | 0000183197 |
| Nitric Acid ID | 0000185595 |
| Pipette/Syringe/Dispenser ID | 201 |
| Thermometer ID | P-128, Loc A5, CF=-1 |
| Digestion Tube/Cup ID | 1705110 |
| Temperature - Uncorrected - End | 94 Degrees C |
| Temperature - Uncorrected - Start | 94 Degrees C |

| Basis | Basis Description |
|---|---|
| R | Total Recoverable |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Shipping and Receiving Documents

**TestAmerica Irvine**
17461 Derian A ite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

# Chain of Custody Record

TestAmerica

| Client Information | Sampler | Lab PM: | Carrier Tracking No(s) | COC No |
|---|---|---|---|---|
| Client Contact: Carl Lenker | Jeff Richeson | Mata, Patty | | Page 1 of 2 |
| Company: Tetra Tech, Inc. | Phone: (805) 660-1774 | E-Mail: patty.mata@testamericainc.com | | Job #: |

| Address | Due Date Requested: | Analysis Requested | Preservation Codes: |
|---|---|---|---|
| 17885 Von Karman Ave, Ste 500 | | | A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify) |
| City: Irvine | TAT Requested (days): | | |
| State, Zip: CA, 92614 | | | |
| Phone: 949-809-5000(Tel) | PO #: | | |
| Email: Carl.Lenker@tetratech.com | WO #: | | |
| Project Name: NERT VER Treatability Study | Project #: M16 | | |
| Site: | SSOW#: | | Other: |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 7199_ORGFM - Chromium, hexavalent | 314.0_LL - Perchlorate | E300.1 Chlorate and Chlorite | SW846 [redacted] VOCs 8260B | [redacted] Total Chromium 6010B | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | X | X | N | N | L | A | D | X | |
| VER-01I-C-48 | 01/17/18 | 0331 | G | W | | | X | X | X | X | X | 7 | |
| Trip Blank | ✓ | 0330 | G | W | | | | | | X | | 2 | |

440-201313 Chain of Custody

| Possible Hazard Identification | Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) |
|---|---|
| ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological | ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months |
| Deliverable Requested: I, II, III, IV, Other (specify) | Special Instructions/QC Requirements: |

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment |
|---|---|---|---|

| | Relinquished by | Date/Time | Company | Received by | Date/Time | Company |
|---|---|---|---|---|---|---|
| 1 | JMR | 1/17/18 1150 | Tetra Tech | JAM | 1-17-18 1150 | TALVS |
| 2 | JAM | 1-17-18 1330 | TALVS | SWA | Date/Time | Company |
| 3 | SWA 526606400031 | Date/Time | Company | Received by | Date/Time 1/17/18 1815 | Company TA-IRV |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: | IR87 42/42 CF |
|---|---|---|---|
| | | TALVS 18.3 | |

1/17 01 96

**TestAmerica Irvine**
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information | Sampler | Lab PM: | Carrier Tracking No(s). | COC No |
|---|---|---|---|---|
| Client Contact: Carl Lenker | Phone (805) 660-1774 | E-Mail: patty.mata@testamericainc.com | | Page 2 of 2 |
| Company: Tetra Tech, Inc. | | | | Job #: |
| Address: 17885 Von Karman Ave, Ste 500 | Due Date Requested: | | | |
| City: Irvine | TAT Requested (days): | | | |
| State, Zip: CA, 92614 | | | | |
| Phone: 949-809-5000(Tel) | PO # | | | |
| Email: Carl.Lenker@tetratech.com | WO #. | | | |
| Project Name: NERT VER Treatability Study | Project # M16 | | | |
| Site | SSOW# | | | |

**Analysis Requested**

**Preservation Codes:**

| | |
|---|---|
| A - HCL | M - Hexane |
| B - NaOH | N - None |
| C - Zn Acetate | O - AsNaO2 |
| D - Nitric Acid | P - Na2O4S |
| E - NaHSO4 | Q - Na2SO3 |
| F - MeOH | R - Na2S2O3 |
| G - Amchlor | S - H2SO4 |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice | U - Acetone |
| J - DI Water | V - MCAA |
| K - EDTA | W - pH 4-5 |
| L - EDA | Z - other (specify) |

Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 7199_ORGFM - Chromium, hexavalent | 314.0_LL - Perchlorate | E300.1 Chlorate and Chlorite | SW846 VOCs 93608 | Total Chromium 60108 | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | N | N | L | A | D | | |
| VER-01I-C-60 | 1/17/18 | 1530 | G | W | X | | X | X | X | X | X | | |

**Possible Hazard Identification**
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

| Empty Kit Relinquished by. | Date: | Time: | Method of Shipment |
|---|---|---|---|
| | | | |

| | Relinquished by | Date/Time | Company | Received by | Date/Time | Company |
|---|---|---|---|---|---|---|
| 1 | | 1/17/18 1530 | Tetra Tech | | 1-17-18 1530 | TALVS |
| 2 | | 1-17-18 1630 | TALVS | | 1/18/18 0700 | IRV |
| 3 | Relinquished by: | Date/Time | Company | Received by: | Date/Time | Company |

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: TALVS 2 1.4 3 4/3 4 IR-87

# Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 440-201313-1

**Login Number: 201313**
**List Number: 1**
**Creator: Soderblom, Tim**

**List Source: TestAmerica Irvine**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | N/A | Not Present |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

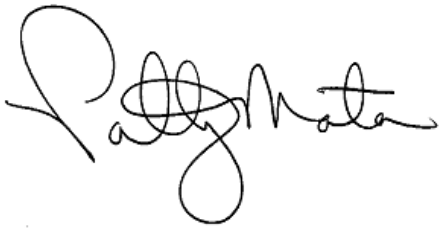
# ANALYTICAL REPORT

Job Number: 440-201437-1

Job Description: NERT VER Treatability Study

For:
Tetra Tech, Inc.
17885 Von Karman Ave, Ste 500
Irvine, CA 92614

Attention: Jeff Richeson



Approved for release.
Patty Mata
Senior Project Manager
1/31/2018 11:58 AM

Patty Mata, Senior Project Manager
17461 Derian Ave, Irvine, CA, 92614-5817
patty.mata@testamericainc.com
01/31/2018

# Table of Contents


Cover Title Page . . . . . 1

Data Summaries . . . . . 7

Definitions . . . . . 7

Case Narrative . . . . . 8

Detection Summary . . . . . 9

Client Sample Results . . . . . 11

Default Detection Limits . . . . . 18

Surrogate Summary . . . . . 21

QC Sample Results . . . . . 22

QC Association . . . . . 44

Chronicle . . . . . 49

Certification Summary . . . . . 51

Method Summary . . . . . 52

Sample Summary . . . . . 53

Manual Integration Summary . . . . . 54

Reagent Traceability . . . . . 67

Organic Sample Data . . . . . 145

GC/MS VOA . . . . . 145

Method 8260B Low Level . . . . . 145

Method 8260B Low Level QC Summary . . . . . 146

Method 8260B Low Level Sample Data . . . . . 170

Standards Data . . . . . 182

Method 8260B Low Level ICAL Data . . . . . 182

Method 8260B Low Level CCAL Data . . . . . 214

Raw QC Data . . . . . 226

Method 8260B Low Level Blank Data . . . . . 226

# Table of Contents


Method 8260B Low Level LCS/LCSD Data . . . . . 230

Method 8260B Low Level MS/MSD Data . . . . . 234

Method 8260B Low Level Run Logs . . . . . 242

Method 8260B Low Level Prep Data . . . . . 246

HPLC/IC . . . . . 250

314.0_LL . . . . . 250

314.0_LL QC Summary . . . . . 251

314.0_LL Sample Data . . . . . 263

Standards Data . . . . . 265

314.0_LL ICAL Data . . . . . 265

314.0_LL CCAL Data . . . . . 271

Raw QC Data . . . . . 285

314.0_LL Blank Data . . . . . 285

314.0_LL LCS/LCSD Data . . . . . 292

314.0_LL MS/MSD Data . . . . . 298

314.0_LL Run Logs . . . . . 302

Method 300.0 . . . . . 309

Method 300.0 QC Summary . . . . . 310

Method 300.0 Sample Data . . . . . 316

Standards Data . . . . . 319

Method 300.0 ICAL Data . . . . . 319

Method 300.0 CCAL Data . . . . . 325

Raw QC Data . . . . . 345

Method 300.0 Blank Data . . . . . 345

Method 300.0 LCS/LCSD Data . . . . . 355

Method 300.0 MS/MSD Data . . . . . 357

# Table of Contents


Method 300.0 Run Logs . . . . . 361

Method 7199 . . . . . 367

Method 7199 QC Summary . . . . . 368

Method 7199 Sample Data . . . . . 374

Standards Data . . . . . 376

Method 7199 ICAL Data . . . . . 376

Method 7199 CCAL Data . . . . . 379

Raw QC Data . . . . . 393

Method 7199 Blank Data . . . . . 393

Method 7199 LCS/LCSD Data . . . . . 400

Method 7199 MS/MSD Data . . . . . 402

Method 7199 Run Logs . . . . . 404

Method 300.1 . . . . . 409

Method 300.1 QC Summary . . . . . 410

Method 300.1 Sample Data . . . . . 423

Standards Data . . . . . 427

Method 300.1 ICAL Data . . . . . 427

Method 300.1 CCAL Data . . . . . 433

Raw QC Data . . . . . 451

Method 300.1 Blank Data . . . . . 451

Method 300.1 LCS/LCSD Data . . . . . 460

Method 300.1 MS/MSD Data . . . . . 464

Method 300.1 Run Logs . . . . . 470

Inorganic Sample Data . . . . . 475

Metals Data . . . . . 475

Met Cover Page . . . . . 476

# Table of Contents


Met Sample Data . . . . . 477

Met QC Data . . . . . 480

Met ICV/CCV . . . . . 480

Met CRQL . . . . . 487

Met Blanks . . . . . 494

Met ICSA/ICSAB . . . . . 505

Met MS/MSD/PDS . . . . . 517

Met LCS/LCSD . . . . . 523

Met Serial Dilution . . . . . 528

Met MDL . . . . . 530

Met IECF . . . . . 538

Met Linear Ranges . . . . . 542

Met Preparation Log . . . . . 545

Met Analysis Run Log . . . . . 549

Met Internal Standards . . . . . 558

Met Prep Data . . . . . 561

General Chemistry Data . . . . . 567

Gen Chem Cover Page . . . . . 568

Gen Chem Sample Data . . . . . 569

Gen Chem QC Data . . . . . 570

Gen Chem ICV/CCV . . . . . 570

Gen Chem Blanks . . . . . 573

Gen Chem MS/MSD/PDS . . . . . 574

Gen Chem Duplicates . . . . . 576

Gen Chem LCS/LCSD . . . . . 577

Gen Chem MDL . . . . . 579

# Table of Contents

Gen Chem Preparation Log . . . . . 593
Gen Chem Analysis Run Log . . . . . 595
Gen Chem Prep Data . . . . . 603
Shipping and Receiving Documents . . . . . 614
Client Chain of Custody . . . . . 615
Sample Receipt Checklist . . . . . 616

## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| E | Result exceeded calibration range. |

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Metals

| Qualifier | Qualifier Description |
|---|---|
| B | Compound was found in the blank and sample. |
| F1 | MS and/or MSD Recovery is outside acceptance limits. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| W | PS: Post-digestion spike was outside control limits |
| V | Serial Dilution exceeds the control limits |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| F1 | MS and/or MSD Recovery is outside acceptance limits. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| PQL | Practical Quantitation Limit |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

**Job Narrative**
**440-201437-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 1/18/2018 6:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.3º C and 1.8º C.

**GC/MS VOA**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**HPLC/IC**
Method(s) 300.1B: The following samples were diluted for the chlorite analyte due to the nature of the sample matrix: VER-01I-C-72 (440-201437-1) and VER-01I-C-77.5 (440-201437-3). Elevated reporting limits (RLs) are provided.

Method(s) 300.1B: The following QC samples were diluted for chlorite due to the nature of the sample matrix: VER-01I-C-77.5 (440-201437-3[MS]) and VER-01I-C-77.5 (440-201437-3[MSD]). Because of the dilutions, the matrix spike / matrix spike duplicate concentrations in the QC samples in batch 440-452819 were each reduced to a level where the recovery calculation does not provide useful information.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**Metals**
Method(s) 6010B: The method blank for preparation batch 440-453315 and analytical batch 440-453514 contained Chromium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method(s) 6010B: The serial dilution performed for the following sample associated with batch 440-453514 was outside control limits for Chromium: (440-201437-H-3-D SD).

Method(s) 6010B: The post digestion spike % recovery for Manganese associated with batch 440-453514 was outside of control limits.

Method(s) 6020: The post digestion spike % recovery for Aluminum associated with batch 440-453968 was outside of control limits.

Method(s) 6020: The following sample was diluted due to the nature of the sample matrix: VER-01I-C-77.5 (440-201437-3). Elevated reporting limits (RLs) are provided.

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 440-453455 and analytical batch 440-453968 were outside control limits for Copper. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 6020: The method blank for preparation batch 440-453455 and analytical batch 440-453968 contained Copper, Iron and Zinc above the method detection limit (MDL) but less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 6020: The method blank for preparation batch 440-453455 and analytical batch 440-454145 contained Chromium above the method detection limit (MDL) but less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**General Chemistry**
Method(s) 365.3: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 440-454103 and analytical batch 440-454135 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**VOA Prep**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-201437-1

## Client Sample ID: VER-01I-C-72 — Lab Sample ID: 440-201437-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | 0.66 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Bromoform | 0.86 | J | 1.0 | 0.40 | ug/L | 1 | | 8260B | Total/NA |
| Carbon tetrachloride | 1.0 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| 1,2-Dichlorobenzene | 4.8 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| 1,3-Dichlorobenzene | 0.30 | J | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| 1,4-Dichlorobenzene | 1.2 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Tetrachloroethene | 0.94 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Trichloroethene | 1.5 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Chloroform - DL | 640 | | 5.0 | 2.5 | ug/L | 10 | | 8260B | Total/NA |
| Chlorate | 3300000 | | 200000 | 100000 | ug/L | 10000 | | 300.1B | Total/NA |
| Perchlorate | 1300000 | | 100000 | 50000 | ug/L | 100000 | | 314.0 LL | Total/NA |
| Chromium, hexavalent | 12000 | | 1000 | 130 | ug/L | 500 | | 7199 | Total/NA |
| Chromium | 13 | B | 0.0050 | 0.0025 | mg/L | 1 | | 6010B | Total Recoverable |

## Client Sample ID: Trip Blank — Lab Sample ID: 440-201437-2

No Detections.

## Client Sample ID: VER-01I-C-77.5 — Lab Sample ID: 440-201437-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | 0.67 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Bromoform | 0.66 | J | 1.0 | 0.40 | ug/L | 1 | | 8260B | Total/NA |
| Carbon tetrachloride | 0.92 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Dibromochloromethane | 0.26 | J | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| 1,2-Dichlorobenzene | 5.4 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| 1,3-Dichlorobenzene | 0.28 | J | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| 1,4-Dichlorobenzene | 1.3 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Tetrachloroethene | 0.95 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Trichloroethene | 1.5 | | 0.50 | 0.25 | ug/L | 1 | | 8260B | Total/NA |
| Chloroform - DL | 620 | | 5.0 | 2.5 | ug/L | 10 | | 8260B | Total/NA |
| Nitrate as N | 22 | | 1.1 | 0.55 | mg/L | 10 | | 300.0 | Total/NA |
| Sulfate | 910 | | 250 | 130 | mg/L | 500 | | 300.0 | Total/NA |
| Chlorate | 3100000 | | 200000 | 100000 | ug/L | 10000 | | 300.1B | Total/NA |
| Perchlorate | 1200000 | | 50000 | 25000 | ug/L | 50000 | | 314.0 LL | Total/NA |
| Chromium, hexavalent | 12000 | | 1000 | 130 | ug/L | 500 | | 7199 | Total/NA |
| Calcium | 610 | | 0.20 | 0.10 | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Magnesium | 300 | | 0.040 | 0.020 | mg/L | 2 | | 200.7 Rev 4.4 | Total Recoverable |
| Chromium | 12 | B | 0.0050 | 0.0025 | mg/L | 1 | | 6010B | Total Recoverable |
| Aluminum | 34 | | 20 | 10 | ug/L | 2 | | 6020 | Dissolved |
| Arsenic | 30 | | 2.0 | 1.0 | ug/L | 2 | | 6020 | Dissolved |
| Barium | 63 | | 2.0 | 1.0 | ug/L | 2 | | 6020 | Dissolved |
| Chromium | 11000 | B | 20 | 5.0 | ug/L | 10 | | 6020 | Dissolved |
| Copper | 7.0 | F1 B | 4.0 | 1.0 | ug/L | 2 | | 6020 | Dissolved |
| Iron | 24 | J B | 40 | 16 | ug/L | 2 | | 6020 | Dissolved |
| Manganese | 3.8 | J | 5.0 | 2.5 | ug/L | 5 | | 6020 | Dissolved |
| Selenium | 3.4 | J | 4.0 | 1.0 | ug/L | 2 | | 6020 | Dissolved |
| Uranium | 13 | | 2.0 | 1.0 | ug/L | 2 | | 6020 | Dissolved |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: VER-01I-C-77.5 (Continued)

## Lab Sample ID: 440-201437-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Vanadium | 13 | | 4.0 | 2.0 | ug/L | 2 | | 6020 | Dissolved |
| Zinc | 11 | J B | 40 | 5.0 | ug/L | 2 | | 6020 | Dissolved |
| Alkalinity as CaCO3 | 75 | | 4.0 | 4.0 | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 75 | | 4.0 | 4.0 | mg/L | 1 | | SM 2320B | Total/NA |
| Hardness as calcium carbonate | 2700 | | 20 | 20 | mg/L | 1 | | SM 2340C | Total/NA |
| Total Dissolved Solids | 8500 | | 100 | 50 | mg/L | 1 | | SM 2540C | Total/NA |
| Total Suspended Solids | 2.7 | | 1.1 | 0.53 | mg/L | 1 | | SM 2540D | Total/NA |
| Total Organic Carbon | 1.1 | | 1.0 | 0.65 | mg/L | 1 | | SM 5310B | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: VER-01I-C-72

**Date Collected: 01/18/18 03:30**
**Date Received: 01/18/18 18:30**

## Lab Sample ID: 440-201437-1

**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 01/20/18 13:34 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| **Bromodichloromethane** | **0.66** | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| **Bromoform** | **0.86** | **J** | 1.0 | 0.40 | ug/L | | | 01/20/18 13:34 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 13:34 | 1 |
| **Carbon tetrachloride** | **1.0** | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 13:34 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 13:34 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| **1,2-Dichlorobenzene** | **4.8** | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| **1,3-Dichlorobenzene** | **0.30** | **J** | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| **1,4-Dichlorobenzene** | **1.2** | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 13:34 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 13:34 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 13:34 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 01/20/18 13:34 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 13:34 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 13:34 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 13:34 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 13:34 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |

## Client Sample ID: VER-01I-C-72 Lab Sample ID: 440-201437-1

**Date Collected: 01/18/18 03:30** **Matrix: Water**
**Date Received: 01/18/18 18:30**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 01/20/18 13:34 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| **Tetrachloroethene** | **0.94** | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 13:34 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 13:34 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| **Trichloroethene** | **1.5** | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 13:34 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 13:34 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 13:34 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *86* | | *80 - 120* | | *01/20/18 13:34* | *1* |
| *Dibromofluoromethane (Surr)* | *114* | | *76 - 132* | | *01/20/18 13:34* | *1* |
| *Toluene-d8 (Surr)* | *95* | | *80 - 128* | | *01/20/18 13:34* | *1* |

### Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloroform** | **640** | | 5.0 | 2.5 | ug/L | | | 01/22/18 13:22 | 10 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *98* | | *80 - 120* | | *01/22/18 13:22* | *10* |
| *Dibromofluoromethane (Surr)* | *100* | | *76 - 132* | | *01/22/18 13:22* | *10* |
| *Toluene-d8 (Surr)* | *106* | | *80 - 128* | | *01/22/18 13:22* | *10* |

### Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 20000 | 10000 | ug/L | | | 01/21/18 08:15 | 1000 |
| **Chlorate** | **3300000** | | 200000 | 100000 | ug/L | | | 01/20/18 12:55 | 10000 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *102* | | *90 - 115* | | *01/20/18 12:55* | *10000* |
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* | | *01/21/18 08:15* | *1000* |

### Method: 314.0 LL - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perchlorate** | **1300000** | | 100000 | 50000 | ug/L | | | 01/26/18 16:56 | 100000 |

### Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium, hexavalent** | **12000** | | 1000 | 130 | ug/L | | | 01/18/18 21:17 | 500 |

## Client Sample ID: VER-01I-C-72 — Lab Sample ID: 440-201437-1

**Date Collected: 01/18/18 03:30** — **Matrix: Water**
**Date Received: 01/18/18 18:30**

### Method: 6010B - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 13 | B | 0.0050 | 0.0025 | mg/L | | 01/23/18 17:06 | 01/24/18 13:51 | 1 |

## Client Sample ID: Trip Blank — Lab Sample ID: 440-201437-2

**Date Collected: 01/18/18 03:30** — **Matrix: Water**
**Date Received: 01/18/18 18:30**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 01/20/18 14:03 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 14:03 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 14:03 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 14:03 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 14:03 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 14:03 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 14:03 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 14:03 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 01/20/18 14:03 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 14:03 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 14:03 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 14:03 | 1 |

## Client Sample ID: Trip Blank — Lab Sample ID: 440-201437-2

**Date Collected: 01/18/18 03:30** — **Matrix: Water**
**Date Received: 01/18/18 18:30**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 14:03 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 01/20/18 14:03 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 14:03 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 14:03 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 14:03 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 14:03 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 14:03 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *87* | | *80 - 120* | | *01/20/18 14:03* | *1* |
| *Dibromofluoromethane (Surr)* | *112* | | *76 - 132* | | *01/20/18 14:03* | *1* |
| *Toluene-d8 (Surr)* | *96* | | *80 - 128* | | *01/20/18 14:03* | *1* |

### Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloroform | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 13:47 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *80 - 120* | | *01/22/18 13:47* | *1* |
| *Dibromofluoromethane (Surr)* | *102* | | *76 - 132* | | *01/22/18 13:47* | *1* |
| *Toluene-d8 (Surr)* | *105* | | *80 - 128* | | *01/22/18 13:47* | *1* |

## Client Sample ID: VER-01I-C-77.5 — Lab Sample ID: 440-201437-3

**Date Collected: 01/18/18 09:00** — **Matrix: Water**
**Date Received: 01/18/18 18:30**

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 01/20/18 12:06 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |

## Client Sample ID: VER-01I-C-77.5 Lab Sample ID: 440-201437-3

**Date Collected: 01/18/18 09:00** **Matrix: Water**
**Date Received: 01/18/18 18:30**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| **Bromodichloromethane** | **0.67** | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| **Bromoform** | **0.66** | **J** | 1.0 | 0.40 | ug/L | | | 01/20/18 12:06 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 12:06 | 1 |
| **Carbon tetrachloride** | **0.92** | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 12:06 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| **Dibromochloromethane** | **0.26** | **J** | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 12:06 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| **1,2-Dichlorobenzene** | **5.4** | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| **1,3-Dichlorobenzene** | **0.28** | **J** | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| **1,4-Dichlorobenzene** | **1.3** | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 12:06 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 12:06 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 12:06 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 01/20/18 12:06 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 12:06 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 12:06 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 12:06 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 12:06 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 01/20/18 12:06 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |

**Client Sample ID: VER-01I-C-77.5** **Lab Sample ID: 440-201437-3**
**Date Collected: 01/18/18 09:00** **Matrix: Water**
**Date Received: 01/18/18 18:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| **Tetrachloroethene** | **0.95** | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 12:06 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 12:06 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| **Trichloroethene** | **1.5** | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 12:06 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 12:06 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 12:06 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *87* | | *80 - 120* | | *01/20/18 12:06* | *1* |
| *Dibromofluoromethane (Surr)* | *109* | | *76 - 132* | | *01/20/18 12:06* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 128* | | *01/20/18 12:06* | *1* |

## Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloroform** | **620** | | 5.0 | 2.5 | ug/L | | | 01/22/18 14:13 | 10 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *99* | | *80 - 120* | | *01/22/18 14:13* | *10* |
| *Dibromofluoromethane (Surr)* | *102* | | *76 - 132* | | *01/22/18 14:13* | *10* |
| *Toluene-d8 (Surr)* | *106* | | *80 - 128* | | *01/22/18 14:13* | *10* |

## Method: 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Nitrate as N** | **22** | | 1.1 | 0.55 | mg/L | | | 01/18/18 21:41 | 10 |
| Nitrate as N | ND | | 55 | 28 | mg/L | | | 01/18/18 21:57 | 500 |
| **Sulfate** | **910** | | 250 | 130 | mg/L | | | 01/18/18 21:57 | 500 |

## Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 20000 | 10000 | ug/L | | | 01/21/18 08:51 | 1000 |
| **Chlorate** | **3100000** | | 200000 | 100000 | ug/L | | | 01/20/18 13:32 | 10000 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* | | *01/20/18 13:32* | *10000* |
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* | | *01/21/18 08:51* | *1000* |

## Method: 314.0 LL - Perchlorate (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Perchlorate** | **1200000** | | 50000 | 25000 | ug/L | | | 01/29/18 10:51 | 50000 |

## Client Sample ID: VER-01I-C-77.5

**Date Collected: 01/18/18 09:00**
**Date Received: 01/18/18 18:30**

## Lab Sample ID: 440-201437-3

**Matrix: Water**

### Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium, hexavalent** | **12000** | | 1000 | 130 | ug/L | | | 01/18/18 21:52 | 500 |

### Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Calcium** | **610** | | 0.20 | 0.10 | mg/L | | 01/23/18 08:04 | 01/25/18 13:14 | 2 |
| **Magnesium** | **300** | | 0.040 | 0.020 | mg/L | | 01/23/18 08:04 | 01/25/18 13:14 | 2 |

### Method: 6010B - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chromium** | **12** | **B** | 0.0050 | 0.0025 | mg/L | | 01/23/18 17:06 | 01/24/18 13:39 | 1 |
| Manganese | ND | | 0.020 | 0.015 | mg/L | | 01/23/18 17:06 | 01/24/18 13:39 | 1 |

### Method: 6020 - Metals (ICP/MS) - Dissolved

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Aluminum** | **34** | | 20 | 10 | ug/L | | 01/24/18 11:15 | 01/26/18 11:52 | 2 |
| Antimony | ND | | 4.0 | 1.0 | ug/L | | 01/24/18 11:15 | 01/26/18 11:52 | 2 |
| **Arsenic** | **30** | | 2.0 | 1.0 | ug/L | | 01/24/18 11:15 | 01/26/18 11:52 | 2 |
| **Barium** | **63** | | 2.0 | 1.0 | ug/L | | 01/24/18 11:15 | 01/26/18 11:52 | 2 |
| Beryllium | ND | | 1.0 | 0.50 | ug/L | | 01/24/18 11:15 | 01/26/18 11:52 | 2 |
| Cadmium | ND | | 2.0 | 0.50 | ug/L | | 01/24/18 11:15 | 01/26/18 11:52 | 2 |
| **Chromium** | **11000** | **B** | 20 | 5.0 | ug/L | | 01/24/18 11:15 | 01/27/18 16:56 | 10 |
| Cobalt | ND | | 2.0 | 1.0 | ug/L | | 01/24/18 11:15 | 01/26/18 11:52 | 2 |
| **Copper** | **7.0** | **F1 B** | 4.0 | 1.0 | ug/L | | 01/24/18 11:15 | 01/26/18 11:52 | 2 |
| **Iron** | **24** | **J B** | 40 | 16 | ug/L | | 01/24/18 11:15 | 01/26/18 11:52 | 2 |
| Lead | ND | | 2.0 | 1.0 | ug/L | | 01/24/18 11:15 | 01/26/18 11:52 | 2 |
| **Manganese** | **3.8** | **J** | 5.0 | 2.5 | ug/L | | 01/28/18 06:53 | 01/29/18 14:50 | 5 |
| Nickel | ND | | 4.0 | 1.0 | ug/L | | 01/24/18 11:15 | 01/26/18 11:52 | 2 |
| **Selenium** | **3.4** | **J** | 4.0 | 1.0 | ug/L | | 01/24/18 11:15 | 01/26/18 11:52 | 2 |
| Silver | ND | | 2.0 | 1.0 | ug/L | | 01/24/18 11:15 | 01/26/18 11:52 | 2 |
| Thallium | ND | | 2.0 | 1.0 | ug/L | | 01/24/18 11:15 | 01/26/18 11:52 | 2 |
| **Uranium** | **13** | | 2.0 | 1.0 | ug/L | | 01/24/18 11:15 | 01/26/18 11:52 | 2 |
| **Vanadium** | **13** | | 4.0 | 2.0 | ug/L | | 01/24/18 11:15 | 01/26/18 11:52 | 2 |
| **Zinc** | **11** | **J B** | 40 | 5.0 | ug/L | | 01/24/18 11:15 | 01/26/18 11:52 | 2 |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Kjeldahl Nitrogen | ND | | 0.20 | 0.10 | mg/L | | 01/22/18 10:00 | 01/25/18 16:05 | 1 |
| Phosphorus, Total | ND | F1 | 0.050 | 0.025 | mg/L | | 01/27/18 11:42 | 01/27/18 14:54 | 1 |
| **Alkalinity as CaCO3** | **75** | | 4.0 | 4.0 | mg/L | | | 01/19/18 09:38 | 1 |
| **Bicarbonate Alkalinity as CaCO3** | **75** | | 4.0 | 4.0 | mg/L | | | 01/19/18 09:38 | 1 |
| Carbonate Alkalinity as CaCO3 | ND | | 4.0 | 4.0 | mg/L | | | 01/19/18 09:38 | 1 |
| Hydroxide Alkalinity as CaCO3 | ND | | 4.0 | 4.0 | mg/L | | | 01/19/18 09:38 | 1 |
| **Hardness as calcium carbonate** | **2700** | | 20 | 20 | mg/L | | | 01/25/18 09:44 | 1 |
| **Total Dissolved Solids** | **8500** | | 100 | 50 | mg/L | | | 01/22/18 08:32 | 1 |
| **Total Suspended Solids** | **2.7** | | 1.1 | 0.53 | mg/L | | | 01/22/18 14:11 | 1 |
| **Total Organic Carbon** | **1.1** | | 1.0 | 0.65 | mg/L | | | 01/21/18 10:10 | 1 |

# Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-201437-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,1-Trichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,2,2-Tetrachloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1,2-Trichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| 1,1-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2,3-Trichlorobenzene | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,3-Trichloropropane | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,4-Trichlorobenzene | 1.0 | 0.40 | ug/L | 8260B |
| 1,2,4-Trimethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dibromo-3-Chloropropane | 1.0 | 0.50 | ug/L | 8260B |
| 1,2-Dibromoethane (EDB) | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichloroethane | 0.50 | 0.25 | ug/L | 8260B |
| 1,2-Dichloropropane | 0.50 | 0.25 | ug/L | 8260B |
| 1,3,5-Trimethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,3-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 1,3-Dichloropropane | 0.50 | 0.25 | ug/L | 8260B |
| 1,4-Dichlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| 2,2-Dichloropropane | 1.0 | 0.40 | ug/L | 8260B |
| 2-Butanone (MEK) | 5.0 | 2.5 | ug/L | 8260B |
| 2-Chlorotoluene | 0.50 | 0.25 | ug/L | 8260B |
| 2-Hexanone | 5.0 | 2.5 | ug/L | 8260B |
| 4-Chlorotoluene | 0.50 | 0.25 | ug/L | 8260B |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | 2.5 | ug/L | 8260B |
| Acetone | 20 | 10 | ug/L | 8260B |
| Benzene | 0.50 | 0.25 | ug/L | 8260B |
| Bromobenzene | 0.50 | 0.25 | ug/L | 8260B |
| Bromochloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Bromodichloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Bromoform | 1.0 | 0.40 | ug/L | 8260B |
| Bromomethane | 0.50 | 0.25 | ug/L | 8260B |
| Carbon tetrachloride | 0.50 | 0.25 | ug/L | 8260B |
| Chlorobenzene | 0.50 | 0.25 | ug/L | 8260B |
| Chloroethane | 1.0 | 0.40 | ug/L | 8260B |
| Chloroform | 0.50 | 0.25 | ug/L | 8260B |
| Chloromethane | 0.50 | 0.25 | ug/L | 8260B |
| cis-1,2-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| cis-1,3-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| Dibromochloromethane | 0.50 | 0.25 | ug/L | 8260B |
| Dibromomethane | 0.50 | 0.25 | ug/L | 8260B |
| Dichlorodifluoromethane | 1.0 | 0.40 | ug/L | 8260B |
| Ethylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Ethyl-t-butyl ether (ETBE) | 0.50 | 0.25 | ug/L | 8260B |
| Hexachlorobutadiene | 0.50 | 0.25 | ug/L | 8260B |
| Isopropyl Ether (DIPE) | 0.50 | 0.25 | ug/L | 8260B |
| Isopropylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| m,p-Xylene | 1.0 | 0.50 | ug/L | 8260B |
| Methylene Chloride | 2.0 | 0.88 | ug/L | 8260B |
| Methyl-t-Butyl Ether (MTBE) | 0.50 | 0.25 | ug/L | 8260B |
| Naphthalene | 1.0 | 0.40 | ug/L | 8260B |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| n-Butylbenzene | 1.0 | 0.40 | ug/L | 8260B |
| N-Propylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| o-Xylene | 0.50 | 0.25 | ug/L | 8260B |
| p-Isopropyltoluene | 0.50 | 0.25 | ug/L | 8260B |
| sec-Butylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Styrene | 0.50 | 0.25 | ug/L | 8260B |
| Tert-amyl-methyl ether (TAME) | 0.50 | 0.25 | ug/L | 8260B |
| tert-Butyl alcohol (TBA) | 10 | 5.0 | ug/L | 8260B |
| tert-Butylbenzene | 0.50 | 0.25 | ug/L | 8260B |
| Tetrachloroethene | 0.50 | 0.25 | ug/L | 8260B |
| Toluene | 0.50 | 0.25 | ug/L | 8260B |
| trans-1,2-Dichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| trans-1,3-Dichloropropene | 0.50 | 0.25 | ug/L | 8260B |
| Trichloroethene | 0.50 | 0.25 | ug/L | 8260B |
| Trichlorofluoromethane | 0.50 | 0.25 | ug/L | 8260B |
| Vinyl chloride | 0.50 | 0.25 | ug/L | 8260B |
| Xylenes, Total | 1.0 | 0.50 | ug/L | 8260B |

## Method: 300.0 - Anions, Ion Chromatography

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Nitrate as N | 0.11 | 0.055 | mg/L | 300.0 |
| Sulfate | 0.50 | 0.25 | mg/L | 300.0 |

## Method: 300.1B - Disinfection By-Products, (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chlorate | 20 | 10 | ug/L | 300.1B |
| Chlorite | 20 | 10 | ug/L | 300.1B |

## Method: 314.0 LL - Perchlorate (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Perchlorate | 1.0 | 0.50 | ug/L | 314.0 LL |

## Method: 7199 - Chromium, Hexavalent (IC)

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chromium, hexavalent | 2.0 | 0.25 | ug/L | 7199 |

## Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

### Prep: 200.2

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Calcium | 0.10 | 0.050 | mg/L | 200.7 Rev 4.4 |
| Magnesium | 0.020 | 0.010 | mg/L | 200.7 Rev 4.4 |

## Method: 6010B - Metals (ICP) - Total Recoverable

### Prep: 3005A

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Chromium | 0.0050 | 0.0025 | mg/L | 6010B |
| Manganese | 0.020 | 0.015 | mg/L | 6010B |

# Default Detection Limits

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-201437-1

## Method: 6020 - Metals (ICP/MS) - Dissolved

### Prep: 3005A

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Aluminum | 10 | 5.0 | ug/L | 6020 |
| Antimony | 2.0 | 0.50 | ug/L | 6020 |
| Arsenic | 1.0 | 0.50 | ug/L | 6020 |
| Barium | 1.0 | 0.50 | ug/L | 6020 |
| Beryllium | 0.50 | 0.25 | ug/L | 6020 |
| Cadmium | 1.0 | 0.25 | ug/L | 6020 |
| Chromium | 2.0 | 0.50 | ug/L | 6020 |
| Cobalt | 1.0 | 0.50 | ug/L | 6020 |
| Copper | 2.0 | 0.50 | ug/L | 6020 |
| Iron | 20 | 8.0 | ug/L | 6020 |
| Lead | 1.0 | 0.50 | ug/L | 6020 |
| Manganese | 1.0 | 0.50 | ug/L | 6020 |
| Nickel | 2.0 | 0.50 | ug/L | 6020 |
| Selenium | 2.0 | 0.50 | ug/L | 6020 |
| Silver | 1.0 | 0.50 | ug/L | 6020 |
| Thallium | 1.0 | 0.50 | ug/L | 6020 |
| Uranium | 1.0 | 0.50 | ug/L | 6020 |
| Vanadium | 2.0 | 1.0 | ug/L | 6020 |
| Zinc | 20 | 2.5 | ug/L | 6020 |

## General Chemistry

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Alkalinity as CaCO3 | 4.0 | 4.0 | mg/L | SM 2320B |
| Bicarbonate Alkalinity as CaCO3 | 4.0 | 4.0 | mg/L | SM 2320B |
| Carbonate Alkalinity as CaCO3 | 4.0 | 4.0 | mg/L | SM 2320B |
| Hydroxide Alkalinity as CaCO3 | 4.0 | 4.0 | mg/L | SM 2320B |
| Hardness as calcium carbonate | 4.0 | 4.0 | mg/L | SM 2340C |
| Total Dissolved Solids | 10 | 5.0 | mg/L | SM 2540C |
| Total Suspended Solids | 1.0 | 0.50 | mg/L | SM 2540D |
| Total Organic Carbon | 1.0 | 0.65 | mg/L | SM 5310B |

## General Chemistry

### Prep: 351.2

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Total Kjeldahl Nitrogen | 0.20 | 0.10 | mg/L | 351.2 |

## General Chemistry

### Prep: 365.2/365.3/365

| Analyte | RL | MDL | Units | Method |
|---|---|---|---|---|
| Phosphorus, Total | 0.050 | 0.025 | mg/L | 365.3 |

# Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-201437-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Matrix: Water**

**Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | |
|---|---|---|---|---|
| | | BFB | DBFM | TOL |
| Lab Sample ID | Client Sample ID | (80-120) | (76-132) | (80-128) |
| 440-201313-A-1 MS | Matrix Spike | 100 | 100 | 103 |
| 440-201313-A-1 MSD | Matrix Spike Duplicate | 102 | 100 | 102 |
| 440-201437-1 | VER-01I-C-72 | 86 | 114 | 95 |
| 440-201437-1 - DL | VER-01I-C-72 | 98 | 100 | 106 |
| 440-201437-2 | Trip Blank | 87 | 112 | 96 |
| 440-201437-2 - RA | Trip Blank | 100 | 102 | 105 |
| 440-201437-3 | VER-01I-C-77.5 | 87 | 109 | 98 |
| 440-201437-3 - DL | VER-01I-C-77.5 | 99 | 102 | 106 |
| 440-201437-3 MS | VER-01I-C-77.5 | 87 | 107 | 96 |
| 440-201437-3 MSD | VER-01I-C-77.5 | 88 | 107 | 96 |
| LCS 440-452839/5 | Lab Control Sample | 89 | 105 | 96 |
| LCS 440-452937/5 | Lab Control Sample | 101 | 98 | 104 |
| MB 440-452839/4 | Method Blank | 89 | 108 | 99 |
| MB 440-452937/4 | Method Blank | 100 | 97 | 109 |

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

## Method: 300.1B - Disinfection By-Products, (IC)

**Matrix: Water**

**Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) |
|---|---|---|
| | | DCAA |
| Lab Sample ID | Client Sample ID | (90-115) |
| 440-201437-1 | VER-01I-C-72 | 102 |
| 440-201437-1 | VER-01I-C-72 | 101 |
| 440-201437-3 | VER-01I-C-77.5 | 101 |
| 440-201437-3 | VER-01I-C-77.5 | 101 |
| 440-201437-3 MS | VER-01I-C-77.5 | 101 |
| 440-201437-3 MS | VER-01I-C-77.5 | 101 |
| 440-201437-3 MSD | VER-01I-C-77.5 | 102 |
| 440-201437-3 MSD | VER-01I-C-77.5 | 100 |
| 440-201503-A-2 MS | Matrix Spike | 101 |
| 440-201503-A-2 MSD | Matrix Spike Duplicate | 102 |
| LCS 440-452818/4 | Lab Control Sample | 100 |
| LCS 440-452819/4 | Lab Control Sample | 100 |
| MB 440-452818/5 | Method Blank | 100 |
| MB 440-452819/5 | Method Blank | 100 |
| MRL 440-452818/3 | Lab Control Sample | 101 |
| MRL 440-452819/3 | Lab Control Sample | 101 |

**Surrogate Legend**

DCAA = Dichloroacetic acid(Surr)

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 440-452839/4**
**Matrix: Water**
**Analysis Batch: 452839**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 20 | 10 | ug/L | | | 01/20/18 10:17 | 1 |
| Benzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Bromobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Bromoform | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 10:17 | 1 |
| Bromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 10:17 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Chloroethane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 10:17 | 1 |
| Chloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 2-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 4-Chlorotoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Dibromomethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Dichlorodifluoromethane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,3-Dichloropropane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 2,2-Dichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,1-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Hexachlorobutadiene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 2-Hexanone | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 10:17 | 1 |
| Isopropylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Methylene Chloride | ND | | 2.0 | 0.88 | ug/L | | | 01/20/18 10:17 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 | ug/L | | | 01/20/18 10:17 | 1 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| m,p-Xylene | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 10:17 | 1 |
| Naphthalene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 10:17 | 1 |
| n-Butylbenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 10:17 | 1 |
| N-Propylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| o-Xylene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| p-Isopropyltoluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| sec-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Styrene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 440-452839/4**
**Matrix: Water**
**Analysis Batch: 452839**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 | ug/L | | | 01/20/18 10:17 | 1 |
| tert-Butylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Toluene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Trichloroethene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Trichlorofluoromethane | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.25 | ug/L | | | 01/20/18 10:17 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.50 | ug/L | | | 01/20/18 10:17 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *89* | | *80 - 120* | | *01/20/18 10:17* | *1* |
| *Dibromofluoromethane (Surr)* | *108* | | *76 - 132* | | *01/20/18 10:17* | *1* |
| *Toluene-d8 (Surr)* | *99* | | *80 - 128* | | *01/20/18 10:17* | *1* |

**Lab Sample ID: LCS 440-452839/5**
**Matrix: Water**
**Analysis Batch: 452839**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acetone | 25.0 | 21.6 | | ug/L | | 86 | 10 - 150 |
| Benzene | 25.0 | 23.8 | | ug/L | | 95 | 68 - 130 |
| Bromobenzene | 25.0 | 26.2 | | ug/L | | 105 | 70 - 130 |
| Bromochloromethane | 25.0 | 29.3 | | ug/L | | 117 | 70 - 130 |
| Bromodichloromethane | 25.0 | 25.8 | | ug/L | | 103 | 70 - 132 |
| Bromoform | 25.0 | 29.8 | | ug/L | | 119 | 60 - 148 |
| Bromomethane | 25.0 | 27.8 | | ug/L | | 111 | 64 - 139 |
| 2-Butanone (MEK) | 25.0 | 24.2 | | ug/L | | 97 | 44 - 150 |
| Carbon tetrachloride | 25.0 | 28.8 | | ug/L | | 115 | 60 - 150 |
| Chlorobenzene | 25.0 | 25.1 | | ug/L | | 101 | 70 - 130 |
| Chloroethane | 25.0 | 21.1 | | ug/L | | 85 | 64 - 135 |
| Chloromethane | 25.0 | 20.2 | | ug/L | | 81 | 47 - 140 |
| 2-Chlorotoluene | 25.0 | 23.6 | | ug/L | | 95 | 70 - 130 |
| 4-Chlorotoluene | 25.0 | 24.3 | | ug/L | | 97 | 70 - 130 |
| cis-1,2-Dichloroethene | 25.0 | 26.1 | | ug/L | | 104 | 70 - 133 |
| cis-1,3-Dichloropropene | 25.0 | 23.3 | | ug/L | | 93 | 70 - 133 |
| Dibromochloromethane | 25.0 | 26.4 | | ug/L | | 105 | 69 - 145 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 440-452839/5**
**Matrix: Water**
**Analysis Batch: 452839**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,2-Dibromo-3-Chloropropane | 25.0 | 24.1 | | ug/L | | 96 | 52 - 140 |
| 1,2-Dibromoethane (EDB) | 25.0 | 24.9 | | ug/L | | 100 | 70 - 130 |
| Dibromomethane | 25.0 | 24.5 | | ug/L | | 98 | 70 - 130 |
| 1,2-Dichlorobenzene | 25.0 | 26.7 | | ug/L | | 107 | 70 - 130 |
| 1,3-Dichlorobenzene | 25.0 | 26.0 | | ug/L | | 104 | 70 - 130 |
| 1,4-Dichlorobenzene | 25.0 | 25.5 | | ug/L | | 102 | 70 - 130 |
| Dichlorodifluoromethane | 25.0 | 29.7 | | ug/L | | 119 | 29 - 150 |
| 1,1-Dichloroethane | 25.0 | 22.8 | | ug/L | | 91 | 64 - 130 |
| 1,2-Dichloroethane | 25.0 | 25.1 | | ug/L | | 100 | 57 - 138 |
| 1,1-Dichloroethene | 25.0 | 25.9 | | ug/L | | 104 | 70 - 130 |
| 1,2-Dichloropropane | 25.0 | 21.9 | | ug/L | | 88 | 67 - 130 |
| 1,3-Dichloropropane | 25.0 | 21.8 | | ug/L | | 87 | 70 - 130 |
| 2,2-Dichloropropane | 25.0 | 27.3 | | ug/L | | 109 | 68 - 141 |
| 1,1-Dichloropropene | 25.0 | 26.9 | | ug/L | | 108 | 70 - 130 |
| Ethylbenzene | 25.0 | 25.6 | | ug/L | | 102 | 70 - 130 |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 24.5 | | ug/L | | 98 | 60 - 136 |
| Hexachlorobutadiene | 25.0 | 31.2 | | ug/L | | 125 | 10 - 150 |
| 2-Hexanone | 25.0 | 21.8 | | ug/L | | 87 | 10 - 150 |
| Isopropylbenzene | 25.0 | 29.0 | | ug/L | | 116 | 70 - 136 |
| Isopropyl Ether (DIPE) | 25.0 | 20.0 | | ug/L | | 80 | 58 - 139 |
| Methylene Chloride | 25.0 | 20.0 | | ug/L | | 80 | 52 - 130 |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 20.8 | | ug/L | | 83 | 59 - 149 |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 26.0 | | ug/L | | 104 | 63 - 131 |
| m,p-Xylene | 25.0 | 27.2 | | ug/L | | 109 | 70 - 130 |
| Naphthalene | 25.0 | 28.0 | | ug/L | | 112 | 60 - 140 |
| n-Butylbenzene | 25.0 | 26.0 | | ug/L | | 104 | 65 - 150 |
| N-Propylbenzene | 25.0 | 25.0 | | ug/L | | 100 | 67 - 139 |
| o-Xylene | 25.0 | 27.7 | | ug/L | | 111 | 70 - 130 |
| p-Isopropyltoluene | 25.0 | 27.1 | | ug/L | | 108 | 70 - 132 |
| sec-Butylbenzene | 25.0 | 26.1 | | ug/L | | 104 | 70 - 138 |
| Styrene | 25.0 | 26.2 | | ug/L | | 105 | 70 - 134 |
| Tert-amyl-methyl ether (TAME) | 25.0 | 24.9 | | ug/L | | 100 | 57 - 139 |
| tert-Butyl alcohol (TBA) | 250 | 255 | | ug/L | | 102 | 70 - 130 |
| tert-Butylbenzene | 25.0 | 27.4 | | ug/L | | 110 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | 25.0 | 27.4 | | ug/L | | 110 | 60 - 141 |
| 1,1,2,2-Tetrachloroethane | 25.0 | 20.6 | | ug/L | | 83 | 63 - 130 |
| Tetrachloroethene | 25.0 | 30.0 | | ug/L | | 120 | 70 - 130 |
| Toluene | 25.0 | 25.2 | | ug/L | | 101 | 70 - 130 |
| trans-1,2-Dichloroethene | 25.0 | 27.3 | | ug/L | | 109 | 70 - 130 |
| trans-1,3-Dichloropropene | 25.0 | 23.8 | | ug/L | | 95 | 70 - 132 |
| 1,2,3-Trichlorobenzene | 25.0 | 30.0 | | ug/L | | 120 | 60 - 140 |
| 1,2,4-Trichlorobenzene | 25.0 | 29.6 | | ug/L | | 118 | 60 - 140 |
| 1,1,1-Trichloroethane | 25.0 | 27.8 | | ug/L | | 111 | 70 - 130 |
| 1,1,2-Trichloroethane | 25.0 | 22.6 | | ug/L | | 90 | 70 - 130 |
| Trichloroethene | 25.0 | 29.5 | | ug/L | | 118 | 70 - 130 |
| Trichlorofluoromethane | 25.0 | 29.4 | | ug/L | | 117 | 60 - 150 |
| 1,2,3-Trichloropropane | 25.0 | 24.1 | | ug/L | | 96 | 63 - 130 |
| 1,2,4-Trimethylbenzene | 25.0 | 24.6 | | ug/L | | 99 | 70 - 135 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 440-452839/5**
**Matrix: Water**
**Analysis Batch: 452839**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trimethylbenzene | | | 25.0 | 26.6 | | ug/L | | 107 | 70 - 136 | | |
| Vinyl chloride | | | 25.0 | 24.1 | | ug/L | | 96 | 59 - 133 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *89* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *105* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *96* | | *80 - 128* |

**Lab Sample ID: 440-201437-3 MS**
**Matrix: Water**
**Analysis Batch: 452839**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 25.0 | 24.1 | | ug/L | | 96 | 10 - 150 | | |
| Benzene | ND | | 25.0 | 24.4 | | ug/L | | 98 | 66 - 130 | | |
| Bromobenzene | ND | | 25.0 | 26.8 | | ug/L | | 107 | 70 - 130 | | |
| Bromochloromethane | ND | | 25.0 | 30.9 | | ug/L | | 123 | 70 - 130 | | |
| Bromodichloromethane | 0.67 | | 25.0 | 27.9 | | ug/L | | 109 | 70 - 138 | | |
| Bromoform | 0.66 | J | 25.0 | 31.7 | | ug/L | | 124 | 59 - 150 | | |
| Bromomethane | ND | | 25.0 | 28.1 | | ug/L | | 113 | 62 - 131 | | |
| 2-Butanone (MEK) | ND | | 25.0 | 23.3 | | ug/L | | 93 | 48 - 140 | | |
| Carbon tetrachloride | 0.92 | | 25.0 | 31.1 | | ug/L | | 121 | 60 - 150 | | |
| Chlorobenzene | ND | | 25.0 | 25.9 | | ug/L | | 104 | 70 - 130 | | |
| Chloroethane | ND | | 25.0 | 21.9 | | ug/L | | 88 | 68 - 130 | | |
| Chloroform | 660 | E | 25.0 | 645 | E 4 | ug/L | | -49 | 70 - 130 | | |
| Chloromethane | ND | | 25.0 | 20.5 | | ug/L | | 82 | 39 - 144 | | |
| 2-Chlorotoluene | ND | | 25.0 | 24.1 | | ug/L | | 96 | 70 - 130 | | |
| 4-Chlorotoluene | ND | | 25.0 | 25.2 | | ug/L | | 101 | 70 - 130 | | |
| cis-1,2-Dichloroethene | ND | | 25.0 | 26.8 | | ug/L | | 107 | 70 - 130 | | |
| cis-1,3-Dichloropropene | ND | | 25.0 | 23.8 | | ug/L | | 95 | 70 - 133 | | |
| Dibromochloromethane | 0.26 | J | 25.0 | 27.9 | | ug/L | | 111 | 70 - 148 | | |
| 1,2-Dibromo-3-Chloropropane | ND | | 25.0 | 22.8 | | ug/L | | 91 | 48 - 140 | | |
| 1,2-Dibromoethane (EDB) | ND | | 25.0 | 25.4 | | ug/L | | 101 | 70 - 131 | | |
| Dibromomethane | ND | | 25.0 | 25.4 | | ug/L | | 102 | 70 - 130 | | |
| 1,2-Dichlorobenzene | 5.4 | | 25.0 | 33.0 | | ug/L | | 111 | 70 - 130 | | |
| 1,3-Dichlorobenzene | 0.28 | J | 25.0 | 27.2 | | ug/L | | 108 | 70 - 130 | | |
| 1,4-Dichlorobenzene | 1.3 | | 25.0 | 28.1 | | ug/L | | 107 | 70 - 130 | | |
| Dichlorodifluoromethane | ND | | 25.0 | 28.4 | | ug/L | | 114 | 25 - 142 | | |
| 1,1-Dichloroethane | ND | | 25.0 | 23.3 | | ug/L | | 93 | 65 - 130 | | |
| 1,2-Dichloroethane | ND | | 25.0 | 26.5 | | ug/L | | 106 | 56 - 146 | | |
| 1,1-Dichloroethene | ND | | 25.0 | 26.9 | | ug/L | | 108 | 70 - 130 | | |
| 1,2-Dichloropropane | ND | | 25.0 | 22.5 | | ug/L | | 90 | 69 - 130 | | |
| 1,3-Dichloropropane | ND | | 25.0 | 22.3 | | ug/L | | 89 | 70 - 130 | | |
| 2,2-Dichloropropane | ND | | 25.0 | 28.8 | | ug/L | | 115 | 69 - 138 | | |
| 1,1-Dichloropropene | ND | | 25.0 | 27.1 | | ug/L | | 109 | 64 - 130 | | |
| Ethylbenzene | ND | | 25.0 | 26.1 | | ug/L | | 104 | 70 - 130 | | |
| Ethyl-t-butyl ether (ETBE) | ND | | 25.0 | 26.1 | | ug/L | | 104 | 70 - 130 | | |
| Hexachlorobutadiene | ND | | 25.0 | 31.2 | | ug/L | | 125 | 10 - 150 | | |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-201437-3 MS**
**Matrix: Water**
**Analysis Batch: 452839**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2-Hexanone | ND | | 25.0 | 20.7 | | ug/L | | 83 | 10 - 150 |
| Isopropylbenzene | ND | | 25.0 | 29.7 | | ug/L | | 119 | 70 - 132 |
| Isopropyl Ether (DIPE) | ND | | 25.0 | 21.1 | | ug/L | | 84 | 64 - 138 |
| Methylene Chloride | ND | | 25.0 | 23.1 | | ug/L | | 92 | 52 - 130 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 25.0 | 20.3 | | ug/L | | 81 | 52 - 150 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 25.0 | 27.1 | | ug/L | | 108 | 70 - 130 |
| m,p-Xylene | ND | | 25.0 | 27.9 | | ug/L | | 112 | 70 - 133 |
| Naphthalene | ND | | 25.0 | 27.4 | | ug/L | | 109 | 60 - 140 |
| n-Butylbenzene | ND | | 25.0 | 26.6 | | ug/L | | 107 | 61 - 149 |
| N-Propylbenzene | ND | | 25.0 | 25.6 | | ug/L | | 102 | 66 - 135 |
| o-Xylene | ND | | 25.0 | 28.5 | | ug/L | | 114 | 70 - 133 |
| p-Isopropyltoluene | ND | | 25.0 | 28.1 | | ug/L | | 112 | 70 - 130 |
| sec-Butylbenzene | ND | | 25.0 | 26.6 | | ug/L | | 106 | 67 - 134 |
| Styrene | ND | | 25.0 | 18.1 | | ug/L | | 72 | 29 - 150 |
| Tert-amyl-methyl ether (TAME) | ND | | 25.0 | 25.7 | | ug/L | | 103 | 68 - 133 |
| tert-Butyl alcohol (TBA) | ND | | 250 | 284 | | ug/L | | 113 | 70 - 130 |
| tert-Butylbenzene | ND | | 25.0 | 28.1 | | ug/L | | 112 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | ND | | 25.0 | 28.6 | | ug/L | | 115 | 60 - 149 |
| 1,1,2,2-Tetrachloroethane | ND | | 25.0 | 20.4 | | ug/L | | 81 | 63 - 130 |
| Tetrachloroethene | 0.95 | | 25.0 | 30.8 | | ug/L | | 119 | 70 - 137 |
| Toluene | ND | | 25.0 | 25.9 | | ug/L | | 103 | 70 - 130 |
| trans-1,2-Dichloroethene | ND | | 25.0 | 27.9 | | ug/L | | 112 | 70 - 130 |
| trans-1,3-Dichloropropene | ND | | 25.0 | 24.7 | | ug/L | | 99 | 70 - 138 |
| 1,2,3-Trichlorobenzene | ND | | 25.0 | 29.6 | | ug/L | | 118 | 60 - 140 |
| 1,2,4-Trichlorobenzene | ND | | 25.0 | 29.6 | | ug/L | | 118 | 60 - 140 |
| 1,1,1-Trichloroethane | ND | | 25.0 | 28.9 | | ug/L | | 116 | 70 - 130 |
| 1,1,2-Trichloroethane | ND | | 25.0 | 23.0 | | ug/L | | 92 | 70 - 130 |
| Trichloroethene | 1.5 | | 25.0 | 32.0 | | ug/L | | 122 | 70 - 130 |
| Trichlorofluoromethane | ND | | 25.0 | 30.3 | | ug/L | | 121 | 60 - 150 |
| 1,2,3-Trichloropropane | ND | | 25.0 | 24.1 | | ug/L | | 96 | 60 - 130 |
| 1,2,4-Trimethylbenzene | ND | | 25.0 | 25.3 | | ug/L | | 101 | 70 - 130 |
| 1,3,5-Trimethylbenzene | ND | | 25.0 | 27.1 | | ug/L | | 108 | 70 - 130 |
| Vinyl chloride | ND | | 25.0 | 23.6 | | ug/L | | 94 | 50 - 137 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *87* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *107* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *96* | | *80 - 128* |

**Lab Sample ID: 440-201437-3 MSD**
**Matrix: Water**
**Analysis Batch: 452839**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | | 25.0 | 24.7 | | ug/L | | 99 | 10 - 150 | 3 | 35 |
| Benzene | ND | | 25.0 | 23.6 | | ug/L | | 95 | 66 - 130 | 3 | 20 |
| Bromobenzene | ND | | 25.0 | 26.4 | | ug/L | | 106 | 70 - 130 | 1 | 20 |
| Bromochloromethane | ND | | 25.0 | 30.2 | | ug/L | | 121 | 70 - 130 | 2 | 25 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-201437-3 MSD**
**Matrix: Water**
**Analysis Batch: 452839**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | 0.67 | | 25.0 | 27.4 | | ug/L | | 107 | 70 - 138 | 2 | 20 |
| Bromoform | 0.66 | J | 25.0 | 31.4 | | ug/L | | 123 | 59 - 150 | 1 | 25 |
| Bromomethane | ND | | 25.0 | 28.2 | | ug/L | | 113 | 62 - 131 | 0 | 25 |
| 2-Butanone (MEK) | ND | | 25.0 | 24.0 | | ug/L | | 96 | 48 - 140 | 3 | 40 |
| Carbon tetrachloride | 0.92 | | 25.0 | 29.8 | | ug/L | | 116 | 60 - 150 | 4 | 25 |
| Chlorobenzene | ND | | 25.0 | 25.4 | | ug/L | | 102 | 70 - 130 | 2 | 20 |
| Chloroethane | ND | | 25.0 | 21.4 | | ug/L | | 85 | 68 - 130 | 3 | 25 |
| Chloroform | 660 | E | 25.0 | 614 | E 4 | ug/L | | -173 | 70 - 130 | 5 | 20 |
| Chloromethane | ND | | 25.0 | 20.2 | | ug/L | | 81 | 39 - 144 | 1 | 25 |
| 2-Chlorotoluene | ND | | 25.0 | 23.0 | | ug/L | | 92 | 70 - 130 | 5 | 20 |
| 4-Chlorotoluene | ND | | 25.0 | 23.6 | | ug/L | | 95 | 70 - 130 | 6 | 20 |
| cis-1,2-Dichloroethene | ND | | 25.0 | 25.9 | | ug/L | | 103 | 70 - 130 | 4 | 20 |
| cis-1,3-Dichloropropene | ND | | 25.0 | 23.4 | | ug/L | | 94 | 70 - 133 | 2 | 20 |
| Dibromochloromethane | 0.26 | J | 25.0 | 27.8 | | ug/L | | 110 | 70 - 148 | 0 | 25 |
| 1,2-Dibromo-3-Chloropropane | ND | | 25.0 | 23.2 | | ug/L | | 93 | 48 - 140 | 2 | 30 |
| 1,2-Dibromoethane (EDB) | ND | | 25.0 | 25.7 | | ug/L | | 103 | 70 - 131 | 1 | 25 |
| Dibromomethane | ND | | 25.0 | 25.6 | | ug/L | | 102 | 70 - 130 | 1 | 25 |
| 1,2-Dichlorobenzene | 5.4 | | 25.0 | 32.2 | | ug/L | | 107 | 70 - 130 | 3 | 20 |
| 1,3-Dichlorobenzene | 0.28 | J | 25.0 | 26.3 | | ug/L | | 104 | 70 - 130 | 3 | 20 |
| 1,4-Dichlorobenzene | 1.3 | | 25.0 | 27.0 | | ug/L | | 103 | 70 - 130 | 4 | 20 |
| Dichlorodifluoromethane | ND | | 25.0 | 28.3 | | ug/L | | 113 | 25 - 142 | 0 | 30 |
| 1,1-Dichloroethane | ND | | 25.0 | 23.0 | | ug/L | | 92 | 65 - 130 | 1 | 20 |
| 1,2-Dichloroethane | ND | | 25.0 | 26.1 | | ug/L | | 104 | 56 - 146 | 2 | 20 |
| 1,1-Dichloroethene | ND | | 25.0 | 26.1 | | ug/L | | 105 | 70 - 130 | 3 | 20 |
| 1,2-Dichloropropane | ND | | 25.0 | 22.3 | | ug/L | | 89 | 69 - 130 | 1 | 20 |
| 1,3-Dichloropropane | ND | | 25.0 | 22.0 | | ug/L | | 88 | 70 - 130 | 1 | 25 |
| 2,2-Dichloropropane | ND | | 25.0 | 27.3 | | ug/L | | 109 | 69 - 138 | 5 | 25 |
| 1,1-Dichloropropene | ND | | 25.0 | 26.1 | | ug/L | | 104 | 64 - 130 | 4 | 20 |
| Ethylbenzene | ND | | 25.0 | 25.3 | | ug/L | | 101 | 70 - 130 | 3 | 20 |
| Ethyl-t-butyl ether (ETBE) | ND | | 25.0 | 26.0 | | ug/L | | 104 | 70 - 130 | 0 | 25 |
| Hexachlorobutadiene | ND | | 25.0 | 30.0 | | ug/L | | 120 | 10 - 150 | 4 | 20 |
| 2-Hexanone | ND | | 25.0 | 20.9 | | ug/L | | 84 | 10 - 150 | 1 | 35 |
| Isopropylbenzene | ND | | 25.0 | 28.6 | | ug/L | | 115 | 70 - 132 | 4 | 20 |
| Isopropyl Ether (DIPE) | ND | | 25.0 | 20.9 | | ug/L | | 84 | 64 - 138 | 1 | 25 |
| Methylene Chloride | ND | | 25.0 | 22.5 | | ug/L | | 90 | 52 - 130 | 3 | 20 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 25.0 | 20.2 | | ug/L | | 81 | 52 - 150 | 0 | 35 |
| Methyl-t-Butyl Ether (MTBE) | ND | | 25.0 | 27.4 | | ug/L | | 110 | 70 - 130 | 1 | 25 |
| m,p-Xylene | ND | | 25.0 | 27.5 | | ug/L | | 110 | 70 - 133 | 2 | 25 |
| Naphthalene | ND | | 25.0 | 27.6 | | ug/L | | 110 | 60 - 140 | 1 | 30 |
| n-Butylbenzene | ND | | 25.0 | 25.4 | | ug/L | | 101 | 61 - 149 | 5 | 20 |
| N-Propylbenzene | ND | | 25.0 | 24.4 | | ug/L | | 98 | 66 - 135 | 5 | 20 |
| o-Xylene | ND | | 25.0 | 27.8 | | ug/L | | 111 | 70 - 133 | 3 | 20 |
| p-Isopropyltoluene | ND | | 25.0 | 26.9 | | ug/L | | 108 | 70 - 130 | 4 | 20 |
| sec-Butylbenzene | ND | | 25.0 | 25.5 | | ug/L | | 102 | 67 - 134 | 4 | 20 |
| Styrene | ND | | 25.0 | 16.3 | | ug/L | | 65 | 29 - 150 | 11 | 35 |
| Tert-amyl-methyl ether (TAME) | ND | | 25.0 | 25.9 | | ug/L | | 104 | 68 - 133 | 1 | 30 |
| tert-Butyl alcohol (TBA) | ND | | 250 | 265 | | ug/L | | 106 | 70 - 130 | 7 | 25 |
| tert-Butylbenzene | ND | | 25.0 | 26.9 | | ug/L | | 108 | 70 - 130 | 4 | 20 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-201437-3 MSD**
**Matrix: Water**
**Analysis Batch: 452839**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 25.0 | 28.0 | | ug/L | | 112 | 60 - 149 | 2 | 20 |
| 1,1,2,2-Tetrachloroethane | ND | | 25.0 | 20.3 | | ug/L | | 81 | 63 - 130 | 0 | 30 |
| Tetrachloroethene | 0.95 | | 25.0 | 29.9 | | ug/L | | 116 | 70 - 137 | 3 | 20 |
| Toluene | ND | | 25.0 | 25.2 | | ug/L | | 101 | 70 - 130 | 3 | 20 |
| trans-1,2-Dichloroethene | ND | | 25.0 | 26.8 | | ug/L | | 107 | 70 - 130 | 4 | 20 |
| trans-1,3-Dichloropropene | ND | | 25.0 | 24.6 | | ug/L | | 98 | 70 - 138 | 0 | 25 |
| 1,2,3-Trichlorobenzene | ND | | 25.0 | 29.7 | | ug/L | | 119 | 60 - 140 | 0 | 20 |
| 1,2,4-Trichlorobenzene | ND | | 25.0 | 29.4 | | ug/L | | 118 | 60 - 140 | 1 | 20 |
| 1,1,1-Trichloroethane | ND | | 25.0 | 28.0 | | ug/L | | 112 | 70 - 130 | 3 | 20 |
| 1,1,2-Trichloroethane | ND | | 25.0 | 23.1 | | ug/L | | 93 | 70 - 130 | 0 | 25 |
| Trichloroethene | 1.5 | | 25.0 | 30.8 | | ug/L | | 117 | 70 - 130 | 4 | 20 |
| Trichlorofluoromethane | ND | | 25.0 | 29.7 | | ug/L | | 119 | 60 - 150 | 2 | 25 |
| 1,2,3-Trichloropropane | ND | | 25.0 | 24.1 | | ug/L | | 96 | 60 - 130 | 0 | 30 |
| 1,2,4-Trimethylbenzene | ND | | 25.0 | 24.5 | | ug/L | | 98 | 70 - 130 | 3 | 25 |
| 1,3,5-Trimethylbenzene | ND | | 25.0 | 25.7 | | ug/L | | 103 | 70 - 130 | 5 | 20 |
| Vinyl chloride | ND | | 25.0 | 23.3 | | ug/L | | 93 | 50 - 137 | 1 | 30 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *88* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *107* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *96* | | *80 - 128* |

**Lab Sample ID: MB 440-452937/4**
**Matrix: Water**
**Analysis Batch: 452937**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloroform | ND | | 0.50 | 0.25 | ug/L | | | 01/22/18 08:42 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *80 - 120* | | *01/22/18 08:42* | *1* |
| *Dibromofluoromethane (Surr)* | *97* | | *76 - 132* | | *01/22/18 08:42* | *1* |
| *Toluene-d8 (Surr)* | *109* | | *80 - 128* | | *01/22/18 08:42* | *1* |

**Lab Sample ID: LCS 440-452937/5**
**Matrix: Water**
**Analysis Batch: 452937**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloroform | | | 25.0 | 23.3 | | ug/L | | 93 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *101* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *98* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *104* | | *80 - 128* |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-201313-A-1 MS**
**Matrix: Water**
**Analysis Batch: 452937**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloroform | 630 | | 250 | 809 | | ug/L | | 73 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *100* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *100* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *103* | | *80 - 128* |

**Lab Sample ID: 440-201313-A-1 MSD**
**Matrix: Water**
**Analysis Batch: 452937**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloroform | 630 | | 250 | 819 | | ug/L | | 76 | 70 - 130 | 1 | 20 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *102* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *100* | | *76 - 132* |
| *Toluene-d8 (Surr)* | *102* | | *80 - 128* |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 440-452402/6**
**Matrix: Water**
**Analysis Batch: 452402**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | ND | | 0.11 | 0.055 | mg/L | | | 01/18/18 12:09 | 1 |

**Lab Sample ID: LCS 440-452402/5**
**Matrix: Water**
**Analysis Batch: 452402**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Nitrate as N | 1.13 | 1.04 | | mg/L | | 92 | 90 - 110 |

**Lab Sample ID: 440-201437-3 MS**
**Matrix: Water**
**Analysis Batch: 452402**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | ND | | 565 | 553 | | mg/L | | 98 | 80 - 120 |

**Lab Sample ID: 440-201437-3 MSD**
**Matrix: Water**
**Analysis Batch: 452402**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate as N | ND | | 565 | 543 | | mg/L | | 96 | 80 - 120 | 2 | 20 |

**Lab Sample ID: MB 440-452403/6**
**Matrix: Water**
**Analysis Batch: 452403**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Sulfate | ND | | 0.50 | 0.25 | mg/L | | | 01/18/18 12:09 | 1 |

**Lab Sample ID: LCS 440-452403/5**
**Matrix: Water**
**Analysis Batch: 452403**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfate | | | 5.00 | 4.87 | | mg/L | | 97 | 90 - 110 | | |

**Lab Sample ID: 440-201437-3 MS**
**Matrix: Water**
**Analysis Batch: 452403**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfate | 910 | | 2500 | 3440 | | mg/L | | 101 | 80 - 120 | | |

**Lab Sample ID: 440-201437-3 MSD**
**Matrix: Water**
**Analysis Batch: 452403**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfate | 910 | | 2500 | 3420 | | mg/L | | 100 | 80 - 120 | 1 | 20 |

## Method: 300.1B - Disinfection By-Products, (IC)

**Lab Sample ID: MB 440-452818/5**
**Matrix: Water**
**Analysis Batch: 452818**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorate | ND | | 20 | 10 | ug/L | | | 01/20/18 11:43 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* | | *01/20/18 11:43* | *1* |

**Lab Sample ID: LCS 440-452818/4**
**Matrix: Water**
**Analysis Batch: 452818**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 100 | 104 | | ug/L | | 104 | 75 - 125 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

**Lab Sample ID: MRL 440-452818/3**
**Matrix: Water**
**Analysis Batch: 452818**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | | | 20.0 | 20.0 | | ug/L | | 100 | 50 - 150 | | |

| *Surrogate* | *MRL %Recovery* | *MRL Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

**Lab Sample ID: 440-201437-3 MS**
**Matrix: Water**
**Analysis Batch: 452818**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 3100000 | | 200 | 3100000 | 4 | ug/L | | -14378 | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

**Lab Sample ID: 440-201437-3 MSD**
**Matrix: Water**
**Analysis Batch: 452818**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorate | 3100000 | | 200 | 3130000 | 4 | ug/L | | 606 | 75 - 125 | 1 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *102* | | *90 - 115* |

**Lab Sample ID: MB 440-452819/5**
**Matrix: Water**
**Analysis Batch: 452819**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 20 | 10 | ug/L | | | 01/20/18 11:43 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* | | *01/20/18 11:43* | *1* |

**Lab Sample ID: LCS 440-452819/4**
**Matrix: Water**
**Analysis Batch: 452819**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | | 100 | 105 | | ug/L | | 105 | 85 - 115 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

## Method: 300.1B - Disinfection By-Products, (IC) (Continued)

**Lab Sample ID: MRL 440-452819/3**
**Matrix: Water**
**Analysis Batch: 452819**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | | | 20.0 | 19.8 | J | ug/L | | 99 | 10 - 200 | | |

| *Surrogate* | *MRL %Recovery* | *MRL Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

**Lab Sample ID: 440-201437-3 MS**
**Matrix: Water**
**Analysis Batch: 452819**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 200 | ND | | ug/L | | NC | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

**Lab Sample ID: 440-201437-3 MSD**
**Matrix: Water**
**Analysis Batch: 452819**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 200 | ND | | ug/L | | NC | 75 - 125 | NC | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *100* | | *90 - 115* |

**Lab Sample ID: 440-201503-A-2 MS**
**Matrix: Water**
**Analysis Batch: 452819**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 200 | 193 | | ug/L | | 96 | 75 - 125 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *101* | | *90 - 115* |

**Lab Sample ID: 440-201503-A-2 MSD**
**Matrix: Water**
**Analysis Batch: 452819**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chlorite | ND | | 200 | 192 | | ug/L | | 96 | 75 - 125 | 0 | 25 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Dichloroacetic acid(Surr)* | *102* | | *90 - 115* |

## Method: 314.0 LL - Perchlorate (IC)

**Lab Sample ID: MB 440-453896/6**
**Matrix: Water**
**Analysis Batch: 453896**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 1.0 | 0.50 | ug/L | | | 01/26/18 11:04 | 1 |

**Lab Sample ID: LCS 440-453896/5**
**Matrix: Water**
**Analysis Batch: 453896**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 10.8 | | ug/L | | 108 | 85 - 115 |

**Lab Sample ID: MRL 440-453896/4**
**Matrix: Water**
**Analysis Batch: 453896**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 1.00 | 0.939 | J | ug/L | | 94 | 75 - 125 |

**Lab Sample ID: 440-201782-B-2 MS**
**Matrix: Water**
**Analysis Batch: 453896**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 10.0 | 11.4 | | ug/L | | 114 | 80 - 120 |

**Lab Sample ID: 440-201782-B-2 MSD**
**Matrix: Water**
**Analysis Batch: 453896**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 10.0 | 11.4 | | ug/L | | 114 | 80 - 120 | 0 | 20 |

**Lab Sample ID: MB 440-454261/6**
**Matrix: Water**
**Analysis Batch: 454261**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | ND | | 1.0 | 0.50 | ug/L | | | 01/29/18 10:13 | 1 |

**Lab Sample ID: LCS 440-454261/5**
**Matrix: Water**
**Analysis Batch: 454261**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 25.0 | 25.7 | | ug/L | | 103 | 85 - 115 |

**Lab Sample ID: MRL 440-454261/4**
**Matrix: Water**
**Analysis Batch: 454261**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 1.00 | 1.05 | | ug/L | | 105 | 75 - 125 |

**Lab Sample ID: 440-201437-3 MS** **Client Sample ID: VER-01I-C-77.5**
**Matrix: Water** **Prep Type: Total/NA**
**Analysis Batch: 454261**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 1200000 | | 500 | 1200000 | 4 | ug/L | | 3178 | 80 - 120 |

**Lab Sample ID: 440-201437-3 MSD** **Client Sample ID: VER-01I-C-77.5**
**Matrix: Water** **Prep Type: Total/NA**
**Analysis Batch: 454261**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 1200000 | | 500 | 1180000 | 4 | ug/L | | -1144 | 80 - 120 | 2 | 20 |

**Lab Sample ID: INF 440-453896/7** **Client Sample ID: Lab Control Sample**
**Matrix: Water**
**Analysis Batch: 453896**

| Analyte | Spike Added | INF Result | INF Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 8.89 | | ug/L | | 89 | 80 - 120 |

**Lab Sample ID: INF 440-454261/7** **Client Sample ID: Lab Control Sample**
**Matrix: Water**
**Analysis Batch: 454261**

| Analyte | Spike Added | INF Result | INF Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Perchlorate | 24.0 | 23.7 | | ug/L | | 99 | 80 - 120 |

## Method: 7199 - Chromium, Hexavalent (IC)

**Lab Sample ID: MB 440-452351/6** **Client Sample ID: Method Blank**
**Matrix: Water** **Prep Type: Total/NA**
**Analysis Batch: 452351**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | ND | | 2.0 | 0.25 | ug/L | | | 01/18/18 06:40 | 1 |

**Lab Sample ID: LCS 440-452351/5** **Client Sample ID: Lab Control Sample**
**Matrix: Water** **Prep Type: Total/NA**
**Analysis Batch: 452351**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 50.0 | 50.7 | | ug/L | | 101 | 90 - 110 |

**Lab Sample ID: MRL 440-452351/4** **Client Sample ID: Lab Control Sample**
**Matrix: Water** **Prep Type: Total/NA**
**Analysis Batch: 452351**

| Analyte | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 1.00 | 1.04 | J | ug/L | | 104 | 50 - 150 |

## Method: 7199 - Chromium, Hexavalent (IC) (Continued)

**Lab Sample ID: 440-201437-3 MS**
**Matrix: Water**
**Analysis Batch: 452351**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 12000 | | 1500 | 13000 | 4 | ug/L | | 56 | 85 - 115 |

**Lab Sample ID: 440-201437-3 MSD**
**Matrix: Water**
**Analysis Batch: 452351**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium, hexavalent | 12000 | | 1500 | 12600 | 4 | ug/L | | 27 | 85 - 115 | 3 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: MB 440-453176/1-A**
**Matrix: Water**
**Analysis Batch: 453565**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 453176**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | ND | | 0.10 | 0.050 | mg/L | | 01/23/18 08:04 | 01/24/18 19:21 | 1 |
| Magnesium | ND | | 0.020 | 0.010 | mg/L | | 01/23/18 08:04 | 01/24/18 19:21 | 1 |

**Lab Sample ID: LCS 440-453176/2-A**
**Matrix: Water**
**Analysis Batch: 453565**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 453176**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Calcium | 2.50 | 2.40 | | mg/L | | 96 | 85 - 115 |
| Magnesium | 2.50 | 2.39 | | mg/L | | 96 | 85 - 115 |

**Lab Sample ID: 440-201437-3 MS**
**Matrix: Water**
**Analysis Batch: 453733**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total Recoverable**
**Prep Batch: 453176**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 610 | | 2.50 | 688 | 4 | mg/L | | 3204 | 70 - 130 |
| Magnesium | 300 | | 2.50 | 333 | 4 | mg/L | | 1306 | 70 - 130 |

**Lab Sample ID: 440-201437-3 MSD**
**Matrix: Water**
**Analysis Batch: 453733**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total Recoverable**
**Prep Batch: 453176**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Calcium | 610 | | 2.50 | 659 | 4 | mg/L | | 2017 | 70 - 130 | 4 | 20 |
| Magnesium | 300 | | 2.50 | 307 | 4 | mg/L | | 240 | 70 - 130 | 8 | 20 |

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 440-453315/1-A**
**Matrix: Water**
**Analysis Batch: 453514**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 453315**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 0.0890 | | 0.0050 | 0.0025 | mg/L | | 01/23/18 17:06 | 01/24/18 13:29 | 1 |
| Manganese | ND | | 0.020 | 0.015 | mg/L | | 01/23/18 17:06 | 01/24/18 13:29 | 1 |

**Lab Sample ID: LCS 440-453315/2-A**
**Matrix: Water**
**Analysis Batch: 453514**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 453315**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium | 1.00 | 1.07 | | mg/L | | 107 | 80 - 120 |
| Manganese | 1.00 | 1.05 | | mg/L | | 105 | 80 - 120 |

**Lab Sample ID: 440-201437-3 MS**
**Matrix: Water**
**Analysis Batch: 453514**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total Recoverable**
**Prep Batch: 453315**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 12 | B | 1.00 | 13.8 | 4 | mg/L | | 152 | 75 - 125 |
| Manganese | ND | | 1.00 | 0.992 | | mg/L | | 99 | 75 - 125 |

**Lab Sample ID: 440-201437-3 MSD**
**Matrix: Water**
**Analysis Batch: 453514**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total Recoverable**
**Prep Batch: 453315**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 12 | B | 1.00 | 13.2 | 4 | mg/L | | 91 | 75 - 125 | 5 | 20 |
| Manganese | ND | | 1.00 | 0.986 | | mg/L | | 99 | 75 - 125 | 1 | 20 |

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 440-453455/1-A**
**Matrix: Water**
**Analysis Batch: 453968**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 453455**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | ND | | 10 | 5.0 | ug/L | | 01/24/18 11:15 | 01/26/18 11:47 | 1 |
| Antimony | ND | | 2.0 | 0.50 | ug/L | | 01/24/18 11:15 | 01/26/18 11:47 | 1 |
| Arsenic | ND | | 1.0 | 0.50 | ug/L | | 01/24/18 11:15 | 01/26/18 11:47 | 1 |
| Barium | ND | | 1.0 | 0.50 | ug/L | | 01/24/18 11:15 | 01/26/18 11:47 | 1 |
| Beryllium | ND | | 0.50 | 0.25 | ug/L | | 01/24/18 11:15 | 01/26/18 11:47 | 1 |
| Cadmium | ND | | 1.0 | 0.25 | ug/L | | 01/24/18 11:15 | 01/26/18 11:47 | 1 |
| Cobalt | ND | | 1.0 | 0.50 | ug/L | | 01/24/18 11:15 | 01/26/18 11:47 | 1 |
| Copper | 0.504 | J | 2.0 | 0.50 | ug/L | | 01/24/18 11:15 | 01/26/18 11:47 | 1 |
| Iron | 15.4 | J | 20 | 8.0 | ug/L | | 01/24/18 11:15 | 01/26/18 11:47 | 1 |
| Lead | ND | | 1.0 | 0.50 | ug/L | | 01/24/18 11:15 | 01/26/18 11:47 | 1 |
| Nickel | ND | | 2.0 | 0.50 | ug/L | | 01/24/18 11:15 | 01/26/18 11:47 | 1 |
| Selenium | ND | | 2.0 | 0.50 | ug/L | | 01/24/18 11:15 | 01/26/18 11:47 | 1 |
| Silver | ND | | 1.0 | 0.50 | ug/L | | 01/24/18 11:15 | 01/26/18 11:47 | 1 |
| Thallium | ND | | 1.0 | 0.50 | ug/L | | 01/24/18 11:15 | 01/26/18 11:47 | 1 |
| Uranium | ND | | 1.0 | 0.50 | ug/L | | 01/24/18 11:15 | 01/26/18 11:47 | 1 |

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 440-453455/1-A**
**Matrix: Water**
**Analysis Batch: 453968**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 453455**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Vanadium | ND | | 2.0 | 1.0 | ug/L | | 01/24/18 11:15 | 01/26/18 11:47 | 1 |
| Zinc | 4.00 | J | 20 | 2.5 | ug/L | | 01/24/18 11:15 | 01/26/18 11:47 | 1 |

**Lab Sample ID: MB 440-453455/1-A**
**Matrix: Water**
**Analysis Batch: 454145**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 453455**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 1.43 | J | 2.0 | 0.50 | ug/L | | 01/24/18 11:15 | 01/27/18 16:51 | 1 |

**Lab Sample ID: LCS 440-453455/2-A**
**Matrix: Water**
**Analysis Batch: 453968**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 453455**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Aluminum | 80.0 | 93.0 | | ug/L | | 116 | 80 - 120 |
| Antimony | 80.0 | 79.8 | | ug/L | | 100 | 80 - 120 |
| Arsenic | 80.0 | 76.4 | | ug/L | | 95 | 80 - 120 |
| Barium | 80.0 | 76.7 | | ug/L | | 96 | 80 - 120 |
| Beryllium | 80.0 | 78.9 | | ug/L | | 99 | 80 - 120 |
| Cadmium | 80.0 | 78.6 | | ug/L | | 98 | 80 - 120 |
| Cobalt | 80.0 | 74.6 | | ug/L | | 93 | 80 - 120 |
| Copper | 80.0 | 73.2 | | ug/L | | 92 | 80 - 120 |
| Iron | 800 | 786 | | ug/L | | 98 | 80 - 120 |
| Lead | 80.0 | 75.6 | | ug/L | | 94 | 80 - 120 |
| Nickel | 80.0 | 73.4 | | ug/L | | 92 | 80 - 120 |
| Selenium | 80.0 | 79.4 | | ug/L | | 99 | 80 - 120 |
| Silver | 80.0 | 73.0 | | ug/L | | 91 | 80 - 120 |
| Thallium | 80.0 | 79.0 | | ug/L | | 99 | 80 - 120 |
| Uranium | 80.0 | 81.0 | | ug/L | | 101 | 80 - 120 |
| Vanadium | 80.0 | 76.5 | | ug/L | | 96 | 80 - 120 |
| Zinc | 80.0 | 83.5 | | ug/L | | 104 | 80 - 120 |

**Lab Sample ID: LCS 440-453455/2-A**
**Matrix: Water**
**Analysis Batch: 454145**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 453455**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium | 80.0 | 72.2 | | ug/L | | 90 | 80 - 120 |

**Lab Sample ID: MB 440-454173/1-A**
**Matrix: Water**
**Analysis Batch: 454373**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 454173**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | ND | | 1.0 | 0.50 | ug/L | | 01/28/18 06:52 | 01/29/18 14:45 | 1 |

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 440-454173/2-A**
**Matrix: Water**
**Analysis Batch: 454373**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 454173**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Manganese | 80.0 | 76.4 | | ug/L | | 95 | 80 - 120 |

**Lab Sample ID: 440-201437-3 MS**
**Matrix: Water**
**Analysis Batch: 453968**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Dissolved**
**Prep Batch: 453455**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 34 | | 80.0 | 126 | | ug/L | | 116 | 75 - 125 |
| Antimony | ND | | 80.0 | 80.4 | | ug/L | | 100 | 75 - 125 |
| Arsenic | 30 | | 80.0 | 105 | | ug/L | | 94 | 75 - 125 |
| Barium | 63 | | 80.0 | 137 | | ug/L | | 93 | 75 - 125 |
| Beryllium | ND | | 80.0 | 69.1 | | ug/L | | 86 | 75 - 125 |
| Cadmium | ND | | 80.0 | 71.7 | | ug/L | | 90 | 75 - 125 |
| Cobalt | ND | | 80.0 | 67.8 | | ug/L | | 85 | 75 - 125 |
| Copper | 7.0 | F1 B | 80.0 | 61.2 | F1 | ug/L | | 68 | 75 - 125 |
| Iron | 24 | J B | 800 | 780 | | ug/L | | 95 | 75 - 125 |
| Lead | ND | | 80.0 | 68.2 | | ug/L | | 85 | 75 - 125 |
| Nickel | ND | | 80.0 | 63.8 | | ug/L | | 80 | 75 - 125 |
| Selenium | 3.4 | J | 80.0 | 84.4 | | ug/L | | 101 | 75 - 125 |
| Silver | ND | | 80.0 | 65.0 | | ug/L | | 81 | 75 - 125 |
| Thallium | ND | | 80.0 | 66.3 | | ug/L | | 83 | 75 - 125 |
| Uranium | 13 | | 80.0 | 85.8 | | ug/L | | 90 | 75 - 125 |
| Vanadium | 13 | | 80.0 | 87.8 | | ug/L | | 94 | 75 - 125 |
| Zinc | 11 | J B | 80.0 | 71.8 | | ug/L | | 76 | 75 - 125 |

**Lab Sample ID: 440-201437-3 MS**
**Matrix: Water**
**Analysis Batch: 454145**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Dissolved**
**Prep Batch: 453455**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 11000 | B | 80.0 | 9830 | 4 | ug/L | | -883 | 75 - 125 |

**Lab Sample ID: 440-201437-3 MSD**
**Matrix: Water**
**Analysis Batch: 453968**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Dissolved**
**Prep Batch: 453455**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | 34 | | 80.0 | 124 | | ug/L | | 113 | 75 - 125 | 2 | 20 |
| Antimony | ND | | 80.0 | 81.2 | | ug/L | | 102 | 75 - 125 | 1 | 20 |
| Arsenic | 30 | | 80.0 | 108 | | ug/L | | 97 | 75 - 125 | 2 | 20 |
| Barium | 63 | | 80.0 | 142 | | ug/L | | 98 | 75 - 125 | 3 | 20 |
| Beryllium | ND | | 80.0 | 68.1 | | ug/L | | 85 | 75 - 125 | 1 | 20 |
| Cadmium | ND | | 80.0 | 73.4 | | ug/L | | 92 | 75 - 125 | 2 | 20 |
| Cobalt | ND | | 80.0 | 67.8 | | ug/L | | 85 | 75 - 125 | 0 | 20 |
| Copper | 7.0 | F1 B | 80.0 | 61.4 | F1 | ug/L | | 68 | 75 - 125 | 0 | 20 |
| Iron | 24 | J B | 800 | 777 | | ug/L | | 94 | 75 - 125 | 0 | 20 |
| Lead | ND | | 80.0 | 68.1 | | ug/L | | 85 | 75 - 125 | 0 | 20 |
| Nickel | ND | | 80.0 | 63.2 | | ug/L | | 79 | 75 - 125 | 1 | 20 |
| Selenium | 3.4 | J | 80.0 | 88.5 | | ug/L | | 106 | 75 - 125 | 5 | 20 |

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: 440-201437-3 MSD** — **Client Sample ID: VER-01I-C-77.5**
**Matrix: Water** — **Prep Type: Dissolved**
**Analysis Batch: 453968** — **Prep Batch: 453455**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Silver | ND | | 80.0 | 65.5 | | ug/L | | 82 | 75 - 125 | 1 | 20 |
| Thallium | ND | | 80.0 | 65.8 | | ug/L | | 82 | 75 - 125 | 1 | 20 |
| Uranium | 13 | | 80.0 | 85.4 | | ug/L | | 90 | 75 - 125 | 0 | 20 |
| Vanadium | 13 | | 80.0 | 88.6 | | ug/L | | 95 | 75 - 125 | 1 | 20 |
| Zinc | 11 | J B | 80.0 | 73.2 | | ug/L | | 78 | 75 - 125 | 2 | 20 |

**Lab Sample ID: 440-201437-3 MSD** — **Client Sample ID: VER-01I-C-77.5**
**Matrix: Water** — **Prep Type: Dissolved**
**Analysis Batch: 454145** — **Prep Batch: 453455**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 11000 | B | 80.0 | 9980 | 4 | ug/L | | -686 | 75 - 125 | 2 | 20 |

**Lab Sample ID: 440-201437-3 MS** — **Client Sample ID: VER-01I-C-77.5**
**Matrix: Water** — **Prep Type: Dissolved**
**Analysis Batch: 454373** — **Prep Batch: 454173**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Manganese | 3.8 | J | 80.0 | 82.8 | | ug/L | | 99 | 75 - 125 |

**Lab Sample ID: 440-201437-3 MSD** — **Client Sample ID: VER-01I-C-77.5**
**Matrix: Water** — **Prep Type: Dissolved**
**Analysis Batch: 454373** — **Prep Batch: 454173**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Manganese | 3.8 | J | 80.0 | 81.6 | | ug/L | | 97 | 75 - 125 | 1 | 20 |

## Method: 351.2 - Nitrogen, Total Kjeldahl

**Lab Sample ID: MB 440-452998/3-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 453781** — **Prep Batch: 452998**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Kjeldahl Nitrogen | ND | | 0.20 | 0.10 | mg/L | | 01/22/18 10:00 | 01/25/18 16:05 | 1 |

**Lab Sample ID: LCS 440-452998/4-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 453781** — **Prep Batch: 452998**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Total Kjeldahl Nitrogen | 5.00 | 4.56 | | mg/L | | 91 | 90 - 110 |

**Lab Sample ID: LCSD 440-452998/5-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 453781** — **Prep Batch: 452998**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Total Kjeldahl Nitrogen | 5.00 | 4.56 | | mg/L | | 91 | 90 - 110 | 0 | 20 |

## Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

**Lab Sample ID: 440-201437-3 MS** — **Client Sample ID: VER-01I-C-77.5**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 453781** — **Prep Batch: 452998**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Total Kjeldahl Nitrogen | ND | | 5.00 | 5.17 | | mg/L | | 103 | 90 - 110 |

**Lab Sample ID: 440-201437-3 MSD** — **Client Sample ID: VER-01I-C-77.5**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 453781** — **Prep Batch: 452998**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Kjeldahl Nitrogen | ND | | 5.00 | 5.18 | | mg/L | | 104 | 90 - 110 | 0 | 20 |

## Method: 365.3 - Phosphorus, Total

**Lab Sample ID: MB 440-454103/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 454135** — **Prep Batch: 454103**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Phosphorus, Total | ND | | 0.050 | 0.025 | mg/L | | 01/27/18 11:42 | 01/27/18 14:54 | 1 |

**Lab Sample ID: LCS 440-454103/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 454135** — **Prep Batch: 454103**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Phosphorus, Total | 0.501 | 0.519 | | mg/L | | 104 | 80 - 120 |

**Lab Sample ID: 440-201437-3 MS** — **Client Sample ID: VER-01I-C-77.5**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 454135** — **Prep Batch: 454103**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Phosphorus, Total | ND | F1 | 0.501 | 0.0798 | F1 | mg/L | | 16 | 75 - 125 |

**Lab Sample ID: 440-201437-3 MSD** — **Client Sample ID: VER-01I-C-77.5**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 454135** — **Prep Batch: 454103**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Phosphorus, Total | ND | F1 | 0.501 | 0.0816 | F1 | mg/L | | 16 | 75 - 125 | 2 | 20 |

## Method: SM 2320B - Alkalinity

**Lab Sample ID: MB 440-452824/3** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 452824**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | ND | | 4.0 | 4.0 | mg/L | | | 01/19/18 09:24 | 1 |
| Bicarbonate Alkalinity as CaCO3 | ND | | 4.0 | 4.0 | mg/L | | | 01/19/18 09:24 | 1 |
| Carbonate Alkalinity as CaCO3 | ND | | 4.0 | 4.0 | mg/L | | | 01/19/18 09:24 | 1 |

## Method: SM 2320B - Alkalinity (Continued)

**Lab Sample ID: MB 440-452824/3**
**Matrix: Water**
**Analysis Batch: 452824**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Hydroxide Alkalinity as CaCO3 | ND | | 4.0 | 4.0 | mg/L | | | 01/19/18 09:24 | 1 |

**Lab Sample ID: LCS 440-452824/2**
**Matrix: Water**
**Analysis Batch: 452824**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | 50.8 | 49.7 | | mg/L | | 98 | 80 - 120 |

**Lab Sample ID: 440-201437-3 DU**
**Matrix: Water**
**Analysis Batch: 452824**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| Alkalinity as CaCO3 | 75 | | 74.0 | | mg/L | | 0.8 | 20 |
| Bicarbonate Alkalinity as CaCO3 | 75 | | 74.0 | | mg/L | | 0.8 | 20 |
| Carbonate Alkalinity as CaCO3 | ND | | ND | | mg/L | | NC | 20 |
| Hydroxide Alkalinity as CaCO3 | ND | | ND | | mg/L | | NC | 20 |

## Method: SM 2340C - Hardness, Total (mg/l as CaC03)

**Lab Sample ID: MB 440-453657/1**
**Matrix: Water**
**Analysis Batch: 453657**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Hardness as calcium carbonate | ND | | 4.0 | 4.0 | mg/L | | | 01/25/18 09:44 | 1 |

**Lab Sample ID: LCS 440-453657/2**
**Matrix: Water**
**Analysis Batch: 453657**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Hardness as calcium carbonate | 173 | 168 | | mg/L | | 97 | 90 - 110 |

**Lab Sample ID: 440-201437-3 DU**
**Matrix: Water**
**Analysis Batch: 453657**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| Hardness as calcium carbonate | 2700 | | 2730 | | mg/L | | 0.4 | 20 |

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 440-452952/1**
**Matrix: Water**
**Analysis Batch: 452952**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | ND | | 10 | 5.0 | mg/L | | | 01/22/18 08:32 | 1 |

**Lab Sample ID: LCS 440-452952/2**
**Matrix: Water**
**Analysis Batch: 452952**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | | | 1000 | 1000 | | mg/L | | 100 | 90 - 110 | | |

**Lab Sample ID: 440-201437-3 DU**
**Matrix: Water**
**Analysis Batch: 452952**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 8500 | | | 8580 | | mg/L | | | | 0.9 | 5 |

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 440-453045/1**
**Matrix: Water**
**Analysis Batch: 453045**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | ND | | 1.0 | 0.50 | mg/L | | | 01/22/18 14:11 | 1 |

**Lab Sample ID: LCS 440-453045/2**
**Matrix: Water**
**Analysis Batch: 453045**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | | | 1000 | 970 | | mg/L | | 97 | 85 - 115 | | |

**Lab Sample ID: 440-201437-3 DU**
**Matrix: Water**
**Analysis Batch: 453045**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 2.7 | | | 2.95 | | mg/L | | | | 7 | 10 |

## Method: SM 5310B - Organic Carbon, Total (TOC)

**Lab Sample ID: MB 440-452924/6**
**Matrix: Water**
**Analysis Batch: 452924**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Organic Carbon | ND | | 1.0 | 0.65 | mg/L | | | 01/21/18 09:53 | 1 |

## Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

**Lab Sample ID: LCS 440-452924/5**
**Matrix: Water**
**Analysis Batch: 452924**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Organic Carbon | | | 10.0 | 9.94 | | mg/L | | 99 | 90 - 110 | | |

**Lab Sample ID: 440-201437-3 MS**
**Matrix: Water**
**Analysis Batch: 452924**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Organic Carbon | 1.1 | | 5.00 | 6.03 | | mg/L | | 99 | 80 - 120 | | |

**Lab Sample ID: 440-201437-3 MSD**
**Matrix: Water**
**Analysis Batch: 452924**

**Client Sample ID: VER-01I-C-77.5**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Organic Carbon | 1.1 | | 5.00 | 5.90 | | mg/L | | 96 | 80 - 120 | 2 | 20 |

## GC/MS VOA

### Analysis Batch: 452839

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-1 | VER-01I-C-72 | Total/NA | Water | 8260B | |
| 440-201437-2 | Trip Blank | Total/NA | Water | 8260B | |
| 440-201437-3 | VER-01I-C-77.5 | Total/NA | Water | 8260B | |
| MB 440-452839/4 | Method Blank | Total/NA | Water | 8260B | |
| LCS 440-452839/5 | Lab Control Sample | Total/NA | Water | 8260B | |
| 440-201437-3 MS | VER-01I-C-77.5 | Total/NA | Water | 8260B | |
| 440-201437-3 MSD | VER-01I-C-77.5 | Total/NA | Water | 8260B | |

### Analysis Batch: 452937

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-1 - DL | VER-01I-C-72 | Total/NA | Water | 8260B | |
| 440-201437-2 - RA | Trip Blank | Total/NA | Water | 8260B | |
| 440-201437-3 - DL | VER-01I-C-77.5 | Total/NA | Water | 8260B | |
| MB 440-452937/4 | Method Blank | Total/NA | Water | 8260B | |
| LCS 440-452937/5 | Lab Control Sample | Total/NA | Water | 8260B | |
| 440-201313-A-1 MS | Matrix Spike | Total/NA | Water | 8260B | |
| 440-201313-A-1 MSD | Matrix Spike Duplicate | Total/NA | Water | 8260B | |

## HPLC/IC

### Analysis Batch: 452351

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-1 | VER-01I-C-72 | Total/NA | Water | 7199 | |
| 440-201437-3 | VER-01I-C-77.5 | Total/NA | Water | 7199 | |
| MB 440-452351/6 | Method Blank | Total/NA | Water | 7199 | |
| LCS 440-452351/5 | Lab Control Sample | Total/NA | Water | 7199 | |
| MRL 440-452351/4 | Lab Control Sample | Total/NA | Water | 7199 | |
| 440-201437-3 MS | VER-01I-C-77.5 | Total/NA | Water | 7199 | |
| 440-201437-3 MSD | VER-01I-C-77.5 | Total/NA | Water | 7199 | |

### Analysis Batch: 452402

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-3 | VER-01I-C-77.5 | Total/NA | Water | 300.0 | |
| 440-201437-3 | VER-01I-C-77.5 | Total/NA | Water | 300.0 | |
| MB 440-452402/6 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 440-452402/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| 440-201437-3 MS | VER-01I-C-77.5 | Total/NA | Water | 300.0 | |
| 440-201437-3 MSD | VER-01I-C-77.5 | Total/NA | Water | 300.0 | |

### Analysis Batch: 452403

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-3 | VER-01I-C-77.5 | Total/NA | Water | 300.0 | |
| MB 440-452403/6 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 440-452403/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| 440-201437-3 MS | VER-01I-C-77.5 | Total/NA | Water | 300.0 | |
| 440-201437-3 MSD | VER-01I-C-77.5 | Total/NA | Water | 300.0 | |

### Analysis Batch: 452818

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-1 | VER-01I-C-72 | Total/NA | Water | 300.1B | |

## HPLC/IC (Continued)

### Analysis Batch: 452818 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-3 | VER-01I-C-77.5 | Total/NA | Water | 300.1B | |
| MB 440-452818/5 | Method Blank | Total/NA | Water | 300.1B | |
| LCS 440-452818/4 | Lab Control Sample | Total/NA | Water | 300.1B | |
| MRL 440-452818/3 | Lab Control Sample | Total/NA | Water | 300.1B | |
| 440-201437-3 MS | VER-01I-C-77.5 | Total/NA | Water | 300.1B | |
| 440-201437-3 MSD | VER-01I-C-77.5 | Total/NA | Water | 300.1B | |

### Analysis Batch: 452819

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-1 | VER-01I-C-72 | Total/NA | Water | 300.1B | |
| 440-201437-3 | VER-01I-C-77.5 | Total/NA | Water | 300.1B | |
| MB 440-452819/5 | Method Blank | Total/NA | Water | 300.1B | |
| LCS 440-452819/4 | Lab Control Sample | Total/NA | Water | 300.1B | |
| MRL 440-452819/3 | Lab Control Sample | Total/NA | Water | 300.1B | |
| 440-201437-3 MS | VER-01I-C-77.5 | Total/NA | Water | 300.1B | |
| 440-201437-3 MSD | VER-01I-C-77.5 | Total/NA | Water | 300.1B | |
| 440-201503-A-2 MS | Matrix Spike | Total/NA | Water | 300.1B | |
| 440-201503-A-2 MSD | Matrix Spike Duplicate | Total/NA | Water | 300.1B | |

### Analysis Batch: 453896

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-1 | VER-01I-C-72 | Total/NA | Water | 314.0 LL | |
| MB 440-453896/6 | Method Blank | Total/NA | Water | 314.0 LL | |
| INF 440-453896/7 | Lab Control Sample | | Water | 314.0 LL | |
| LCS 440-453896/5 | Lab Control Sample | Total/NA | Water | 314.0 LL | |
| MRL 440-453896/4 | Lab Control Sample | Total/NA | Water | 314.0 LL | |
| 440-201782-B-2 MS | Matrix Spike | Total/NA | Water | 314.0 LL | |
| 440-201782-B-2 MSD | Matrix Spike Duplicate | Total/NA | Water | 314.0 LL | |

### Analysis Batch: 454261

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-3 | VER-01I-C-77.5 | Total/NA | Water | 314.0 LL | |
| MB 440-454261/6 | Method Blank | Total/NA | Water | 314.0 LL | |
| INF 440-454261/7 | Lab Control Sample | | Water | 314.0 LL | |
| LCS 440-454261/5 | Lab Control Sample | Total/NA | Water | 314.0 LL | |
| MRL 440-454261/4 | Lab Control Sample | Total/NA | Water | 314.0 LL | |
| 440-201437-3 MS | VER-01I-C-77.5 | Total/NA | Water | 314.0 LL | |
| 440-201437-3 MSD | VER-01I-C-77.5 | Total/NA | Water | 314.0 LL | |

## Metals

### Prep Batch: 453176

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-3 | VER-01I-C-77.5 | Total Recoverable | Water | 200.2 | |
| MB 440-453176/1-A | Method Blank | Total Recoverable | Water | 200.2 | |
| LCS 440-453176/2-A | Lab Control Sample | Total Recoverable | Water | 200.2 | |
| 440-201437-3 MS | VER-01I-C-77.5 | Total Recoverable | Water | 200.2 | |
| 440-201437-3 MSD | VER-01I-C-77.5 | Total Recoverable | Water | 200.2 | |

## Metals (Continued)

### Prep Batch: 453315

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-1 | VER-01I-C-72 | Total Recoverable | Water | 3005A | |
| 440-201437-3 | VER-01I-C-77.5 | Total Recoverable | Water | 3005A | |
| MB 440-453315/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 440-453315/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 440-201437-3 MS | VER-01I-C-77.5 | Total Recoverable | Water | 3005A | |
| 440-201437-3 MSD | VER-01I-C-77.5 | Total Recoverable | Water | 3005A | |

### Prep Batch: 453455

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-3 | VER-01I-C-77.5 | Dissolved | Water | 3005A | |
| MB 440-453455/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 440-453455/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 440-201437-3 MS | VER-01I-C-77.5 | Dissolved | Water | 3005A | |
| 440-201437-3 MSD | VER-01I-C-77.5 | Dissolved | Water | 3005A | |

### Analysis Batch: 453514

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-1 | VER-01I-C-72 | Total Recoverable | Water | 6010B | 453315 |
| 440-201437-3 | VER-01I-C-77.5 | Total Recoverable | Water | 6010B | 453315 |
| MB 440-453315/1-A | Method Blank | Total Recoverable | Water | 6010B | 453315 |
| LCS 440-453315/2-A | Lab Control Sample | Total Recoverable | Water | 6010B | 453315 |
| 440-201437-3 MS | VER-01I-C-77.5 | Total Recoverable | Water | 6010B | 453315 |
| 440-201437-3 MSD | VER-01I-C-77.5 | Total Recoverable | Water | 6010B | 453315 |

### Analysis Batch: 453565

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 440-453176/1-A | Method Blank | Total Recoverable | Water | 200.7 Rev 4.4 | 453176 |
| LCS 440-453176/2-A | Lab Control Sample | Total Recoverable | Water | 200.7 Rev 4.4 | 453176 |

### Analysis Batch: 453733

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-3 | VER-01I-C-77.5 | Total Recoverable | Water | 200.7 Rev 4.4 | 453176 |
| 440-201437-3 MS | VER-01I-C-77.5 | Total Recoverable | Water | 200.7 Rev 4.4 | 453176 |
| 440-201437-3 MSD | VER-01I-C-77.5 | Total Recoverable | Water | 200.7 Rev 4.4 | 453176 |

### Analysis Batch: 453968

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-3 | VER-01I-C-77.5 | Dissolved | Water | 6020 | 453455 |
| MB 440-453455/1-A | Method Blank | Total Recoverable | Water | 6020 | 453455 |
| LCS 440-453455/2-A | Lab Control Sample | Total Recoverable | Water | 6020 | 453455 |
| 440-201437-3 MS | VER-01I-C-77.5 | Dissolved | Water | 6020 | 453455 |
| 440-201437-3 MSD | VER-01I-C-77.5 | Dissolved | Water | 6020 | 453455 |

### Analysis Batch: 454145

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-3 | VER-01I-C-77.5 | Dissolved | Water | 6020 | 453455 |
| MB 440-453455/1-A | Method Blank | Total Recoverable | Water | 6020 | 453455 |
| LCS 440-453455/2-A | Lab Control Sample | Total Recoverable | Water | 6020 | 453455 |
| 440-201437-3 MS | VER-01I-C-77.5 | Dissolved | Water | 6020 | 453455 |
| 440-201437-3 MSD | VER-01I-C-77.5 | Dissolved | Water | 6020 | 453455 |

## Metals (Continued)

### Prep Batch: 454173

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-3 | VER-01I-C-77.5 | Dissolved | Water | 3005A | |
| MB 440-454173/1-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 440-454173/2-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| 440-201437-3 MS | VER-01I-C-77.5 | Dissolved | Water | 3005A | |
| 440-201437-3 MSD | VER-01I-C-77.5 | Dissolved | Water | 3005A | |

### Analysis Batch: 454373

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-3 | VER-01I-C-77.5 | Dissolved | Water | 6020 | 454173 |
| MB 440-454173/1-A | Method Blank | Total Recoverable | Water | 6020 | 454173 |
| LCS 440-454173/2-A | Lab Control Sample | Total Recoverable | Water | 6020 | 454173 |
| 440-201437-3 MS | VER-01I-C-77.5 | Dissolved | Water | 6020 | 454173 |
| 440-201437-3 MSD | VER-01I-C-77.5 | Dissolved | Water | 6020 | 454173 |

## General Chemistry

### Analysis Batch: 452824

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-3 | VER-01I-C-77.5 | Total/NA | Water | SM 2320B | |
| MB 440-452824/3 | Method Blank | Total/NA | Water | SM 2320B | |
| LCS 440-452824/2 | Lab Control Sample | Total/NA | Water | SM 2320B | |
| 440-201437-3 DU | VER-01I-C-77.5 | Total/NA | Water | SM 2320B | |

### Analysis Batch: 452924

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-3 | VER-01I-C-77.5 | Total/NA | Water | SM 5310B | |
| MB 440-452924/6 | Method Blank | Total/NA | Water | SM 5310B | |
| LCS 440-452924/5 | Lab Control Sample | Total/NA | Water | SM 5310B | |
| 440-201437-3 MS | VER-01I-C-77.5 | Total/NA | Water | SM 5310B | |
| 440-201437-3 MSD | VER-01I-C-77.5 | Total/NA | Water | SM 5310B | |

### Analysis Batch: 452952

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-3 | VER-01I-C-77.5 | Total/NA | Water | SM 2540C | |
| MB 440-452952/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 440-452952/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| 440-201437-3 DU | VER-01I-C-77.5 | Total/NA | Water | SM 2540C | |

### Prep Batch: 452998

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-3 | VER-01I-C-77.5 | Total/NA | Water | 351.2 | |
| MB 440-452998/3-A | Method Blank | Total/NA | Water | 351.2 | |
| LCS 440-452998/4-A | Lab Control Sample | Total/NA | Water | 351.2 | |
| LCSD 440-452998/5-A | Lab Control Sample Dup | Total/NA | Water | 351.2 | |
| 440-201437-3 MS | VER-01I-C-77.5 | Total/NA | Water | 351.2 | |
| 440-201437-3 MSD | VER-01I-C-77.5 | Total/NA | Water | 351.2 | |

### Analysis Batch: 453045

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-3 | VER-01I-C-77.5 | Total/NA | Water | SM 2540D | |

## General Chemistry (Continued)

### Analysis Batch: 453045 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 440-453045/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 440-453045/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| 440-201437-3 DU | VER-01I-C-77.5 | Total/NA | Water | SM 2540D | |

### Analysis Batch: 453657

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-3 | VER-01I-C-77.5 | Total/NA | Water | SM 2340C | |
| MB 440-453657/1 | Method Blank | Total/NA | Water | SM 2340C | |
| LCS 440-453657/2 | Lab Control Sample | Total/NA | Water | SM 2340C | |
| 440-201437-3 DU | VER-01I-C-77.5 | Total/NA | Water | SM 2340C | |

### Analysis Batch: 453781

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-3 | VER-01I-C-77.5 | Total/NA | Water | 351.2 | 452998 |
| MB 440-452998/3-A | Method Blank | Total/NA | Water | 351.2 | 452998 |
| LCS 440-452998/4-A | Lab Control Sample | Total/NA | Water | 351.2 | 452998 |
| LCSD 440-452998/5-A | Lab Control Sample Dup | Total/NA | Water | 351.2 | 452998 |
| 440-201437-3 MS | VER-01I-C-77.5 | Total/NA | Water | 351.2 | 452998 |
| 440-201437-3 MSD | VER-01I-C-77.5 | Total/NA | Water | 351.2 | 452998 |

### Prep Batch: 454103

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-3 | VER-01I-C-77.5 | Total/NA | Water | 365.2/365.3/365 | |
| MB 440-454103/1-A | Method Blank | Total/NA | Water | 365.2/365.3/365 | |
| LCS 440-454103/2-A | Lab Control Sample | Total/NA | Water | 365.2/365.3/365 | |
| 440-201437-3 MS | VER-01I-C-77.5 | Total/NA | Water | 365.2/365.3/365 | |
| 440-201437-3 MSD | VER-01I-C-77.5 | Total/NA | Water | 365.2/365.3/365 | |

### Analysis Batch: 454135

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 440-201437-3 | VER-01I-C-77.5 | Total/NA | Water | 365.3 | 454103 |
| MB 440-454103/1-A | Method Blank | Total/NA | Water | 365.3 | 454103 |
| LCS 440-454103/2-A | Lab Control Sample | Total/NA | Water | 365.3 | 454103 |
| 440-201437-3 MS | VER-01I-C-77.5 | Total/NA | Water | 365.3 | 454103 |
| 440-201437-3 MSD | VER-01I-C-77.5 | Total/NA | Water | 365.3 | 454103 |

## Client Sample ID: VER-01I-C-72

**Lab Sample ID: 440-201437-1**

**Date Collected: 01/18/18 03:30**

**Matrix: Water**

**Date Received: 01/18/18 18:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | DL | 10 | 452937 | 01/22/18 13:22 | TCN | TAL IRV |
| Total/NA | Analysis | 8260B | | 1 | 452839 | 01/20/18 13:34 | TCN | TAL IRV |
| Total/NA | Analysis | 300.1B | | 10000 | 452818 | 01/20/18 12:55 | YZ | TAL IRV |
| Total/NA | Analysis | 300.1B | | 1000 | 452819 | 01/21/18 08:15 | YZ | TAL IRV |
| Total/NA | Analysis | 314.0 LL | | 100000 | 453896 | 01/26/18 16:56 | CTH | TAL IRV |
| Total/NA | Analysis | 7199 | | 500 | 452351 | 01/18/18 21:17 | MN | TAL IRV |
| Total Recoverable | Prep | 3005A | | | 453315 | 01/23/18 17:06 | MN1 | TAL IRV |
| Total Recoverable | Analysis | 6010B | | 1 | 453514 | 01/24/18 13:51 | K1E | TAL IRV |

## Client Sample ID: Trip Blank

**Lab Sample ID: 440-201437-2**

**Date Collected: 01/18/18 03:30**

**Matrix: Water**

**Date Received: 01/18/18 18:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | RA | 1 | 452937 | 01/22/18 13:47 | TCN | TAL IRV |
| Total/NA | Analysis | 8260B | | 1 | 452839 | 01/20/18 14:03 | TCN | TAL IRV |

## Client Sample ID: VER-01I-C-77.5

**Lab Sample ID: 440-201437-3**

**Date Collected: 01/18/18 09:00**

**Matrix: Water**

**Date Received: 01/18/18 18:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | DL | 10 | 452937 | 01/22/18 14:13 | TCN | TAL IRV |
| Total/NA | Analysis | 8260B | | 1 | 452839 | 01/20/18 12:06 | TCN | TAL IRV |
| Total/NA | Analysis | 300.0 | | 10 | 452402 | 01/18/18 21:41 | NTN | TAL IRV |
| Total/NA | Analysis | 300.0 | | 500 | 452402 | 01/18/18 21:57 | NTN | TAL IRV |
| Total/NA | Analysis | 300.0 | | 500 | 452403 | 01/18/18 21:57 | NTN | TAL IRV |
| Total/NA | Analysis | 300.1B | | 10000 | 452818 | 01/20/18 13:32 | YZ | TAL IRV |
| Total/NA | Analysis | 300.1B | | 1000 | 452819 | 01/21/18 08:51 | YZ | TAL IRV |
| Total/NA | Analysis | 314.0 LL | | 50000 | 454261 | 01/29/18 10:51 | CTH | TAL IRV |
| Total/NA | Analysis | 7199 | | 500 | 452351 | 01/18/18 21:52 | MN | TAL IRV |
| Total Recoverable | Prep | 200.2 | | | 453176 | 01/23/18 08:04 | MN1 | TAL IRV |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 2 | 453733 | 01/25/18 13:14 | VS | TAL IRV |
| Total Recoverable | Prep | 3005A | | | 453315 | 01/23/18 17:06 | MN1 | TAL IRV |
| Total Recoverable | Analysis | 6010B | | 1 | 453514 | 01/24/18 13:39 | K1E | TAL IRV |
| Dissolved | Prep | 3005A | | | 453455 | 01/24/18 11:15 | JL | TAL IRV |
| Dissolved | Analysis | 6020 | | 2 | 453968 | 01/26/18 11:52 | B1H | TAL IRV |
| Dissolved | Prep | 3005A | | | 453455 | 01/24/18 11:15 | JL | TAL IRV |
| Dissolved | Analysis | 6020 | | 10 | 454145 | 01/27/18 16:56 | B1H | TAL IRV |
| Dissolved | Prep | 3005A | | | 454173 | 01/28/18 06:53 | JL | TAL IRV |
| Dissolved | Analysis | 6020 | | 5 | 454373 | 01/29/18 14:50 | MQP | TAL IRV |

# Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-201437-1

## Client Sample ID: VER-01I-C-77.5

**Date Collected: 01/18/18 09:00**
**Date Received: 01/18/18 18:30**

## Lab Sample ID: 440-201437-3

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 351.2 | | | 452998 | 01/22/18 10:00 | AN | TAL IRV |
| Total/NA | Analysis | 351.2 | | 1 | 453781 | 01/25/18 16:05 | AN | TAL IRV |
| Total/NA | Prep | 365.2/365.3/365 | | | 454103 | 01/27/18 11:42 | MMP | TAL IRV |
| Total/NA | Analysis | 365.3 | | 1 | 454135 | 01/27/18 14:54 | MMP | TAL IRV |
| Total/NA | Analysis | SM 2320B | | 1 | 452824 | 01/19/18 09:38 | YZ | TAL IRV |
| Total/NA | Analysis | SM 2340C | | 1 | 453657 | 01/25/18 09:44 | MMP | TAL IRV |
| Total/NA | Analysis | SM 2540C | | 1 | 452952 | 01/22/18 08:32 | XL | TAL IRV |
| Total/NA | Analysis | SM 2540D | | 1 | 453045 | 01/22/18 14:11 | HTL | TAL IRV |
| Total/NA | Analysis | SM 5310B | | 1 | 452924 | 01/21/18 10:10 | YZ | TAL IRV |

**Laboratory References:**

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

# Accreditation/Certification Summary

Client: Tetra Tech, Inc. TestAmerica Job ID: 440-201437-1
Project/Site: NERT VER Treatability Study

## Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | EPA Region | Identification Number | Expiration Date |
|---|---|---|---|---|
| Alaska | State Program | 10 | CA01531 | 06-30-18 |
| Arizona | State Program | 9 | AZ0671 | 10-14-18 |
| California | LA Cty Sanitation Districts | 9 | 10256 | 06-30-18 |
| California | State Program | 9 | CA ELAP 2706 | 06-30-18 |
| Guam | State Program | 9 | Cert. No. 17-003R | 01-23-18 * |
| Hawaii | State Program | 9 | N/A | 01-29-18 * |
| Kansas | NELAP | 7 | E-10420 | 07-31-18 |
| Nevada | State Program | 9 | CA015312018-1 | 07-31-18 |
| New Mexico | State Program | 6 | N/A | 01-29-18 * |
| Northern Mariana Islands | State Program | 9 | MP0002 | 01-29-17 * |
| Oregon | NELAP | 10 | 4028 | 01-29-18 * |
| USDA | Federal | | P330-15-00184 | 07-08-18 |
| Washington | State Program | 10 | C900 | 09-03-18 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Method Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-201437-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL IRV |
| 300.0 | Anions, Ion Chromatography | MCAWW | TAL IRV |
| 300.1B | Disinfection By-Products, (IC) | EPA | TAL IRV |
| 314.0 LL | Perchlorate (IC) | EPA | TAL IRV |
| 7199 | Chromium, Hexavalent (IC) | SW846 | TAL IRV |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | TAL IRV |
| 6010B | Metals (ICP) | SW846 | TAL IRV |
| 6020 | Metals (ICP/MS) | SW846 | TAL IRV |
| 351.2 | Nitrogen, Total Kjeldahl | MCAWW | TAL IRV |
| 365.3 | Phosphorus, Total | EPA | TAL IRV |
| SM 2320B | Alkalinity | SM | TAL IRV |
| SM 2340C | Hardness, Total (mg/l as CaC03) | SM | TAL IRV |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | TAL IRV |
| SM 2540D | Solids, Total Suspended (TSS) | SM | TAL IRV |
| SM 5310B | Organic Carbon, Total (TOC) | SM | TAL IRV |

**Protocol References:**

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

# Sample Summary

Client: Tetra Tech, Inc.
Project/Site: NERT VER Treatability Study

TestAmerica Job ID: 440-201437-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 440-201437-1 | VER-01I-C-72 | Water | 01/18/18 03:30 | 01/18/18 18:30 |
| 440-201437-2 | Trip Blank | Water | 01/18/18 03:30 | 01/18/18 18:30 |
| 440-201437-3 | VER-01I-C-77.5 | Water | 01/18/18 09:00 | 01/18/18 18:30 |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: GCMS36 Analysis Batch Number: 442013

Lab Sample ID: STD02 440-442013/4 IC Client Sample ID:

Date Analyzed: 11/17/17 01:05 Lab File ID: SFK16034.D GC Column: DB-VRX A ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,4-Dichlorobenzene | 13.19 | Unspecified | | |

Lab Sample ID: STD1 440-442013/7 IC Client Sample ID:

Date Analyzed: 11/17/17 02:22 Lab File ID: SFK16037.D GC Column: DB-VRX A ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chloroethane | 3.87 | Unspecified | | |
| 1,2,3-Trichloropropane | 11.62 | Unspecified | | |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: GCMS58 Analysis Batch Number: 446571

Lab Sample ID: STD04 440-446571/5 IC Client Sample ID:

Date Analyzed: 12/13/17 18:44 Lab File ID: YFL13014.D GC Column: DB-VRX B ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Vinyl chloride | 2.46 | Unspecified | | |

Lab Sample ID: STD1 440-446571/7 IC Client Sample ID:

Date Analyzed: 12/13/17 19:43 Lab File ID: YFL13016.D GC Column: DB-VRX B ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,2-Dibromo-3-Chloropropane | 12.68 | Unspecified | | |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: IC-9 Analysis Batch Number: 452402

Lab Sample ID: 440-201437-3 Client Sample ID: VER-01I-C-77.5

Date Analyzed: 01/18/18 21:57 Lab File ID: 20180118030.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Nitrate as N | 7.40 | Incomplete Integration | hmuadmuen go | 01/19/18 15:22 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 445955

Lab Sample ID: STD1 440-445955/3 IC Client Sample ID:

Date Analyzed: 12/11/17 05:47 Lab File ID: 440-0097300-003.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.81 | Baseline Smoothing | zakhrabovy | 12/11/17 06:34 |

Lab Sample ID: STD2 440-445955/4 IC Client Sample ID:

Date Analyzed: 12/11/17 06:24 Lab File ID: 440-0097300-004.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 07:02 |

Lab Sample ID: STD3 440-445955/5 IC Client Sample ID:

Date Analyzed: 12/11/17 07:00 Lab File ID: 440-0097300-005.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 07:39 |

Lab Sample ID: STD4 440-445955/6 IC Client Sample ID:

Date Analyzed: 12/11/17 07:36 Lab File ID: 440-0097300-006.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 08:20 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 445955

Lab Sample ID: STD5 440-445955/7 IC Client Sample ID:

Date Analyzed: 12/11/17 08:12 Lab File ID: 440-0097300-007.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.80 | Baseline Smoothing | zakhrabovy | 12/11/17 08:53 |

Lab Sample ID: ICV 440-445955/8 Client Sample ID:

Date Analyzed: 12/11/17 09:01 Lab File ID: 440-0097300-008.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.77 | Baseline Smoothing | zakhrabovy | 12/12/17 03:14 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 445956

Lab Sample ID: STD1 440-445956/3 IC Client Sample ID:

Date Analyzed: 12/11/17 05:47 Lab File ID: 440-0097300-003.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.52 | Baseline Smoothing | zakhrabovy | 12/11/17 06:34 |

Lab Sample ID: STD2 440-445956/4 IC Client Sample ID:

Date Analyzed: 12/11/17 06:24 Lab File ID: 440-0097300-004.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.51 | Baseline Smoothing | zakhrabovy | 12/11/17 07:02 |

Lab Sample ID: STD3 440-445956/5 IC Client Sample ID:

Date Analyzed: 12/11/17 07:00 Lab File ID: 440-0097300-005.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.51 | Baseline Smoothing | zakhrabovy | 12/11/17 07:39 |

Lab Sample ID: STD4 440-445956/6 IC Client Sample ID:

Date Analyzed: 12/11/17 07:36 Lab File ID: 440-0097300-006.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.52 | Baseline Smoothing | zakhrabovy | 12/11/17 08:20 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 445956

Lab Sample ID: STD5 440-445956/7 IC Client Sample ID:

Date Analyzed: 12/11/17 08:12 Lab File ID: 440-0097300-007.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.52 | Baseline Smoothing | zakhrabovy | 12/11/17 08:53 |

Lab Sample ID: ICV 440-445956/8 Client Sample ID:

Date Analyzed: 12/11/17 09:01 Lab File ID: 440-0097300-008.d GC Column: AS14 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.50 | Baseline Smoothing | zakhrabovy | 12/12/17 03:14 |

# HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 452818

Lab Sample ID: CCV 440-452818/1 Client Sample ID:

Date Analyzed: 01/20/18 09:18 Lab File ID: 440-0098877-001.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.83 | Baseline Smoothing | zakhrabovy | 01/20/18 10:08 |

Lab Sample ID: CCV 440-452818/13 Client Sample ID:

Date Analyzed: 01/20/18 16:33 Lab File ID: 440-0098877-013.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Bromate | 8.67 | Baseline Smoothing | zakhrabovy | 01/21/18 09:07 |
| Bromide | 17.60 | Baseline Smoothing | zakhrabovy | 01/21/18 09:07 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 452819

Lab Sample ID: MRL 440-452819/3 Client Sample ID:

Date Analyzed: 01/20/18 10:30 Lab File ID: 440-0098877-003.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.45 | Baseline Smoothing | zakhrabovy | 01/20/18 11:15 |

Lab Sample ID: LCS 440-452819/4 Client Sample ID:

Date Analyzed: 01/20/18 11:07 Lab File ID: 440-0098877-004.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.45 | Baseline Smoothing | zakhrabovy | 01/21/18 09:05 |

Lab Sample ID: CCV 440-452819/13 Client Sample ID:

Date Analyzed: 01/20/18 16:33 Lab File ID: 440-0098877-013.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.45 | Baseline Smoothing | zakhrabovy | 01/21/18 09:07 |

Lab Sample ID: 440-201503-A-2 MS Client Sample ID:

Date Analyzed: 01/20/18 18:22 Lab File ID: 440-0098877-016.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Dichloroacetic acid(Surr) | 14.47 | Baseline Smoothing | zakhrabovy | 01/21/18 09:08 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: IC-8 Analysis Batch Number: 452819

Lab Sample ID: 440-201503-A-2 MSD Client Sample ID:

Date Analyzed: 01/20/18 18:58 Lab File ID: 440-0098877-017.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Dichloroacetic acid(Surr) | 14.48 | Baseline Smoothing | zakhrabovy | 01/21/18 09:08 |

Lab Sample ID: CCV 440-452819/25 Client Sample ID:

Date Analyzed: 01/20/18 23:48 Lab File ID: 440-0098877-025.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.46 | Baseline Smoothing | zakhrabovy | 01/21/18 09:11 |

Lab Sample ID: CCV 440-452819/37 Client Sample ID:

Date Analyzed: 01/21/18 07:03 Lab File ID: 440-0098877-037.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.48 | Baseline Smoothing | zakhrabovy | 01/21/18 09:18 |
| Dichloroacetic acid(Surr) | 14.41 | Baseline Smoothing | zakhrabovy | 01/21/18 09:18 |

Lab Sample ID: CCV 440-452819/49 Client Sample ID:

Date Analyzed: 01/21/18 15:00 Lab File ID: 440-0098877-049.d GC Column: AS9-HC ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chlorite | 7.45 | Baseline Smoothing | zakhrabovy | 01/22/18 05:55 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: IC-24 Analysis Batch Number: 449245

Lab Sample ID: STD2 440-449245/3 IC Client Sample ID:

Date Analyzed: 12/29/17 09:32 Lab File ID: 440-0098110-00303ECD_1.d GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.80 | Incomplete Integration | hoangch | 12/29/17 11:30 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: IC-24 Analysis Batch Number: 454261

Lab Sample ID: INF 440-454261/7 Client Sample ID:

Date Analyzed: 01/29/18 10:31 Lab File ID: 440-0099190-00707ECD_1.d GC Column: AS16 ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Perchlorate | 11.87 | Incomplete Integration | hoangch | 01/29/18 10:51 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: IC-16 Analysis Batch Number: 432478

Lab Sample ID: STD2 440-432478/4 IC Client Sample ID:

Date Analyzed: 10/02/17 13:01 Lab File ID: Info 2_TAIIRV0066_Hex Chr GC Column: AS7 A ID: 4(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Chromium, hexavalent | 7.53 | Incomplete Integration | nickloffn | 10/02/17 13:25 |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **ME HCl_00393** | 12/12/18 | Avantor Performance Materials, INc., Lot 0000183197 | | | (Purchased Reagent) | | Stock Chemical | 100 % |
| **ME HNO3_00412** | 01/12/19 | Macron Fine Chemicals, Lot 0000185595 | | | (Purchased Reagent) | | Stock Chemical | 1 % |
| **ME ICP 2X RL_00058** | 01/25/18 | 01/24/18 | 2%HNO3/2%HCl, Lot 211065110 | 100 mL | ME ICP STD3_01856 | 2 mL | Calcium | 0.2 ug/mL |
| | | | | | | | Chromium | 0.01 ug/mL |
| | | | | | | | Magnesium | 0.04 ug/mL |
| | | | | | | | Manganese | 0.04 ug/mL |
| .ME ICP STD3_01856 | 01/25/18 | 01/24/18 | 1%HNO3/2%HCL, Lot 211065110 | 100 mL | Custom mix A_00001 | 1 mL | Calcium | 10 ug/mL |
| | | | | | | | Chromium | 0.5 ug/mL |
| | | | | | | | Magnesium | 2 ug/mL |
| | | | | | | | Manganese | 2 ug/mL |
| ..Custom mix A_00001 | 10/26/20 | INORGANIC VENTURES, Lot M2-MEB662656 | | | (Purchased Reagent) | | Calcium | 1000 mg/L |
| | | | | | | | Chromium | 50 mg/L |
| | | | | | | | Magnesium | 200 mg/L |
| | | | | | | | Manganese | 200 mg/L |
| **ME ICP 2X RL_00059** | 01/26/18 | 01/25/18 | 2%HNO3/2%HCl, Lot 211065110 | 100 mL | ME ICP STD3_01858 | 2 mL | Calcium | 0.2 ug/mL |
| | | | | | | | Magnesium | 0.04 ug/mL |
| .ME ICP STD3_01858 | 01/26/18 | 01/25/18 | 1%HNO3/2%HCL, Lot 211065110 | 100 mL | Custom mix A_00001 | 1 mL | Calcium | 10 ug/mL |
| | | | | | | | Magnesium | 2 ug/mL |
| ..Custom mix A_00001 | 10/26/20 | INORGANIC VENTURES, Lot M2-MEB662656 | | | (Purchased Reagent) | | Calcium | 1000 mg/L |
| | | | | | | | Magnesium | 200 mg/L |
| **ME ICP ICV2_01769** | 01/25/18 | 01/24/18 | 1%HNO3/2%HCl, Lot N/A | 50 mL | ME ICP SPKE A_00029 | 0.5 mL | Calcium | 1 mg/L |
| | | | | | | | Chromium | 1 mg/L |
| | | | | | | | Magnesium | 1 mg/L |
| | | | | | | | Manganese | 1 mg/L |
| .ME ICP SPKE A_00029 | 03/30/18 | ACCUSTANDARD, Lot 216035030 | | | (Purchased Reagent) | | Calcium | 100 ug/mL |
| | | | | | | | Chromium | 100 ug/mL |
| | | | | | | | Magnesium | 100 ug/mL |
| | | | | | | | Manganese | 100 ug/mL |
| **ME ICP ICV2_01770** | 01/26/18 | 01/25/18 | 1%HNO3/2%HCl, Lot N/A | 50 mL | ME ICP SPKE A_00029 | 0.5 mL | Calcium | 1 mg/L |
| | | | | | | | Magnesium | 1 mg/L |
| .ME ICP SPKE A_00029 | 03/30/18 | ACCUSTANDARD, Lot 216035030 | | | (Purchased Reagent) | | Calcium | 100 ug/mL |
| | | | | | | | Magnesium | 100 ug/mL |
| **ME ICP IFA_01795** | 01/25/18 | 01/24/18 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Aluminum | 600 mg/L |
| | | | | | | | Calcium | 600 mg/L |
| | | | | | | | Iron | 600 mg/L |
| | | | | | | | Magnesium | 600 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | o2si, Lot 10064997-1 | | | (Purchased Reagent) | | Aluminum | 6000 mg/L |
| | | | | | | | Calcium | 6000 mg/L |
| | | | | | | | Iron | 6000 mg/L |
| | | | | | | | Magnesium | 6000 mg/L |
| **ME ICP IFA_01796** | 01/26/18 | 01/25/18 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Aluminum | 600 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Calcium | 600 mg/L |
| | | | | | | | Iron | 600 mg/L |
| | | | | | | | Magnesium | 600 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | | o2si, Lot 10064997-1 | | (Purchased Reagent) | | Aluminum | 6000 mg/L |
| | | | | | | | Calcium | 6000 mg/L |
| | | | | | | | Iron | 6000 mg/L |
| | | | | | | | Magnesium | 6000 mg/L |
| **ME ICP IFB_01814** | 01/25/18 | 01/24/18 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Aluminum | 600.5 mg/L |
| | | | | | | | Calcium | 602.5 mg/L |
| | | | | | | | Iron | 600.5 mg/L |
| | | | | | | | Magnesium | 602.5 mg/L |
| | | | | | ME ICP2 ICV1A_00051 | 0.25 mL | Aluminum | 600.5 mg/L |
| | | | | | | | Arsenic | 0.5 mg/L |
| | | | | | | | B | 0.5 mg/L |
| | | | | | | | Barium | 0.5 mg/L |
| | | | | | | | Beryllium | 0.5 mg/L |
| | | | | | | | Cadmium | 0.5 mg/L |
| | | | | | | | Calcium | 602.5 mg/L |
| | | | | | | | Chromium | 0.5 mg/L |
| | | | | | | | Cobalt | 0.5 mg/L |
| | | | | | | | Copper | 0.5 mg/L |
| | | | | | | | Iron | 600.5 mg/L |
| | | | | | | | Lead | 0.5 mg/L |
| | | | | | | | Magnesium | 602.5 mg/L |
| | | | | | | | Manganese | 0.5 mg/L |
| | | | | | | | Na | 10 mg/L |
| | | | | | | | Nickel | 0.5 mg/L |
| | | | | | | | Phosphorus, Total | 0.5 mg/L |
| | | | | | | | Selenium | 0.5 mg/L |
| | | | | | | | Silver | 0.25 mg/L |
| | | | | | | | Sr | 0.5 mg/L |
| | | | | | | | Thallium | 0.5 mg/L |
| | | | | | | | Vanadium | 0.5 mg/L |
| | | | | | | | Zinc | 0.5 mg/L |
| | | | | | ME ICP2 ICV1B_00045 | 0.25 mL | Antimony | 0.5 mg/L |
| | | | | | | | Mo | 0.5 mg/L |
| | | | | | | | Si | 2.5 mg/L |
| | | | | | | | Sn | 0.5 mg/L |
| | | | | | | | Ti | 0.5 mg/L |
| | | | | | | | W | 0.5 mg/L |
| | | | | | | | Zr | 0.5 mg/L |
| | | | | | ME Na_00010 | 0.25 mL | Na | 10 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | | o2si, Lot 10064997-1 | | (Purchased Reagent) | | Aluminum | 6000 mg/L |
| | | | | | | | Calcium | 6000 mg/L |
| | | | | | | | Iron | 6000 mg/L |
| | | | | | | | Magnesium | 6000 mg/L |
| .ME ICP2 ICV1A_00051 | 10/18/18 | | INORGANIC VENTURES, Lot M2-MEB662245 | | (Purchased Reagent) | | Aluminum | 100 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Arsenic | 100 mg/L |
| | | | | | | | B | 100 mg/L |
| | | | | | | | Barium | 100 mg/L |
| | | | | | | | Beryllium | 100 mg/L |
| | | | | | | | Cadmium | 100 mg/L |
| | | | | | | | Calcium | 500 mg/L |
| | | | | | | | Chromium | 100 mg/L |
| | | | | | | | Cobalt | 100 mg/L |
| | | | | | | | Copper | 100 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | Lead | 100 mg/L |
| | | | | | | | Magnesium | 500 mg/L |
| | | | | | | | Manganese | 100 mg/L |
| | | | | | | | Na | 1000 mg/L |
| | | | | | | | Nickel | 100 mg/L |
| | | | | | | | Phosphorus, Total | 100 mg/L |
| | | | | | | | Selenium | 100 mg/L |
| | | | | | | | Silver | 50 mg/L |
| | | | | | | | Sr | 100 mg/L |
| | | | | | | | Thallium | 100 mg/L |
| | | | | | | | Vanadium | 100 mg/L |
| | | | | | | | Zinc | 100 mg/L |
| .ME ICP2 ICV1B_00045 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662246 | | | (Purchased Reagent) | | Antimony | 100 mg/L |
| | | | | | | | Mo | 100 mg/L |
| | | | | | | | Si | 500 mg/L |
| | | | | | | | Sn | 100 mg/L |
| | | | | | | | Ti | 100 mg/L |
| | | | | | | | W | 100 mg/L |
| | | | | | | | Zr | 100 mg/L |
| .ME Na_00010 | 08/17/18 | O2SI, Lot 1103103 | | | (Purchased Reagent) | | Na | 1000 mg/L |
| **ME ICP IFB_01815** | 01/26/18 | 01/25/18 | 1%HNO3/2%HCl, Lot NA | 50 mL | ME ICP_ICSA_00035 | 5 mL | Aluminum | 600.5 mg/L |
| | | | | | | | Calcium | 602.5 mg/L |
| | | | | | | | Iron | 600.5 mg/L |
| | | | | | | | Magnesium | 602.5 mg/L |
| | | | | | ME ICP2 ICV1A_00051 | 0.25 mL | Aluminum | 600.5 mg/L |
| | | | | | | | Arsenic | 0.5 mg/L |
| | | | | | | | B | 0.5 mg/L |
| | | | | | | | Barium | 0.5 mg/L |
| | | | | | | | Beryllium | 0.5 mg/L |
| | | | | | | | Cadmium | 0.5 mg/L |
| | | | | | | | Calcium | 602.5 mg/L |
| | | | | | | | Chromium | 0.5 mg/L |
| | | | | | | | Cobalt | 0.5 mg/L |
| | | | | | | | Copper | 0.5 mg/L |
| | | | | | | | Iron | 600.5 mg/L |
| | | | | | | | Lead | 0.5 mg/L |
| | | | | | | | Magnesium | 602.5 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Manganese | 0.5 mg/L |
| | | | | | | | Nickel | 0.5 mg/L |
| | | | | | | | Phosphorus, Total | 0.5 mg/L |
| | | | | | | | Selenium | 0.5 mg/L |
| | | | | | | | Silver | 0.25 mg/L |
| | | | | | | | Sr | 0.5 mg/L |
| | | | | | | | Thallium | 0.5 mg/L |
| | | | | | | | Vanadium | 0.5 mg/L |
| | | | | | | | Zinc | 0.5 mg/L |
| | | | | | ME ICP2 ICV1B_00045 | 0.25 mL | Antimony | 0.5 mg/L |
| | | | | | | | Mo | 0.5 mg/L |
| | | | | | | | Si | 2.5 mg/L |
| | | | | | | | Sn | 0.5 mg/L |
| | | | | | | | Ti | 0.5 mg/L |
| | | | | | | | W | 0.5 mg/L |
| | | | | | | | Zr | 0.5 mg/L |
| .ME ICP_ICSA_00035 | 01/26/19 | o2si, Lot 10064997-1 | | | (Purchased Reagent) | | Aluminum | 6000 mg/L |
| | | | | | | | Calcium | 6000 mg/L |
| | | | | | | | Iron | 6000 mg/L |
| | | | | | | | Magnesium | 6000 mg/L |
| .ME ICP2 ICV1A_00051 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662245 | | | (Purchased Reagent) | | Aluminum | 100 mg/L |
| | | | | | | | Arsenic | 100 mg/L |
| | | | | | | | B | 100 mg/L |
| | | | | | | | Barium | 100 mg/L |
| | | | | | | | Beryllium | 100 mg/L |
| | | | | | | | Cadmium | 100 mg/L |
| | | | | | | | Calcium | 500 mg/L |
| | | | | | | | Chromium | 100 mg/L |
| | | | | | | | Cobalt | 100 mg/L |
| | | | | | | | Copper | 100 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | Lead | 100 mg/L |
| | | | | | | | Magnesium | 500 mg/L |
| | | | | | | | Manganese | 100 mg/L |
| | | | | | | | Nickel | 100 mg/L |
| | | | | | | | Phosphorus, Total | 100 mg/L |
| | | | | | | | Selenium | 100 mg/L |
| | | | | | | | Silver | 50 mg/L |
| | | | | | | | Sr | 100 mg/L |
| | | | | | | | Thallium | 100 mg/L |
| | | | | | | | Vanadium | 100 mg/L |
| | | | | | | | Zinc | 100 mg/L |
| .ME ICP2 ICV1B_00045 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662246 | | | (Purchased Reagent) | | Antimony | 100 mg/L |
| | | | | | | | Mo | 100 mg/L |
| | | | | | | | Si | 500 mg/L |
| | | | | | | | Sn | 100 mg/L |
| | | | | | | | Ti | 100 mg/L |
| | | | | | | | W | 100 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Zr | 100 mg/L |
| **ME ICP STD3_01857** | 01/25/18 | 01/24/18 | 1%HNO3/2%HCL, Lot 211065110 | 100 mL | ME ICP2 ICV1A_00051 | 1 mL | Calcium | 5 ug/mL |
| | | | | | | | Chromium | 1 ug/mL |
| | | | | | | | Magnesium | 5 ug/mL |
| | | | | | | | Manganese | 1 ug/mL |
| .ME ICP2 ICV1A_00051 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662245 | | | (Purchased Reagent) | | Calcium | 500 mg/L |
| | | | | | | | Chromium | 100 mg/L |
| | | | | | | | Magnesium | 500 mg/L |
| | | | | | | | Manganese | 100 mg/L |
| **ME ICP STD3_01859** | 01/26/18 | 01/25/18 | 1%HNO3/2%HCL, Lot 211065110 | 100 mL | ME ICP2 ICV1A_00051 | 1 mL | Calcium | 5 ug/mL |
| | | | | | | | Magnesium | 5 ug/mL |
| .ME ICP2 ICV1A_00051 | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662245 | | | (Purchased Reagent) | | Calcium | 500 mg/L |
| | | | | | | | Magnesium | 500 mg/L |
| | | | | | | | Aluminum | 100 mg/L |
| | | | | | | | Arsenic | 100 mg/L |
| | | | | | | | B | 100 mg/L |
| | | | | | | | Barium | 100 mg/L |
| | | | | | | | Beryllium | 100 mg/L |
| | | | | | | | Cadmium | 100 mg/L |
| | | | | | | | Calcium | 500 mg/L |
| | | | | | | | Chromium | 100 mg/L |
| | | | | | | | Cobalt | 100 mg/L |
| | | | | | | | Copper | 100 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | K | 1000 mg/L |
| | | | | | | | Lead | 100 mg/L |
| | | | | | | | Li | 100 mg/L |
| | | | | | | | Magnesium | 500 mg/L |
| | | | | | | | Manganese | 100 mg/L |
| | | | | | | | Na | 1000 mg/L |
| | | | | | | | Nickel | 100 mg/L |
| | | | | | | | Phosphorus, Total | 100 mg/L |
| | | | | | | | Selenium | 100 mg/L |
| | | | | | | | Silver | 50 mg/L |
| | | | | | | | Sr | 100 mg/L |
| | | | | | | | Thallium | 100 mg/L |
| | | | | | | | Vanadium | 100 mg/L |
| | | | | | | | Zinc | 100 mg/L |
| **ME ICP2 ICV1B_00045** | 10/18/18 | INORGANIC VENTURES, Lot M2-MEB662246 | | | (Purchased Reagent) | | Antimony | 100 mg/L |
| | | | | | | | Mo | 100 mg/L |
| | | | | | | | Si | 500 mg/L |
| | | | | | | | SiO2 | 1071.15 mg/L |
| | | | | | | | Sn | 100 mg/L |
| | | | | | | | Ti | 100 mg/L |
| | | | | | | | W | 100 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Zr | 100 mg/L |
| **ME ICPMS CAL_00040** | 12/29/18 | | VHG Labs, Lot 10072128-1 | | (Purchased Reagent) | | Aluminum | 10 mg/L |
| | | | | | | | Antimony | 10 mg/L |
| | | | | | | | Arsenic | 10 mg/L |
| | | | | | | | Barium | 10 mg/L |
| | | | | | | | Beryllium | 10 mg/L |
| | | | | | | | Cadmium | 10 mg/L |
| | | | | | | | Calcium | 500 mg/L |
| | | | | | | | Ce | 10 mg/L |
| | | | | | | | Chromium | 10 mg/L |
| | | | | | | | Cobalt | 10 mg/L |
| | | | | | | | Copper | 10 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | K | 250 mg/L |
| | | | | | | | Lead | 10 mg/L |
| | | | | | | | Magnesium | 250 mg/L |
| | | | | | | | Manganese | 10 mg/L |
| | | | | | | | Mo | 10 mg/L |
| | | | | | | | Na | 250 mg/L |
| | | | | | | | Nickel | 10 mg/L |
| | | | | | | | Selenium | 10 mg/L |
| | | | | | | | Silver | 10 mg/L |
| | | | | | | | Sn | 10 mg/L |
| | | | | | | | Sr | 10 mg/L |
| | | | | | | | Thallium | 10 mg/L |
| | | | | | | | Ti | 10 mg/L |
| | | | | | | | Uranium | 10 mg/L |
| | | | | | | | Vanadium | 10 mg/L |
| | | | | | | | Zinc | 10 mg/L |
| **MEICPMS4 CCV_01528** | 07/24/18 | 01/26/18 | 1%HNO3/0.5%HCl, Lot N/A | 250 mL | ME_CALSTD#1_00006 | 1.25 mL | Aluminum | 50 ug/L |
| | | | | | | | Arsenic | 50 ug/L |
| | | | | | | | Barium | 50 ug/L |
| | | | | | | | Beryllium | 50 ug/L |
| | | | | | | | Cadmium | 50 ug/L |
| | | | | | | | Chromium | 50 ug/L |
| | | | | | | | Cobalt | 50 ug/L |
| | | | | | | | Copper | 50 ug/L |
| | | | | | | | Iron | 500 ug/L |
| | | | | | | | Lead | 50 ug/L |
| | | | | | | | Manganese | 50 ug/L |
| | | | | | | | Nickel | 50 ug/L |
| | | | | | | | Selenium | 50 ug/L |
| | | | | | | | Silver | 50 ug/L |
| | | | | | | | Thallium | 50 ug/L |
| | | | | | | | Uranium | 50 ug/L |
| | | | | | | | Vanadium | 50 ug/L |
| | | | | | | | Zinc | 50 ug/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | ME_CALSTD#2_00008 | 1.25 mL | Antimony | 50 ug/L |
| .ME_CALSTD#1_00006 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652580 | | | (Purchased Reagent) | | Aluminum | 10 mg/L |
| | | | | | | | Arsenic | 10 mg/L |
| | | | | | | | Barium | 10 mg/L |
| | | | | | | | Beryllium | 10 mg/L |
| | | | | | | | Cadmium | 10 mg/L |
| | | | | | | | Chromium | 10 mg/L |
| | | | | | | | Cobalt | 10 mg/L |
| | | | | | | | Copper | 10 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | Lead | 10 mg/L |
| | | | | | | | Manganese | 10 mg/L |
| | | | | | | | Nickel | 10 mg/L |
| | | | | | | | Selenium | 10 mg/L |
| | | | | | | | Silver | 10 mg/L |
| | | | | | | | Thallium | 10 mg/L |
| | | | | | | | Uranium | 10 mg/L |
| | | | | | | | Vanadium | 10 mg/L |
| | | | | | | | Zinc | 10 mg/L |
| .ME_CALSTD#2_00008 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652579 | | | (Purchased Reagent) | | Antimony | 10 mg/L |
| **MEICPMS4 CCV_01529** | 07/24/18 | 01/27/18 | 1%HNO3/0.5%HCl, Lot N/A | 250 mL | ME_CALSTD#1_00006 | 1.25 mL | Aluminum | 50 ug/L |
| | | | | | | | Arsenic | 50 ug/L |
| | | | | | | | Barium | 50 ug/L |
| | | | | | | | Beryllium | 50 ug/L |
| | | | | | | | Cadmium | 50 ug/L |
| | | | | | | | Chromium | 50 ug/L |
| | | | | | | | Cobalt | 50 ug/L |
| | | | | | | | Copper | 50 ug/L |
| | | | | | | | Iron | 500 ug/L |
| | | | | | | | Lead | 50 ug/L |
| | | | | | | | Manganese | 50 ug/L |
| | | | | | | | Nickel | 50 ug/L |
| | | | | | | | Selenium | 50 ug/L |
| | | | | | | | Silver | 50 ug/L |
| | | | | | | | Uranium | 50 ug/L |
| | | | | | | | Vanadium | 50 ug/L |
| | | | | | | | Zinc | 50 ug/L |
| | | | | | ME_CALSTD#2_00008 | 1.25 mL | Antimony | 50 ug/L |
| .ME_CALSTD#1_00006 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652580 | | | (Purchased Reagent) | | Aluminum | 10 mg/L |
| | | | | | | | Arsenic | 10 mg/L |
| | | | | | | | Barium | 10 mg/L |
| | | | | | | | Beryllium | 10 mg/L |
| | | | | | | | Cadmium | 10 mg/L |
| | | | | | | | Chromium | 10 mg/L |
| | | | | | | | Cobalt | 10 mg/L |
| | | | | | | | Copper | 10 mg/L |
| | | | | | | | Iron | 100 mg/L |

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Lead | 10 mg/L |
| | | | | | | | Manganese | 10 mg/L |
| | | | | | | | Nickel | 10 mg/L |
| | | | | | | | Selenium | 10 mg/L |
| | | | | | | | Silver | 10 mg/L |
| | | | | | | | Uranium | 10 mg/L |
| | | | | | | | Vanadium | 10 mg/L |
| | | | | | | | Zinc | 10 mg/L |
| .ME_CALSTD#2_00008 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652579 | | | (Purchased Reagent) | | Antimony | 10 mg/L |
| **MEICPMS4 CCV_01531** | 07/24/18 | 01/29/18 | 1%HNO3/0.5%HCl, Lot N/A | 250 mL | ME_CALSTD#1_00006 | 1.25 mL | Aluminum | 50 ug/L |
| | | | | | | | Arsenic | 50 ug/L |
| | | | | | | | Barium | 50 ug/L |
| | | | | | | | Beryllium | 50 ug/L |
| | | | | | | | Cadmium | 50 ug/L |
| | | | | | | | Chromium | 50 ug/L |
| | | | | | | | Cobalt | 50 ug/L |
| | | | | | | | Copper | 50 ug/L |
| | | | | | | | Iron | 500 ug/L |
| | | | | | | | Lead | 50 ug/L |
| | | | | | | | Manganese | 50 ug/L |
| | | | | | | | Nickel | 50 ug/L |
| | | | | | | | Selenium | 50 ug/L |
| | | | | | | | Silver | 50 ug/L |
| | | | | | | | Thallium | 50 ug/L |
| | | | | | | | Uranium | 50 ug/L |
| | | | | | | | Vanadium | 50 ug/L |
| | | | | | | | Zinc | 50 ug/L |
| | | | | | ME_CALSTD#2_00008 | 1.25 mL | Antimony | 50 ug/L |
| .ME_CALSTD#1_00006 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652580 | | | (Purchased Reagent) | | Aluminum | 10 mg/L |
| | | | | | | | Arsenic | 10 mg/L |
| | | | | | | | Barium | 10 mg/L |
| | | | | | | | Beryllium | 10 mg/L |
| | | | | | | | Cadmium | 10 mg/L |
| | | | | | | | Chromium | 10 mg/L |
| | | | | | | | Cobalt | 10 mg/L |
| | | | | | | | Copper | 10 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | Lead | 10 mg/L |
| | | | | | | | Manganese | 10 mg/L |
| | | | | | | | Nickel | 10 mg/L |
| | | | | | | | Selenium | 10 mg/L |
| | | | | | | | Silver | 10 mg/L |
| | | | | | | | Thallium | 10 mg/L |
| | | | | | | | Uranium | 10 mg/L |
| | | | | | | | Vanadium | 10 mg/L |
| | | | | | | | Zinc | 10 mg/L |
| .ME_CALSTD#2_00008 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652579 | | | (Purchased Reagent) | | Antimony | 10 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **MEICPMS4 ICSA_01523** | 08/21/18 | 01/26/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME ICPMS LLIC_00018 | 10 mL | Aluminum | 100000 ug/L |
| | | | | | | | Iron | 100000 ug/L |
| | | | | | | | Mo | 2000 ug/L |
| .ME ICPMS LLIC_00018 | 08/21/18 | Inorganic Ventures, Lot K2-MEB651985 | | | (Purchased Reagent) | | Aluminum | 1000 ug/mL |
| | | | | | | | Iron | 1000 ug/mL |
| | | | | | | | Mo | 20 ug/mL |
| **MEICPMS4 ICSA_01524** | 08/21/18 | 01/27/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME ICPMS LLIC_00018 | 10 mL | Aluminum | 100000 ug/L |
| | | | | | | | Iron | 100000 ug/L |
| | | | | | | | Mo | 2000 ug/L |
| .ME ICPMS LLIC_00018 | 08/21/18 | Inorganic Ventures, Lot K2-MEB651985 | | | (Purchased Reagent) | | Aluminum | 1000 ug/mL |
| | | | | | | | Iron | 1000 ug/mL |
| | | | | | | | Mo | 20 ug/mL |
| **MEICPMS4 ICSA_01526** | 08/21/18 | 01/29/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME ICPMS LLIC_00018 | 10 mL | Aluminum | 100000 ug/L |
| | | | | | | | Iron | 100000 ug/L |
| | | | | | | | Mo | 2000 ug/L |
| .ME ICPMS LLIC_00018 | 08/21/18 | Inorganic Ventures, Lot K2-MEB651985 | | | (Purchased Reagent) | | Aluminum | 1000 ug/mL |
| | | | | | | | Iron | 1000 ug/mL |
| | | | | | | | Mo | 20 ug/mL |
| **MEICPMS4 ICSB_01523** | 07/24/18 | 01/26/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME ICPMS LLIC_00018 | 10 mL | Aluminum | 100020 ug/L |
| | | | | | | | Iron | 100200 ug/L |
| | | | | | | | Mo | 2020 ug/L |
| | | | | | ME_CALSTD#1_00006 | 0.2 mL | Aluminum | 100020 ug/L |
| | | | | | | | Arsenic | 20 ug/L |
| | | | | | | | Barium | 20 ug/L |
| | | | | | | | Beryllium | 20 ug/L |
| | | | | | | | Cadmium | 20 ug/L |
| | | | | | | | Ce | 20 ug/L |
| | | | | | | | Chromium | 20 ug/L |
| | | | | | | | Cobalt | 20 ug/L |
| | | | | | | | Copper | 20 ug/L |
| | | | | | | | Iron | 100200 ug/L |
| | | | | | | | Lead | 20 ug/L |
| | | | | | | | Manganese | 20 ug/L |
| | | | | | | | Nickel | 20 ug/L |
| | | | | | | | Selenium | 20 ug/L |
| | | | | | | | Silver | 20 ug/L |
| | | | | | | | Sr | 20 ug/L |
| | | | | | | | Thallium | 20 ug/L |
| | | | | | | | Uranium | 20 ug/L |
| | | | | | | | Vanadium | 20 ug/L |
| | | | | | | | Zinc | 20 ug/L |
| | | | | | ME_CALSTD#2_00008 | 0.2 mL | Antimony | 20 ug/L |
| | | | | | | | Mo | 2020 ug/L |
| | | | | | | | Sn | 20 ug/L |
| .ME ICPMS LLIC_00018 | 08/21/18 | Inorganic Ventures, Lot K2-MEB651985 | | | (Purchased Reagent) | | Aluminum | 1000 ug/mL |
| | | | | | | | Iron | 1000 ug/mL |
| | | | | | | | Mo | 20 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .ME_CALSTD#1_00006 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652580 | | | (Purchased Reagent) | | Aluminum | 10 mg/L |
| | | | | | | | Arsenic | 10 mg/L |
| | | | | | | | Barium | 10 mg/L |
| | | | | | | | Beryllium | 10 mg/L |
| | | | | | | | Cadmium | 10 mg/L |
| | | | | | | | Ce | 10 mg/L |
| | | | | | | | Chromium | 10 mg/L |
| | | | | | | | Cobalt | 10 mg/L |
| | | | | | | | Copper | 10 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | Lead | 10 mg/L |
| | | | | | | | Manganese | 10 mg/L |
| | | | | | | | Nickel | 10 mg/L |
| | | | | | | | Selenium | 10 mg/L |
| | | | | | | | Silver | 10 mg/L |
| | | | | | | | Sr | 10 mg/L |
| | | | | | | | Thallium | 10 mg/L |
| | | | | | | | Uranium | 10 mg/L |
| | | | | | | | Vanadium | 10 mg/L |
| | | | | | | | Zinc | 10 mg/L |
| .ME_CALSTD#2_00008 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652579 | | | (Purchased Reagent) | | Antimony | 10 mg/L |
| | | | | | | | Mo | 10 mg/L |
| | | | | | | | Sn | 10 mg/L |
| **MEICPMS4 ICSB_01524** | 07/24/18 | 01/27/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME ICPMS LLIC_00018 | 10 mL | Aluminum | 100020 ug/L |
| | | | | | | | Iron | 100200 ug/L |
| | | | | | | | Mo | 2020 ug/L |
| | | | | | ME_CALSTD#1_00006 | 0.2 mL | Aluminum | 100020 ug/L |
| | | | | | | | Arsenic | 20 ug/L |
| | | | | | | | Barium | 20 ug/L |
| | | | | | | | Beryllium | 20 ug/L |
| | | | | | | | Cadmium | 20 ug/L |
| | | | | | | | Ce | 20 ug/L |
| | | | | | | | Chromium | 20 ug/L |
| | | | | | | | Cobalt | 20 ug/L |
| | | | | | | | Copper | 20 ug/L |
| | | | | | | | Iron | 100200 ug/L |
| | | | | | | | Lead | 20 ug/L |
| | | | | | | | Manganese | 20 ug/L |
| | | | | | | | Nickel | 20 ug/L |
| | | | | | | | Selenium | 20 ug/L |
| | | | | | | | Silver | 20 ug/L |
| | | | | | | | Sr | 20 ug/L |
| | | | | | | | Thallium | 20 ug/L |
| | | | | | | | Uranium | 20 ug/L |
| | | | | | | | Vanadium | 20 ug/L |
| | | | | | | | Zinc | 20 ug/L |
| | | | | | ME_CALSTD#2_00008 | 0.2 mL | Antimony | 20 ug/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Mo | 2020 ug/L |
| | | | | | | | Sn | 20 ug/L |
| .ME ICPMS LLIC_00018 | 08/21/18 | Inorganic Ventures, Lot K2-MEB651985 | | | (Purchased Reagent) | | Aluminum | 1000 ug/mL |
| | | | | | | | Iron | 1000 ug/mL |
| | | | | | | | Mo | 20 ug/mL |
| .ME_CALSTD#1_00006 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652580 | | | (Purchased Reagent) | | Aluminum | 10 mg/L |
| | | | | | | | Arsenic | 10 mg/L |
| | | | | | | | Barium | 10 mg/L |
| | | | | | | | Beryllium | 10 mg/L |
| | | | | | | | Cadmium | 10 mg/L |
| | | | | | | | Ce | 10 mg/L |
| | | | | | | | Chromium | 10 mg/L |
| | | | | | | | Cobalt | 10 mg/L |
| | | | | | | | Copper | 10 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | Lead | 10 mg/L |
| | | | | | | | Manganese | 10 mg/L |
| | | | | | | | Nickel | 10 mg/L |
| | | | | | | | Selenium | 10 mg/L |
| | | | | | | | Silver | 10 mg/L |
| | | | | | | | Sr | 10 mg/L |
| | | | | | | | Thallium | 10 mg/L |
| | | | | | | | Uranium | 10 mg/L |
| | | | | | | | Vanadium | 10 mg/L |
| | | | | | | | Zinc | 10 mg/L |
| .ME_CALSTD#2_00008 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652579 | | | (Purchased Reagent) | | Antimony | 10 mg/L |
| | | | | | | | Mo | 10 mg/L |
| | | | | | | | Sn | 10 mg/L |
| **MEICPMS4 ICSB_01526** | 07/24/18 | 01/29/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME ICPMS LLIC_00018 | 10 mL | Aluminum | 100020 ug/L |
| | | | | | | | Iron | 100200 ug/L |
| | | | | | | | Mo | 2020 ug/L |
| | | | | | ME_CALSTD#1_00006 | 0.2 mL | Aluminum | 100020 ug/L |
| | | | | | | | Arsenic | 20 ug/L |
| | | | | | | | Barium | 20 ug/L |
| | | | | | | | Beryllium | 20 ug/L |
| | | | | | | | Cadmium | 20 ug/L |
| | | | | | | | Ce | 20 ug/L |
| | | | | | | | Chromium | 20 ug/L |
| | | | | | | | Cobalt | 20 ug/L |
| | | | | | | | Copper | 20 ug/L |
| | | | | | | | Iron | 100200 ug/L |
| | | | | | | | Lead | 20 ug/L |
| | | | | | | | Manganese | 20 ug/L |
| | | | | | | | Nickel | 20 ug/L |
| | | | | | | | Selenium | 20 ug/L |
| | | | | | | | Silver | 20 ug/L |
| | | | | | | | Sr | 20 ug/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Thallium | 20 ug/L |
| | | | | | | | Uranium | 20 ug/L |
| | | | | | | | Vanadium | 20 ug/L |
| | | | | | | | Zinc | 20 ug/L |
| | | | | | ME_CALSTD#2_00008 | 0.2 mL | Antimony | 20 ug/L |
| | | | | | | | Mo | 2020 ug/L |
| | | | | | | | Sn | 20 ug/L |
| .ME ICPMS LLIC_00018 | 08/21/18 | Inorganic Ventures, Lot K2-MEB651985 | | | (Purchased Reagent) | | Aluminum | 1000 ug/mL |
| | | | | | | | Iron | 1000 ug/mL |
| | | | | | | | Mo | 20 ug/mL |
| .ME_CALSTD#1_00006 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652580 | | | (Purchased Reagent) | | Aluminum | 10 mg/L |
| | | | | | | | Arsenic | 10 mg/L |
| | | | | | | | Barium | 10 mg/L |
| | | | | | | | Beryllium | 10 mg/L |
| | | | | | | | Cadmium | 10 mg/L |
| | | | | | | | Ce | 10 mg/L |
| | | | | | | | Chromium | 10 mg/L |
| | | | | | | | Cobalt | 10 mg/L |
| | | | | | | | Copper | 10 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | Lead | 10 mg/L |
| | | | | | | | Manganese | 10 mg/L |
| | | | | | | | Nickel | 10 mg/L |
| | | | | | | | Selenium | 10 mg/L |
| | | | | | | | Silver | 10 mg/L |
| | | | | | | | Sr | 10 mg/L |
| | | | | | | | Thallium | 10 mg/L |
| | | | | | | | Uranium | 10 mg/L |
| | | | | | | | Vanadium | 10 mg/L |
| | | | | | | | Zinc | 10 mg/L |
| .ME_CALSTD#2_00008 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652579 | | | (Purchased Reagent) | | Antimony | 10 mg/L |
| | | | | | | | Mo | 10 mg/L |
| | | | | | | | Sn | 10 mg/L |
| **MEICPMS4 ICV_01532** | 08/11/18 | 01/26/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME_ICPMSICV#1_00003 | 250 uL | Aluminum | 25 ug/L |
| | | | | | | | Arsenic | 25 ug/L |
| | | | | | | | Barium | 25 ug/L |
| | | | | | | | Beryllium | 25 ug/L |
| | | | | | | | Cadmium | 25 ug/L |
| | | | | | | | Chromium | 25 ug/L |
| | | | | | | | Cobalt | 25 ug/L |
| | | | | | | | Copper | 25 ug/L |
| | | | | | | | Iron | 250 ug/L |
| | | | | | | | Lead | 25 ug/L |
| | | | | | | | Manganese | 25 ug/L |
| | | | | | | | Nickel | 25 ug/L |
| | | | | | | | Selenium | 25 ug/L |
| | | | | | | | Silver | 25 ug/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Thallium | 25 ug/L |
| | | | | | | | Uranium | 25 ug/L |
| | | | | | | | Vanadium | 25 ug/L |
| | | | | | | | Zinc | 25 ug/L |
| | | | | | ME_ICPMSICV#2_00003 | 250 uL | Antimony | 25 ug/L |
| .ME_ICPMSICV#1_00003 | 08/11/19 | Inorganic Ventures, Lot K2-MEB651091 | | | (Purchased Reagent) | | Aluminum | 10 mg/L |
| | | | | | | | Arsenic | 10 mg/L |
| | | | | | | | Barium | 10 mg/L |
| | | | | | | | Beryllium | 10 mg/L |
| | | | | | | | Cadmium | 10 mg/L |
| | | | | | | | Chromium | 10 mg/L |
| | | | | | | | Cobalt | 10 mg/L |
| | | | | | | | Copper | 10 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | Lead | 10 mg/L |
| | | | | | | | Manganese | 10 mg/L |
| | | | | | | | Nickel | 10 mg/L |
| | | | | | | | Selenium | 10 mg/L |
| | | | | | | | Silver | 10 mg/L |
| | | | | | | | Thallium | 10 mg/L |
| | | | | | | | Uranium | 10 mg/L |
| | | | | | | | Vanadium | 10 mg/L |
| | | | | | | | Zinc | 10 mg/L |
| .ME_ICPMSICV#2_00003 | 08/11/18 | Inorganic Ventures, Lot K2-MEB651072 | | | (Purchased Reagent) | | Antimony | 10 mg/L |
| **MEICPMS4 ICV_01533** | 08/11/18 | 01/27/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME_ICPMSICV#1_00003 | 250 uL | Aluminum | 25 ug/L |
| | | | | | | | Arsenic | 25 ug/L |
| | | | | | | | Barium | 25 ug/L |
| | | | | | | | Beryllium | 25 ug/L |
| | | | | | | | Cadmium | 25 ug/L |
| | | | | | | | Chromium | 25 ug/L |
| | | | | | | | Cobalt | 25 ug/L |
| | | | | | | | Copper | 25 ug/L |
| | | | | | | | Iron | 250 ug/L |
| | | | | | | | Lead | 25 ug/L |
| | | | | | | | Manganese | 25 ug/L |
| | | | | | | | Nickel | 25 ug/L |
| | | | | | | | Selenium | 25 ug/L |
| | | | | | | | Silver | 25 ug/L |
| | | | | | | | Uranium | 25 ug/L |
| | | | | | | | Vanadium | 25 ug/L |
| | | | | | | | Zinc | 25 ug/L |
| | | | | | ME_ICPMSICV#2_00003 | 250 uL | Antimony | 25 ug/L |
| .ME_ICPMSICV#1_00003 | 08/11/19 | Inorganic Ventures, Lot K2-MEB651091 | | | (Purchased Reagent) | | Aluminum | 10 mg/L |
| | | | | | | | Arsenic | 10 mg/L |
| | | | | | | | Barium | 10 mg/L |
| | | | | | | | Beryllium | 10 mg/L |
| | | | | | | | Cadmium | 10 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Chromium | 10 mg/L |
| | | | | | | | Cobalt | 10 mg/L |
| | | | | | | | Copper | 10 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | Lead | 10 mg/L |
| | | | | | | | Manganese | 10 mg/L |
| | | | | | | | Nickel | 10 mg/L |
| | | | | | | | Selenium | 10 mg/L |
| | | | | | | | Silver | 10 mg/L |
| | | | | | | | Uranium | 10 mg/L |
| | | | | | | | Vanadium | 10 mg/L |
| | | | | | | | Zinc | 10 mg/L |
| .ME_ICPMSICV#2_00003 | 08/11/18 | Inorganic Ventures, Lot K2-MEB651072 | | | (Purchased Reagent) | | Antimony | 10 mg/L |
| **MEICPMS4 ICV_01535** | 08/11/18 | 01/29/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME_ICPMSICV#1_00003 | 250 uL | Aluminum | 25 ug/L |
| | | | | | | | Arsenic | 25 ug/L |
| | | | | | | | Barium | 25 ug/L |
| | | | | | | | Beryllium | 25 ug/L |
| | | | | | | | Cadmium | 25 ug/L |
| | | | | | | | Chromium | 25 ug/L |
| | | | | | | | Cobalt | 25 ug/L |
| | | | | | | | Copper | 25 ug/L |
| | | | | | | | Iron | 250 ug/L |
| | | | | | | | Lead | 25 ug/L |
| | | | | | | | Manganese | 25 ug/L |
| | | | | | | | Nickel | 25 ug/L |
| | | | | | | | Selenium | 25 ug/L |
| | | | | | | | Silver | 25 ug/L |
| | | | | | | | Thallium | 25 ug/L |
| | | | | | | | Uranium | 25 ug/L |
| | | | | | | | Vanadium | 25 ug/L |
| | | | | | | | Zinc | 25 ug/L |
| | | | | | ME_ICPMSICV#2_00003 | 250 uL | Antimony | 25 ug/L |
| .ME_ICPMSICV#1_00003 | 08/11/19 | Inorganic Ventures, Lot K2-MEB651091 | | | (Purchased Reagent) | | Aluminum | 10 mg/L |
| | | | | | | | Arsenic | 10 mg/L |
| | | | | | | | Barium | 10 mg/L |
| | | | | | | | Beryllium | 10 mg/L |
| | | | | | | | Cadmium | 10 mg/L |
| | | | | | | | Chromium | 10 mg/L |
| | | | | | | | Cobalt | 10 mg/L |
| | | | | | | | Copper | 10 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | Lead | 10 mg/L |
| | | | | | | | Manganese | 10 mg/L |
| | | | | | | | Nickel | 10 mg/L |
| | | | | | | | Selenium | 10 mg/L |
| | | | | | | | Silver | 10 mg/L |
| | | | | | | | Thallium | 10 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Uranium | 10 mg/L |
| | | | | | | | Vanadium | 10 mg/L |
| | | | | | | | Zinc | 10 mg/L |
| .ME_ICPMSICV#2_00003 | 08/11/18 | Inorganic Ventures, Lot K2-MEB651072 | | | (Purchased Reagent) | | Antimony | 10 mg/L |
| **MEICPMS4 STD1_02460** | 01/31/18 | 01/26/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | MEICPMS4 STD3_01553 | 2 mL | Aluminum | 0.2 ug/L |
| | | | | | | | Arsenic | 0.2 ug/L |
| | | | | | | | Barium | 0.2 ug/L |
| | | | | | | | Beryllium | 0.2 ug/L |
| | | | | | | | Cadmium | 0.2 ug/L |
| | | | | | | | Chromium | 0.2 ug/L |
| | | | | | | | Cobalt | 0.2 ug/L |
| | | | | | | | Copper | 0.2 ug/L |
| | | | | | | | Iron | 2 ug/L |
| | | | | | | | Lead | 0.2 ug/L |
| | | | | | | | Manganese | 0.2 ug/L |
| | | | | | | | Nickel | 0.2 ug/L |
| | | | | | | | Selenium | 0.2 ug/L |
| | | | | | | | Silver | 0.2 ug/L |
| | | | | | | | Thallium | 0.2 ug/L |
| | | | | | | | Uranium | 0.2 ug/L |
| | | | | | | | Vanadium | 0.2 ug/L |
| | | | | | | | Zinc | 0.2 ug/L |
| | | | | | | | Antimony | 0.2 ug/L |
| .MEICPMS4 STD3_01553 | 07/24/18 | 01/26/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | MEICPMS4 STD4_01508 | 10 mL | Aluminum | 10 ug/L |
| | | | | | | | Arsenic | 10 ug/L |
| | | | | | | | Barium | 10 ug/L |
| | | | | | | | Beryllium | 10 ug/L |
| | | | | | | | Cadmium | 10 ug/L |
| | | | | | | | Chromium | 10 ug/L |
| | | | | | | | Cobalt | 10 ug/L |
| | | | | | | | Copper | 10 ug/L |
| | | | | | | | Iron | 100 ug/L |
| | | | | | | | Lead | 10 ug/L |
| | | | | | | | Manganese | 10 ug/L |
| | | | | | | | Nickel | 10 ug/L |
| | | | | | | | Selenium | 10 ug/L |
| | | | | | | | Silver | 10 ug/L |
| | | | | | | | Thallium | 10 ug/L |
| | | | | | | | Uranium | 10 ug/L |
| | | | | | | | Vanadium | 10 ug/L |
| | | | | | | | Zinc | 10 ug/L |
| | | | | | | | Antimony | 10 ug/L |
| ..MEICPMS4 STD4_01508 | 07/24/18 | 01/26/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME_CALSTD#1_00006 | 1 mL | Aluminum | 100 ug/L |
| | | | | | | | Arsenic | 100 ug/L |
| | | | | | | | Barium | 100 ug/L |
| | | | | | | | Beryllium | 100 ug/L |
| | | | | | | | Cadmium | 100 ug/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Chromium | 100 ug/L |
| | | | | | | | Cobalt | 100 ug/L |
| | | | | | | | Copper | 100 ug/L |
| | | | | | | | Iron | 1000 ug/L |
| | | | | | | | Lead | 100 ug/L |
| | | | | | | | Manganese | 100 ug/L |
| | | | | | | | Nickel | 100 ug/L |
| | | | | | | | Selenium | 100 ug/L |
| | | | | | | | Silver | 100 ug/L |
| | | | | | | | Thallium | 100 ug/L |
| | | | | | | | Uranium | 100 ug/L |
| | | | | | | | Vanadium | 100 ug/L |
| | | | | | | | Zinc | 100 ug/L |
| | | | | | ME_CALSTD#2_00008 | 1 mL | Antimony | 100 ug/L |
| ...ME_CALSTD#1_00006 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652580 | | | (Purchased Reagent) | | Aluminum | 10 mg/L |
| | | | | | | | Arsenic | 10 mg/L |
| | | | | | | | Barium | 10 mg/L |
| | | | | | | | Beryllium | 10 mg/L |
| | | | | | | | Cadmium | 10 mg/L |
| | | | | | | | Chromium | 10 mg/L |
| | | | | | | | Cobalt | 10 mg/L |
| | | | | | | | Copper | 10 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | Lead | 10 mg/L |
| | | | | | | | Manganese | 10 mg/L |
| | | | | | | | Nickel | 10 mg/L |
| | | | | | | | Selenium | 10 mg/L |
| | | | | | | | Silver | 10 mg/L |
| | | | | | | | Thallium | 10 mg/L |
| | | | | | | | Uranium | 10 mg/L |
| | | | | | | | Vanadium | 10 mg/L |
| | | | | | | | Zinc | 10 mg/L |
| ...ME_CALSTD#2_00008 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652579 | | | (Purchased Reagent) | | Antimony | 10 mg/L |
| **MEICPMS4 STD1_02461** | 12/22/18 | 01/26/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME_CRI_30_00014 | 0.1 mL | Aluminum | 10 ug/L |
| | | | | | | | Antimony | 1 ug/L |
| | | | | | | | Arsenic | 1 ug/L |
| | | | | | | | Barium | 1 ug/L |
| | | | | | | | Beryllium | 0.5 ug/L |
| | | | | | | | Cadmium | 1 ug/L |
| | | | | | | | Chromium | 1 ug/L |
| | | | | | | | Cobalt | 1 ug/L |
| | | | | | | | Copper | 1 ug/L |
| | | | | | | | Iron | 20 ug/L |
| | | | | | | | Lead | 1 ug/L |
| | | | | | | | Manganese | 1 ug/L |
| | | | | | | | Nickel | 1 ug/L |
| | | | | | | | Selenium | 1 ug/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Silver | 1 ug/L |
| | | | | | | | Thallium | 1 ug/L |
| | | | | | | | Uranium | 1 ug/L |
| | | | | | | | Vanadium | 1 ug/L |
| | | | | | | | Zinc | 10 ug/L |
| .ME_CRI_30_00014 | 12/22/18 | | VHG Labs, Lot 10071631-2 | | (Purchased Reagent) | | Aluminum | 10 ug/mL |
| | | | | | | | Antimony | 1 ug/mL |
| | | | | | | | Arsenic | 1 ug/mL |
| | | | | | | | Barium | 1 ug/mL |
| | | | | | | | Beryllium | 0.5 ug/mL |
| | | | | | | | Cadmium | 1 ug/mL |
| | | | | | | | Chromium | 1 ug/mL |
| | | | | | | | Cobalt | 1 ug/mL |
| | | | | | | | Copper | 1 ug/mL |
| | | | | | | | Iron | 20 ug/mL |
| | | | | | | | Lead | 1 ug/mL |
| | | | | | | | Manganese | 1 ug/mL |
| | | | | | | | Nickel | 1 ug/mL |
| | | | | | | | Selenium | 1 ug/mL |
| | | | | | | | Silver | 1 ug/mL |
| | | | | | | | Thallium | 1 ug/mL |
| | | | | | | | Uranium | 1 ug/mL |
| | | | | | | | Vanadium | 1 ug/mL |
| | | | | | | | Zinc | 10 ug/mL |
| **MEICPMS4 STD1_02462** | 12/22/18 | 01/26/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME_CRI_30_00014 | 0.2 mL | Aluminum | 20 ug/L |
| | | | | | | | Antimony | 2 ug/L |
| | | | | | | | Arsenic | 2 ug/L |
| | | | | | | | Barium | 2 ug/L |
| | | | | | | | Beryllium | 1 ug/L |
| | | | | | | | Cadmium | 2 ug/L |
| | | | | | | | Chromium | 2 ug/L |
| | | | | | | | Cobalt | 2 ug/L |
| | | | | | | | Copper | 2 ug/L |
| | | | | | | | Iron | 40 ug/L |
| | | | | | | | Lead | 2 ug/L |
| | | | | | | | Manganese | 2 ug/L |
| | | | | | | | Nickel | 2 ug/L |
| | | | | | | | Selenium | 2 ug/L |
| | | | | | | | Silver | 2 ug/L |
| | | | | | | | Thallium | 2 ug/L |
| | | | | | | | Uranium | 2 ug/L |
| | | | | | | | Vanadium | 2 ug/L |
| | | | | | | | Zinc | 20 ug/L |
| .ME_CRI_30_00014 | 12/22/18 | | VHG Labs, Lot 10071631-2 | | (Purchased Reagent) | | Aluminum | 10 ug/mL |
| | | | | | | | Antimony | 1 ug/mL |
| | | | | | | | Arsenic | 1 ug/mL |
| | | | | | | | Barium | 1 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Beryllium | 0.5 ug/mL |
| | | | | | | | Cadmium | 1 ug/mL |
| | | | | | | | Chromium | 1 ug/mL |
| | | | | | | | Cobalt | 1 ug/mL |
| | | | | | | | Copper | 1 ug/mL |
| | | | | | | | Iron | 20 ug/mL |
| | | | | | | | Lead | 1 ug/mL |
| | | | | | | | Manganese | 1 ug/mL |
| | | | | | | | Nickel | 1 ug/mL |
| | | | | | | | Selenium | 1 ug/mL |
| | | | | | | | Silver | 1 ug/mL |
| | | | | | | | Thallium | 1 ug/mL |
| | | | | | | | Uranium | 1 ug/mL |
| | | | | | | | Vanadium | 1 ug/mL |
| | | | | | | | Zinc | 10 ug/mL |
| **MEICPMS4 STD1_02464** | 01/31/18 | 01/27/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | MEICPMS4 STD3_01554 | 2 mL | Aluminum | 0.2 ug/L |
| | | | | | | | Arsenic | 0.2 ug/L |
| | | | | | | | Barium | 0.2 ug/L |
| | | | | | | | Beryllium | 0.2 ug/L |
| | | | | | | | Cadmium | 0.2 ug/L |
| | | | | | | | Chromium | 0.2 ug/L |
| | | | | | | | Cobalt | 0.2 ug/L |
| | | | | | | | Copper | 0.2 ug/L |
| | | | | | | | Iron | 2 ug/L |
| | | | | | | | Lead | 0.2 ug/L |
| | | | | | | | Manganese | 0.2 ug/L |
| | | | | | | | Nickel | 0.2 ug/L |
| | | | | | | | Selenium | 0.2 ug/L |
| | | | | | | | Silver | 0.2 ug/L |
| | | | | | | | Thallium | 0.2 ug/L |
| | | | | | | | Uranium | 0.2 ug/L |
| | | | | | | | Vanadium | 0.2 ug/L |
| | | | | | | | Zinc | 0.2 ug/L |
| | | | | | | | Antimony | 0.2 ug/L |
| .MEICPMS4 STD3_01554 | 07/24/18 | 01/27/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | MEICPMS4 STD4_01509 | 10 mL | Aluminum | 10 ug/L |
| | | | | | | | Arsenic | 10 ug/L |
| | | | | | | | Barium | 10 ug/L |
| | | | | | | | Beryllium | 10 ug/L |
| | | | | | | | Cadmium | 10 ug/L |
| | | | | | | | Chromium | 10 ug/L |
| | | | | | | | Cobalt | 10 ug/L |
| | | | | | | | Copper | 10 ug/L |
| | | | | | | | Iron | 100 ug/L |
| | | | | | | | Lead | 10 ug/L |
| | | | | | | | Manganese | 10 ug/L |
| | | | | | | | Nickel | 10 ug/L |
| | | | | | | | Selenium | 10 ug/L |

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Silver | 10 ug/L |
| | | | | | | | Thallium | 10 ug/L |
| | | | | | | | Uranium | 10 ug/L |
| | | | | | | | Vanadium | 10 ug/L |
| | | | | | | | Zinc | 10 ug/L |
| | | | | | | | Antimony | 10 ug/L |
| ..MEICPMS4 STD4_01509 | 07/24/18 | 01/27/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME_CALSTD#1_00006 | 1 mL | Aluminum | 100 ug/L |
| | | | | | | | Arsenic | 100 ug/L |
| | | | | | | | Barium | 100 ug/L |
| | | | | | | | Beryllium | 100 ug/L |
| | | | | | | | Cadmium | 100 ug/L |
| | | | | | | | Chromium | 100 ug/L |
| | | | | | | | Cobalt | 100 ug/L |
| | | | | | | | Copper | 100 ug/L |
| | | | | | | | Iron | 1000 ug/L |
| | | | | | | | Lead | 100 ug/L |
| | | | | | | | Manganese | 100 ug/L |
| | | | | | | | Nickel | 100 ug/L |
| | | | | | | | Selenium | 100 ug/L |
| | | | | | | | Silver | 100 ug/L |
| | | | | | | | Thallium | 100 ug/L |
| | | | | | | | Uranium | 100 ug/L |
| | | | | | | | Vanadium | 100 ug/L |
| | | | | | | | Zinc | 100 ug/L |
| | | | | | ME_CALSTD#2_00008 | 1 mL | Antimony | 100 ug/L |
| ...ME_CALSTD#1_00006 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652580 | | | (Purchased Reagent) | | Aluminum | 10 mg/L |
| | | | | | | | Arsenic | 10 mg/L |
| | | | | | | | Barium | 10 mg/L |
| | | | | | | | Beryllium | 10 mg/L |
| | | | | | | | Cadmium | 10 mg/L |
| | | | | | | | Chromium | 10 mg/L |
| | | | | | | | Cobalt | 10 mg/L |
| | | | | | | | Copper | 10 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | Lead | 10 mg/L |
| | | | | | | | Manganese | 10 mg/L |
| | | | | | | | Nickel | 10 mg/L |
| | | | | | | | Selenium | 10 mg/L |
| | | | | | | | Silver | 10 mg/L |
| | | | | | | | Thallium | 10 mg/L |
| | | | | | | | Uranium | 10 mg/L |
| | | | | | | | Vanadium | 10 mg/L |
| | | | | | | | Zinc | 10 mg/L |
| ...ME_CALSTD#2_00008 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652579 | | | (Purchased Reagent) | | Antimony | 10 mg/L |
| **MEICPMS4 STD1_02465** | 12/22/18 | 01/27/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME_CRI_30_00014 | 0.1 mL | Aluminum | 10 ug/L |
| | | | | | | | Antimony | 1 ug/L |
| | | | | | | | Arsenic | 1 ug/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Barium | 1 ug/L |
| | | | | | | | Beryllium | 0.5 ug/L |
| | | | | | | | Cadmium | 1 ug/L |
| | | | | | | | Chromium | 1 ug/L |
| | | | | | | | Cobalt | 1 ug/L |
| | | | | | | | Copper | 1 ug/L |
| | | | | | | | Iron | 20 ug/L |
| | | | | | | | Lead | 1 ug/L |
| | | | | | | | Manganese | 1 ug/L |
| | | | | | | | Nickel | 1 ug/L |
| | | | | | | | Selenium | 1 ug/L |
| | | | | | | | Silver | 1 ug/L |
| | | | | | | | Thallium | 1 ug/L |
| | | | | | | | Uranium | 1 ug/L |
| | | | | | | | Vanadium | 1 ug/L |
| | | | | | | | Zinc | 10 ug/L |
| .ME_CRI_30_00014 | 12/22/18 | | VHG Labs, Lot 10071631-2 | | (Purchased Reagent) | | Aluminum | 10 ug/mL |
| | | | | | | | Antimony | 1 ug/mL |
| | | | | | | | Arsenic | 1 ug/mL |
| | | | | | | | Barium | 1 ug/mL |
| | | | | | | | Beryllium | 0.5 ug/mL |
| | | | | | | | Cadmium | 1 ug/mL |
| | | | | | | | Chromium | 1 ug/mL |
| | | | | | | | Cobalt | 1 ug/mL |
| | | | | | | | Copper | 1 ug/mL |
| | | | | | | | Iron | 20 ug/mL |
| | | | | | | | Lead | 1 ug/mL |
| | | | | | | | Manganese | 1 ug/mL |
| | | | | | | | Nickel | 1 ug/mL |
| | | | | | | | Selenium | 1 ug/mL |
| | | | | | | | Silver | 1 ug/mL |
| | | | | | | | Thallium | 1 ug/mL |
| | | | | | | | Uranium | 1 ug/mL |
| | | | | | | | Vanadium | 1 ug/mL |
| | | | | | | | Zinc | 10 ug/mL |
| **MEICPMS4 STD1_02466** | 12/22/18 | 01/27/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME_CRI_30_00014 | 0.2 mL | Aluminum | 20 ug/L |
| | | | | | | | Antimony | 2 ug/L |
| | | | | | | | Arsenic | 2 ug/L |
| | | | | | | | Barium | 2 ug/L |
| | | | | | | | Beryllium | 1 ug/L |
| | | | | | | | Cadmium | 2 ug/L |
| | | | | | | | Chromium | 2 ug/L |
| | | | | | | | Cobalt | 2 ug/L |
| | | | | | | | Copper | 2 ug/L |
| | | | | | | | Iron | 40 ug/L |
| | | | | | | | Lead | 2 ug/L |
| | | | | | | | Manganese | 2 ug/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Nickel | 2 ug/L |
| | | | | | | | Selenium | 2 ug/L |
| | | | | | | | Silver | 2 ug/L |
| | | | | | | | Thallium | 2 ug/L |
| | | | | | | | Uranium | 2 ug/L |
| | | | | | | | Vanadium | 2 ug/L |
| | | | | | | | Zinc | 20 ug/L |
| .ME_CRI_30_00014 | 12/22/18 | | VHG Labs, Lot 10071631-2 | | (Purchased Reagent) | | Aluminum | 10 ug/mL |
| | | | | | | | Antimony | 1 ug/mL |
| | | | | | | | Arsenic | 1 ug/mL |
| | | | | | | | Barium | 1 ug/mL |
| | | | | | | | Beryllium | 0.5 ug/mL |
| | | | | | | | Cadmium | 1 ug/mL |
| | | | | | | | Chromium | 1 ug/mL |
| | | | | | | | Cobalt | 1 ug/mL |
| | | | | | | | Copper | 1 ug/mL |
| | | | | | | | Iron | 20 ug/mL |
| | | | | | | | Lead | 1 ug/mL |
| | | | | | | | Manganese | 1 ug/mL |
| | | | | | | | Nickel | 1 ug/mL |
| | | | | | | | Selenium | 1 ug/mL |
| | | | | | | | Silver | 1 ug/mL |
| | | | | | | | Thallium | 1 ug/mL |
| | | | | | | | Uranium | 1 ug/mL |
| | | | | | | | Vanadium | 1 ug/mL |
| | | | | | | | Zinc | 10 ug/mL |
| **MEICPMS4 STD1_02472** | 01/31/18 | 01/29/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | MEICPMS4 STD3_01556 | 2 mL | Aluminum | 0.2 ug/L |
| | | | | | | | Arsenic | 0.2 ug/L |
| | | | | | | | Barium | 0.2 ug/L |
| | | | | | | | Beryllium | 0.2 ug/L |
| | | | | | | | Cadmium | 0.2 ug/L |
| | | | | | | | Chromium | 0.2 ug/L |
| | | | | | | | Cobalt | 0.2 ug/L |
| | | | | | | | Copper | 0.2 ug/L |
| | | | | | | | Iron | 2 ug/L |
| | | | | | | | Lead | 0.2 ug/L |
| | | | | | | | Manganese | 0.2 ug/L |
| | | | | | | | Nickel | 0.2 ug/L |
| | | | | | | | Selenium | 0.2 ug/L |
| | | | | | | | Silver | 0.2 ug/L |
| | | | | | | | Thallium | 0.2 ug/L |
| | | | | | | | Uranium | 0.2 ug/L |
| | | | | | | | Vanadium | 0.2 ug/L |
| | | | | | | | Zinc | 0.2 ug/L |
| | | | | | | | Antimony | 0.2 ug/L |
| .MEICPMS4 STD3_01556 | 07/24/18 | 01/29/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | MEICPMS4 STD4_01511 | 10 mL | Aluminum | 10 ug/L |
| | | | | | | | Arsenic | 10 ug/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Barium | 10 ug/L |
| | | | | | | | Beryllium | 10 ug/L |
| | | | | | | | Cadmium | 10 ug/L |
| | | | | | | | Chromium | 10 ug/L |
| | | | | | | | Cobalt | 10 ug/L |
| | | | | | | | Copper | 10 ug/L |
| | | | | | | | Iron | 100 ug/L |
| | | | | | | | Lead | 10 ug/L |
| | | | | | | | Manganese | 10 ug/L |
| | | | | | | | Nickel | 10 ug/L |
| | | | | | | | Selenium | 10 ug/L |
| | | | | | | | Silver | 10 ug/L |
| | | | | | | | Thallium | 10 ug/L |
| | | | | | | | Uranium | 10 ug/L |
| | | | | | | | Vanadium | 10 ug/L |
| | | | | | | | Zinc | 10 ug/L |
| | | | | | | | Antimony | 10 ug/L |
| ..MEICPMS4 STD4_01511 | 07/24/18 | 01/29/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME_CALSTD#1_00006 | 1 mL | Aluminum | 100 ug/L |
| | | | | | | | Arsenic | 100 ug/L |
| | | | | | | | Barium | 100 ug/L |
| | | | | | | | Beryllium | 100 ug/L |
| | | | | | | | Cadmium | 100 ug/L |
| | | | | | | | Chromium | 100 ug/L |
| | | | | | | | Cobalt | 100 ug/L |
| | | | | | | | Copper | 100 ug/L |
| | | | | | | | Iron | 1000 ug/L |
| | | | | | | | Lead | 100 ug/L |
| | | | | | | | Manganese | 100 ug/L |
| | | | | | | | Nickel | 100 ug/L |
| | | | | | | | Selenium | 100 ug/L |
| | | | | | | | Silver | 100 ug/L |
| | | | | | | | Thallium | 100 ug/L |
| | | | | | | | Uranium | 100 ug/L |
| | | | | | | | Vanadium | 100 ug/L |
| | | | | | | | Zinc | 100 ug/L |
| | | | | | ME_CALSTD#2_00008 | 1 mL | Antimony | 100 ug/L |
| ...ME_CALSTD#1_00006 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652580 | | | (Purchased Reagent) | | Aluminum | 10 mg/L |
| | | | | | | | Arsenic | 10 mg/L |
| | | | | | | | Barium | 10 mg/L |
| | | | | | | | Beryllium | 10 mg/L |
| | | | | | | | Cadmium | 10 mg/L |
| | | | | | | | Chromium | 10 mg/L |
| | | | | | | | Cobalt | 10 mg/L |
| | | | | | | | Copper | 10 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | Lead | 10 mg/L |
| | | | | | | | Manganese | 10 mg/L |
| | | | | | | | Nickel | 10 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Selenium | 10 mg/L |
| | | | | | | | Silver | 10 mg/L |
| | | | | | | | Thallium | 10 mg/L |
| | | | | | | | Uranium | 10 mg/L |
| | | | | | | | Vanadium | 10 mg/L |
| | | | | | | | Zinc | 10 mg/L |
| ...ME_CALSTD#2_00008 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652579 | | | (Purchased Reagent) | | Antimony | 10 mg/L |
| **MEICPMS4 STD1_02473** | 12/22/18 | 01/29/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME_CRI_30_00014 | 0.1 mL | Aluminum | 10 ug/L |
| | | | | | | | Antimony | 1 ug/L |
| | | | | | | | Arsenic | 1 ug/L |
| | | | | | | | Barium | 1 ug/L |
| | | | | | | | Beryllium | 0.5 ug/L |
| | | | | | | | Cadmium | 1 ug/L |
| | | | | | | | Chromium | 1 ug/L |
| | | | | | | | Cobalt | 1 ug/L |
| | | | | | | | Copper | 1 ug/L |
| | | | | | | | Iron | 20 ug/L |
| | | | | | | | Lead | 1 ug/L |
| | | | | | | | Manganese | 1 ug/L |
| | | | | | | | Nickel | 1 ug/L |
| | | | | | | | Selenium | 1 ug/L |
| | | | | | | | Silver | 1 ug/L |
| | | | | | | | Thallium | 1 ug/L |
| | | | | | | | Uranium | 1 ug/L |
| | | | | | | | Vanadium | 1 ug/L |
| | | | | | | | Zinc | 10 ug/L |
| .ME_CRI_30_00014 | 12/22/18 | VHG Labs, Lot 10071631-2 | | | (Purchased Reagent) | | Aluminum | 10 ug/mL |
| | | | | | | | Antimony | 1 ug/mL |
| | | | | | | | Arsenic | 1 ug/mL |
| | | | | | | | Barium | 1 ug/mL |
| | | | | | | | Beryllium | 0.5 ug/mL |
| | | | | | | | Cadmium | 1 ug/mL |
| | | | | | | | Chromium | 1 ug/mL |
| | | | | | | | Cobalt | 1 ug/mL |
| | | | | | | | Copper | 1 ug/mL |
| | | | | | | | Iron | 20 ug/mL |
| | | | | | | | Lead | 1 ug/mL |
| | | | | | | | Manganese | 1 ug/mL |
| | | | | | | | Nickel | 1 ug/mL |
| | | | | | | | Selenium | 1 ug/mL |
| | | | | | | | Silver | 1 ug/mL |
| | | | | | | | Thallium | 1 ug/mL |
| | | | | | | | Uranium | 1 ug/mL |
| | | | | | | | Vanadium | 1 ug/mL |
| | | | | | | | Zinc | 10 ug/mL |
| **MEICPMS4 STD1_02474** | 12/22/18 | 01/29/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME_CRI_30_00014 | 0.2 mL | Aluminum | 20 ug/L |
| | | | | | | | Antimony | 2 ug/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Arsenic | 2 ug/L |
| | | | | | | | Barium | 2 ug/L |
| | | | | | | | Beryllium | 1 ug/L |
| | | | | | | | Cadmium | 2 ug/L |
| | | | | | | | Chromium | 2 ug/L |
| | | | | | | | Cobalt | 2 ug/L |
| | | | | | | | Copper | 2 ug/L |
| | | | | | | | Iron | 40 ug/L |
| | | | | | | | Lead | 2 ug/L |
| | | | | | | | Manganese | 2 ug/L |
| | | | | | | | Nickel | 2 ug/L |
| | | | | | | | Selenium | 2 ug/L |
| | | | | | | | Silver | 2 ug/L |
| | | | | | | | Thallium | 2 ug/L |
| | | | | | | | Uranium | 2 ug/L |
| | | | | | | | Vanadium | 2 ug/L |
| | | | | | | | Zinc | 20 ug/L |
| .ME_CRI_30_00014 | 12/22/18 | | VHG Labs, Lot 10071631-2 | | (Purchased Reagent) | | Aluminum | 10 ug/mL |
| | | | | | | | Antimony | 1 ug/mL |
| | | | | | | | Arsenic | 1 ug/mL |
| | | | | | | | Barium | 1 ug/mL |
| | | | | | | | Beryllium | 0.5 ug/mL |
| | | | | | | | Cadmium | 1 ug/mL |
| | | | | | | | Chromium | 1 ug/mL |
| | | | | | | | Cobalt | 1 ug/mL |
| | | | | | | | Copper | 1 ug/mL |
| | | | | | | | Iron | 20 ug/mL |
| | | | | | | | Lead | 1 ug/mL |
| | | | | | | | Manganese | 1 ug/mL |
| | | | | | | | Nickel | 1 ug/mL |
| | | | | | | | Selenium | 1 ug/mL |
| | | | | | | | Silver | 1 ug/mL |
| | | | | | | | Thallium | 1 ug/mL |
| | | | | | | | Uranium | 1 ug/mL |
| | | | | | | | Vanadium | 1 ug/mL |
| | | | | | | | Zinc | 10 ug/mL |
| **MEICPMS4 STD2_01534** | 07/24/18 | 01/26/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | MEICPMS4 STD3_01553 | 10 mL | Aluminum | 1 ug/L |
| | | | | | | | Arsenic | 1 ug/L |
| | | | | | | | Barium | 1 ug/L |
| | | | | | | | Beryllium | 1 ug/L |
| | | | | | | | Cadmium | 1 ug/L |
| | | | | | | | Chromium | 1 ug/L |
| | | | | | | | Cobalt | 1 ug/L |
| | | | | | | | Copper | 1 ug/L |
| | | | | | | | Iron | 10 ug/L |
| | | | | | | | Lead | 1 ug/L |
| | | | | | | | Manganese | 1 ug/L |

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Nickel | 1 ug/L |
| | | | | | | | Selenium | 1 ug/L |
| | | | | | | | Silver | 1 ug/L |
| | | | | | | | Thallium | 1 ug/L |
| | | | | | | | Uranium | 1 ug/L |
| | | | | | | | Vanadium | 1 ug/L |
| | | | | | | | Zinc | 1 ug/L |
| | | | | | | | Antimony | 1 ug/L |
| .MEICPMS4 STD3_01553 | 07/24/18 | 01/26/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | MEICPMS4 STD4_01508 | 10 mL | Aluminum | 10 ug/L |
| | | | | | | | Arsenic | 10 ug/L |
| | | | | | | | Barium | 10 ug/L |
| | | | | | | | Beryllium | 10 ug/L |
| | | | | | | | Cadmium | 10 ug/L |
| | | | | | | | Chromium | 10 ug/L |
| | | | | | | | Cobalt | 10 ug/L |
| | | | | | | | Copper | 10 ug/L |
| | | | | | | | Iron | 100 ug/L |
| | | | | | | | Lead | 10 ug/L |
| | | | | | | | Manganese | 10 ug/L |
| | | | | | | | Nickel | 10 ug/L |
| | | | | | | | Selenium | 10 ug/L |
| | | | | | | | Silver | 10 ug/L |
| | | | | | | | Thallium | 10 ug/L |
| | | | | | | | Uranium | 10 ug/L |
| | | | | | | | Vanadium | 10 ug/L |
| | | | | | | | Zinc | 10 ug/L |
| | | | | | | | Antimony | 10 ug/L |
| ..MEICPMS4 STD4_01508 | 07/24/18 | 01/26/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME_CALSTD#1_00006 | 1 mL | Aluminum | 100 ug/L |
| | | | | | | | Arsenic | 100 ug/L |
| | | | | | | | Barium | 100 ug/L |
| | | | | | | | Beryllium | 100 ug/L |
| | | | | | | | Cadmium | 100 ug/L |
| | | | | | | | Chromium | 100 ug/L |
| | | | | | | | Cobalt | 100 ug/L |
| | | | | | | | Copper | 100 ug/L |
| | | | | | | | Iron | 1000 ug/L |
| | | | | | | | Lead | 100 ug/L |
| | | | | | | | Manganese | 100 ug/L |
| | | | | | | | Nickel | 100 ug/L |
| | | | | | | | Selenium | 100 ug/L |
| | | | | | | | Silver | 100 ug/L |
| | | | | | | | Thallium | 100 ug/L |
| | | | | | | | Uranium | 100 ug/L |
| | | | | | | | Vanadium | 100 ug/L |
| | | | | | | | Zinc | 100 ug/L |
| | | | | | ME_CALSTD#2_00008 | 1 mL | Antimony | 100 ug/L |
| ...ME_CALSTD#1_00006 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652580 | | | (Purchased Reagent) | | Aluminum | 10 mg/L |
| | | | | | | | Arsenic | 10 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Barium | 10 mg/L |
| | | | | | | | Beryllium | 10 mg/L |
| | | | | | | | Cadmium | 10 mg/L |
| | | | | | | | Chromium | 10 mg/L |
| | | | | | | | Cobalt | 10 mg/L |
| | | | | | | | Copper | 10 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | Lead | 10 mg/L |
| | | | | | | | Manganese | 10 mg/L |
| | | | | | | | Nickel | 10 mg/L |
| | | | | | | | Selenium | 10 mg/L |
| | | | | | | | Silver | 10 mg/L |
| | | | | | | | Thallium | 10 mg/L |
| | | | | | | | Uranium | 10 mg/L |
| | | | | | | | Vanadium | 10 mg/L |
| | | | | | | | Zinc | 10 mg/L |
| ...ME_CALSTD#2_00008 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652579 | | | (Purchased Reagent) | | Antimony | 10 mg/L |
| **MEICPMS4 STD2_01535** | 07/24/18 | 01/27/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | MEICPMS4 STD3_01554 | 10 mL | Aluminum | 1 ug/L |
| | | | | | | | Arsenic | 1 ug/L |
| | | | | | | | Barium | 1 ug/L |
| | | | | | | | Beryllium | 1 ug/L |
| | | | | | | | Cadmium | 1 ug/L |
| | | | | | | | Chromium | 1 ug/L |
| | | | | | | | Cobalt | 1 ug/L |
| | | | | | | | Copper | 1 ug/L |
| | | | | | | | Iron | 10 ug/L |
| | | | | | | | Lead | 1 ug/L |
| | | | | | | | Manganese | 1 ug/L |
| | | | | | | | Nickel | 1 ug/L |
| | | | | | | | Selenium | 1 ug/L |
| | | | | | | | Silver | 1 ug/L |
| | | | | | | | Thallium | 1 ug/L |
| | | | | | | | Uranium | 1 ug/L |
| | | | | | | | Vanadium | 1 ug/L |
| | | | | | | | Zinc | 1 ug/L |
| | | | | | | | Antimony | 1 ug/L |
| .MEICPMS4 STD3_01554 | 07/24/18 | 01/27/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | MEICPMS4 STD4_01509 | 10 mL | Aluminum | 10 ug/L |
| | | | | | | | Arsenic | 10 ug/L |
| | | | | | | | Barium | 10 ug/L |
| | | | | | | | Beryllium | 10 ug/L |
| | | | | | | | Cadmium | 10 ug/L |
| | | | | | | | Chromium | 10 ug/L |
| | | | | | | | Cobalt | 10 ug/L |
| | | | | | | | Copper | 10 ug/L |
| | | | | | | | Iron | 100 ug/L |
| | | | | | | | Lead | 10 ug/L |
| | | | | | | | Manganese | 10 ug/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Nickel | 10 ug/L |
| | | | | | | | Selenium | 10 ug/L |
| | | | | | | | Silver | 10 ug/L |
| | | | | | | | Thallium | 10 ug/L |
| | | | | | | | Uranium | 10 ug/L |
| | | | | | | | Vanadium | 10 ug/L |
| | | | | | | | Zinc | 10 ug/L |
| | | | | | | | Antimony | 10 ug/L |
| ..MEICPMS4 STD4_01509 | 07/24/18 | 01/27/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME_CALSTD#1_00006 | 1 mL | Aluminum | 100 ug/L |
| | | | | | | | Arsenic | 100 ug/L |
| | | | | | | | Barium | 100 ug/L |
| | | | | | | | Beryllium | 100 ug/L |
| | | | | | | | Cadmium | 100 ug/L |
| | | | | | | | Chromium | 100 ug/L |
| | | | | | | | Cobalt | 100 ug/L |
| | | | | | | | Copper | 100 ug/L |
| | | | | | | | Iron | 1000 ug/L |
| | | | | | | | Lead | 100 ug/L |
| | | | | | | | Manganese | 100 ug/L |
| | | | | | | | Nickel | 100 ug/L |
| | | | | | | | Selenium | 100 ug/L |
| | | | | | | | Silver | 100 ug/L |
| | | | | | | | Thallium | 100 ug/L |
| | | | | | | | Uranium | 100 ug/L |
| | | | | | | | Vanadium | 100 ug/L |
| | | | | | | | Zinc | 100 ug/L |
| | | | | | ME_CALSTD#2_00008 | 1 mL | Antimony | 100 ug/L |
| ...ME_CALSTD#1_00006 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652580 | | | (Purchased Reagent) | | Aluminum | 10 mg/L |
| | | | | | | | Arsenic | 10 mg/L |
| | | | | | | | Barium | 10 mg/L |
| | | | | | | | Beryllium | 10 mg/L |
| | | | | | | | Cadmium | 10 mg/L |
| | | | | | | | Chromium | 10 mg/L |
| | | | | | | | Cobalt | 10 mg/L |
| | | | | | | | Copper | 10 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | Lead | 10 mg/L |
| | | | | | | | Manganese | 10 mg/L |
| | | | | | | | Nickel | 10 mg/L |
| | | | | | | | Selenium | 10 mg/L |
| | | | | | | | Silver | 10 mg/L |
| | | | | | | | Thallium | 10 mg/L |
| | | | | | | | Uranium | 10 mg/L |
| | | | | | | | Vanadium | 10 mg/L |
| | | | | | | | Zinc | 10 mg/L |
| ...ME_CALSTD#2_00008 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652579 | | | (Purchased Reagent) | | Antimony | 10 mg/L |
| **MEICPMS4 STD2_01537** | 07/24/18 | 01/29/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | MEICPMS4 STD3_01556 | 10 mL | Aluminum | 1 ug/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Arsenic | 1 ug/L |
| | | | | | | | Barium | 1 ug/L |
| | | | | | | | Beryllium | 1 ug/L |
| | | | | | | | Cadmium | 1 ug/L |
| | | | | | | | Chromium | 1 ug/L |
| | | | | | | | Cobalt | 1 ug/L |
| | | | | | | | Copper | 1 ug/L |
| | | | | | | | Iron | 10 ug/L |
| | | | | | | | Lead | 1 ug/L |
| | | | | | | | Manganese | 1 ug/L |
| | | | | | | | Nickel | 1 ug/L |
| | | | | | | | Selenium | 1 ug/L |
| | | | | | | | Silver | 1 ug/L |
| | | | | | | | Thallium | 1 ug/L |
| | | | | | | | Uranium | 1 ug/L |
| | | | | | | | Vanadium | 1 ug/L |
| | | | | | | | Zinc | 1 ug/L |
| | | | | | | | Antimony | 1 ug/L |
| .MEICPMS4 STD3_01556 | 07/24/18 | 01/29/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | MEICPMS4 STD4_01511 | 10 mL | Aluminum | 10 ug/L |
| | | | | | | | Arsenic | 10 ug/L |
| | | | | | | | Barium | 10 ug/L |
| | | | | | | | Beryllium | 10 ug/L |
| | | | | | | | Cadmium | 10 ug/L |
| | | | | | | | Chromium | 10 ug/L |
| | | | | | | | Cobalt | 10 ug/L |
| | | | | | | | Copper | 10 ug/L |
| | | | | | | | Iron | 100 ug/L |
| | | | | | | | Lead | 10 ug/L |
| | | | | | | | Manganese | 10 ug/L |
| | | | | | | | Nickel | 10 ug/L |
| | | | | | | | Selenium | 10 ug/L |
| | | | | | | | Silver | 10 ug/L |
| | | | | | | | Thallium | 10 ug/L |
| | | | | | | | Uranium | 10 ug/L |
| | | | | | | | Vanadium | 10 ug/L |
| | | | | | | | Zinc | 10 ug/L |
| | | | | | | | Antimony | 10 ug/L |
| ..MEICPMS4 STD4_01511 | 07/24/18 | 01/29/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME_CALSTD#1_00006 | 1 mL | Aluminum | 100 ug/L |
| | | | | | | | Arsenic | 100 ug/L |
| | | | | | | | Barium | 100 ug/L |
| | | | | | | | Beryllium | 100 ug/L |
| | | | | | | | Cadmium | 100 ug/L |
| | | | | | | | Chromium | 100 ug/L |
| | | | | | | | Cobalt | 100 ug/L |
| | | | | | | | Copper | 100 ug/L |
| | | | | | | | Iron | 1000 ug/L |
| | | | | | | | Lead | 100 ug/L |
| | | | | | | | Manganese | 100 ug/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Nickel | 100 ug/L |
| | | | | | | | Selenium | 100 ug/L |
| | | | | | | | Silver | 100 ug/L |
| | | | | | | | Thallium | 100 ug/L |
| | | | | | | | Uranium | 100 ug/L |
| | | | | | | | Vanadium | 100 ug/L |
| | | | | | | | Zinc | 100 ug/L |
| | | | | | ME_CALSTD#2_00008 | 1 mL | Antimony | 100 ug/L |
| ...ME_CALSTD#1_00006 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652580 | | | (Purchased Reagent) | | Aluminum | 10 mg/L |
| | | | | | | | Arsenic | 10 mg/L |
| | | | | | | | Barium | 10 mg/L |
| | | | | | | | Beryllium | 10 mg/L |
| | | | | | | | Cadmium | 10 mg/L |
| | | | | | | | Chromium | 10 mg/L |
| | | | | | | | Cobalt | 10 mg/L |
| | | | | | | | Copper | 10 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | Lead | 10 mg/L |
| | | | | | | | Manganese | 10 mg/L |
| | | | | | | | Nickel | 10 mg/L |
| | | | | | | | Selenium | 10 mg/L |
| | | | | | | | Silver | 10 mg/L |
| | | | | | | | Thallium | 10 mg/L |
| | | | | | | | Uranium | 10 mg/L |
| | | | | | | | Vanadium | 10 mg/L |
| | | | | | | | Zinc | 10 mg/L |
| ...ME_CALSTD#2_00008 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652579 | | | (Purchased Reagent) | | Antimony | 10 mg/L |
| **MEICPMS4 STD3_01553** | 07/24/18 | 01/26/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | MEICPMS4 STD4_01508 | 10 mL | Aluminum | 10 ug/L |
| | | | | | | | Arsenic | 10 ug/L |
| | | | | | | | Barium | 10 ug/L |
| | | | | | | | Beryllium | 10 ug/L |
| | | | | | | | Cadmium | 10 ug/L |
| | | | | | | | Chromium | 10 ug/L |
| | | | | | | | Cobalt | 10 ug/L |
| | | | | | | | Copper | 10 ug/L |
| | | | | | | | Iron | 100 ug/L |
| | | | | | | | Lead | 10 ug/L |
| | | | | | | | Manganese | 10 ug/L |
| | | | | | | | Nickel | 10 ug/L |
| | | | | | | | Selenium | 10 ug/L |
| | | | | | | | Silver | 10 ug/L |
| | | | | | | | Thallium | 10 ug/L |
| | | | | | | | Uranium | 10 ug/L |
| | | | | | | | Vanadium | 10 ug/L |
| | | | | | | | Zinc | 10 ug/L |
| | | | | | | | Antimony | 10 ug/L |
| .MEICPMS4 STD4_01508 | 07/24/18 | 01/26/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME_CALSTD#1_00006 | 1 mL | Aluminum | 100 ug/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Arsenic | 100 ug/L |
| | | | | | | | Barium | 100 ug/L |
| | | | | | | | Beryllium | 100 ug/L |
| | | | | | | | Cadmium | 100 ug/L |
| | | | | | | | Chromium | 100 ug/L |
| | | | | | | | Cobalt | 100 ug/L |
| | | | | | | | Copper | 100 ug/L |
| | | | | | | | Iron | 1000 ug/L |
| | | | | | | | Lead | 100 ug/L |
| | | | | | | | Manganese | 100 ug/L |
| | | | | | | | Nickel | 100 ug/L |
| | | | | | | | Selenium | 100 ug/L |
| | | | | | | | Silver | 100 ug/L |
| | | | | | | | Thallium | 100 ug/L |
| | | | | | | | Uranium | 100 ug/L |
| | | | | | | | Vanadium | 100 ug/L |
| | | | | | | | Zinc | 100 ug/L |
| | | | | | ME_CALSTD#2_00008 | 1 mL | Antimony | 100 ug/L |
| ..ME_CALSTD#1_00006 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652580 | | | (Purchased Reagent) | | Aluminum | 10 mg/L |
| | | | | | | | Arsenic | 10 mg/L |
| | | | | | | | Barium | 10 mg/L |
| | | | | | | | Beryllium | 10 mg/L |
| | | | | | | | Cadmium | 10 mg/L |
| | | | | | | | Chromium | 10 mg/L |
| | | | | | | | Cobalt | 10 mg/L |
| | | | | | | | Copper | 10 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | Lead | 10 mg/L |
| | | | | | | | Manganese | 10 mg/L |
| | | | | | | | Nickel | 10 mg/L |
| | | | | | | | Selenium | 10 mg/L |
| | | | | | | | Silver | 10 mg/L |
| | | | | | | | Thallium | 10 mg/L |
| | | | | | | | Uranium | 10 mg/L |
| | | | | | | | Vanadium | 10 mg/L |
| | | | | | | | Zinc | 10 mg/L |
| ..ME_CALSTD#2_00008 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652579 | | | (Purchased Reagent) | | Antimony | 10 mg/L |
| **MEICPMS4 STD3_01554** | 07/24/18 | 01/27/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | MEICPMS4 STD4_01509 | 10 mL | Aluminum | 10 ug/L |
| | | | | | | | Arsenic | 10 ug/L |
| | | | | | | | Barium | 10 ug/L |
| | | | | | | | Beryllium | 10 ug/L |
| | | | | | | | Cadmium | 10 ug/L |
| | | | | | | | Chromium | 10 ug/L |
| | | | | | | | Cobalt | 10 ug/L |
| | | | | | | | Copper | 10 ug/L |
| | | | | | | | Iron | 100 ug/L |
| | | | | | | | Lead | 10 ug/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Manganese | 10 ug/L |
| | | | | | | | Nickel | 10 ug/L |
| | | | | | | | Selenium | 10 ug/L |
| | | | | | | | Silver | 10 ug/L |
| | | | | | | | Thallium | 10 ug/L |
| | | | | | | | Uranium | 10 ug/L |
| | | | | | | | Vanadium | 10 ug/L |
| | | | | | | | Zinc | 10 ug/L |
| | | | | | | | Antimony | 10 ug/L |
| .MEICPMS4 STD4_01509 | 07/24/18 | 01/27/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME_CALSTD#1_00006 | 1 mL | Aluminum | 100 ug/L |
| | | | | | | | Arsenic | 100 ug/L |
| | | | | | | | Barium | 100 ug/L |
| | | | | | | | Beryllium | 100 ug/L |
| | | | | | | | Cadmium | 100 ug/L |
| | | | | | | | Chromium | 100 ug/L |
| | | | | | | | Cobalt | 100 ug/L |
| | | | | | | | Copper | 100 ug/L |
| | | | | | | | Iron | 1000 ug/L |
| | | | | | | | Lead | 100 ug/L |
| | | | | | | | Manganese | 100 ug/L |
| | | | | | | | Nickel | 100 ug/L |
| | | | | | | | Selenium | 100 ug/L |
| | | | | | | | Silver | 100 ug/L |
| | | | | | | | Thallium | 100 ug/L |
| | | | | | | | Uranium | 100 ug/L |
| | | | | | | | Vanadium | 100 ug/L |
| | | | | | | | Zinc | 100 ug/L |
| | | | | | ME_CALSTD#2_00008 | 1 mL | Antimony | 100 ug/L |
| ..ME_CALSTD#1_00006 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652580 | | | (Purchased Reagent) | | Aluminum | 10 mg/L |
| | | | | | | | Arsenic | 10 mg/L |
| | | | | | | | Barium | 10 mg/L |
| | | | | | | | Beryllium | 10 mg/L |
| | | | | | | | Cadmium | 10 mg/L |
| | | | | | | | Chromium | 10 mg/L |
| | | | | | | | Cobalt | 10 mg/L |
| | | | | | | | Copper | 10 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | Lead | 10 mg/L |
| | | | | | | | Manganese | 10 mg/L |
| | | | | | | | Nickel | 10 mg/L |
| | | | | | | | Selenium | 10 mg/L |
| | | | | | | | Silver | 10 mg/L |
| | | | | | | | Thallium | 10 mg/L |
| | | | | | | | Uranium | 10 mg/L |
| | | | | | | | Vanadium | 10 mg/L |
| | | | | | | | Zinc | 10 mg/L |
| ..ME_CALSTD#2_00008 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652579 | | | (Purchased Reagent) | | Antimony | 10 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **MEICPMS4 STD3_01556** | 07/24/18 | 01/29/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | MEICPMS4 STD4_01511 | 10 mL | Aluminum | 10 ug/L |
| | | | | | | | Arsenic | 10 ug/L |
| | | | | | | | Barium | 10 ug/L |
| | | | | | | | Beryllium | 10 ug/L |
| | | | | | | | Cadmium | 10 ug/L |
| | | | | | | | Chromium | 10 ug/L |
| | | | | | | | Cobalt | 10 ug/L |
| | | | | | | | Copper | 10 ug/L |
| | | | | | | | Iron | 100 ug/L |
| | | | | | | | Lead | 10 ug/L |
| | | | | | | | Manganese | 10 ug/L |
| | | | | | | | Nickel | 10 ug/L |
| | | | | | | | Selenium | 10 ug/L |
| | | | | | | | Silver | 10 ug/L |
| | | | | | | | Thallium | 10 ug/L |
| | | | | | | | Uranium | 10 ug/L |
| | | | | | | | Vanadium | 10 ug/L |
| | | | | | | | Zinc | 10 ug/L |
| | | | | | | | Antimony | 10 ug/L |
| .MEICPMS4 STD4_01511 | 07/24/18 | 01/29/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME_CALSTD#1_00006 | 1 mL | Aluminum | 100 ug/L |
| | | | | | | | Arsenic | 100 ug/L |
| | | | | | | | Barium | 100 ug/L |
| | | | | | | | Beryllium | 100 ug/L |
| | | | | | | | Cadmium | 100 ug/L |
| | | | | | | | Chromium | 100 ug/L |
| | | | | | | | Cobalt | 100 ug/L |
| | | | | | | | Copper | 100 ug/L |
| | | | | | | | Iron | 1000 ug/L |
| | | | | | | | Lead | 100 ug/L |
| | | | | | | | Manganese | 100 ug/L |
| | | | | | | | Nickel | 100 ug/L |
| | | | | | | | Selenium | 100 ug/L |
| | | | | | | | Silver | 100 ug/L |
| | | | | | | | Thallium | 100 ug/L |
| | | | | | | | Uranium | 100 ug/L |
| | | | | | | | Vanadium | 100 ug/L |
| | | | | | | | Zinc | 100 ug/L |
| | | | | | ME_CALSTD#2_00008 | 1 mL | Antimony | 100 ug/L |
| ..ME_CALSTD#1_00006 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652580 | | | (Purchased Reagent) | | Aluminum | 10 mg/L |
| | | | | | | | Arsenic | 10 mg/L |
| | | | | | | | Barium | 10 mg/L |
| | | | | | | | Beryllium | 10 mg/L |
| | | | | | | | Cadmium | 10 mg/L |
| | | | | | | | Chromium | 10 mg/L |
| | | | | | | | Cobalt | 10 mg/L |
| | | | | | | | Copper | 10 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | Lead | 10 mg/L |

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Manganese | 10 mg/L |
| | | | | | | | Nickel | 10 mg/L |
| | | | | | | | Selenium | 10 mg/L |
| | | | | | | | Silver | 10 mg/L |
| | | | | | | | Thallium | 10 mg/L |
| | | | | | | | Uranium | 10 mg/L |
| | | | | | | | Vanadium | 10 mg/L |
| | | | | | | | Zinc | 10 mg/L |
| ..ME_CALSTD#2_00008 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652579 | | | (Purchased Reagent) | | Antimony | 10 mg/L |
| **MEICPMS4 STD4_01508** | 07/24/18 | 01/26/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME_CALSTD#1_00006 | 1 mL | Aluminum | 100 ug/L |
| | | | | | | | Arsenic | 100 ug/L |
| | | | | | | | Barium | 100 ug/L |
| | | | | | | | Beryllium | 100 ug/L |
| | | | | | | | Cadmium | 100 ug/L |
| | | | | | | | Chromium | 100 ug/L |
| | | | | | | | Cobalt | 100 ug/L |
| | | | | | | | Copper | 100 ug/L |
| | | | | | | | Iron | 1000 ug/L |
| | | | | | | | Lead | 100 ug/L |
| | | | | | | | Manganese | 100 ug/L |
| | | | | | | | Nickel | 100 ug/L |
| | | | | | | | Selenium | 100 ug/L |
| | | | | | | | Silver | 100 ug/L |
| | | | | | | | Thallium | 100 ug/L |
| | | | | | | | Uranium | 100 ug/L |
| | | | | | | | Vanadium | 100 ug/L |
| | | | | | | | Zinc | 100 ug/L |
| | | | | | ME_CALSTD#2_00008 | 1 mL | Antimony | 100 ug/L |
| .ME_CALSTD#1_00006 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652580 | | | (Purchased Reagent) | | Aluminum | 10 mg/L |
| | | | | | | | Arsenic | 10 mg/L |
| | | | | | | | Barium | 10 mg/L |
| | | | | | | | Beryllium | 10 mg/L |
| | | | | | | | Cadmium | 10 mg/L |
| | | | | | | | Chromium | 10 mg/L |
| | | | | | | | Cobalt | 10 mg/L |
| | | | | | | | Copper | 10 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | Lead | 10 mg/L |
| | | | | | | | Manganese | 10 mg/L |
| | | | | | | | Nickel | 10 mg/L |
| | | | | | | | Selenium | 10 mg/L |
| | | | | | | | Silver | 10 mg/L |
| | | | | | | | Thallium | 10 mg/L |
| | | | | | | | Uranium | 10 mg/L |
| | | | | | | | Vanadium | 10 mg/L |
| | | | | | | | Zinc | 10 mg/L |
| .ME_CALSTD#2_00008 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652579 | | | (Purchased Reagent) | | Antimony | 10 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **MEICPMS4 STD4_01509** | 07/24/18 | 01/27/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME_CALSTD#1_00006 | 1 mL | Aluminum | 100 ug/L |
| | | | | | | | Arsenic | 100 ug/L |
| | | | | | | | Barium | 100 ug/L |
| | | | | | | | Beryllium | 100 ug/L |
| | | | | | | | Cadmium | 100 ug/L |
| | | | | | | | Chromium | 100 ug/L |
| | | | | | | | Cobalt | 100 ug/L |
| | | | | | | | Copper | 100 ug/L |
| | | | | | | | Iron | 1000 ug/L |
| | | | | | | | Lead | 100 ug/L |
| | | | | | | | Manganese | 100 ug/L |
| | | | | | | | Nickel | 100 ug/L |
| | | | | | | | Selenium | 100 ug/L |
| | | | | | | | Silver | 100 ug/L |
| | | | | | | | Thallium | 100 ug/L |
| | | | | | | | Uranium | 100 ug/L |
| | | | | | | | Vanadium | 100 ug/L |
| | | | | | | | Zinc | 100 ug/L |
| | | | | | ME_CALSTD#2_00008 | 1 mL | Antimony | 100 ug/L |
| .ME_CALSTD#1_00006 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652580 | | | (Purchased Reagent) | | Aluminum | 10 mg/L |
| | | | | | | | Arsenic | 10 mg/L |
| | | | | | | | Barium | 10 mg/L |
| | | | | | | | Beryllium | 10 mg/L |
| | | | | | | | Cadmium | 10 mg/L |
| | | | | | | | Chromium | 10 mg/L |
| | | | | | | | Cobalt | 10 mg/L |
| | | | | | | | Copper | 10 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | Lead | 10 mg/L |
| | | | | | | | Manganese | 10 mg/L |
| | | | | | | | Nickel | 10 mg/L |
| | | | | | | | Selenium | 10 mg/L |
| | | | | | | | Silver | 10 mg/L |
| | | | | | | | Thallium | 10 mg/L |
| | | | | | | | Uranium | 10 mg/L |
| | | | | | | | Vanadium | 10 mg/L |
| | | | | | | | Zinc | 10 mg/L |
| .ME_CALSTD#2_00008 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652579 | | | (Purchased Reagent) | | Antimony | 10 mg/L |
| **MEICPMS4 STD4_01511** | 07/24/18 | 01/29/18 | 1%HNO3/0.5%HCl, Lot N/A | 100 mL | ME_CALSTD#1_00006 | 1 mL | Aluminum | 100 ug/L |
| | | | | | | | Arsenic | 100 ug/L |
| | | | | | | | Barium | 100 ug/L |
| | | | | | | | Beryllium | 100 ug/L |
| | | | | | | | Cadmium | 100 ug/L |
| | | | | | | | Chromium | 100 ug/L |
| | | | | | | | Cobalt | 100 ug/L |
| | | | | | | | Copper | 100 ug/L |
| | | | | | | | Iron | 1000 ug/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Lead | 100 ug/L |
| | | | | | | | Manganese | 100 ug/L |
| | | | | | | | Nickel | 100 ug/L |
| | | | | | | | Selenium | 100 ug/L |
| | | | | | | | Silver | 100 ug/L |
| | | | | | | | Thallium | 100 ug/L |
| | | | | | | | Uranium | 100 ug/L |
| | | | | | | | Vanadium | 100 ug/L |
| | | | | | | | Zinc | 100 ug/L |
| | | | | | ME_CALSTD#2_00008 | 1 mL | Antimony | 100 ug/L |
| .ME_CALSTD#1_00006 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652580 | | | (Purchased Reagent) | | Aluminum | 10 mg/L |
| | | | | | | | Arsenic | 10 mg/L |
| | | | | | | | Barium | 10 mg/L |
| | | | | | | | Beryllium | 10 mg/L |
| | | | | | | | Cadmium | 10 mg/L |
| | | | | | | | Chromium | 10 mg/L |
| | | | | | | | Cobalt | 10 mg/L |
| | | | | | | | Copper | 10 mg/L |
| | | | | | | | Iron | 100 mg/L |
| | | | | | | | Lead | 10 mg/L |
| | | | | | | | Manganese | 10 mg/L |
| | | | | | | | Nickel | 10 mg/L |
| | | | | | | | Selenium | 10 mg/L |
| | | | | | | | Silver | 10 mg/L |
| | | | | | | | Thallium | 10 mg/L |
| | | | | | | | Uranium | 10 mg/L |
| | | | | | | | Vanadium | 10 mg/L |
| | | | | | | | Zinc | 10 mg/L |
| .ME_CALSTD#2_00008 | 07/24/18 | Inorganic Ventures, Lot K2-MEB652579 | | | (Purchased Reagent) | | Antimony | 10 mg/L |
| **VMW8260TUNE1_00409** | | | | | | | 1,2-Dichloroethene, Total | |
| | | | | | | | 1,3-Dichloropropene, Total | |
| | | | | | | | Tentatively Identified Compound | |
| | | | | | | | Total Volatile Organic Compounds | |
| | | | | | | | Trihalomethanes, Total | |
| | | | | | | | Xylenes, Total | |
| | | | | | VMA8260BFB1_00027 | 10 uL | BFB | 25 ug/mL |
| .VMA8260BFB1_00027 | 09/01/18 | Absolute Standards, Lot 112519 | | | (Purchased Reagent) | | BFB | 2500 ug/mL |
| **VMW8260TUNE1_00412** | | | | | | | 1,2-Dichloroethene, Total | |
| | | | | | | | 1,3-Dichloropropene, Total | |
| | | | | | | | Tentatively Identified Compound | |
| | | | | | | | Total Volatile Organic Compounds | |
| | | | | | | | Trihalomethanes, Total | |
| | | | | | | | Xylenes, Total | |
| | | | | | VMA8260BFB1_00040 | 10 uL | BFB | 25 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .VMA8260BFB1_00040 | 06/08/18 | Absolute Standards, Lot 112514 | | | (Purchased Reagent) | | BFB | 2500 ug/mL |
| **VMW8260TUNE1_00415** | | | | | | | 1,2-Dichloroethene, Total | |
| | | | | | | | 1,3-Dichloropropene, Total | |
| | | | | | | | Tentatively Identified Compound | |
| | | | | | | | Total Volatile Organic Compounds | |
| | | | | | | | Trihalomethanes, Total | |
| | | | | | | | Xylenes, Total | |
| | | | | | VMA8260BFB1_00040 | 10 uL | BFB | 25 ug/mL |
| .VMA8260BFB1_00040 | 06/08/18 | Absolute Standards, Lot 112514 | | | (Purchased Reagent) | | BFB | 2500 ug/mL |
| **VMWNU8260002_00482** | 11/21/17 | 11/14/17 | Methanol, Lot 4415769 | 1 mL | VMWNU8260200_00170 | 10 uL | 2-Chloroethyl vinyl ether | 2 ug/mL |
| | | | | | | | Bromomethane | 2 ug/mL |
| | | | | | | | Butadiene | 2 ug/mL |
| | | | | | | | Chloroethane | 2 ug/mL |
| | | | | | | | Chloromethane | 2 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2 ug/mL |
| | | | | | | | Vinyl chloride | 2 ug/mL |
| | | | | | | | 2-Butanone (MEK) | 2 ug/mL |
| | | | | | | | 2-Hexanone | 2 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 2 ug/mL |
| | | | | | | | Acetone | 2 ug/mL |
| | | | | | | | 1,1,1,2-Tetrachloroethane | 2 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 2-Chlorotoluene | 2 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2 ug/mL |
| | | | | | | | Acrylonitrile | 20 ug/mL |
| | | | | | | | Benzene | 2 ug/mL |
| | | | | | | | Bromobenzene | 2 ug/mL |
| | | | | | | | Bromochloromethane | 2 ug/mL |
| | | | | | | | Bromodichloromethane | 2 ug/mL |
| | | | | | | | Bromoform | 2 ug/mL |
| | | | | | | | Carbon disulfide | 2 ug/mL |
| | | | | | | | Carbon tetrachloride | 2 ug/mL |
| | | | | | | | Chlorobenzene | 2 ug/mL |
| | | | | | | | Chloroform | 2 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2 ug/mL |
| | | | | | | | Cyclohexane | 2 ug/mL |
| | | | | | | | Dibromochloromethane | 2 ug/mL |
| | | | | | | | Dibromomethane | 2 ug/mL |
| | | | | | | | Ethyl ether | 2 ug/mL |
| | | | | | | | Ethyl methacrylate | 2 ug/mL |
| | | | | | | | Ethylbenzene | 2 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2 ug/mL |
| | | | | | | | Hexane | 2 ug/mL |
| | | | | | | | Iodomethane | 2 ug/mL |
| | | | | | | | Isobutyl alcohol | 50 ug/mL |
| | | | | | | | Isopropylbenzene | 2 ug/mL |
| | | | | | | | m,p-Xylene | 2 ug/mL |
| | | | | | | | Methyl acetate | 10 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2 ug/mL |
| | | | | | | | Methylcyclohexane | 2 ug/mL |
| | | | | | | | Methylene Chloride | 2 ug/mL |
| | | | | | | | n-Butylbenzene | 2 ug/mL |
| | | | | | | | n-Heptane | 2 ug/mL |
| | | | | | | | N-Propylbenzene | 2 ug/mL |
| | | | | | | | Naphthalene | 2 ug/mL |
| | | | | | | | o-Xylene | 2 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2 ug/mL |
| | | | | | | | sec-Butylbenzene | 2 ug/mL |
| | | | | | | | Styrene | 2 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 20 ug/mL |
| | | | | | | | tert-Butylbenzene | 2 ug/mL |
| | | | | | | | Tetrachloroethene | 2 ug/mL |
| | | | | | | | Tetrahydrofuran | 4 ug/mL |
| | | | | | | | Toluene | 2 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2 ug/mL |
| | | | | | | | Trichloroethene | 2 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Vinyl acetate | 2 ug/mL |
| | | | | | | | Ethanol | 100 ug/mL |
| | | | | | | | Acetonitrile | 20 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2 ug/mL |
| | | | | | | | Propionitrile | 20 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2 ug/mL |
| | | | | | | | Acrolein | 2 ug/mL |
| .VMWNU8260200_00170 | 11/21/17 | 11/14/17 | Methanol, Lot 4415769 | 1 mL | VMA1582602CV1_00027 | 80 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |
| | | | | | VMA158260GAS1_00198 | 80 uL | Bromomethane | 200 ug/mL |
| | | | | | | | Butadiene | 200 ug/mL |
| | | | | | | | Chloroethane | 200 ug/mL |
| | | | | | | | Chloromethane | 200 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 200 ug/mL |
| | | | | | | | Dichlorofluoromethane | 200 ug/mL |
| | | | | | | | Trichlorofluoromethane | 200 ug/mL |
| | | | | | | | Vinyl chloride | 200 ug/mL |
| | | | | | VMA158260KET1_00041 | 16 uL | 2-Butanone (MEK) | 200 ug/mL |
| | | | | | | | 2-Hexanone | 200 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 200 ug/mL |
| | | | | | | | Acetone | 200 ug/mL |
| | | | | | VMA158260MEG1_00041 | 80 uL | 1,1,1,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 200 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 200 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 200 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 200 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 2-Chlorotoluene | 200 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 200 ug/mL |
| | | | | | | | 4-Chlorotoluene | 200 ug/mL |
| | | | | | | | Acrylonitrile | 2000 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Benzene | 200 ug/mL |
| | | | | | | | Bromobenzene | 200 ug/mL |
| | | | | | | | Bromochloromethane | 200 ug/mL |
| | | | | | | | Bromodichloromethane | 200 ug/mL |
| | | | | | | | Bromoform | 200 ug/mL |
| | | | | | | | Carbon disulfide | 200 ug/mL |
| | | | | | | | Carbon tetrachloride | 200 ug/mL |
| | | | | | | | Chlorobenzene | 200 ug/mL |
| | | | | | | | Chloroform | 200 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | Cyclohexane | 200 ug/mL |
| | | | | | | | Dibromochloromethane | 200 ug/mL |
| | | | | | | | Dibromomethane | 200 ug/mL |
| | | | | | | | Ethyl ether | 200 ug/mL |
| | | | | | | | Ethyl methacrylate | 200 ug/mL |
| | | | | | | | Ethylbenzene | 200 ug/mL |
| | | | | | | | Hexachlorobutadiene | 200 ug/mL |
| | | | | | | | Hexane | 200 ug/mL |
| | | | | | | | Iodomethane | 200 ug/mL |
| | | | | | | | Isobutyl alcohol | 5000 ug/mL |
| | | | | | | | Isopropylbenzene | 200 ug/mL |
| | | | | | | | m,p-Xylene | 200 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 200 ug/mL |
| | | | | | | | Methylcyclohexane | 200 ug/mL |
| | | | | | | | Methylene Chloride | 200 ug/mL |
| | | | | | | | n-Butylbenzene | 200 ug/mL |
| | | | | | | | n-Heptane | 200 ug/mL |
| | | | | | | | N-Propylbenzene | 200 ug/mL |
| | | | | | | | Naphthalene | 200 ug/mL |
| | | | | | | | o-Xylene | 200 ug/mL |
| | | | | | | | p-Isopropyltoluene | 200 ug/mL |
| | | | | | | | sec-Butylbenzene | 200 ug/mL |
| | | | | | | | Styrene | 200 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 2000 ug/mL |
| | | | | | | | tert-Butylbenzene | 200 ug/mL |
| | | | | | | | Tetrachloroethene | 200 ug/mL |
| | | | | | | | Tetrahydrofuran | 400 ug/mL |
| | | | | | | | Toluene | 200 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 200 ug/mL |
| | | | | | | | Trichloroethene | 200 ug/mL |
| | | | | | VMA158260VA1_00044 | 40 uL | Vinyl acetate | 200 ug/mL |
| | | | | | VMA178260ETH1_00007 | 100 uL | Ethanol | 10000 ug/mL |
| | | | | | VMA178260POL1_00007 | 80 uL | Acetonitrile | 2000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Isopropyl Ether (DIPE) | 200 ug/mL |
| | | | | | | | Propionitrile | 2000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 200 ug/mL |
| | | | | | VMANU8260ACR1_00100 | 10 uL | Acrolein | 200 ug/mL |
| ..VMA1582602CV1_00027 | 05/07/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| ..VMA158260GAS1_00198 | 05/14/18 | | Restek, Lot A0124278 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| ..VMA158260KET1_00041 | 05/07/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| ..VMA158260MEG1_00041 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| ..VMA158260VA1_00044 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| ..VMA178260ETH1_00007 | 05/07/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| ..VMA178260POL1_00007 | 05/07/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| ..VMANU8260ACR1_00100 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **VMWNU8260002_00492** | 12/19/17 | 12/12/17 | Methanol, Lot 4506063 | 1 mL | VMWNU8260200_00174 | 10 uL | 2-Chloroethyl vinyl ether | 2 ug/mL |
| | | | | | | | Bromomethane | 2 ug/mL |
| | | | | | | | Butadiene | 2 ug/mL |
| | | | | | | | Chloroethane | 2 ug/mL |
| | | | | | | | Chloromethane | 2 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2 ug/mL |
| | | | | | | | Vinyl chloride | 2 ug/mL |
| | | | | | | | 2-Butanone (MEK) | 2 ug/mL |
| | | | | | | | 2-Hexanone | 2 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 2 ug/mL |
| | | | | | | | Acetone | 2 ug/mL |
| | | | | | | | 1,1,1,2-Tetrachloroethane | 2 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2 ug/mL |
| | | | | | | | Acrylonitrile | 20 ug/mL |
| | | | | | | | Benzene | 2 ug/mL |
| | | | | | | | Bromobenzene | 2 ug/mL |
| | | | | | | | Bromochloromethane | 2 ug/mL |
| | | | | | | | Bromodichloromethane | 2 ug/mL |
| | | | | | | | Bromoform | 2 ug/mL |
| | | | | | | | Carbon disulfide | 2 ug/mL |
| | | | | | | | Carbon tetrachloride | 2 ug/mL |
| | | | | | | | Chlorobenzene | 2 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Chloroform | 2 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2 ug/mL |
| | | | | | | | Cyclohexane | 2 ug/mL |
| | | | | | | | Dibromochloromethane | 2 ug/mL |
| | | | | | | | Dibromomethane | 2 ug/mL |
| | | | | | | | Ethyl ether | 2 ug/mL |
| | | | | | | | Ethyl methacrylate | 2 ug/mL |
| | | | | | | | Ethylbenzene | 2 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2 ug/mL |
| | | | | | | | Hexane | 2 ug/mL |
| | | | | | | | Iodomethane | 2 ug/mL |
| | | | | | | | Isobutyl alcohol | 50 ug/mL |
| | | | | | | | Isopropylbenzene | 2 ug/mL |
| | | | | | | | m,p-Xylene | 2 ug/mL |
| | | | | | | | Methyl acetate | 10 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2 ug/mL |
| | | | | | | | Methylcyclohexane | 2 ug/mL |
| | | | | | | | Methylene Chloride | 2 ug/mL |
| | | | | | | | n-Butylbenzene | 2 ug/mL |
| | | | | | | | n-Heptane | 2 ug/mL |
| | | | | | | | N-Propylbenzene | 2 ug/mL |
| | | | | | | | Naphthalene | 2 ug/mL |
| | | | | | | | o-Xylene | 2 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2 ug/mL |
| | | | | | | | sec-Butylbenzene | 2 ug/mL |
| | | | | | | | Styrene | 2 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 20 ug/mL |
| | | | | | | | tert-Butylbenzene | 2 ug/mL |
| | | | | | | | Tetrachloroethene | 2 ug/mL |
| | | | | | | | Tetrahydrofuran | 4 ug/mL |
| | | | | | | | Toluene | 2 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2 ug/mL |
| | | | | | | | Trichloroethene | 2 ug/mL |
| | | | | | | | Vinyl acetate | 2 ug/mL |
| | | | | | | | Ethanol | 100 ug/mL |
| | | | | | | | Acetonitrile | 20 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2 ug/mL |
| | | | | | | | Propionitrile | 20 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2 ug/mL |
| | | | | | | | Acrolein | 2 ug/mL |
| .VMWNU8260200_00174 | 12/19/17 | 12/12/17 | Methanol, Lot 4506063 | 1 mL | VMA1582602CV1_00028 | 80 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |
| | | | | | VMA158260GAS1_00208 | 80 uL | Bromomethane | 200 ug/mL |
| | | | | | | | Butadiene | 200 ug/mL |
| | | | | | | | Chloroethane | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Chloromethane | 200 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 200 ug/mL |
| | | | | | | | Dichlorofluoromethane | 200 ug/mL |
| | | | | | | | Trichlorofluoromethane | 200 ug/mL |
| | | | | | | | Vinyl chloride | 200 ug/mL |
| | | | | | VMA158260KET1_00042 | 16 uL | 2-Butanone (MEK) | 200 ug/mL |
| | | | | | | | 2-Hexanone | 200 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 200 ug/mL |
| | | | | | | | Acetone | 200 ug/mL |
| | | | | | VMA158260MEG1_00042 | 80 uL | 1,1,1,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 200 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 200 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 200 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 200 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 2-Chlorotoluene | 200 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 200 ug/mL |
| | | | | | | | 4-Chlorotoluene | 200 ug/mL |
| | | | | | | | Acrylonitrile | 2000 ug/mL |
| | | | | | | | Benzene | 200 ug/mL |
| | | | | | | | Bromobenzene | 200 ug/mL |
| | | | | | | | Bromochloromethane | 200 ug/mL |
| | | | | | | | Bromodichloromethane | 200 ug/mL |
| | | | | | | | Bromoform | 200 ug/mL |
| | | | | | | | Carbon disulfide | 200 ug/mL |
| | | | | | | | Carbon tetrachloride | 200 ug/mL |
| | | | | | | | Chlorobenzene | 200 ug/mL |
| | | | | | | | Chloroform | 200 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | Cyclohexane | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Dibromochloromethane | 200 ug/mL |
| | | | | | | | Dibromomethane | 200 ug/mL |
| | | | | | | | Ethyl ether | 200 ug/mL |
| | | | | | | | Ethyl methacrylate | 200 ug/mL |
| | | | | | | | Ethylbenzene | 200 ug/mL |
| | | | | | | | Hexachlorobutadiene | 200 ug/mL |
| | | | | | | | Hexane | 200 ug/mL |
| | | | | | | | Iodomethane | 200 ug/mL |
| | | | | | | | Isobutyl alcohol | 5000 ug/mL |
| | | | | | | | Isopropylbenzene | 200 ug/mL |
| | | | | | | | m,p-Xylene | 200 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 200 ug/mL |
| | | | | | | | Methylcyclohexane | 200 ug/mL |
| | | | | | | | Methylene Chloride | 200 ug/mL |
| | | | | | | | n-Butylbenzene | 200 ug/mL |
| | | | | | | | n-Heptane | 200 ug/mL |
| | | | | | | | N-Propylbenzene | 200 ug/mL |
| | | | | | | | Naphthalene | 200 ug/mL |
| | | | | | | | o-Xylene | 200 ug/mL |
| | | | | | | | p-Isopropyltoluene | 200 ug/mL |
| | | | | | | | sec-Butylbenzene | 200 ug/mL |
| | | | | | | | Styrene | 200 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 2000 ug/mL |
| | | | | | | | tert-Butylbenzene | 200 ug/mL |
| | | | | | | | Tetrachloroethene | 200 ug/mL |
| | | | | | | | Tetrahydrofuran | 400 ug/mL |
| | | | | | | | Toluene | 200 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 200 ug/mL |
| | | | | | | | Trichloroethene | 200 ug/mL |
| | | | | | VMA158260VA1_00045 | 40 uL | Vinyl acetate | 200 ug/mL |
| | | | | | VMA178260ETH1_00008 | 100 uL | Ethanol | 10000 ug/mL |
| | | | | | VMA178260POL1_00008 | 80 uL | Acetonitrile | 2000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 200 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 200 ug/mL |
| | | | | | | | Propionitrile | 2000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 200 ug/mL |
| | | | | | VMANU8260ACR1_00101 | 10 uL | Acrolein | 200 ug/mL |
| ..VMA1582602CV1_00028 | 06/04/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| ..VMA158260GAS1_00208 | 06/12/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| ..VMA158260KET1_00042 | 06/04/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| ..VMA158260MEG1_00042 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| ..VMA158260VA1_00045 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| ..VMA178260ETH1_00008 | 06/04/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| ..VMA178260POL1_00008 | 06/04/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| ..VMANU8260ACR1_00101 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260200_00170** | 11/21/17 | 11/14/17 | Methanol, Lot 4415769 | 1 mL | VMA1582602CV1_00027 | 80 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |
| | | | | | VMA158260GAS1_00198 | 80 uL | Bromomethane | 200 ug/mL |
| | | | | | | | Butadiene | 200 ug/mL |
| | | | | | | | Chloroethane | 200 ug/mL |
| | | | | | | | Chloromethane | 200 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 200 ug/mL |
| | | | | | | | Dichlorofluoromethane | 200 ug/mL |
| | | | | | | | Trichlorofluoromethane | 200 ug/mL |
| | | | | | | | Vinyl chloride | 200 ug/mL |
| | | | | | VMA158260KET1_00041 | 16 uL | 2-Butanone (MEK) | 200 ug/mL |
| | | | | | | | 2-Hexanone | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 200 ug/mL |
| | | | | | | | Acetone | 200 ug/mL |
| | | | | | VMA158260MEG1_00041 | 80 uL | 1,1,1,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 200 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 200 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 200 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 200 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 2-Chlorotoluene | 200 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 200 ug/mL |
| | | | | | | | 4-Chlorotoluene | 200 ug/mL |
| | | | | | | | Acrylonitrile | 2000 ug/mL |
| | | | | | | | Benzene | 200 ug/mL |
| | | | | | | | Bromobenzene | 200 ug/mL |
| | | | | | | | Bromochloromethane | 200 ug/mL |
| | | | | | | | Bromodichloromethane | 200 ug/mL |
| | | | | | | | Bromoform | 200 ug/mL |
| | | | | | | | Carbon disulfide | 200 ug/mL |
| | | | | | | | Carbon tetrachloride | 200 ug/mL |
| | | | | | | | Chlorobenzene | 200 ug/mL |
| | | | | | | | Chloroform | 200 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | Cyclohexane | 200 ug/mL |
| | | | | | | | Dibromochloromethane | 200 ug/mL |
| | | | | | | | Dibromomethane | 200 ug/mL |
| | | | | | | | Ethyl ether | 200 ug/mL |
| | | | | | | | Ethyl methacrylate | 200 ug/mL |
| | | | | | | | Ethylbenzene | 200 ug/mL |
| | | | | | | | Hexachlorobutadiene | 200 ug/mL |
| | | | | | | | Hexane | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Iodomethane | 200 ug/mL |
| | | | | | | | Isobutyl alcohol | 5000 ug/mL |
| | | | | | | | Isopropylbenzene | 200 ug/mL |
| | | | | | | | m,p-Xylene | 200 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 200 ug/mL |
| | | | | | | | Methylcyclohexane | 200 ug/mL |
| | | | | | | | Methylene Chloride | 200 ug/mL |
| | | | | | | | n-Butylbenzene | 200 ug/mL |
| | | | | | | | n-Heptane | 200 ug/mL |
| | | | | | | | N-Propylbenzene | 200 ug/mL |
| | | | | | | | Naphthalene | 200 ug/mL |
| | | | | | | | o-Xylene | 200 ug/mL |
| | | | | | | | p-Isopropyltoluene | 200 ug/mL |
| | | | | | | | sec-Butylbenzene | 200 ug/mL |
| | | | | | | | Styrene | 200 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 2000 ug/mL |
| | | | | | | | tert-Butylbenzene | 200 ug/mL |
| | | | | | | | Tetrachloroethene | 200 ug/mL |
| | | | | | | | Tetrahydrofuran | 400 ug/mL |
| | | | | | | | Toluene | 200 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 200 ug/mL |
| | | | | | | | Trichloroethene | 200 ug/mL |
| | | | | | VMA158260VA1_00044 | 40 uL | Vinyl acetate | 200 ug/mL |
| | | | | | VMA178260ETH1_00007 | 100 uL | Ethanol | 10000 ug/mL |
| | | | | | VMA178260POL1_00007 | 80 uL | Acetonitrile | 2000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 200 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 200 ug/mL |
| | | | | | | | Propionitrile | 2000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 200 ug/mL |
| | | | | | VMANU8260ACR1_00100 | 10 uL | Acrolein | 200 ug/mL |
| .VMA1582602CV1_00027 | 05/07/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| .VMA158260GAS1_00198 | 05/14/18 | | Restek, Lot A0124278 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00041 | 05/07/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00041 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA158260VA1_00044 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| .VMA178260ETH1_00007 | 05/07/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| .VMA178260POL1_00007 | 05/07/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| .VMANU8260ACR1_00100 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260200_00174** | 12/19/17 | 12/12/17 | Methanol, Lot 4506063 | 1 mL | VMA1582602CV1_00028 | 80 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |
| | | | | | VMA158260GAS1_00208 | 80 uL | Bromomethane | 200 ug/mL |
| | | | | | | | Butadiene | 200 ug/mL |
| | | | | | | | Chloroethane | 200 ug/mL |
| | | | | | | | Chloromethane | 200 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 200 ug/mL |
| | | | | | | | Dichlorofluoromethane | 200 ug/mL |
| | | | | | | | Trichlorofluoromethane | 200 ug/mL |
| | | | | | | | Vinyl chloride | 200 ug/mL |
| | | | | | VMA158260KET1_00042 | 16 uL | 2-Butanone (MEK) | 200 ug/mL |
| | | | | | | | 2-Hexanone | 200 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 200 ug/mL |
| | | | | | | | Acetone | 200 ug/mL |
| | | | | | VMA158260MEG1_00042 | 80 uL | 1,1,1,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 200 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 200 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,1-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 200 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 200 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 200 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 200 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 200 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 200 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 200 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 200 ug/mL |
| | | | | | | | 2-Chlorotoluene | 200 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 200 ug/mL |
| | | | | | | | 4-Chlorotoluene | 200 ug/mL |
| | | | | | | | Acrylonitrile | 2000 ug/mL |
| | | | | | | | Benzene | 200 ug/mL |
| | | | | | | | Bromobenzene | 200 ug/mL |
| | | | | | | | Bromochloromethane | 200 ug/mL |
| | | | | | | | Bromodichloromethane | 200 ug/mL |
| | | | | | | | Bromoform | 200 ug/mL |
| | | | | | | | Carbon disulfide | 200 ug/mL |
| | | | | | | | Carbon tetrachloride | 200 ug/mL |
| | | | | | | | Chlorobenzene | 200 ug/mL |
| | | | | | | | Chloroform | 200 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | Cyclohexane | 200 ug/mL |
| | | | | | | | Dibromochloromethane | 200 ug/mL |
| | | | | | | | Dibromomethane | 200 ug/mL |
| | | | | | | | Ethyl ether | 200 ug/mL |
| | | | | | | | Ethyl methacrylate | 200 ug/mL |
| | | | | | | | Ethylbenzene | 200 ug/mL |
| | | | | | | | Hexachlorobutadiene | 200 ug/mL |
| | | | | | | | Hexane | 200 ug/mL |
| | | | | | | | Iodomethane | 200 ug/mL |
| | | | | | | | Isobutyl alcohol | 5000 ug/mL |
| | | | | | | | Isopropylbenzene | 200 ug/mL |
| | | | | | | | m,p-Xylene | 200 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 200 ug/mL |
| | | | | | | | Methylcyclohexane | 200 ug/mL |
| | | | | | | | Methylene Chloride | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | n-Butylbenzene | 200 ug/mL |
| | | | | | | | n-Heptane | 200 ug/mL |
| | | | | | | | N-Propylbenzene | 200 ug/mL |
| | | | | | | | Naphthalene | 200 ug/mL |
| | | | | | | | o-Xylene | 200 ug/mL |
| | | | | | | | p-Isopropyltoluene | 200 ug/mL |
| | | | | | | | sec-Butylbenzene | 200 ug/mL |
| | | | | | | | Styrene | 200 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 2000 ug/mL |
| | | | | | | | tert-Butylbenzene | 200 ug/mL |
| | | | | | | | Tetrachloroethene | 200 ug/mL |
| | | | | | | | Tetrahydrofuran | 400 ug/mL |
| | | | | | | | Toluene | 200 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 200 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 200 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 200 ug/mL |
| | | | | | | | Trichloroethene | 200 ug/mL |
| | | | | | VMA158260VA1_00045 | 40 uL | Vinyl acetate | 200 ug/mL |
| | | | | | VMA178260ETH1_00008 | 100 uL | Ethanol | 10000 ug/mL |
| | | | | | VMA178260POL1_00008 | 80 uL | Acetonitrile | 2000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 200 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 200 ug/mL |
| | | | | | | | Propionitrile | 2000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 200 ug/mL |
| | | | | | VMANU8260ACR1_00101 | 10 uL | Acrolein | 200 ug/mL |
| .VMA1582602CV1_00028 | 06/04/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| .VMA158260GAS1_00208 | 06/12/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00042 | 06/04/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00042 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA158260VA1_00045 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| .VMA178260ETH1_00008 | 06/04/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| .VMA178260POL1_00008 | 06/04/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| .VMANU8260ACR1_00101 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260CCV1_00835** | 11/21/17 | 11/14/17 | Methanol, Lot 4415769 | 1 mL | VMA1582602CV1_00027 | 20 uL | 2-Chloroethyl vinyl ether | 50 ug/mL |
| | | | | | VMA158260GAS1_00198 | 20 uL | Bromomethane | 50 ug/mL |
| | | | | | | | Butadiene | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 50 ug/mL |
| | | | | | | | Dichlorofluoromethane | 50 ug/mL |
| | | | | | | | Trichlorofluoromethane | 50 ug/mL |
| | | | | | | | Vinyl chloride | 50 ug/mL |
| | | | | | VMA158260KET1_00041 | 4 uL | 2-Butanone (MEK) | 50 ug/mL |
| | | | | | | | 2-Hexanone | 50 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ug/mL |
| | | | | | | | Acetone | 50 ug/mL |
| | | | | | VMA158260MEG1_00041 | 20 uL | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | Acrylonitrile | 500 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromochloromethane | 50 ug/mL |
| | | | | | | | Bromodichloromethane | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon disulfide | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Cyclohexane | 50 ug/mL |
| | | | | | | | Dibromochloromethane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Ethyl ether | 50 ug/mL |
| | | | | | | | Ethyl methacrylate | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Hexane | 50 ug/mL |
| | | | | | | | Iodomethane | 50 ug/mL |
| | | | | | | | Isobutyl alcohol | 1250 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m,p-Xylene | 50 ug/mL |
| | | | | | | | Methyl acetate | 250 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ug/mL |
| | | | | | | | Methylcyclohexane | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | n-Heptane | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | p-Isopropyltoluene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Tetrahydrofuran | 100 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | VMA158260VA1_00044 | 8 uL | Vinyl acetate | 40 ug/mL |
| | | | | | VMA178260ETH1_00007 | 20 uL | Ethanol | 2000 ug/mL |
| | | | | | VMA178260POL1_00007 | 20 uL | Acetonitrile | 500 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 50 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ug/mL |
| | | | | | | | Propionitrile | 500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ug/mL |
| | | | | | VMANU8260ACR1_00100 | 2.5 uL | Acrolein | 50 ug/mL |
| .VMA1582602CV1_00027 | 05/07/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| .VMA158260GAS1_00198 | 05/14/18 | | Restek, Lot A0124278 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00041 | 05/07/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00041 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA158260VA1_00044 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| .VMA178260ETH1_00007 | 05/07/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| .VMA178260POL1_00007 | 05/07/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| .VMANU8260ACR1_00100 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260CCV1_00855** | 12/19/17 | 12/12/17 | Methanol, Lot 4506063 | 1 mL | VMA1582602CV1_00028 | 20 uL | 2-Chloroethyl vinyl ether | 50 ug/mL |
| | | | | | VMA158260GAS1_00208 | 20 uL | Bromomethane | 50 ug/mL |
| | | | | | | | Butadiene | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 50 ug/mL |
| | | | | | | | Dichlorofluoromethane | 50 ug/mL |
| | | | | | | | Trichlorofluoromethane | 50 ug/mL |
| | | | | | | | Vinyl chloride | 50 ug/mL |
| | | | | | VMA158260KET1_00042 | 4 uL | 2-Butanone (MEK) | 50 ug/mL |
| | | | | | | | 2-Hexanone | 50 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ug/mL |
| | | | | | | | Acetone | 50 ug/mL |
| | | | | | VMA158260MEG1_00042 | 20 uL | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | Acrylonitrile | 500 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromochloromethane | 50 ug/mL |
| | | | | | | | Bromodichloromethane | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon disulfide | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Cyclohexane | 50 ug/mL |
| | | | | | | | Dibromochloromethane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Ethyl ether | 50 ug/mL |
| | | | | | | | Ethyl methacrylate | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Hexane | 50 ug/mL |
| | | | | | | | Iodomethane | 50 ug/mL |
| | | | | | | | Isobutyl alcohol | 1250 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m,p-Xylene | 50 ug/mL |
| | | | | | | | Methyl acetate | 250 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ug/mL |
| | | | | | | | Methylcyclohexane | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | n-Heptane | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | p-Isopropyltoluene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Tetrahydrofuran | 100 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | VMA158260VA1_00045 | 8 uL | Vinyl acetate | 40 ug/mL |
| | | | | | VMA178260ETH1_00008 | 20 uL | Ethanol | 2000 ug/mL |
| | | | | | VMA178260POL1_00008 | 20 uL | Acetonitrile | 500 ug/mL |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 50 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ug/mL |
| | | | | | | | Propionitrile | 500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ug/mL |
| | | | | | VMANU8260ACR1_00101 | 2.5 uL | Acrolein | 50 ug/mL |
| .VMA1582602CV1_00028 | 06/04/18 | | Restek, Lot A0123891 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| .VMA158260GAS1_00208 | 06/12/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00042 | 06/04/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00042 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 12500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA158260VA1_00045 | 12/31/17 | | Restek, Lot A0128793 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| .VMA178260ETH1_00008 | 06/04/18 | | Restek, Lot A0123787 | | (Purchased Reagent) | | Ethanol | 100000 ug/mL |
| .VMA178260POL1_00008 | 06/04/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Acetonitrile | 25000 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| .VMANU8260ACR1_00101 | 01/31/18 | | Restek, Lot A0128953 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMWNU8260CCV1_00883** | 01/23/18 | 01/16/18 | Methanol, Lot 4506057 | 1 mL | VMA158260GAS1_00213 | 20 uL | Bromomethane | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 50 ug/mL |
| | | | | | | | Trichlorofluoromethane | 50 ug/mL |
| | | | | | | | Vinyl chloride | 50 ug/mL |
| | | | | | VMA158260KET1_00046 | 4 uL | 2-Butanone (MEK) | 50 ug/mL |
| | | | | | | | 2-Hexanone | 50 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ug/mL |
| | | | | | | | Acetone | 50 ug/mL |
| | | | | | VMA158260MEG1_00043 | 20 uL | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromochloromethane | 50 ug/mL |
| | | | | | | | Bromodichloromethane | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Dibromochloromethane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m,p-Xylene | 50 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | p-Isopropyltoluene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | VMA178260POL1_00009 | 20 uL | Ethyl-t-butyl ether (ETBE) | 50 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ug/mL |
| .VMA158260GAS1_00213 | 07/16/18 | | Restek, Lot A0128930 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET1_00046 | 06/26/18 | | Restek, Lot A0123890 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG1_00043 | 03/31/18 | | Restek, Lot A0118177 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL1_00009 | 06/26/18 | | Restek, Lot A0123796 | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNU8260IS_00170** | 12/09/17 | 11/09/17 | Methanol, Lot 4415761 | 1 mL | VMANU8260ISD1_00185 | 20 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00201 | 25 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00185 | 05/09/18 | | Restek, Lot A0128916 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00201 | 05/09/18 | | Restek, Lot A0128685 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260IS_00172** | 12/28/17 | 11/28/17 | Methanol, Lot 4506064 | 1 mL | VMANU8260ISD1_00185 | 20 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00201 | 25 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00185 | 05/09/18 | | Restek, Lot A0128916 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00201 | 05/09/18 | | Restek, Lot A0128685 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00131** | 12/08/17 | 11/08/17 | Methanol, Lot 4415760 | 40 mL | VMANU8260ISD1_00183 | 800 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00189 | 1000 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00183 | 05/08/18 | | Restek, Lot A0128916 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00189 | 05/08/18 | | Restek, Lot A0123820 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00131** | 12/08/17 | 11/08/17 | Methanol, Lot 4415760 | 40 mL | VMANU8260SUR2_00036 | 800 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR2_00036 | 05/08/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNU8260ISS_00134** | 01/12/18 | 12/12/17 | Methanol, Lot 4506056 | 40 mL | VMANU8260ISD1_00188 | 800 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00200 | 1000 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00188 | 06/12/18 | | Restek, Lot A0128916 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00200 | 06/12/18 | | Restek, Lot A0128685 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00134** | 01/12/18 | 12/12/17 | Methanol, Lot 4506056 | 40 mL | VMANU8260SUR2_00036 | 800 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR2_00036 | 05/08/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **VMWNU8260ISS_00135** | 01/27/18 | 12/27/17 | Methanol, Lot 4506063 | 40 mL | VMANU8260ISD1_00191 | 800 uL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | VMANU8260TD91_00202 | 1000 uL | TBA-d9 (IS) | 500 ug/mL |
| .VMANU8260ISD1_00191 | 06/27/18 | | Restek, Lot A0128916 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| .VMANU8260TD91_00202 | 06/27/18 | | Restek, Lot A0128685 | | (Purchased Reagent) | | TBA-d9 (IS) | 20000 ug/mL |
| **VMWNU8260ISS_00135** | 01/27/18 | 12/27/17 | Methanol, Lot 4506063 | 40 mL | VMANU8260SUR2_00036 | 800 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR2_00036 | 05/08/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNU8260LCS2_00164** | 11/22/17 | 11/15/17 | Methanol, Lot 4415769 | 10 mL | VMA158260GAS2_00215 | 200 uL | Bromomethane | 50 ppm |
| | | | | | | | Chloroethane | 50 ppm |
| | | | | | | | Chloromethane | 50 ppm |
| | | | | | | | Dichlorodifluoromethane | 50 ppm |
| | | | | | | | Trichlorofluoromethane | 50 ppm |
| | | | | | | | Vinyl chloride | 50 ppm |
| | | | | | VMA158260KET2_00040 | 40 uL | 2-Butanone (MEK) | 50 ppm |
| | | | | | | | 2-Hexanone | 50 ppm |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ppm |
| | | | | | | | Acetone | 50 ppm |
| | | | | | VMA158260MEG2_00051 | 200 uL | 1,1,1,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,1-Trichloroethane | 50 ppm |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,2-Trichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethene | 50 ppm |
| | | | | | | | 1,1-Dichloropropene | 50 ppm |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,3-Trichloropropane | 50 ppm |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ppm |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ppm |
| | | | | | | | 1,2-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,2-Dichloroethane | 50 ppm |
| | | | | | | | 1,2-Dichloropropane | 50 ppm |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,3-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,3-Dichloropropane | 50 ppm |
| | | | | | | | 1,4-Dichlorobenzene | 50 ppm |
| | | | | | | | 2,2-Dichloropropane | 50 ppm |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 2-Chlorotoluene | 50 ppm |
| | | | | | | | 4-Chlorotoluene | 50 ppm |
| | | | | | | | Benzene | 50 ppm |
| | | | | | | | Bromobenzene | 50 ppm |
| | | | | | | | Bromochloromethane | 50 ppm |
| | | | | | | | Bromodichloromethane | 50 ppm |
| | | | | | | | Bromoform | 50 ppm |
| | | | | | | | Carbon tetrachloride | 50 ppm |
| | | | | | | | Chlorobenzene | 50 ppm |
| | | | | | | | Chloroform | 50 ppm |
| | | | | | | | cis-1,2-Dichloroethene | 50 ppm |
| | | | | | | | cis-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Dibromochloromethane | 50 ppm |
| | | | | | | | Dibromomethane | 50 ppm |
| | | | | | | | Ethylbenzene | 50 ppm |
| | | | | | | | Hexachlorobutadiene | 50 ppm |
| | | | | | | | Isopropylbenzene | 50 ppm |
| | | | | | | | m,p-Xylene | 50 ppm |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ppm |
| | | | | | | | Methylene Chloride | 50 ppm |
| | | | | | | | n-Butylbenzene | 50 ppm |
| | | | | | | | N-Propylbenzene | 50 ppm |
| | | | | | | | Naphthalene | 50 ppm |
| | | | | | | | o-Xylene | 50 ppm |
| | | | | | | | p-Isopropyltoluene | 50 ppm |
| | | | | | | | sec-Butylbenzene | 50 ppm |
| | | | | | | | Styrene | 50 ppm |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ppm |
| | | | | | | | tert-Butylbenzene | 50 ppm |
| | | | | | | | Tetrachloroethene | 50 ppm |
| | | | | | | | Toluene | 50 ppm |
| | | | | | | | trans-1,2-Dichloroethene | 50 ppm |
| | | | | | | | trans-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Trichloroethene | 50 ppm |
| | | | | | VMA178260POL2_00009 | 200 uL | Ethyl-t-butyl ether (ETBE) | 50 ppm |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ppm |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ppm |
| .VMA158260GAS2_00215 | 05/15/18 | | Restek, Lot A0128832 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET2_00040 | 05/08/18 | | Restek, Lot A0123880 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG2_00051 | 05/08/18 | | Restek, Lot A0120604 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL2_00009 | 05/08/18 | Restek, Lot A0123771 | | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNU8260LCS2_00169** | 12/20/17 | 12/13/17 | Methanol, Lot 4506064 | 10 mL | VMA158260GAS2_00224 | 200 uL | Bromomethane | 50 ppm |
| | | | | | | | Chloroethane | 50 ppm |
| | | | | | | | Chloromethane | 50 ppm |
| | | | | | | | Dichlorodifluoromethane | 50 ppm |
| | | | | | | | Trichlorofluoromethane | 50 ppm |
| | | | | | | | Vinyl chloride | 50 ppm |
| | | | | | VMA158260KET2_00041 | 40 uL | 2-Butanone (MEK) | 50 ppm |
| | | | | | | | 2-Hexanone | 50 ppm |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ppm |
| | | | | | | | Acetone | 50 ppm |
| | | | | | VMA158260MEG2_00052 | 200 uL | 1,1,1,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,1-Trichloroethane | 50 ppm |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,2-Trichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethene | 50 ppm |
| | | | | | | | 1,1-Dichloropropene | 50 ppm |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,3-Trichloropropane | 50 ppm |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ppm |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ppm |
| | | | | | | | 1,2-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,2-Dichloroethane | 50 ppm |
| | | | | | | | 1,2-Dichloropropane | 50 ppm |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,3-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,3-Dichloropropane | 50 ppm |
| | | | | | | | 1,4-Dichlorobenzene | 50 ppm |
| | | | | | | | 2,2-Dichloropropane | 50 ppm |
| | | | | | | | 2-Chlorotoluene | 50 ppm |
| | | | | | | | 4-Chlorotoluene | 50 ppm |
| | | | | | | | Benzene | 50 ppm |
| | | | | | | | Bromobenzene | 50 ppm |
| | | | | | | | Bromochloromethane | 50 ppm |
| | | | | | | | Bromodichloromethane | 50 ppm |
| | | | | | | | Bromoform | 50 ppm |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Carbon tetrachloride | 50 ppm |
| | | | | | | | Chlorobenzene | 50 ppm |
| | | | | | | | Chloroform | 50 ppm |
| | | | | | | | cis-1,2-Dichloroethene | 50 ppm |
| | | | | | | | cis-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Dibromochloromethane | 50 ppm |
| | | | | | | | Dibromomethane | 50 ppm |
| | | | | | | | Ethylbenzene | 50 ppm |
| | | | | | | | Hexachlorobutadiene | 50 ppm |
| | | | | | | | Isopropylbenzene | 50 ppm |
| | | | | | | | m,p-Xylene | 50 ppm |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ppm |
| | | | | | | | Methylene Chloride | 50 ppm |
| | | | | | | | n-Butylbenzene | 50 ppm |
| | | | | | | | N-Propylbenzene | 50 ppm |
| | | | | | | | Naphthalene | 50 ppm |
| | | | | | | | o-Xylene | 50 ppm |
| | | | | | | | p-Isopropyltoluene | 50 ppm |
| | | | | | | | sec-Butylbenzene | 50 ppm |
| | | | | | | | Styrene | 50 ppm |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ppm |
| | | | | | | | tert-Butylbenzene | 50 ppm |
| | | | | | | | Tetrachloroethene | 50 ppm |
| | | | | | | | Toluene | 50 ppm |
| | | | | | | | trans-1,2-Dichloroethene | 50 ppm |
| | | | | | | | trans-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Trichloroethene | 50 ppm |
| | | | | | VMA178260POL2_00010 | 200 uL | Ethyl-t-butyl ether (ETBE) | 50 ppm |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ppm |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ppm |
| .VMA158260GAS2_00224 | 06/13/18 | | Restek, Lot A0128832 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET2_00041 | 05/29/18 | | Restek, Lot A0123880 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG2_00052 | 05/29/18 | | Restek, Lot A0120604 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL2_00010 | 05/29/18 | | Restek, Lot A0126826 | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNU8260LCS2_00174** | 01/24/18 | 01/17/18 | Methanol, Lot 4506057 | 10 mL | VMA158260GAS2_00232 | 200 uL | Bromomethane | 50 ppm |
| | | | | | | | Chloroethane | 50 ppm |
| | | | | | | | Chloromethane | 50 ppm |
| | | | | | | | Dichlorodifluoromethane | 50 ppm |
| | | | | | | | Trichlorofluoromethane | 50 ppm |
| | | | | | | | Vinyl chloride | 50 ppm |
| | | | | | VMA158260KET2_00042 | 40 uL | 2-Butanone (MEK) | 50 ppm |
| | | | | | | | 2-Hexanone | 50 ppm |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 50 ppm |
| | | | | | | | Acetone | 50 ppm |
| | | | | | VMA158260MEG2_00053 | 200 uL | 1,1,1,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,1-Trichloroethane | 50 ppm |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ppm |
| | | | | | | | 1,1,2-Trichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethane | 50 ppm |
| | | | | | | | 1,1-Dichloroethene | 50 ppm |
| | | | | | | | 1,1-Dichloropropene | 50 ppm |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,3-Trichloropropane | 50 ppm |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ppm |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ppm |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ppm |
| | | | | | | | 1,2-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,2-Dichloroethane | 50 ppm |
| | | | | | | | 1,2-Dichloropropane | 50 ppm |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ppm |
| | | | | | | | 1,3-Dichlorobenzene | 50 ppm |
| | | | | | | | 1,3-Dichloropropane | 50 ppm |
| | | | | | | | 1,4-Dichlorobenzene | 50 ppm |
| | | | | | | | 2,2-Dichloropropane | 50 ppm |
| | | | | | | | 2-Chlorotoluene | 50 ppm |
| | | | | | | | 4-Chlorotoluene | 50 ppm |
| | | | | | | | Benzene | 50 ppm |
| | | | | | | | Bromobenzene | 50 ppm |
| | | | | | | | Bromochloromethane | 50 ppm |
| | | | | | | | Bromodichloromethane | 50 ppm |
| | | | | | | | Bromoform | 50 ppm |
| | | | | | | | Carbon tetrachloride | 50 ppm |
| | | | | | | | Chlorobenzene | 50 ppm |
| | | | | | | | Chloroform | 50 ppm |
| | | | | | | | cis-1,2-Dichloroethene | 50 ppm |
| | | | | | | | cis-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Dibromochloromethane | 50 ppm |
| | | | | | | | Dibromomethane | 50 ppm |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Ethylbenzene | 50 ppm |
| | | | | | | | Hexachlorobutadiene | 50 ppm |
| | | | | | | | Isopropylbenzene | 50 ppm |
| | | | | | | | m,p-Xylene | 50 ppm |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 50 ppm |
| | | | | | | | Methylene Chloride | 50 ppm |
| | | | | | | | n-Butylbenzene | 50 ppm |
| | | | | | | | N-Propylbenzene | 50 ppm |
| | | | | | | | Naphthalene | 50 ppm |
| | | | | | | | o-Xylene | 50 ppm |
| | | | | | | | p-Isopropyltoluene | 50 ppm |
| | | | | | | | sec-Butylbenzene | 50 ppm |
| | | | | | | | Styrene | 50 ppm |
| | | | | | | | tert-Butyl alcohol (TBA) | 500 ppm |
| | | | | | | | tert-Butylbenzene | 50 ppm |
| | | | | | | | Tetrachloroethene | 50 ppm |
| | | | | | | | Toluene | 50 ppm |
| | | | | | | | trans-1,2-Dichloroethene | 50 ppm |
| | | | | | | | trans-1,3-Dichloropropene | 50 ppm |
| | | | | | | | Trichloroethene | 50 ppm |
| | | | | | VMA178260POL2_00011 | 200 uL | Ethyl-t-butyl ether (ETBE) | 50 ppm |
| | | | | | | | Isopropyl Ether (DIPE) | 50 ppm |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 50 ppm |
| .VMA158260GAS2_00232 | 07/17/18 | | Restek, Lot A0132373 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| .VMA158260KET2_00042 | 06/27/18 | | Restek, Lot A0123880 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| .VMA158260MEG2_00053 | 06/27/18 | | Restek, Lot A0120604 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromochloromethane | 2500 ug/mL |
| | | | | | | | Bromodichloromethane | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Dibromochloromethane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m,p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl-t-Butyl Ether (MTBE) | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | p-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butyl alcohol (TBA) | 25000 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| .VMA178260POL2_00011 | 06/27/18 | | Restek, Lot A0126826 | | (Purchased Reagent) | | Ethyl-t-butyl ether (ETBE) | 2500 ug/mL |
| | | | | | | | Isopropyl Ether (DIPE) | 2500 ug/mL |
| | | | | | | | Tert-amyl-methyl ether (TAME) | 2500 ug/mL |
| **VMWNUSURR200_00167** | 12/14/17 | 11/14/17 | Methanol, Lot 4415769 | 1 mL | VMANU8260SUR1_00063 | 80 uL | 1,2-Dichloroethane-d4 (Surr) | 200 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 200 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 200 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 200 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .VMANU8260SUR1_00063 | 04/30/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNUSURR200_00172** | 01/12/18 | 12/12/17 | Methanol, Lot 4506063 | 1 mL | VMANU8260SUR1_00064 | 80 uL | 1,2-Dichloroethane-d4 (Surr) | 200 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 200 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 200 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 200 ug/mL |
| .VMANU8260SUR1_00064 | 05/28/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNUSURR50_00167** | 12/14/17 | 11/14/17 | Methanol, Lot 4415769 | 1 mL | VMANU8260SUR1_00063 | 20 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR1_00063 | 04/30/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMWNUSURR50_00172** | 01/12/18 | 12/12/17 | Methanol, Lot 4506063 | 1 mL | VMANU8260SUR1_00064 | 20 uL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VMANU8260SUR1_00064 | 05/28/18 | | Restek, Lot A0124069 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **WC_365.3LCS_00001** | 06/30/18 | | ULTRA SCIENTIFIC, Lot AU-01004 | | (Purchased Reagent) | | Phosphorus as PO4 | 3067.58 mg/L |
| | | | | | | | Phosphorus, Total | 1001 mg/L |
| **WC3001ICV_00036** | 05/31/18 | 12/08/17 | Di Water, Lot 20171208 | 100 mL | WC2CHLORATE_00004 | 0.4 mL | Chlorate | 4.004 mg/L |
| | | | | | WC2CHLORITE_00019 | 0.4 mL | Chlorite | 4 mg/L |
| .WC2CHLORATE_00004 | 11/30/20 | | Ultra Scientific, Lot CP-5286 | | (Purchased Reagent) | | Chlorate | 1001 mg/L |
| .WC2CHLORITE_00019 | 05/31/18 | | Ultra Scientific, Lot CR-24923 | | (Purchased Reagent) | | Chlorite | 1000 mg/L |
| **WC3001LCS_00059** | 06/08/18 | 12/08/17 | Di Water, Lot 20171208 | 100 mL | WC1BROMATE_00008 | 0.1 mL | Bromate | 1 mg/L |
| | | | | | WC1CHLORATE_00009 | 0.4 mL | Chlorate | 4 mg/L |
| | | | | | WC1CHLORITE_00008 | 0.4 mL | Chlorite | 4 mg/L |
| | | | | | wcbromide_00014 | 0.1 mL | Bromide | 10 mg/L |
| .WC1BROMATE_00008 | 01/01/19 | | O2Si, Lot 131599-4 | | (Purchased Reagent) | | Bromate | 1000 mg/L |
| .WC1CHLORATE_00009 | 01/01/19 | | O2Si, Lot 142627-2 | | (Purchased Reagent) | | Chlorate | 1000 mg/L |
| .WC1CHLORITE_00008 | 11/27/19 | | O2Si, Lot 146667-16 | | (Purchased Reagent) | | Chlorite | 1000 mg/L |
| .wcbromide_00014 | 09/28/18 | | Hgh Purity Standards, Lot 1615819 | | (Purchased Reagent) | | Bromide | 10000 ug/mL |
| **WC314.INF_00325** | 01/30/18 | 01/29/18 | DI water, Lot 20180129 | 50 mL | WCCLO41st-10_00014 | 0.12 mL | Perchlorate | 24 ppb |
| .WCCLO41st-10_00014 | 04/29/18 | 01/29/18 | Di Water, Lot 20180129 | 100 mL | WCCLO4-1st_00004 | 1 mL | Perchlorate | 10 mg/L |
| ..WCCLO4-1st_00004 | 12/30/18 | | SPEX CertiPrep, Lot 4-88CLO4-2Y | | (Purchased Reagent) | | Perchlorate | 1000 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **WC314.INF10_00028** | 01/27/18 | 01/26/18 | DI water, Lot 20180126 | 50 mL | WCCLO41st-10_00013 | 0.05 mL | Perchlorate | 10 ppb |
| .WCCLO41st-10_00013 | 01/29/18 | 11/30/17 | Di Water, Lot 20171130 | 100 mL | WCCLO4-1st_00002 | 1 mL | Perchlorate | 10 mg/L |
| ..WCCLO4-1st_00002 | 01/30/18 | SPEX CERTIPREP, Lot 3-149CLO4-2Y | | | (Purchased Reagent) | | Perchlorate | 1000 mg/L |
| **WCALK-ALK LCS_00129** | 03/16/18 | Ultra Scientific, Lot CR-3478 | | | (Purchased Reagent) | | Alkalinity as CaCO3 | 50.8 mg/L |
| **WCAMMONIA1_00029** | 02/28/19 | Thermo Scientific, Lot VY2 | | | (Purchased Reagent) | | Ammonia | 1000 ppm |
| | | | | | | | Ammonia as NH3 | 1214.29 ppm |
| | | | | | | | Total Kjeldahl Nitrogen | 1000 ppm |
| **WCAMMONIA2_00013** | 10/30/18 | Ricca Chemical, Lot 1704F31 | | | (Purchased Reagent) | | Ammonia | 1000 mg/L |
| | | | | | | | Ammonia as NH3 | 1214.3 mg/L |
| | | | | | | | Total Kjeldahl Nitrogen | 1000 mg/L |
| **WCCLO41st-10_00012** | 01/29/18 | 11/29/17 | Di Water, Lot 20171129 | 100 mL | WCCLO4-1st_00002 | 1 mL | Perchlorate | 10 mg/L |
| .WCCLO4-1st_00002 | 01/30/18 | SPEX CERTIPREP, Lot 3-149CLO4-2Y | | | (Purchased Reagent) | | Perchlorate | 1000 mg/L |
| **WCCLO4ICV10_00029** | 03/10/18 | 12/08/17 | Di Water, Lot 12/10/2017 | 100 mL | WCCLO4ICV_00016 | 1 mL | Perchlorate | 10.0002 mg/L |
| .WCCLO4ICV_00016 | 12/10/18 | 12/08/17 | Di Water, Lot 12/10/2017 | 250 mL | WCCLO4ICVSOLI_00002 | 0.3078 g | Perchlorate | 1000.02 mg/L |
| ..WCCLO4ICVSOLI_00002 | 06/01/22 | SPECTRUM, Lot 2FH0070 | | | (Purchased Reagent) | | Perchlorate | 0.81223 g/g |
| **WCCR6ICV5PPM_00051** | 11/02/17 | 10/02/17 | Di Water, Lot 20171002 | 50 mL | WCCR6ICV_00023 | 5 mL | Chromium, hexavalent | 4.99849 mg/L |
| .WCCR6ICV_00023 | 04/02/18 | 10/02/17 | Di Water, Lot 20170323 | 1000 mL | WCK2CR2O7_00003 | 0.1414 g | Chromium, hexavalent | 49.9849 mg/L |
| ..WCK2CR2O7_00003 | 03/22/22 | FISHER, Lot 166724 | | | (Purchased Reagent) | | Chromium, hexavalent | 0.3535 g/g |
| **WCCR6LCS50PPM_00038** | 05/21/18 | 11/21/17 | Di Water, Lot 20171121 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| .WCCr6 K2Cr2O4_00009 | 04/30/19 | ERA, Lot 040416 | | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCCR6LCS5PPM_00098** | 10/21/17 | 09/21/17 | Di Water, Lot 201709021 | 50 mL | WCCR6LCS50PPM_00037 | 5 mL | Chromium, hexavalent | 5 mg/L |
| .WCCR6LCS50PPM_00037 | 12/03/17 | 06/05/17 | Di Water, Lot 20170605 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| ..WCCr6 K2Cr2O4_00009 | 04/30/19 | ERA, Lot 040416 | | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCCR6LCS5PPM_00103** | 01/26/18 | 12/26/17 | Di Water, Lot 20171226 | 50 mL | WCCR6LCS50PPM_00038 | 5 mL | Chromium, hexavalent | 5 mg/L |
| .WCCR6LCS50PPM_00038 | 05/21/18 | 11/21/17 | Di Water, Lot 20171121 | 100 mL | WCCr6 K2Cr2O4_00009 | 5 mL | Chromium, hexavalent | 50 mg/L |
| ..WCCr6 K2Cr2O4_00009 | 04/30/19 | ERA, Lot 040416 | | | (Purchased Reagent) | | Chromium, hexavalent | 1000 mg/L |
| **WCDCA_00055** | 03/08/18 | 12/08/17 | Di Water, Lot 20171208 | 100 mL | WCKDCA_00003 | 0.065 g | Dichloroacetic acid(Surr) | 496.855 mg/L |
| .WCKDCA_00003 | 02/28/20 | Aldrich, Lot MKBR8264V | | | (Purchased Reagent) | | Dichloroacetic acid(Surr) | 0.764393 g/g |
| **WCDCA_00056** | 03/26/18 | 12/26/17 | Di Water, Lot 20171226 | 100 mL | WCKDCA_00003 | 0.065 g | Dichloroacetic acid(Surr) | 496.855 mg/L |
| .WCKDCA_00003 | 02/28/20 | Aldrich, Lot MKBR8264V | | | (Purchased Reagent) | | Dichloroacetic acid(Surr) | 0.764393 g/g |
| **WCHARDNESS-2_00005** | 10/31/19 | ERA, Lot P258-507 | | | (Purchased Reagent) | | Hardness as calcium carbonate | 173 mg/L |
| **WCICVANIONS_00079** | 01/19/18 | 12/19/17 | Di Water, Lot 12/19/2017 | 100 mL | WCNITRATE_00013 | 10 mL | Nitrate as N | 22.6 mg/L |
| | | | | | WCSULFATE_00010 | 10 mL | Sulfate | 100 mg/L |
| .WCNITRATE_00013 | 03/31/19 | ERA, Lot 200317 | | | (Purchased Reagent) | | Nitrate as N | 226 mg/L |
| .WCSULFATE_00010 | 06/30/19 | ERA, Lot 210617 | | | (Purchased Reagent) | | Sulfate | 1000 mg/L |
| **WCLCSANIONS_00148** | 02/08/18 | 01/08/18 | Di Water, Lot 1/8/2017 | 100 mL | wcbromide_00014 | 10 mL | Bromide | 1000 mg/L |
| | | | | | wcchloride_00003 | 10 mL | Chloride | 1000 mg/L |
| | | | | | wcfluoride_00006 | 10 mL | Fluoride | 1000 mg/L |
| | | | | | wcnitrate_00012 | 10 mL | Nitrate as N | 225.891 mg/L |
| | | | | | | | Nitrate as NO3 | 1000 mg/L |

# REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | WCNITRITE1_00021 | 10 mL | Nitrite as N | 304.459 mg/L |
| | | | | | | | Nitrite as NO2 | 1000.22 mg/L |
| | | | | | wcphosphate_00008 | 10 mL | Orthophosphate as P | 326.164 mg/L |
| | | | | | | | Orthophosphorus as PO4 | 1000 mg/L |
| | | | | | wcsulfate_00011 | 10 mL | Sulfate | 1000 mg/L |
| .wcbromide_00014 | 09/28/18 | Hgh Purity Standards, Lot 1615819 | | | (Purchased Reagent) | | Bromide | 10000 ug/mL |
| .wcchloride_00003 | 05/08/19 | high purity, Lot 1706619 | | | (Purchased Reagent) | | Chloride | 10000 ug/mL |
| .wcfluoride_00006 | 05/30/18 | ricca, Lot 1611D19 | | | (Purchased Reagent) | | Fluoride | 10000 ug/mL |
| .wcnitrate_00012 | 03/30/18 | ricca, Lot 1703D50 | | | (Purchased Reagent) | | Nitrate as N | 2258.91 ug/mL |
| | | | | | | | Nitrate as NO3 | 10000 ug/mL |
| .WCNITRITE1_00021 | 02/16/18 | 08/16/17 | Di Water, Lot 8/16/2017 | 100 mL | WCNANO2_00005 | 1.4998 g | Nitrite as N | 3044.59 mg/L |
| | | | | | | | Nitrite as NO2 | 10002.2 mg/L |
| ..WCNANO2_00005 | 10/25/22 | Fisher, Lot 117416 | | | (Purchased Reagent) | | Nitrite as N | 0.203 g/g |
| | | | | | | | Nitrite as NO2 | 0.6669 g/g |
| .wcphosphate_00008 | 11/30/18 | ricca, Lot 2705A90 | | | (Purchased Reagent) | | Orthophosphate as P | 3261.64 ug/mL |
| | | | | | | | Orthophosphorus as PO4 | 10000 ug/mL |
| .wcsulfate_00011 | 09/28/18 | high purity, Lot 1615416 | | | (Purchased Reagent) | | Sulfate | 10000 ug/mL |
| **WCPHOS365.3_00009** | 09/30/18 | RICCA CHEMICAL, Lot 4609C90 | | | (Purchased Reagent) | | Phosphorus, Total | 1000 mg/L |
| **WCPHOS365.32n_00004** | 09/30/21 | ULTRA SCIENTIFIC, Lot CL-3380 | | | (Purchased Reagent) | | Phosphorus, Total | 1000 mg/L |
| **wctdslcs_00094** | 06/22/18 | 12/22/17 | Di Water, Lot 20171222 | 100 mL | WCNACLTDSLCS_00004 | 0.1 g | Total Dissolved Solids | 1000 ppm |
| .WCNACLTDSLCS_00004 | 01/05/20 | FISHER CHEMICAL, Lot 140358 | | | (Purchased Reagent) | | Total Dissolved Solids | 1 g/g |
| **WCTOC1H2O_00023** | 08/31/18 | Ricca, Lot 1708D07 | | | (Purchased Reagent) | | Total Organic Carbon | 1000 mg/L |
| **WCTOC2H2O_00025** | 03/30/18 | Aqua Solutions, Lot 7091221 | | | (Purchased Reagent) | | TOC Result 1 | 1000 ppm |
| | | | | | | | TOC Result 2 | 1000 ppm |
| | | | | | | | Total Organic Carbon | 1000 ppm |
| **WCTSSLCS_00359** | 02/12/18 | 01/12/18 | Di Water, Lot 20180112 | 1000 mL | WCSIGMACELL_00010 | 1 g | Total Suspended Solids | 1000 mg/L |
| .WCSIGMACELL_00010 | 07/12/21 | SIGMA, Lot SLBS4664 | | | (Purchased Reagent) | | Total Suspended Solids | 1 g/g |

# Method 8260B Low Level

## Volatile Organic Compounds (GC/MS) by Method 8260B Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-VRX B ID: 0.25(mm)

| Client Sample ID | Lab Sample ID | DBFM # | TOL # | BFB # |
|---|---|---|---|---|
| VER-01I-C-72 | 440-201437-1 | 114 | 95 | 86 |
| VER-01I-C-72 DL | 440-201437-1 DL | 100 | 106 | 98 |
| Trip Blank | 440-201437-2 | 112 | 96 | 87 |
| Trip Blank RA | 440-201437-2 RA | 102 | 105 | 100 |
| VER-01I-C-77.5 | 440-201437-3 | 109 | 98 | 87 |
| VER-01I-C-77.5 DL | 440-201437-3 DL | 102 | 106 | 99 |
| | MB 440-452839/4 | 108 | 99 | 89 |
| | MB 440-452937/4 | 97 | 109 | 100 |
| | LCS 440-452839/5 | 105 | 96 | 89 |
| | LCS 440-452937/5 | 98 | 104 | 101 |
| VER-01I-C-77.5 MS | 440-201437-3 MS | 107 | 96 | 87 |
| | 440-201313-A-1 MS | 100 | 103 | 100 |
| VER-01I-C-77.5 MSD | 440-201437-3 MSD | 107 | 96 | 88 |
| | 440-201313-A-1 MSD | 100 | 102 | 102 |

| | QC LIMITS |
|---|---|
| DBFM = Dibromofluoromethane (Surr) | 76-132 |
| TOL = Toluene-d8 (Surr) | 80-128 |
| BFB = 4-Bromofluorobenzene (Surr) | 80-120 |

# Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YGA20005.D

Lab ID: LCS 440-452839/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Acetone | 25.0 | 21.6 | 86 | 10-150 | |
| Benzene | 25.0 | 23.8 | 95 | 68-130 | |
| Bromobenzene | 25.0 | 26.2 | 105 | 70-130 | |
| Bromochloromethane | 25.0 | 29.3 | 117 | 70-130 | |
| Bromodichloromethane | 25.0 | 25.8 | 103 | 70-132 | |
| Bromoform | 25.0 | 29.8 | 119 | 60-148 | |
| Bromomethane | 25.0 | 27.8 | 111 | 64-139 | |
| 2-Butanone (MEK) | 25.0 | 24.2 | 97 | 44-150 | |
| Carbon tetrachloride | 25.0 | 28.8 | 115 | 60-150 | |
| Chlorobenzene | 25.0 | 25.1 | 101 | 70-130 | |
| Chloroethane | 25.0 | 21.1 | 85 | 64-135 | |
| Chloromethane | 25.0 | 20.2 | 81 | 47-140 | |
| 2-Chlorotoluene | 25.0 | 23.6 | 95 | 70-130 | |
| 4-Chlorotoluene | 25.0 | 24.3 | 97 | 70-130 | |
| cis-1,2-Dichloroethene | 25.0 | 26.1 | 104 | 70-133 | |
| cis-1,3-Dichloropropene | 25.0 | 23.3 | 93 | 70-133 | |
| Dibromochloromethane | 25.0 | 26.4 | 105 | 69-145 | |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 24.1 | 96 | 52-140 | |
| 1,2-Dibromoethane (EDB) | 25.0 | 24.9 | 100 | 70-130 | |
| Dibromomethane | 25.0 | 24.5 | 98 | 70-130 | |
| 1,2-Dichlorobenzene | 25.0 | 26.7 | 107 | 70-130 | |
| 1,3-Dichlorobenzene | 25.0 | 26.0 | 104 | 70-130 | |
| 1,4-Dichlorobenzene | 25.0 | 25.5 | 102 | 70-130 | |
| Dichlorodifluoromethane | 25.0 | 29.7 | 119 | 29-150 | |
| 1,1-Dichloroethane | 25.0 | 22.8 | 91 | 64-130 | |
| 1,2-Dichloroethane | 25.0 | 25.1 | 100 | 57-138 | |
| 1,1-Dichloroethene | 25.0 | 25.9 | 104 | 70-130 | |
| 1,2-Dichloropropane | 25.0 | 21.9 | 88 | 67-130 | |
| 1,3-Dichloropropane | 25.0 | 21.8 | 87 | 70-130 | |
| 2,2-Dichloropropane | 25.0 | 27.3 | 109 | 68-141 | |
| 1,1-Dichloropropene | 25.0 | 26.9 | 108 | 70-130 | |
| Ethylbenzene | 25.0 | 25.6 | 102 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 24.5 | 98 | 60-136 | |
| Hexachlorobutadiene | 25.0 | 31.2 | 125 | 10-150 | |
| 2-Hexanone | 25.0 | 21.8 | 87 | 10-150 | |
| Isopropylbenzene | 25.0 | 29.0 | 116 | 70-136 | |
| Isopropyl Ether (DIPE) | 25.0 | 20.0 | 80 | 58-139 | |
| Methylene Chloride | 25.0 | 20.0 | 80 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 20.8 | 83 | 59-149 | |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 26.0 | 104 | 63-131 | |
| m,p-Xylene | 25.0 | 27.2 | 109 | 70-130 | |
| Naphthalene | 25.0 | 28.0 | 112 | 60-140 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YGA20005.D

Lab ID: LCS 440-452839/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| n-Butylbenzene | 25.0 | 26.0 | 104 | 65-150 | |
| N-Propylbenzene | 25.0 | 25.0 | 100 | 67-139 | |
| o-Xylene | 25.0 | 27.7 | 111 | 70-130 | |
| p-Isopropyltoluene | 25.0 | 27.1 | 108 | 70-132 | |
| sec-Butylbenzene | 25.0 | 26.1 | 104 | 70-138 | |
| Styrene | 25.0 | 26.2 | 105 | 70-134 | |
| Tert-amyl-methyl ether (TAME) | 25.0 | 24.9 | 100 | 57-139 | |
| tert-Butyl alcohol (TBA) | 250 | 255 | 102 | 70-130 | |
| tert-Butylbenzene | 25.0 | 27.4 | 110 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 25.0 | 27.4 | 110 | 60-141 | |
| 1,1,2,2-Tetrachloroethane | 25.0 | 20.6 | 83 | 63-130 | |
| Tetrachloroethene | 25.0 | 30.0 | 120 | 70-130 | |
| Toluene | 25.0 | 25.2 | 101 | 70-130 | |
| trans-1,2-Dichloroethene | 25.0 | 27.3 | 109 | 70-130 | |
| trans-1,3-Dichloropropene | 25.0 | 23.8 | 95 | 70-132 | |
| 1,2,3-Trichlorobenzene | 25.0 | 30.0 | 120 | 60-140 | |
| 1,2,4-Trichlorobenzene | 25.0 | 29.6 | 118 | 60-140 | |
| 1,1,1-Trichloroethane | 25.0 | 27.8 | 111 | 70-130 | |
| 1,1,2-Trichloroethane | 25.0 | 22.6 | 90 | 70-130 | |
| Trichloroethene | 25.0 | 29.5 | 118 | 70-130 | |
| Trichlorofluoromethane | 25.0 | 29.4 | 117 | 60-150 | |
| 1,2,3-Trichloropropane | 25.0 | 24.1 | 96 | 63-130 | |
| 1,2,4-Trimethylbenzene | 25.0 | 24.6 | 99 | 70-135 | |
| 1,3,5-Trimethylbenzene | 25.0 | 26.6 | 107 | 70-136 | |
| Vinyl chloride | 25.0 | 24.1 | 96 | 59-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: SGA220005.D

Lab ID: LCS 440-452937/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Chloroform | 25.0 | 23.3 | 93 | 70-130 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YGA20008.D

Lab ID: 440-201437-3 MS Client ID: VER-01I-C-77.5 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Acetone | 25.0 | ND | 24.1 | 96 | 10-150 | |
| Benzene | 25.0 | ND | 24.4 | 98 | 66-130 | |
| Bromobenzene | 25.0 | ND | 26.8 | 107 | 70-130 | |
| Bromochloromethane | 25.0 | ND | 30.9 | 123 | 70-130 | |
| Bromodichloromethane | 25.0 | 0.67 | 27.9 | 109 | 70-138 | |
| Bromoform | 25.0 | 0.66 J | 31.7 | 124 | 59-150 | |
| Bromomethane | 25.0 | ND | 28.1 | 113 | 62-131 | |
| 2-Butanone (MEK) | 25.0 | ND | 23.3 | 93 | 48-140 | |
| Carbon tetrachloride | 25.0 | 0.92 | 31.1 | 121 | 60-150 | |
| Chlorobenzene | 25.0 | ND | 25.9 | 104 | 70-130 | |
| Chloroethane | 25.0 | ND | 21.9 | 88 | 68-130 | |
| Chloroform | 25.0 | 660 | 645 | -49 | 70-130 | E 4 |
| Chloromethane | 25.0 | ND | 20.5 | 82 | 39-144 | |
| 2-Chlorotoluene | 25.0 | ND | 24.1 | 96 | 70-130 | |
| 4-Chlorotoluene | 25.0 | ND | 25.2 | 101 | 70-130 | |
| cis-1,2-Dichloroethene | 25.0 | ND | 26.8 | 107 | 70-130 | |
| cis-1,3-Dichloropropene | 25.0 | ND | 23.8 | 95 | 70-133 | |
| Dibromochloromethane | 25.0 | 0.26 J | 27.9 | 111 | 70-148 | |
| 1,2-Dibromo-3-Chloropropane | 25.0 | ND | 22.8 | 91 | 48-140 | |
| 1,2-Dibromoethane (EDB) | 25.0 | ND | 25.4 | 101 | 70-131 | |
| Dibromomethane | 25.0 | ND | 25.4 | 102 | 70-130 | |
| 1,2-Dichlorobenzene | 25.0 | 5.4 | 33.0 | 111 | 70-130 | |
| 1,3-Dichlorobenzene | 25.0 | 0.28 J | 27.2 | 108 | 70-130 | |
| 1,4-Dichlorobenzene | 25.0 | 1.3 | 28.1 | 107 | 70-130 | |
| Dichlorodifluoromethane | 25.0 | ND | 28.4 | 114 | 25-142 | |
| 1,1-Dichloroethane | 25.0 | ND | 23.3 | 93 | 65-130 | |
| 1,2-Dichloroethane | 25.0 | ND | 26.5 | 106 | 56-146 | |
| 1,1-Dichloroethene | 25.0 | ND | 26.9 | 108 | 70-130 | |
| 1,2-Dichloropropane | 25.0 | ND | 22.5 | 90 | 69-130 | |
| 1,3-Dichloropropane | 25.0 | ND | 22.3 | 89 | 70-130 | |
| 2,2-Dichloropropane | 25.0 | ND | 28.8 | 115 | 69-138 | |
| 1,1-Dichloropropene | 25.0 | ND | 27.1 | 109 | 64-130 | |
| Ethylbenzene | 25.0 | ND | 26.1 | 104 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 25.0 | ND | 26.1 | 104 | 70-130 | |
| Hexachlorobutadiene | 25.0 | ND | 31.2 | 125 | 10-150 | |
| 2-Hexanone | 25.0 | ND | 20.7 | 83 | 10-150 | |
| Isopropylbenzene | 25.0 | ND | 29.7 | 119 | 70-132 | |
| Isopropyl Ether (DIPE) | 25.0 | ND | 21.1 | 84 | 64-138 | |
| Methylene Chloride | 25.0 | ND | 23.1 | 92 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | ND | 20.3 | 81 | 52-150 | |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | ND | 27.1 | 108 | 70-130 | |
| m,p-Xylene | 25.0 | ND | 27.9 | 112 | 70-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YGA20008.D

Lab ID: 440-201437-3 MS Client ID: VER-01I-C-77.5 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Naphthalene | 25.0 | ND | 27.4 | 109 | 60-140 | |
| n-Butylbenzene | 25.0 | ND | 26.6 | 107 | 61-149 | |
| N-Propylbenzene | 25.0 | ND | 25.6 | 102 | 66-135 | |
| o-Xylene | 25.0 | ND | 28.5 | 114 | 70-133 | |
| p-Isopropyltoluene | 25.0 | ND | 28.1 | 112 | 70-130 | |
| sec-Butylbenzene | 25.0 | ND | 26.6 | 106 | 67-134 | |
| Styrene | 25.0 | ND | 18.1 | 72 | 29-150 | |
| Tert-amyl-methyl ether (TAME) | 25.0 | ND | 25.7 | 103 | 68-133 | |
| tert-Butyl alcohol (TBA) | 250 | ND | 284 | 113 | 70-130 | |
| tert-Butylbenzene | 25.0 | ND | 28.1 | 112 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 25.0 | ND | 28.6 | 115 | 60-149 | |
| 1,1,2,2-Tetrachloroethane | 25.0 | ND | 20.4 | 81 | 63-130 | |
| Tetrachloroethene | 25.0 | 0.95 | 30.8 | 119 | 70-137 | |
| Toluene | 25.0 | ND | 25.9 | 103 | 70-130 | |
| trans-1,2-Dichloroethene | 25.0 | ND | 27.9 | 112 | 70-130 | |
| trans-1,3-Dichloropropene | 25.0 | ND | 24.7 | 99 | 70-138 | |
| 1,2,3-Trichlorobenzene | 25.0 | ND | 29.6 | 118 | 60-140 | |
| 1,2,4-Trichlorobenzene | 25.0 | ND | 29.6 | 118 | 60-140 | |
| 1,1,1-Trichloroethane | 25.0 | ND | 28.9 | 116 | 70-130 | |
| 1,1,2-Trichloroethane | 25.0 | ND | 23.0 | 92 | 70-130 | |
| Trichloroethene | 25.0 | 1.5 | 32.0 | 122 | 70-130 | |
| Trichlorofluoromethane | 25.0 | ND | 30.3 | 121 | 60-150 | |
| 1,2,3-Trichloropropane | 25.0 | ND | 24.1 | 96 | 60-130 | |
| 1,2,4-Trimethylbenzene | 25.0 | ND | 25.3 | 101 | 70-130 | |
| 1,3,5-Trimethylbenzene | 25.0 | ND | 27.1 | 108 | 70-130 | |
| Vinyl chloride | 25.0 | ND | 23.6 | 94 | 50-137 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: SGA220008.D

Lab ID: 440-201313-A-1 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Chloroform | 250 | 630 | 809 | 73 | 70-130 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YGA20009.D

Lab ID: 440-201437-3 MSD Client ID: VER-01I-C-77.5 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Acetone | 25.0 | 24.7 | 99 | 3 | 35 | 10-150 | |
| Benzene | 25.0 | 23.6 | 95 | 3 | 20 | 66-130 | |
| Bromobenzene | 25.0 | 26.4 | 106 | 1 | 20 | 70-130 | |
| Bromochloromethane | 25.0 | 30.2 | 121 | 2 | 25 | 70-130 | |
| Bromodichloromethane | 25.0 | 27.4 | 107 | 2 | 20 | 70-138 | |
| Bromoform | 25.0 | 31.4 | 123 | 1 | 25 | 59-150 | |
| Bromomethane | 25.0 | 28.2 | 113 | 0 | 25 | 62-131 | |
| 2-Butanone (MEK) | 25.0 | 24.0 | 96 | 3 | 40 | 48-140 | |
| Carbon tetrachloride | 25.0 | 29.8 | 116 | 4 | 25 | 60-150 | |
| Chlorobenzene | 25.0 | 25.4 | 102 | 2 | 20 | 70-130 | |
| Chloroethane | 25.0 | 21.4 | 85 | 3 | 25 | 68-130 | |
| Chloroform | 25.0 | 614 | -173 | 5 | 20 | 70-130 | E 4 |
| Chloromethane | 25.0 | 20.2 | 81 | 1 | 25 | 39-144 | |
| 2-Chlorotoluene | 25.0 | 23.0 | 92 | 5 | 20 | 70-130 | |
| 4-Chlorotoluene | 25.0 | 23.6 | 95 | 6 | 20 | 70-130 | |
| cis-1,2-Dichloroethene | 25.0 | 25.9 | 103 | 4 | 20 | 70-130 | |
| cis-1,3-Dichloropropene | 25.0 | 23.4 | 94 | 2 | 20 | 70-133 | |
| Dibromochloromethane | 25.0 | 27.8 | 110 | 0 | 25 | 70-148 | |
| 1,2-Dibromo-3-Chloropropane | 25.0 | 23.2 | 93 | 2 | 30 | 48-140 | |
| 1,2-Dibromoethane (EDB) | 25.0 | 25.7 | 103 | 1 | 25 | 70-131 | |
| Dibromomethane | 25.0 | 25.6 | 102 | 1 | 25 | 70-130 | |
| 1,2-Dichlorobenzene | 25.0 | 32.2 | 107 | 3 | 20 | 70-130 | |
| 1,3-Dichlorobenzene | 25.0 | 26.3 | 104 | 3 | 20 | 70-130 | |
| 1,4-Dichlorobenzene | 25.0 | 27.0 | 103 | 4 | 20 | 70-130 | |
| Dichlorodifluoromethane | 25.0 | 28.3 | 113 | 0 | 30 | 25-142 | |
| 1,1-Dichloroethane | 25.0 | 23.0 | 92 | 1 | 20 | 65-130 | |
| 1,2-Dichloroethane | 25.0 | 26.1 | 104 | 2 | 20 | 56-146 | |
| 1,1-Dichloroethene | 25.0 | 26.1 | 105 | 3 | 20 | 70-130 | |
| 1,2-Dichloropropane | 25.0 | 22.3 | 89 | 1 | 20 | 69-130 | |
| 1,3-Dichloropropane | 25.0 | 22.0 | 88 | 1 | 25 | 70-130 | |
| 2,2-Dichloropropane | 25.0 | 27.3 | 109 | 5 | 25 | 69-138 | |
| 1,1-Dichloropropene | 25.0 | 26.1 | 104 | 4 | 20 | 64-130 | |
| Ethylbenzene | 25.0 | 25.3 | 101 | 3 | 20 | 70-130 | |
| Ethyl-t-butyl ether (ETBE) | 25.0 | 26.0 | 104 | 0 | 25 | 70-130 | |
| Hexachlorobutadiene | 25.0 | 30.0 | 120 | 4 | 20 | 10-150 | |
| 2-Hexanone | 25.0 | 20.9 | 84 | 1 | 35 | 10-150 | |
| Isopropylbenzene | 25.0 | 28.6 | 115 | 4 | 20 | 70-132 | |
| Isopropyl Ether (DIPE) | 25.0 | 20.9 | 84 | 1 | 25 | 64-138 | |
| Methylene Chloride | 25.0 | 22.5 | 90 | 3 | 20 | 52-130 | |
| 4-Methyl-2-pentanone (MIBK) | 25.0 | 20.2 | 81 | 0 | 35 | 52-150 | |
| Methyl-t-Butyl Ether (MTBE) | 25.0 | 27.4 | 110 | 1 | 25 | 70-130 | |
| m,p-Xylene | 25.0 | 27.5 | 110 | 2 | 25 | 70-133 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YGA20009.D

Lab ID: 440-201437-3 MSD Client ID: VER-01I-C-77.5 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Naphthalene | 25.0 | 27.6 | 110 | 1 | 30 | 60-140 | |
| n-Butylbenzene | 25.0 | 25.4 | 101 | 5 | 20 | 61-149 | |
| N-Propylbenzene | 25.0 | 24.4 | 98 | 5 | 20 | 66-135 | |
| o-Xylene | 25.0 | 27.8 | 111 | 3 | 20 | 70-133 | |
| p-Isopropyltoluene | 25.0 | 26.9 | 108 | 4 | 20 | 70-130 | |
| sec-Butylbenzene | 25.0 | 25.5 | 102 | 4 | 20 | 67-134 | |
| Styrene | 25.0 | 16.3 | 65 | 11 | 35 | 29-150 | |
| Tert-amyl-methyl ether (TAME) | 25.0 | 25.9 | 104 | 1 | 30 | 68-133 | |
| tert-Butyl alcohol (TBA) | 250 | 265 | 106 | 7 | 25 | 70-130 | |
| tert-Butylbenzene | 25.0 | 26.9 | 108 | 4 | 20 | 70-130 | |
| 1,1,1,2-Tetrachloroethane | 25.0 | 28.0 | 112 | 2 | 20 | 60-149 | |
| 1,1,2,2-Tetrachloroethane | 25.0 | 20.3 | 81 | 0 | 30 | 63-130 | |
| Tetrachloroethene | 25.0 | 29.9 | 116 | 3 | 20 | 70-137 | |
| Toluene | 25.0 | 25.2 | 101 | 3 | 20 | 70-130 | |
| trans-1,2-Dichloroethene | 25.0 | 26.8 | 107 | 4 | 20 | 70-130 | |
| trans-1,3-Dichloropropene | 25.0 | 24.6 | 98 | 0 | 25 | 70-138 | |
| 1,2,3-Trichlorobenzene | 25.0 | 29.7 | 119 | 0 | 20 | 60-140 | |
| 1,2,4-Trichlorobenzene | 25.0 | 29.4 | 118 | 1 | 20 | 60-140 | |
| 1,1,1-Trichloroethane | 25.0 | 28.0 | 112 | 3 | 20 | 70-130 | |
| 1,1,2-Trichloroethane | 25.0 | 23.1 | 93 | 0 | 25 | 70-130 | |
| Trichloroethene | 25.0 | 30.8 | 117 | 4 | 20 | 70-130 | |
| Trichlorofluoromethane | 25.0 | 29.7 | 119 | 2 | 25 | 60-150 | |
| 1,2,3-Trichloropropane | 25.0 | 24.1 | 96 | 0 | 30 | 60-130 | |
| 1,2,4-Trimethylbenzene | 25.0 | 24.5 | 98 | 3 | 25 | 70-130 | |
| 1,3,5-Trimethylbenzene | 25.0 | 25.7 | 103 | 5 | 20 | 70-130 | |
| Vinyl chloride | 25.0 | 23.3 | 93 | 1 | 30 | 50-137 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: SGA220009.D

Lab ID: 440-201313-A-1 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Chloroform | 250 | 819 | 76 | 1 | 20 | 70-130 | |

# Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab File ID: YGA20004.D Lab Sample ID: MB 440-452839/4

Matrix: Water Heated Purge:(Y/N) Y

Instrument ID: GCMS58 Date Analyzed: 01/20/2018 10:17

GC Column: DB-VRX B ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 440-452839/5 | YGA20005.D | 01/20/2018 10:46 |
| VER-01I-C-77.5 | 440-201437-3 | YGA20007.D | 01/20/2018 12:06 |
| VER-01I-C-77.5 MS | 440-201437-3 MS | YGA20008.D | 01/20/2018 12:35 |
| VER-01I-C-77.5 MSD | 440-201437-3 MSD | YGA20009.D | 01/20/2018 13:04 |
| VER-01I-C-72 | 440-201437-1 | YGA20010.D | 01/20/2018 13:34 |
| Trip Blank | 440-201437-2 | YGA20011.D | 01/20/2018 14:03 |

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab File ID: SGA220004.D Lab Sample ID: MB 440-452937/4

Matrix: Water Heated Purge:(Y/N) Y

Instrument ID: GCMS36 Date Analyzed: 01/22/2018 08:42

GC Column: DB-VRX A ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 440-452937/5 | SGA220005.D | 01/22/2018 09:07 |
| | 440-201313-A-1 MS | SGA220008.D | 01/22/2018 10:24 |
| | 440-201313-A-1 MSD | SGA220009.D | 01/22/2018 10:49 |
| VER-01I-C-72 DL | 440-201437-1 DL | SGA220015.D | 01/22/2018 13:22 |
| Trip Blank RA | 440-201437-2 RA | SGA220016.D | 01/22/2018 13:47 |
| VER-01I-C-77.5 DL | 440-201437-3 DL | SGA220017.D | 01/22/2018 14:13 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Irvine  Job No.: 440-201437-1

SDG No.:

Lab File ID: SFK16031.D  BFB Injection Date: 11/16/2017

Instrument ID: GCMS36  BFB Injection Time: 23:42

Analysis Batch No.: 442013

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 20.3 | |
| 75 | 30.0 - 60.0 % of mass 95 | 47.2 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 7.5 | |
| 173 | Less than 2.0 % of mass 174 | 0.0 | (0.0) 1 |
| 174 | 50.0 - 120.00 % of mass 95 | 108.9 | |
| 175 | 5.0 - 9.0 % of mass 174 | 9.4 | (8.7) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 107.6 | (98.7) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 7.4 | (6.9) 2 |

1-Value is % mass 174  2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | STD02 440-442013/4 | SFK16034.D | 11/17/2017 | 01:05 |
| | STD04 440-442013/5 | SFK16035.D | 11/17/2017 | 01:31 |
| | STD05 440-442013/6 | SFK16036.D | 11/17/2017 | 01:56 |
| | STD1 440-442013/7 | SFK16037.D | 11/17/2017 | 02:22 |
| | STD2 440-442013/8 | SFK16038.D | 11/17/2017 | 02:47 |
| | STD5 440-442013/9 | SFK16039.D | 11/17/2017 | 03:13 |
| | STD10 440-442013/10 | SFK16040.D | 11/17/2017 | 03:38 |
| | ICIS 440-442013/11 | SFK16041.D | 11/17/2017 | 04:04 |
| | STD50 440-442013/12 | SFK16042.D | 11/17/2017 | 04:29 |
| | STD100 440-442013/13 | SFK16043.D | 11/17/2017 | 04:54 |
| | STD200 440-442013/14 | SFK16044.D | 11/17/2017 | 05:20 |
| | STD300 440-442013/15 | SFK16045.D | 11/17/2017 | 05:45 |
| | ICV 440-442013/18 | SFK16048.D | 11/17/2017 | 07:01 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Irvine  Job No.: 440-201437-1

SDG No.:

Lab File ID: SGA220001.D  BFB Injection Date: 01/22/2018

Instrument ID: GCMS36  BFB Injection Time: 07:08

Analysis Batch No.: 452937

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 15.6 | |
| 75 | 30.0 - 60.0 % of mass 95 | 44.3 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 6.4 | |
| 173 | Less than 2.0 % of mass 174 | 0.0 | (0.0) 1 |
| 174 | 50.0 - 120.00 % of mass 95 | 109.7 | |
| 175 | 5.0 - 9.0 % of mass 174 | 8.5 | (7.8) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 107.2 | (97.7) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 7.1 | (6.6) 2 |

1-Value is % mass 174  2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | CCVIS 440-452937/2 | SGA220002.D | 01/22/2018 | 07:51 |
| | MB 440-452937/4 | SGA220004.D | 01/22/2018 | 08:42 |
| | LCS 440-452937/5 | SGA220005.D | 01/22/2018 | 09:07 |
| | 440-201313-A-1 MS | SGA220008.D | 01/22/2018 | 10:24 |
| | 440-201313-A-1 MSD | SGA220009.D | 01/22/2018 | 10:49 |
| VER-01I-C-72 DL | 440-201437-1 DL | SGA220015.D | 01/22/2018 | 13:22 |
| Trip Blank RA | 440-201437-2 RA | SGA220016.D | 01/22/2018 | 13:47 |
| VER-01I-C-77.5 DL | 440-201437-3 DL | SGA220017.D | 01/22/2018 | 14:13 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab File ID: YFL13010.D BFB Injection Date: 12/13/2017

Instrument ID: GCMS58 BFB Injection Time: 16:39

Analysis Batch No.: 446571

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 20.1 | |
| 75 | 30.0 - 60.0 % of mass 95 | 43.0 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 6.6 | |
| 173 | Less than 2.0 % of mass 174 | 0.0 | (0.0) 1 |
| 174 | 50.0 - 120.00 % of mass 95 | 89.9 | |
| 175 | 5.0 - 9.0 % of mass 174 | 6.7 | (7.4) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 85.7 | (95.3) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 5.7 | (6.6) 2 |

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | STD02 440-446571/4 | YFL13013.D | 12/13/2017 | 18:15 |
| | STD04 440-446571/5 | YFL13014.D | 12/13/2017 | 18:44 |
| | STD05 440-446571/6 | YFL13015.D | 12/13/2017 | 19:14 |
| | STD1 440-446571/7 | YFL13016.D | 12/13/2017 | 19:43 |
| | STD2 440-446571/8 | YFL13017.D | 12/13/2017 | 20:13 |
| | STD5 440-446571/9 | YFL13018.D | 12/13/2017 | 20:42 |
| | STD10 440-446571/10 | YFL13019.D | 12/13/2017 | 21:12 |
| | ICIS 440-446571/11 | YFL13020.D | 12/13/2017 | 21:41 |
| | STD50 440-446571/12 | YFL13021.D | 12/13/2017 | 22:11 |
| | STD100 440-446571/13 | YFL13022.D | 12/13/2017 | 22:41 |
| | STD200 440-446571/14 | YFL13023.D | 12/13/2017 | 23:10 |
| | STD300 440-446571/15 | YFL13024.D | 12/13/2017 | 23:40 |
| | ICV 440-446571/18 | YFL13027.D | 12/14/2017 | 01:08 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Irvine  Job No.: 440-201437-1

SDG No.:

Lab File ID: YGA20001.D  BFB Injection Date: 01/20/2018

Instrument ID: GCMS58  BFB Injection Time: 08:49

Analysis Batch No.: 452839

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 18.4 | |
| 75 | 30.0 - 60.0 % of mass 95 | 42.3 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 6.6 | |
| 173 | Less than 2.0 % of mass 174 | 0.0 | (0.0) 1 |
| 174 | 50.0 - 120.00 % of mass 95 | 101.9 | |
| 175 | 5.0 - 9.0 % of mass 174 | 7.6 | (7.4) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 98.1 | (96.2) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 6.5 | (6.6) 2 |

1-Value is % mass 174  2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | CCVIS 440-452839/2 | YGA20002.D | 01/20/2018 | 09:18 |
| | MB 440-452839/4 | YGA20004.D | 01/20/2018 | 10:17 |
| | LCS 440-452839/5 | YGA20005.D | 01/20/2018 | 10:46 |
| VER-01I-C-77.5 | 440-201437-3 | YGA20007.D | 01/20/2018 | 12:06 |
| VER-01I-C-77.5 MS | 440-201437-3 MS | YGA20008.D | 01/20/2018 | 12:35 |
| VER-01I-C-77.5 MSD | 440-201437-3 MSD | YGA20009.D | 01/20/2018 | 13:04 |
| VER-01I-C-72 | 440-201437-1 | YGA20010.D | 01/20/2018 | 13:34 |
| Trip Blank | 440-201437-2 | YGA20011.D | 01/20/2018 | 14:03 |

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Sample No.: ICIS 440-442013/11 Date Analyzed: 11/17/2017 04:04

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm)

Lab File ID (Standard): SFK16041.D Heated Purge: (Y/N) Y

Calibration ID: 17986

| | | TBAd9 | | FB | | CBNZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 120596 | 5.00 | 550812 | 7.92 | 473710 | 10.70 |
| UPPER LIMIT | | 241192 | 5.30 | 1101624 | 8.22 | 947420 | 11.00 |
| LOWER LIMIT | | 60298 | 4.70 | 275406 | 7.62 | 236855 | 10.40 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 440-442013/18 | | 130806 | 5.00 | 528854 | 7.93 | 467228 | 10.70 |
| CCVIS 440-452937/2 | | 189719 | 4.99 | 649261 | 7.92 | 553223 | 10.69 |

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Sample No.: ICIS 440-442013/11 Date Analyzed: 11/17/2017 04:04

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm)

Lab File ID (Standard): SFK16041.D Heated Purge: (Y/N) Y

Calibration ID: 17986

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 261405 | 13.16 | | | | |
| UPPER LIMIT | | 522810 | 13.46 | | | | |
| LOWER LIMIT | | 130703 | 12.86 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 440-442013/18 | | 274430 | 13.16 | | | | |
| CCVIS 440-452937/2 | | 320225 | 13.16 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Sample No.: CCVIS 440-452937/2 Date Analyzed: 01/22/2018 07:51

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm)

Lab File ID (Standard): SGA220002.D Heated Purge: (Y/N) Y

Calibration ID: 18373

| | | TBAd9 | | FB | | CBNZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 189719 | 4.99 | 649261 | 7.92 | 553223 | 10.69 |
| UPPER LIMIT | | 379438 | 5.29 | 1298522 | 8.22 | 1106446 | 10.99 |
| LOWER LIMIT | | 94860 | 4.69 | 324631 | 7.62 | 276612 | 10.39 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 440-452937/4 | | 145149 | 4.99 | 677450 | 7.92 | 555884 | 10.70 |
| LCS 440-452937/5 | | 169249 | 5.00 | 642851 | 7.92 | 553842 | 10.70 |
| 440-201313-A-1 MS | | 146498 | 5.00 | 702272 | 7.92 | 620064 | 10.70 |
| 440-201313-A-1 MSD | | 155862 | 4.99 | 693267 | 7.92 | 611495 | 10.70 |
| 440-201437-1 DL | VER-01I-C-72 DL | 142288 | 5.00 | 626256 | 7.92 | 530138 | 10.70 |
| 440-201437-2 RA | Trip Blank RA | 146396 | 4.99 | 646647 | 7.92 | 557311 | 10.70 |
| 440-201437-3 DL | VER-01I-C-77.5 DL | 136694 | 5.00 | 643238 | 7.92 | 550959 | 10.69 |

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Sample No.: CCVIS 440-452937/2 Date Analyzed: 01/22/2018 07:51

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm)

Lab File ID (Standard): SGA220002.D Heated Purge: (Y/N) Y

Calibration ID: 18373

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 320225 | 13.16 | | | | |
| UPPER LIMIT | | 640450 | 13.46 | | | | |
| LOWER LIMIT | | 160113 | 12.86 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 440-452937/4 | | 330274 | 13.15 | | | | |
| LCS 440-452937/5 | | 316228 | 13.16 | | | | |
| 440-201313-A-1 MS | | 356578 | 13.15 | | | | |
| 440-201313-A-1 MSD | | 350837 | 13.15 | | | | |
| 440-201437-1 DL | VER-01I-C-72 DL | 320731 | 13.16 | | | | |
| 440-201437-2 RA | Trip Blank RA | 335964 | 13.15 | | | | |
| 440-201437-3 DL | VER-01I-C-77.5 DL | 331278 | 13.16 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Sample No.: ICIS 440-446571/11 Date Analyzed: 12/13/2017 21:41

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm)

Lab File ID (Standard): YFL13020.D Heated Purge: (Y/N) Y

Calibration ID: 18193

| | | TBAd9 | | FB | | CBNZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 165512 | 3.92 | 635241 | 6.75 | 527850 | 9.40 |
| UPPER LIMIT | | 331024 | 4.22 | 1270482 | 7.05 | 1055700 | 9.70 |
| LOWER LIMIT | | 82756 | 3.62 | 317621 | 6.45 | 263925 | 9.10 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 440-446571/18 | | 192583 | 3.92 | 744275 | 6.75 | 638444 | 9.40 |
| CCVIS 440-452839/2 | | 147604 | 3.93 | 570217 | 6.76 | 513750 | 9.41 |

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine  Job No.: 440-201437-1

SDG No.:

Sample No.: ICIS 440-446571/11  Date Analyzed: 12/13/2017  21:41

Instrument ID: GCMS58  GC Column: DB-VRX B  ID: 0.25(mm)

Lab File ID (Standard): YFL13020.D  Heated Purge: (Y/N) Y

Calibration ID: 18193

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 291696 | 11.82 | | | | |
| UPPER LIMIT | | 583392 | 12.12 | | | | |
| LOWER LIMIT | | 145848 | 11.52 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 440-446571/18 | | 341430 | 11.82 | | | | |
| CCVIS 440-452839/2 | | 314029 | 11.82 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Sample No.: CCVIS 440-452839/2 Date Analyzed: 01/20/2018 09:18

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm)

Lab File ID (Standard): YGA20002.D Heated Purge: (Y/N) Y

Calibration ID: 18415

| | | TBAd9 | | FB | | CBNZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 147604 | 3.93 | 570217 | 6.76 | 513750 | 9.41 |
| UPPER LIMIT | | 295208 | 4.23 | 1140434 | 7.06 | 1027500 | 9.71 |
| LOWER LIMIT | | 73802 | 3.63 | 285109 | 6.46 | 256875 | 9.11 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 440-452839/4 | | 129449 | 3.93 | 497890 | 6.76 | 434989 | 9.41 |
| LCS 440-452839/5 | | 135049 | 3.93 | 485785 | 6.76 | 437207 | 9.41 |
| 440-201437-3 | VER-01I-C-77.5 | 132208 | 3.93 | 501624 | 6.76 | 442244 | 9.41 |
| 440-201437-3 MS | VER-01I-C-77.5 MS | 114225 | 3.92 | 484242 | 6.76 | 436319 | 9.41 |
| 440-201437-3 MSD | VER-01I-C-77.5 MSD | 133736 | 3.93 | 509393 | 6.76 | 458886 | 9.41 |
| 440-201437-1 | VER-01I-C-72 | 137823 | 3.93 | 487257 | 6.76 | 438239 | 9.41 |
| 440-201437-2 | Trip Blank | 121180 | 3.93 | 456540 | 6.76 | 413559 | 9.41 |

TBAd9 = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Sample No.: CCVIS 440-452839/2 Date Analyzed: 01/20/2018 09:18

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm)

Lab File ID (Standard): YGA20002.D Heated Purge: (Y/N) Y

Calibration ID: 18415

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 314029 | 11.82 | | | | |
| UPPER LIMIT | | 628058 | 12.12 | | | | |
| LOWER LIMIT | | 157015 | 11.52 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| MB 440-452839/4 | | 257388 | 11.82 | | | | |
| LCS 440-452839/5 | | 266874 | 11.82 | | | | |
| 440-201437-3 | VER-01I-C-77.5 | 263265 | 11.82 | | | | |
| 440-201437-3 MS | VER-01I-C-77.5 MS | 266815 | 11.82 | | | | |
| 440-201437-3 MSD | VER-01I-C-77.5 MSD | 285306 | 11.82 | | | | |
| 440-201437-1 | VER-01I-C-72 | 266267 | 11.82 | | | | |
| 440-201437-2 | Trip Blank | 245442 | 11.82 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.3 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-72 | Lab Sample ID: 440-201437-1

Matrix: Water | Lab File ID: YGA20010.D

Analysis Method: 8260B | Date Collected: 01/18/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 13:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 0.66 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 0.86 | J | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 1.0 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 4.8 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 0.30 | J | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 1.2 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-72 | Lab Sample ID: 440-201437-1

Matrix: Water | Lab File ID: YGA20010.D

Analysis Method: 8260B | Date Collected: 01/18/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 13:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 0.94 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 1.5 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-72 Lab Sample ID: 440-201437-1

Matrix: Water Lab File ID: YGA20010.D

Analysis Method: 8260B Date Collected: 01/18/2018 03:30

Sample wt/vol: 10(mL) Date Analyzed: 01/20/2018 13:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452839 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 86 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 114 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 95 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-72 DL Lab Sample ID: 440-201437-1 DL

Matrix: Water Lab File ID: SGA220015.D

Analysis Method: 8260B Date Collected: 01/18/2018 03:30

Sample wt/vol: 10(mL) Date Analyzed: 01/22/2018 13:22

Soil Aliquot Vol: Dilution Factor: 10

Soil Extract Vol.: GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452937 Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-66-3 | Chloroform | 640 | | 5.0 | 2.5 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 98 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 106 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: Trip Blank | Lab Sample ID: 440-201437-2

Matrix: Water | Lab File ID: YGA20011.D

Analysis Method: 8260B | Date Collected: 01/18/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 14:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: Trip Blank | Lab Sample ID: 440-201437-2

Matrix: Water | Lab File ID: YGA20011.D

Analysis Method: 8260B | Date Collected: 01/18/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 14:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Client Sample ID: Trip Blank Lab Sample ID: 440-201437-2

Matrix: Water Lab File ID: YGA20011.D

Analysis Method: 8260B Date Collected: 01/18/2018 03:30

Sample wt/vol: 10(mL) Date Analyzed: 01/20/2018 14:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452839 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 87 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 112 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 96 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: Trip Blank RA | Lab Sample ID: 440-201437-2 RA

Matrix: Water | Lab File ID: SGA220016.D

Analysis Method: 8260B | Date Collected: 01/18/2018 03:30

Sample wt/vol: 10(mL) | Date Analyzed: 01/22/2018 13:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452937 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-66-3 | Chloroform | ND | | 0.50 | 0.25 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 100 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 102 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 105 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-77.5 | Lab Sample ID: 440-201437-3

Matrix: Water | Lab File ID: YGA20007.D

Analysis Method: 8260B | Date Collected: 01/18/2018 09:00

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 12:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 0.67 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 0.66 | J | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 0.92 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 0.26 | J | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 5.4 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 0.28 | J | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 1.3 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-77.5 | Lab Sample ID: 440-201437-3

Matrix: Water | Lab File ID: YGA20007.D

Analysis Method: 8260B | Date Collected: 01/18/2018 09:00

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 12:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 0.95 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 1.5 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-77.5 Lab Sample ID: 440-201437-3

Matrix: Water Lab File ID: YGA20007.D

Analysis Method: 8260B Date Collected: 01/18/2018 09:00

Sample wt/vol: 10(mL) Date Analyzed: 01/20/2018 12:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452839 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 87 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 109 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 98 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-77.5 DL | Lab Sample ID: 440-201437-3 DL

Matrix: Water | Lab File ID: SGA220017.D

Analysis Method: 8260B | Date Collected: 01/18/2018 09:00

Sample wt/vol: 10(mL) | Date Analyzed: 01/22/2018 14:13

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452937 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-66-3 | Chloroform | 620 | | 5.0 | 2.5 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 99 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 102 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 106 | | 80-128 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD02 440-442013/4 | SFK16034.D |
| Level 2 | STD04 440-442013/5 | SFK16035.D |
| Level 3 | STD05 440-442013/6 | SFK16036.D |
| Level 4 | STD1 440-442013/7 | SFK16037.D |
| Level 5 | STD2 440-442013/8 | SFK16038.D |
| Level 6 | STD5 440-442013/9 | SFK16039.D |
| Level 7 | STD10 440-442013/10 | SFK16040.D |
| Level 8 | ICIS 440-442013/11 | SFK16041.D |
| Level 9 | STD50 440-442013/12 | SFK16042.D |
| Level 10 | STD100 440-442013/13 | SFK16043.D |
| Level 11 | STD200 440-442013/14 | SFK16044.D |
| Level 12 | STD300 440-442013/15 | SFK16045.D |

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 LVL 11 | LVL 2 LVL 7 LVL 12 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dichlorodifluoromethane | +++++ 0.3390 0.2916 | +++++ 0.3459 0.2891 | 0.2552 0.3330 | 0.2718 0.3171 | 0.2851 0.3145 | Ave | | 0.3042 | | | | 9.9 | | 15.0 | | | |
| Chloromethane | +++++ 0.3891 +++++ | +++++ 0.3830 +++++ | 0.4072 0.3711 | 0.3989 0.3537 | 0.3925 0.3283 | Ave | | 0.3780 | | | 0.1000 | 6.9 | | 15.0 | | | |
| Vinyl chloride | +++++ 0.3252 0.2804 | 0.3199 0.3348 0.2710 | 0.3430 0.3231 | 0.3429 0.3145 | 0.3306 0.3031 | Ave | | 0.3171 | | | | 7.5 | | 30.0 | | | |
| 1,3-Butadiene | +++++ 0.3225 0.2658 | +++++ 0.3250 0.2498 | +++++ 0.3214 | 0.3006 0.3098 | 0.3248 0.2928 | Ave | | 0.3014 | | | | 9.1 | | 15.0 | | | |
| Bromomethane | +++++ 0.2027 0.1894 | +++++ 0.2101 0.1798 | 0.1981 0.2045 | 0.1981 0.2049 | 0.2034 0.1988 | Ave | | 0.1990 | | | | 4.4 | | 15.0 | | | |
| Chloroethane | +++++ 0.1608 0.1501 | +++++ 0.1652 0.1453 | +++++ 0.1673 | 0.1458 0.1630 | 0.1582 0.1591 | Ave | | 0.1572 | | | | 5.2 | | 15.0 | | | |
| Ethanol | +++++ 0.1055 0.1284 | +++++ 0.1206 0.1260 | +++++ 0.0992 | +++++ 0.1162 | 0.1016 0.1168 | Ave | | 0.1143 | | | | 9.6 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dichlorofluoromethane | +++++<br>0.4214<br>0.3343 | +++++<br>0.4169<br>+++++ | 0.4156<br>0.4095 | 0.4282<br>0.3999 | 0.4097<br>0.3732 | Ave | | 0.4010 | | | | 7.4 | | 15.0 | | | |
| Acrolein | +++++<br>0.0236<br>0.0270 | +++++<br>0.0235<br>0.0291 | +++++<br>0.0251 | +++++<br>0.0270 | +++++<br>0.0270 | Ave | | 0.0260 | | | | 7.9 | | 15.0 | | | |
| Acetonitrile | +++++<br>0.0269<br>0.0257 | +++++<br>0.0292<br>0.0257 | +++++<br>0.0275 | 0.0226<br>0.0281 | 0.0261<br>0.0284 | Ave | | 0.0267 | | | | 7.4 | | 15.0 | | | |
| Trichlorofluoromethane | +++++<br>0.4898<br>0.4053 | +++++<br>0.4915<br>0.3820 | 0.4770<br>0.4774 | 0.4860<br>0.4726 | 0.4885<br>0.4447 | Ave | | 0.4615 | | | | 8.4 | | 15.0 | | | |
| Acetone | +++++<br>0.0742<br>0.0665 | +++++<br>0.0696<br>0.0674 | +++++<br>0.0663 | +++++<br>0.0676 | +++++<br>0.0713 | Ave | | 0.0690 | | | | 4.2 | | 15.0 | | | |
| Diethyl ether | +++++<br>0.1876<br>0.1778 | +++++<br>0.1875<br>0.1706 | +++++<br>0.1926 | 0.1592<br>0.1940 | 0.1810<br>0.1852 | Ave | | 0.1817 | | | | 6.1 | | 15.0 | | | |
| 1,1-Dichloroethene | +++++<br>0.2705<br>0.2335 | +++++<br>0.2708<br>0.2208 | 0.2626<br>0.2639 | 0.2601<br>0.2641 | 0.2791<br>0.2540 | Ave | | 0.2579 | | | | 6.9 | | 30.0 | | | |
| tert-Butyl alcohol (TBA) | +++++<br>1.1775<br>1.1642 | +++++<br>1.2301<br>1.0636 | +++++<br>1.2540 | 1.0936<br>1.2570 | 1.1108<br>1.1981 | Ave | | 1.1721 | | | | 6.0 | | 15.0 | | | |
| Iodomethane | +++++<br>0.7467<br>+++++ | +++++<br>0.6966<br>+++++ | +++++<br>0.6566 | +++++<br>0.6288 | 0.8685<br>+++++ | Ave | | 0.7194 | | | | 13.1 | | 15.0 | | | |
| Acrylonitrile | 0.0700<br>0.0800<br>+++++ | 0.0723<br>0.0806<br>+++++ | 0.0782<br>0.0776 | 0.0736<br>0.0724 | 0.0772<br>0.0657 | Ave | | 0.0748 | | | | 6.4 | | 15.0 | | | |
| Methylene Chloride | +++++<br>0.2733<br>0.2194 | +++++<br>0.2701<br>+++++ | +++++<br>0.2585 | 0.2931<br>0.2507 | 0.2888<br>0.2387 | Ave | | 0.2616 | | | | 9.6 | | 15.0 | | | |
| Methyl acetate | +++++<br>0.1750<br>+++++ | +++++<br>0.1750<br>+++++ | 0.1632<br>0.1672 | 0.1608<br>0.1546 | 0.1759<br>0.1400 | Ave | | 0.1640 | | | | 7.5 | | 15.0 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | +++++<br>0.2997<br>0.2605 | +++++<br>0.3046<br>0.2484 | 0.2483<br>0.2940 | 0.2852<br>0.2919 | 0.3050<br>0.2826 | Ave | | 0.2820 | | | | 7.8 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Allyl chloride | +++++<br>0.4414<br>0.3694 | +++++<br>0.4525<br>+++++ | +++++<br>0.4518 | 0.4100<br>0.4412 | 0.4603<br>0.4197 | Ave | | 0.4308 | | | | 7.0 | | 15.0 | | | |
| Carbon disulfide | +++++<br>0.8471<br>+++++ | +++++<br>0.8276<br>+++++ | 0.9253<br>0.8004 | 0.8614<br>0.7589 | 0.8210<br>0.6692 | Ave | | 0.8139 | | | | 9.3 | | 15.0 | | | |
| trans-1,2-Dichloroethene | +++++<br>0.2880<br>0.2447 | 0.2832<br>0.2970<br>+++++ | 0.2696<br>0.2888 | 0.2984<br>0.2854 | 0.3123<br>0.2708 | Ave | | 0.2838 | | | | 6.6 | | 15.0 | | | |
| Methyl-t-Butyl Ether (MTBE) | +++++<br>0.5677<br>0.4509 | +++++<br>0.5770<br>+++++ | 0.5712<br>0.5728 | 0.5342<br>0.5567 | 0.5960<br>0.5213 | Ave | | 0.5498 | | | | 7.9 | | 15.0 | | | |
| Propionitrile | +++++<br>0.0303<br>0.0271 | +++++<br>0.0315<br>0.0259 | +++++<br>0.0307 | 0.0243<br>0.0306 | 0.0304<br>0.0301 | Ave | | 0.0290 | | | | 8.9 | | 15.0 | | | |
| 1,1-Dichloroethane | +++++<br>0.4858<br>0.3720 | +++++<br>0.4948<br>+++++ | 0.4583<br>0.4712 | 0.4572<br>0.4650 | 0.4839<br>0.4274 | Ave | | 0.4573 | | | 0.1000 | 8.2 | | 15.0 | | | |
| Vinyl acetate | +++++<br>0.4962<br>0.3815 | +++++<br>0.5091<br>+++++ | +++++<br>0.4975 | +++++<br>0.5016 | 0.4533<br>0.4418 | Ave | | 0.4687 | | | | 9.9 | | 15.0 | | | |
| Hexane | +++++<br>0.4311<br>0.3544 | +++++<br>0.4366<br>+++++ | +++++<br>0.4413 | 0.4189<br>0.4269 | 0.4285<br>0.4031 | Ave | | 0.4176 | | | | 6.7 | | 15.0 | | | |
| 2-Butanone (MEK) | +++++<br>0.0172<br>0.0274 | +++++<br>0.0209<br>0.0288 | +++++<br>0.0253 | +++++<br>0.0255 | +++++<br>0.0284 | Lin2 | -0.057 | 0.0279 | | | | | | | 0.9980 | | 0.9900 |
| Isopropyl Ether (DIPE) | +++++<br>0.8949<br>+++++ | +++++<br>0.9048<br>+++++ | 0.8877<br>0.8738 | 0.8002<br>0.8251 | 0.8682<br>0.7300 | Ave | | 0.8481 | | | | 7.0 | | 15.0 | | | |
| cis-1,2-Dichloroethene | +++++<br>0.3142<br>0.2648 | 0.2753<br>0.3234<br>+++++ | 0.3002<br>0.3170 | 0.3124<br>0.3132 | 0.3304<br>0.2936 | Ave | | 0.3045 | | | | 6.9 | | 15.0 | | | |
| Bromochloromethane | +++++<br>0.1708<br>0.1628 | +++++<br>0.1777<br>0.1564 | 0.1425<br>0.1800 | 0.1460<br>0.1784 | 0.1659<br>0.1726 | Ave | | 0.1653 | | | | 8.1 | | 15.0 | | | |
| Chloroform | +++++<br>0.4882<br>+++++ | +++++<br>0.4893<br>+++++ | 0.4824<br>0.4708 | 0.4920<br>0.4567 | 0.4924<br>0.4194 | Ave | | 0.4739 | | | | 5.3 | | 30.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Ethyl-t-butyl ether (ETBE) | +++++<br>0.7164<br>+++++ | +++++<br>0.7161<br>+++++ | 0.6806<br>0.7191 | 0.6696<br>0.6872 | 0.7138<br>0.6208 | Ave | | 0.6904 | | | | 4.9 | | 15.0 | | | |
| 2,2-Dichloropropane | +++++<br>0.3246<br>+++++ | +++++<br>0.3282<br>+++++ | +++++<br>0.3179 | 0.3086<br>0.3073 | 0.3241<br>0.2816 | Ave | | 0.3132 | | | | 5.1 | | 15.0 | | | |
| Isobutyl alcohol | +++++<br>0.6532<br>0.6300 | +++++<br>0.6871<br>0.5405 | 0.6014<br>0.7190 | 0.5827<br>0.7117 | 0.6160<br>0.6549 | Ave | | 0.6397 | | | | 8.9 | | 15.0 | | | |
| Tetrahydrofuran | +++++<br>0.0768<br>0.0699 | +++++<br>0.0760<br>0.0694 | +++++<br>0.0797 | +++++<br>0.0764 | 0.0854<br>0.0759 | Ave | | 0.0762 | | | | 6.7 | | 15.0 | | | |
| 1,2-Dichloroethane | +++++<br>0.3270<br>0.2711 | 0.3129<br>0.3424<br>+++++ | 0.3485<br>0.3365 | 0.3302<br>0.3273 | 0.3325<br>0.3057 | Ave | | 0.3234 | | | | 6.9 | | 15.0 | | | |
| 1,1,1-Trichloroethane | +++++<br>0.4496<br>0.3640 | +++++<br>0.4533<br>+++++ | 0.4579<br>0.4444 | 0.4158<br>0.4404 | 0.4647<br>0.4113 | Ave | | 0.4335 | | | | 7.3 | | 15.0 | | | |
| 1,1-Dichloropropene | +++++<br>0.3542<br>0.2914 | +++++<br>0.3644<br>+++++ | 0.3346<br>0.3535 | 0.3415<br>0.3518 | 0.3670<br>0.3291 | Ave | | 0.3430 | | | | 6.7 | | 15.0 | | | |
| Cyclohexane | +++++<br>0.4675<br>0.3695 | +++++<br>0.4639<br>+++++ | +++++<br>0.4607 | 0.4563<br>0.4512 | 0.4597<br>0.4221 | Ave | | 0.4439 | | | | 7.5 | | 15.0 | | | |
| Carbon tetrachloride | +++++<br>0.4623<br>0.3755 | +++++<br>0.4638<br>+++++ | 0.4205<br>0.4605 | 0.4058<br>0.4515 | 0.4464<br>0.4241 | Ave | | 0.4345 | | | | 7.0 | | 15.0 | | | |
| Benzene | +++++<br>0.9680<br>+++++ | +++++<br>0.9751<br>+++++ | 1.0707<br>0.9189 | 0.9647<br>0.8545 | 1.0052<br>0.7429 | Ave | | 0.9375 | | | | 10.7 | | 15.0 | | | |
| Tert-amyl-methyl ether (TAME) | +++++<br>0.5793<br>+++++ | +++++<br>0.5923<br>+++++ | 0.5841<br>0.5897 | 0.5220<br>0.5767 | 0.5838<br>0.5184 | Ave | | 0.5683 | | | | 5.3 | | 15.0 | | | |
| n-Heptane | +++++<br>0.4696<br>+++++ | +++++<br>0.4754<br>+++++ | +++++<br>0.4674 | 0.4516<br>0.4551 | 0.4670<br>0.4185 | Ave | | 0.4578 | | | | 4.2 | | 15.0 | | | |
| Dibromomethane | +++++<br>0.1618<br>0.1561 | +++++<br>0.1752<br>0.1478 | 0.1345<br>0.1737 | 0.1523<br>0.1714 | 0.1640<br>0.1659 | Ave | | 0.1603 | | | | 8.0 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| 1,2-Dichloropropane | +++++<br>0.2557<br>0.2251 | +++++<br>0.2627<br>0.2092 | 0.2347<br>0.2601 | 0.2474<br>0.2597 | 0.2617<br>0.2476 | Ave | | 0.2464 | | | | 7.3 | | 30.0 | | | |
| Trichloroethene | +++++<br>0.3743<br>0.3045 | +++++<br>0.3827<br>+++++ | 0.3985<br>0.3747 | 0.3514<br>0.3672 | 0.3646<br>0.3444 | Ave | | 0.3625 | | | | 7.4 | | 15.0 | | | |
| Bromodichloromethane | +++++<br>0.3266<br>0.2892 | +++++<br>0.3362<br>0.2650 | 0.2967<br>0.3505 | 0.3087<br>0.3480 | 0.3406<br>0.3228 | Ave | | 0.3184 | | | | 8.8 | | 15.0 | | | |
| 2-Chloroethyl vinyl ether | +++++<br>0.1374<br>0.1293 | +++++<br>0.1435<br>0.1348 | +++++<br>0.1518 | +++++<br>0.1468 | 0.1363<br>0.1367 | Ave | | 0.1396 | | | | 5.2 | | 15.0 | | | |
| Methylcyclohexane | +++++<br>0.4656<br>+++++ | +++++<br>0.4651<br>+++++ | +++++<br>0.4658 | 0.4593<br>0.4533 | 0.4593<br>0.4157 | Ave | | 0.4549 | | | | 3.9 | | 15.0 | | | |
| cis-1,3-Dichloropropene | +++++<br>0.4317<br>0.3722 | +++++<br>0.4498<br>0.3495 | 0.4064<br>0.4486 | 0.4019<br>0.4514 | 0.4246<br>0.4057 | Ave | | 0.4142 | | | | 8.2 | | 15.0 | | | |
| 4-Methyl-2-pentanone (MIBK) | +++++<br>0.2579<br>0.2506 | +++++<br>0.2572<br>0.2485 | +++++<br>0.2573 | +++++<br>0.2838 | 0.2750<br>0.2669 | Ave | | 0.2621 | | | | 4.7 | | 15.0 | | | |
| trans-1,3-Dichloropropene | +++++<br>0.3845<br>0.3372 | +++++<br>0.3919<br>0.3193 | 0.3195<br>0.4012 | 0.3663<br>0.4012 | 0.3791<br>0.3647 | Ave | | 0.3665 | | | | 8.5 | | 15.0 | | | |
| 1,1,2-Trichloroethane | +++++<br>0.2075<br>0.1875 | +++++<br>0.2029<br>0.1848 | 0.1863<br>0.2052 | 0.2060<br>0.2091 | 0.2027<br>0.1925 | Ave | | 0.1985 | | | | 4.8 | | 15.0 | | | |
| Toluene | +++++<br>1.3060<br>+++++ | +++++<br>1.3130<br>+++++ | 1.4450<br>1.2010 | 1.3492<br>1.1291 | 1.3191<br>+++++ | Ave | | 1.2946 | | | | 7.9 | | 30.0 | | | |
| Ethyl methacrylate | +++++<br>0.2722<br>0.2701 | +++++<br>0.2960<br>0.2621 | +++++<br>0.3015 | 0.2224<br>0.3061 | 0.2648<br>0.2841 | Ave | | 0.2755 | | | | 9.3 | | 15.0 | | | |
| 1,3-Dichloropropane | +++++<br>0.4080<br>0.3281 | +++++<br>0.4122<br>0.3105 | 0.4230<br>0.3940 | 0.3492<br>0.3953 | 0.3893<br>0.3534 | Ave | | 0.3763 | | | | 10.2 | | 15.0 | | | |
| 2-Hexanone | +++++<br>0.1838<br>0.1871 | +++++<br>0.1826<br>0.1865 | +++++<br>0.1852 | +++++<br>0.2004 | 0.1845<br>0.1982 | Ave | | 0.1885 | | | | 3.6 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dibromochloromethane | +++++<br>0.3623<br>0.3443 | +++++<br>0.3877<br>0.3293 | 0.3822<br>0.3867 | 0.3192<br>0.3969 | 0.3577<br>0.3659 | Ave | | 0.3632 | | | | 7.2 | | 15.0 | | | |
| 1,2-Dibromoethane (EDB) | +++++<br>0.2855<br>0.2539 | +++++<br>0.2903<br>0.2465 | 0.2208<br>0.2930 | 0.2615<br>0.2910 | 0.2876<br>0.2693 | Ave | | 0.2699 | | | | 8.9 | | 15.0 | | | |
| Tetrachloroethene | +++++<br>0.3719<br>0.3150 | +++++<br>0.3713<br>0.3036 | 0.3434<br>0.3642 | 0.3833<br>0.3645 | 0.3781<br>0.3327 | Ave | | 0.3528 | | | | 7.8 | | 15.0 | | | |
| 1,1,1,2-Tetrachloroethane | +++++<br>0.3871<br>0.3378 | +++++<br>0.4024<br>0.3233 | 0.3854<br>0.3933 | 0.3857<br>0.4000 | 0.4090<br>0.3612 | Ave | | 0.3785 | | | | 7.6 | | 15.0 | | | |
| Chlorobenzene | +++++<br>1.0174<br>+++++ | +++++<br>1.0016<br>+++++ | 1.0779<br>0.9402 | 1.0381<br>0.8915 | 1.0149<br>+++++ | Ave | | 0.9974 | | | 0.3000 | 6.3 | | 15.0 | | | |
| Ethylbenzene | +++++<br>1.4722<br>+++++ | +++++<br>1.4438<br>+++++ | 1.5031<br>1.3325 | 1.4526<br>1.2419 | 1.5179<br>+++++ | Ave | | 1.4234 | | | | 7.0 | | 30.0 | | | |
| m,p-Xylene | +++++<br>0.6115<br>0.4739 | +++++<br>0.6110<br>+++++ | 0.6380<br>0.5984 | 0.6340<br>0.5917 | 0.6120<br>0.5217 | Ave | | 0.5880 | | | | 9.3 | | 15.0 | | | |
| Bromoform | +++++<br>0.2412<br>0.2525 | +++++<br>0.2550<br>0.2508 | 0.1930<br>0.2625 | 0.2151<br>0.2763 | 0.2345<br>0.2590 | Ave | | 0.2440 | | | 0.1000 | 10.0 | | 15.0 | | | |
| Styrene | +++++<br>0.8556<br>+++++ | +++++<br>0.8951<br>+++++ | 0.8624<br>0.8737 | 0.8067<br>0.8456 | 0.8294<br>0.7158 | Ave | | 0.8355 | | | | 6.6 | | 15.0 | | | |
| 1,1,2,2-Tetrachloroethane | +++++<br>0.5609<br>0.5091 | +++++<br>0.5685<br>0.5102 | 0.5243<br>0.5666 | 0.5344<br>0.5634 | 0.5603<br>0.5515 | Ave | | 0.5449 | | | 0.3000 | 4.3 | | 15.0 | | | |
| o-Xylene | +++++<br>0.5977<br>+++++ | 0.5383<br>0.6181<br>+++++ | 0.5880<br>0.5869 | 0.6105<br>0.5707 | 0.6179<br>0.4996 | Ave | | 0.5809 | | | | 6.8 | | 15.0 | | | |
| 1,2,3-Trichloropropane | +++++<br>0.1679<br>0.1772 | +++++<br>0.1693<br>0.1862 | +++++<br>0.1799 | 0.1267<br>0.1779 | 0.1623<br>0.1833 | Ave | | 0.1701 | | | | 10.6 | | 15.0 | | | |
| trans-1,4-Dichloro-2-butene | +++++<br>0.1165<br>0.1562 | +++++<br>0.1265<br>0.1670 | +++++<br>0.1362 | +++++<br>0.1493 | +++++<br>0.1573 | Ave | | 0.1441 | | | | 12.7 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Isopropylbenzene | +++++<br>1.5387<br>+++++ | +++++<br>1.5344<br>+++++ | 1.5486<br>1.4289 | 1.5162<br>1.3108 | 1.5606<br>+++++ | Ave | | 1.4912 | | | | 6.1 | | 15.0 | | | |
| Bromobenzene | +++++<br>0.8412<br>0.7168 | +++++<br>0.8822<br>0.6778 | 0.8787<br>0.8775 | 0.8502<br>0.8521 | 0.8627<br>0.8040 | Ave | | 0.8243 | | | | 8.7 | | 15.0 | | | |
| n-Propylbenzene | +++++<br>2.9617<br>+++++ | +++++<br>3.0133<br>+++++ | 3.0990<br>2.8061 | 3.0314<br>2.5007 | 3.0037<br>+++++ | Ave | | 2.9166 | | | | 7.0 | | 15.0 | | | |
| 2-Chlorotoluene | +++++<br>1.7569<br>+++++ | +++++<br>1.7497<br>+++++ | 1.8996<br>1.7115 | 1.7783<br>1.5925 | 1.7888<br>1.4313 | Ave | | 1.7136 | | | | 8.3 | | 15.0 | | | |
| 4-Chlorotoluene | +++++<br>1.7748<br>+++++ | +++++<br>1.8039<br>+++++ | 1.9692<br>1.7414 | 1.8066<br>1.6231 | 1.8034<br>1.4519 | Ave | | 1.7468 | | | | 8.7 | | 15.0 | | | |
| 1,3,5-Trimethylbenzene | +++++<br>2.1735<br>+++++ | +++++<br>2.2571<br>+++++ | 2.0400<br>2.1365 | 2.1385<br>1.9558 | 2.2013<br>1.6765 | Ave | | 2.0724 | | | | 8.9 | | 15.0 | | | |
| tert-Butylbenzene | +++++<br>2.0815<br>+++++ | +++++<br>2.1235<br>+++++ | 2.1083<br>2.0241 | 2.0725<br>1.8712 | 2.1148<br>1.6023 | Ave | | 1.9998 | | | | 9.0 | | 15.0 | | | |
| 1,2,4-Trimethylbenzene | +++++<br>2.2307<br>+++++ | +++++<br>2.2598<br>+++++ | 2.2029<br>2.1453 | 2.1363<br>1.9575 | 2.2338<br>+++++ | Ave | | 2.1666 | | | | 4.8 | | 15.0 | | | |
| sec-Butylbenzene | +++++<br>2.9949<br>+++++ | +++++<br>3.0096<br>+++++ | 3.0044<br>2.7601 | 3.0496<br>2.4450 | 3.0350<br>+++++ | Ave | | 2.8998 | | | | 7.7 | | 15.0 | | | |
| 1,3-Dichlorobenzene | +++++<br>1.5888<br>+++++ | +++++<br>1.5979<br>+++++ | 1.6917<br>1.5092 | 1.6085<br>1.4101 | 1.6359<br>1.2570 | Ave | | 1.5374 | | | | 9.2 | | 15.0 | | | |
| 1,4-Dichlorobenzene | +++++<br>1.5947<br>+++++ | +++++<br>1.5932<br>+++++ | 1.8103<br>1.5219 | 1.6184<br>1.4046 | 1.6800<br>1.2478 | Ave | | 1.5589 | | | | 11.0 | | 15.0 | | | |
| p-Isopropyltoluene | +++++<br>2.6661<br>+++++ | +++++<br>2.6870<br>+++++ | 2.8536<br>2.4594 | 2.6092<br>2.1956 | 2.7134<br>+++++ | Ave | | 2.5978 | | | | 8.2 | | 15.0 | | | |
| 1,2-Dichlorobenzene | +++++<br>1.4711<br>+++++ | +++++<br>1.4660<br>+++++ | 1.5669<br>1.4061 | 1.5314<br>1.3288 | 1.4842<br>1.1831 | Ave | | 1.4297 | | | | 8.6 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| n-Butylbenzene | +++++<br>2.1779<br>+++++ | +++++<br>2.1762<br>+++++ | 2.1775<br>1.9952 | 2.1569<br>1.7794 | 2.1996<br>+++++ | Ave | | 2.0947 | | | | 7.4 | | 15.0 | | | |
| 1,2-Dibromo-3-Chloropropane | +++++<br>0.0924<br>0.1057 | +++++<br>0.0898<br>0.1153 | +++++<br>0.0941 | 0.0488<br>0.1005 | 0.0636<br>0.1084 | Lin2 | -0.060 | 0.1036 | | | | | | | 0.9940 | | 0.9900 |
| 1,2,4-Trichlorobenzene | +++++<br>1.0725<br>+++++ | +++++<br>1.0709<br>+++++ | 1.1939<br>0.9816 | 1.1070<br>0.9590 | 1.0708<br>0.8405 | Ave | | 1.0370 | | | | 10.4 | | 15.0 | | | |
| Naphthalene | +++++<br>2.0237<br>+++++ | +++++<br>2.0337<br>+++++ | 2.4624<br>1.8812 | 2.0641<br>1.8340 | 2.0948<br>1.6187 | Ave | | 2.0016 | | | | 12.2 | | 15.0 | | | |
| Hexachlorobutadiene | +++++<br>0.6743<br>0.4989 | +++++<br>0.6746<br>0.5096 | 0.7207<br>0.6182 | 0.6789<br>0.6038 | 0.7076<br>0.5248 | Ave | | 0.6211 | | | | 13.5 | | 15.0 | | | |
| 1,2,3-Trichlorobenzene | +++++<br>0.9368<br>+++++ | +++++<br>0.9601<br>+++++ | 1.0544<br>0.8887 | 0.9719<br>0.8798 | 0.9554<br>0.7724 | Ave | | 0.9274 | | | | 8.9 | | 15.0 | | | |
| Dibromofluoromethane (Surr) | 0.3210 | 0.3253 | 0.3183 | 0.3107 | 0.2952 | Ave | | 0.3141 | | | | 3.8 | | 15.0 | | | |
| 1,2-Dichloroethane-d4 (Surr) | 0.2960 | 0.2887 | 0.2822 | 0.2742 | 0.2588 | Ave | | 0.2800 | | | | 5.1 | | 15.0 | | | |
| Toluene-d8 (Surr) | 1.2200 | 1.1958 | 1.1083 | 1.0195 | 0.8501 | Ave | | 1.0787 | | | | 13.9 | | 15.0 | | | |
| 4-Bromofluorobenzene (Surr) | 0.7742 | 0.7774 | 0.7626 | 0.7359 | 0.7224 | Ave | | 0.7545 | | | | 3.2 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD02 440-442013/4 | SFK16034.D |
| Level 2 | STD04 440-442013/5 | SFK16035.D |
| Level 3 | STD05 440-442013/6 | SFK16036.D |
| Level 4 | STD1 440-442013/7 | SFK16037.D |
| Level 5 | STD2 440-442013/8 | SFK16038.D |
| Level 6 | STD5 440-442013/9 | SFK16039.D |
| Level 7 | STD10 440-442013/10 | SFK16040.D |
| Level 8 | ICIS 440-442013/11 | SFK16041.D |
| Level 9 | STD50 440-442013/12 | SFK16042.D |
| Level 10 | STD100 440-442013/13 | SFK16043.D |
| Level 11 | STD200 440-442013/14 | SFK16044.D |
| Level 12 | STD300 440-442013/15 | SFK16045.D |

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Dichlorodifluoromethane | FB | Ave | +++++<br>35523<br>1328439 | +++++<br>73838<br>1943535 | 2679<br>183395 | 5798<br>347927 | 12167<br>692904 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloromethane | FB | Ave | +++++<br>40772<br>+++++ | +++++<br>81759<br>+++++ | 4274<br>204424 | 8509<br>388139 | 16751<br>723207 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Vinyl chloride | FB | Ave | +++++<br>34075<br>1277275 | 2736<br>71461<br>1821882 | 3600<br>177970 | 7314<br>345121 | 14110<br>667778 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Butadiene | FB | Ave | +++++<br>33790<br>1210571 | +++++<br>69366<br>1679309 | +++++<br>177040 | 6411<br>339997 | 13862<br>644985 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromomethane | FB | Ave | +++++<br>21244<br>862532 | +++++<br>44851<br>1208655 | 2079<br>112668 | 4226<br>224861 | 8679<br>437886 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloroethane | FB | Ave | +++++<br>16854<br>683548 | +++++<br>35256<br>976797 | +++++<br>92126 | 3110<br>178852 | 6751<br>350402 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethanol | TBAd 9 | Ave | +++++<br>10202<br>632879 | +++++<br>23099<br>1059340 | +++++<br>47871 | +++++<br>139761 | 4996<br>300558 | +++++<br>200<br>10000 | +++++<br>400<br>15000 | +++++<br>1000 | +++++<br>2500 | 100<br>5000 |
| Dichlorofluoromethane | FB | Ave | +++++<br>44156<br>1522842 | +++++<br>88996<br>+++++ | 4362<br>225566 | 9132<br>438881 | 17484<br>822081 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Acrolein | FB | Ave | +++++<br>2468<br>122883 | +++++<br>5013<br>195619 | +++++<br>13838 | +++++<br>29617 | +++++<br>59413 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Acetonitrile | FB | Ave | +++++<br>28221<br>1170355 | +++++<br>62302<br>1724894 | +++++<br>151583 | 4828<br>308898 | 11137<br>625777 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Trichlorofluoromethane | FB | Ave | +++++<br>51329<br>1846280 | +++++<br>104916<br>2568202 | 5006<br>262966 | 10365<br>518575 | 20849<br>979649 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Acetone | FB | Ave | +++++<br>7779<br>302802 | +++++<br>14866<br>453335 | +++++<br>36524 | +++++<br>74218 | +++++<br>156968 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Diethyl ether | FB | Ave | +++++<br>19662<br>809805 | +++++<br>40031<br>1146836 | +++++<br>106069 | 3396<br>212892 | 7724<br>407938 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloroethene | FB | Ave | +++++<br>28346<br>1063795 | +++++<br>57813<br>1484512 | 2756<br>145354 | 5548<br>289773 | 11913<br>559425 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| tert-Butyl alcohol (TBA) | TBAd 9 | Ave | +++++<br>28475<br>1147630 | +++++<br>58913<br>1788546 | +++++<br>151230 | 4982<br>302367 | 10923<br>616730 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Iodomethane | FB | Ave | +++++<br>78251<br>+++++ | +++++<br>148682<br>+++++ | +++++<br>361671 | +++++<br>690054 | 37066<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>+++++ |
| Acrylonitrile | FB | Ave | 3024<br>83869<br>+++++ | 6182<br>172094<br>+++++ | 8203<br>427683 | 15695<br>794429 | 32968<br>1448064 | 2.00<br>50.0<br>+++++ | 4.00<br>100<br>+++++ | 5.00<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Methylene Chloride | FB | Ave | +++++<br>28641<br>999485 | +++++<br>57652<br>+++++ | +++++<br>142386 | 6252<br>275089 | 12325<br>525763 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methyl acetate | FB | Ave | +++++<br>91678<br>+++++ | +++++<br>186788<br>+++++ | 8567<br>460497 | 17152<br>848312 | 37531<br>1542167 | +++++<br>25.0<br>+++++ | +++++<br>50.0<br>+++++ | 2.50<br>125 | 5.00<br>250 | 10.0<br>500 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | FB | Ave | +++++<br>31402<br>1186765 | +++++<br>65022<br>1669905 | 2606<br>161957 | 6084<br>320283 | 13019<br>622598 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Allyl chloride | FB | Ave | +++++<br>46259<br>1682606 | +++++<br>96594<br>+++++ | +++++<br>248859 | 8745<br>484163 | 19644<br>924449 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Carbon disulfide | FB | Ave | +++++<br>88770<br>+++++ | +++++<br>176650<br>+++++ | 9712<br>440861 | 18372<br>832795 | 35040<br>1474148 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| trans-1,2-Dichloroethene | FB | Ave | +++++<br>30178<br>1114746 | 2422<br>63403<br>+++++ | 2830<br>159097 | 6364<br>313243 | 13329<br>596546 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methyl-t-Butyl Ether (MTBE) | FB | Ave | +++++<br>59488<br>2053696 | +++++<br>123166<br>+++++ | 5995<br>315526 | 11394<br>610932 | 25437<br>1148388 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Propionitrile | FB | Ave | +++++<br>31738<br>1233451 | +++++<br>67305<br>1738607 | +++++<br>169189 | 5180<br>335898 | 12978<br>664153 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| 1,1-Dichloroethane | FB | Ave | +++++<br>50906<br>1694632 | +++++<br>105618<br>+++++ | 4810<br>259539 | 9752<br>510275 | 20652<br>941543 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Vinyl acetate | FB | Ave | +++++<br>41597<br>1737639 | +++++<br>86934<br>+++++ | +++++<br>219232 | +++++<br>550485 | 19346<br>973310 | +++++<br>4.00<br>200 | +++++<br>8.00<br>+++++ | +++++<br>20.0 | +++++<br>50.0 | 2.00<br>100 |
| Hexane | FB | Ave | +++++<br>45176<br>1614234 | +++++<br>93203<br>+++++ | +++++<br>243074 | 8935<br>468502 | 18290<br>888079 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Butanone (MEK) | FB | Lin2 | +++++<br>1807<br>124934 | +++++<br>4469<br>193799 | +++++<br>13937 | +++++<br>28015 | +++++<br>62467 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Isopropyl Ether (DIPE) | FB | Ave | +++++<br>93779<br>+++++ | +++++<br>193123<br>+++++ | 9317<br>481289 | 17068<br>905415 | 37053<br>1608173 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| cis-1,2-Dichloroethene | FB | Ave | +++++<br>32927<br>1206276 | 2355<br>69028<br>+++++ | 3151<br>174617 | 6664<br>343691 | 14102<br>646699 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromochloromethane | FB | Ave | +++++<br>17899<br>741421 | +++++<br>37925<br>1051866 | 1496<br>99170 | 3114<br>195723 | 7081<br>380274 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloroform | FB | Ave | +++++<br>51159<br>+++++ | +++++<br>104440<br>+++++ | 5063<br>259298 | 10494<br>501137 | 21014<br>923959 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethyl-t-butyl ether (ETBE) | FB | Ave | +++++<br>75071<br>+++++ | +++++<br>152843<br>+++++ | 7143<br>396103 | 14282<br>754073 | 30464<br>1367585 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 2,2-Dichloropropane | FB | Ave | +++++<br>34011<br>+++++ | +++++<br>70050<br>+++++ | +++++<br>175095 | 6581<br>337266 | 13834<br>620276 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Isobutyl alcohol | TBAd9 | Ave | +++++<br>39493<br>1552602 | +++++<br>82268<br>2272055 | 3489<br>216776 | 6637<br>427998 | 15144<br>842756 | +++++<br>125<br>5000 | +++++<br>250<br>7500 | 12.5<br>625 | 25.0<br>1250 | 50.0<br>2500 |
| Tetrahydrofuran | FB | Ave | +++++<br>16086<br>636336 | +++++<br>32444<br>932890 | +++++<br>87799 | +++++<br>167749 | 7287<br>334348 | +++++<br>10.0<br>400 | +++++<br>20.0<br>600 | +++++<br>50.0 | +++++<br>100 | 4.00<br>200 |
| 1,2-Dichloroethane | FB | Ave | +++++<br>34266<br>1234826 | 2676<br>73094<br>+++++ | 3658<br>185355 | 7043<br>359184 | 14192<br>673444 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,1-Trichloroethane | FB | Ave | +++++<br>47108<br>1657906 | +++++<br>96758<br>+++++ | 4806<br>244804 | 8869<br>483270 | 19834<br>906110 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloropropene | FB | Ave | +++++<br>37119<br>1327460 | +++++<br>77775<br>+++++ | 3512<br>194693 | 7283<br>386050 | 15663<br>724871 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Cyclohexane | FB | Ave | +++++<br>48989<br>1682943 | +++++<br>99021<br>+++++ | +++++<br>253760 | 9733<br>495146 | 19621<br>929755 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Carbon tetrachloride | FB | Ave | +++++<br>48443<br>1710323 | +++++<br>98998<br>+++++ | 4413<br>253642 | 8655<br>495426 | 19052<br>934235 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Benzene | FB | Ave | +++++<br>101441<br>+++++ | +++++<br>208144<br>+++++ | 11238<br>506153 | 20576<br>937670 | 42900<br>1636448 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Tert-amyl-methyl ether (TAME) | FB | Ave | +++++<br>60702<br>+++++ | +++++<br>126433<br>+++++ | 6131<br>324830 | 11134<br>632832 | 24917<br>1141903 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Heptane | FB | Ave | +++++<br>49213<br>+++++ | +++++<br>101466<br>+++++ | +++++<br>257472 | 9631<br>499405 | 19932<br>921849 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Dibromomethane | FB | Ave | +++++<br>16950<br>710922 | +++++<br>37387<br>993505 | 1412<br>95680 | 3249<br>188073 | 6998<br>365468 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2-Dichloropropane | FB | Ave | +++++<br>26799<br>1025439 | +++++<br>56075<br>1406911 | 2463<br>143248 | 5276<br>285022 | 11171<br>545373 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Trichloroethene | FB | Ave | +++++<br>39218<br>1387117 | +++++<br>81688<br>+++++ | 4183<br>206390 | 7495<br>403005 | 15563<br>758593 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromodichloromethane | FB | Ave | +++++<br>34219<br>1317097 | +++++<br>71756<br>1781600 | 3114<br>193084 | 6584<br>381859 | 14537<br>711022 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Chloroethyl vinyl ether | CBNZ d5 | Ave | +++++<br>11984<br>496836 | +++++<br>25920<br>723755 | +++++<br>71932 | +++++<br>136994 | 4837<br>265273 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Methylcyclohexane | FB | Ave | +++++<br>48790<br>+++++ | +++++<br>99270<br>+++++ | +++++<br>256568 | 9796<br>497455 | 19602<br>915678 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| cis-1,3-Dichloropropene | CBNZ d5 | Ave | +++++<br>37652<br>1430755 | +++++<br>81265<br>1876256 | 3484<br>212507 | 7027<br>421272 | 15066<br>787035 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 4-Methyl-2-pentanone (MIBK) | CBNZ d5 | Ave | +++++<br>22495<br>963048 | +++++<br>46459<br>1333938 | +++++<br>121900 | +++++<br>264913 | 9757<br>517776 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| trans-1,3-Dichloropropene | CBNZ d5 | Ave | +++++<br>33537<br>1296160 | +++++<br>70807<br>1713786 | 2739<br>190053 | 6406<br>374431 | 13451<br>707445 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2-Trichloroethane | CBNZ d5 | Ave | +++++<br>18100<br>720797 | +++++<br>36646<br>992165 | 1597<br>97225 | 3603<br>195191 | 7192<br>373449 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Toluene | CBNZ d5 | Ave | +++++<br>113917<br>+++++ | +++++<br>237199<br>+++++ | 12387<br>568949 | 23593<br>1053807 | 46810<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>+++++ |
| Ethyl methacrylate | CBNZ d5 | Ave | +++++<br>23746<br>1038118 | +++++<br>53482<br>1407203 | +++++<br>142835 | 3889<br>285669 | 9396<br>551118 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Dichloropropane | CBNZ d5 | Ave | +++++<br>35588<br>1260895 | +++++<br>74470<br>1666761 | 3626<br>186653 | 6107<br>368958 | 13816<br>685600 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Hexanone | CBNZ d5 | Ave | +++++<br>16029<br>719281 | +++++<br>32985<br>1000984 | +++++<br>87722 | +++++<br>187034 | 6546<br>384433 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Dibromochloromethane | CBNZ d5 | Ave | +++++<br>31600<br>1323194 | +++++<br>70048<br>1767785 | 3276<br>183192 | 5582<br>370482 | 12695<br>709818 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 1,2-Dibromoethane (EDB) | CBNZ d5 | Ave | +++++<br>24902<br>975859 | +++++<br>52439<br>1323218 | 1893<br>138776 | 4573<br>271626 | 10205<br>522372 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Tetrachloroethene | CBNZ d5 | Ave | +++++<br>32442<br>1210543 | +++++<br>67085<br>1629967 | 2944<br>172503 | 6702<br>340182 | 13416<br>645342 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,1,2-Tetrachloroethane | CBNZ d5 | Ave | +++++<br>33768<br>1298452 | +++++<br>72689<br>1735602 | 3304<br>186317 | 6745<br>373349 | 14513<br>700588 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chlorobenzene | CBNZ d5 | Ave | +++++<br>88749<br>+++++ | +++++<br>180944<br>+++++ | 9240<br>445403 | 18153<br>832099 | 36015<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>+++++ |
| Ethylbenzene | CBNZ d5 | Ave | +++++<br>128414<br>+++++ | +++++<br>260836<br>+++++ | 12885<br>631226 | 25401<br>1159151 | 53863<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>+++++ |
| m,p-Xylene | CBNZ d5 | Ave | +++++<br>53337<br>1821421 | +++++<br>110373<br>+++++ | 5469<br>283470 | 11086<br>552217 | 21719<br>1011950 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromoform | CBNZ d5 | Ave | +++++<br>21043<br>970583 | +++++<br>46058<br>1346485 | 1654<br>124359 | 3762<br>257918 | 8321<br>502380 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Styrene | CBNZ d5 | Ave | +++++<br>74634<br>+++++ | +++++<br>161706<br>+++++ | 7393<br>413892 | 14106<br>789213 | 29433<br>1388545 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2,2-Tetrachloroethane | DCBd 4 | Ave | +++++<br>28290<br>1026963 | +++++<br>58529<br>1431250 | 2600<br>148113 | 5345<br>292528 | 11311<br>544845 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| o-Xylene | CBNZ d5 | Ave | +++++<br>52134<br>+++++ | 3824<br>111662<br>+++++ | 5040<br>278019 | 10675<br>532701 | 21925<br>969256 | +++++<br>5.00<br>+++++ | 0.400<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,3-Trichloropropane | DCBd 4 | Ave | +++++<br>8466<br>357390 | +++++<br>17433<br>522223 | +++++<br>47027 | 1267<br>92363 | 3276<br>181082 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| trans-1,4-Dichloro-2-butene | DCBd 4 | Ave | +++++<br>5875<br>315157 | +++++<br>13019<br>468358 | +++++<br>35599 | +++++<br>77494 | +++++<br>155390 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Isopropylbenzene | CBNZ d5 | Ave | +++++<br>134218<br>+++++ | +++++<br>277189<br>+++++ | 13275<br>676882 | 26512<br>1223418 | 55380<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>+++++ |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Bromobenzene | DCBd 4 | Ave | +++++<br>42423<br>1445883 | +++++<br>90829<br>1901288 | 4358<br>229388 | 8503<br>442438 | 17414<br>794268 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Propylbenzene | DCBd 4 | Ave | +++++<br>149370<br>+++++ | +++++<br>310231<br>+++++ | 15369<br>733535 | 30319<br>1298395 | 60632<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>+++++ |
| 2-Chlorotoluene | DCBd 4 | Ave | +++++<br>88608<br>+++++ | +++++<br>180134<br>+++++ | 9421<br>447405 | 17786<br>826846 | 36108<br>1413947 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 4-Chlorotoluene | DCBd 4 | Ave | +++++<br>89511<br>+++++ | +++++<br>185720<br>+++++ | 9766<br>455201 | 18069<br>842740 | 36403<br>1434374 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3,5-Trimethylbenzene | DCBd 4 | Ave | +++++<br>109621<br>+++++ | +++++<br>232371<br>+++++ | 10117<br>558486 | 21388<br>1015473 | 44436<br>1656219 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| tert-Butylbenzene | DCBd 4 | Ave | +++++<br>104981<br>+++++ | +++++<br>218623<br>+++++ | 10456<br>529105 | 20728<br>971568 | 42689<br>1582892 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,4-Trimethylbenzene | DCBd 4 | Ave | +++++<br>112505<br>+++++ | +++++<br>232652<br>+++++ | 10925<br>560789 | 21366<br>1016374 | 45092<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>+++++ |
| sec-Butylbenzene | DCBd 4 | Ave | +++++<br>151045<br>+++++ | +++++<br>309851<br>+++++ | 14900<br>721512 | 30501<br>1269457 | 61264<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>+++++ |
| 1,3-Dichlorobenzene | DCBd 4 | Ave | +++++<br>80130<br>+++++ | +++++<br>164505<br>+++++ | 8390<br>394516 | 16087<br>732144 | 33023<br>1241762 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,4-Dichlorobenzene | DCBd 4 | Ave | +++++<br>80427<br>+++++ | +++++<br>164022<br>+++++ | 8978<br>397840 | 16186<br>729265 | 33913<br>1232674 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| p-Isopropyltoluene | DCBd 4 | Ave | +++++<br>134463<br>+++++ | +++++<br>276633<br>+++++ | 14152<br>642908 | 26096<br>1139992 | 54773<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>+++++ |
| 1,2-Dichlorobenzene | DCBd 4 | Ave | +++++<br>74193<br>+++++ | +++++<br>150924<br>+++++ | 7771<br>367554 | 15316<br>689952 | 29960<br>1168816 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Butylbenzene | DCBd 4 | Ave | +++++<br>109842<br>+++++ | +++++<br>224046<br>+++++ | 10799<br>521546 | 21572<br>923874 | 44400<br>+++++ | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>+++++ |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 442013

SDG No.:

Instrument ID: GCMS36 GC Column: DB-VRX A ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 11/17/2017 01:05 Calibration End Date: 11/17/2017 05:45 Calibration ID: 17986

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 1,2-Dibromo-3-Chloropropane | DCBd 4 | Lin2 | +++++<br>4660<br>213226 | +++++<br>9243<br>323386 | +++++<br>24586 | 488<br>52183 | 1283<br>107071 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,4-Trichlorobenzene | DCBd 4 | Ave | +++++<br>54089<br>+++++ | +++++<br>110250<br>+++++ | 5921<br>256597 | 11072<br>497947 | 21616<br>830342 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Naphthalene | DCBd 4 | Ave | +++++<br>102066<br>+++++ | +++++<br>209379<br>+++++ | 12212<br>491765 | 20644<br>952252 | 42286<br>1599114 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Hexachlorobutadiene | DCBd 4 | Ave | +++++<br>34006<br>1006462 | +++++<br>69456<br>1429408 | 3574<br>161608 | 6790<br>313515 | 14283<br>518476 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,3-Trichlorobenzene | DCBd 4 | Ave | +++++<br>47245<br>+++++ | +++++<br>98844<br>+++++ | 5229<br>232305 | 9720<br>456801 | 19285<br>763018 | +++++<br>5.00<br>+++++ | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Dibromofluoromethane (Surr) | FB | Ave | 33642 | 69435 | 175317 | 340946 | 650322 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| 1,2-Dichloroethane-d4 (Surr) | FB | Ave | 31015 | 61616 | 155419 | 300922 | 570017 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| Toluene-d8 (Surr) | CBNZ d5 | Ave | 106416 | 216018 | 525014 | 951546 | 1649090 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| 4-Bromofluorobenzene (Surr) | DCBd 4 | Ave | 39046 | 80035 | 199349 | 382107 | 713612 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |

Curve Type Legend:

| |
|---|
| Ave = Average ISTD |
| Lin2 = Linear 1/conc^2 ISTD |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD02 440-446571/4 | YFL13013.D |
| Level 2 | STD04 440-446571/5 | YFL13014.D |
| Level 3 | STD05 440-446571/6 | YFL13015.D |
| Level 4 | STD1 440-446571/7 | YFL13016.D |
| Level 5 | STD2 440-446571/8 | YFL13017.D |
| Level 6 | STD5 440-446571/9 | YFL13018.D |
| Level 7 | STD10 440-446571/10 | YFL13019.D |
| Level 8 | ICIS 440-446571/11 | YFL13020.D |
| Level 9 | STD50 440-446571/12 | YFL13021.D |
| Level 10 | STD100 440-446571/13 | YFL13022.D |
| Level 11 | STD200 440-446571/14 | YFL13023.D |
| Level 12 | STD300 440-446571/15 | YFL13024.D |

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dichlorodifluoromethane | +++++<br>0.2625<br>0.2917 | +++++<br>0.3076<br>0.2833 | +++++<br>0.3185 | 0.2707<br>0.2702 | 0.2562<br>0.3021 | Ave | | 0.2847 | | | | 7.6 | | 15.0 | | | |
| Chloromethane | +++++<br>0.3966<br>0.3782 | +++++<br>0.4344<br>0.3520 | 0.3478<br>0.4188 | 0.3770<br>0.3816 | 0.3849<br>0.3871 | Ave | | 0.3858 | | | 0.1000 | 6.9 | | 15.0 | | | |
| Vinyl chloride | +++++<br>0.2874<br>0.2819 | 0.2431<br>0.3111<br>0.2565 | 0.2541<br>0.3065 | 0.3044<br>0.2863 | 0.2776<br>0.2909 | Ave | | 0.2818 | | | | 8.0 | | 30.0 | | | |
| 1,3-Butadiene | +++++<br>0.3505<br>0.3281 | +++++<br>0.3651<br>0.2993 | +++++<br>0.3667 | 0.3614<br>0.3302 | 0.3475<br>0.3435 | Ave | | 0.3436 | | | | 6.3 | | 15.0 | | | |
| Bromomethane | +++++<br>0.1871<br>0.2019 | +++++<br>0.2054<br>0.1921 | 0.1332<br>0.2120 | 0.1629<br>0.1920 | 0.2023<br>0.2048 | Ave | | 0.1894 | | | | 12.7 | | 15.0 | | | |
| Chloroethane | +++++<br>0.1664<br>0.1722 | +++++<br>0.1778<br>0.1653 | +++++<br>0.1854 | 0.1803<br>0.1628 | 0.1853<br>0.1788 | Ave | | 0.1749 | | | | 4.9 | | 15.0 | | | |
| Ethanol | +++++<br>0.1748<br>0.1723 | +++++<br>0.1956<br>0.1579 | +++++<br>0.1942 | +++++<br>0.1759 | 0.1976<br>0.1813 | Ave | | 0.1812 | | | | 7.6 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dichlorofluoromethane | +++++<br>0.4138<br>0.4286 | +++++<br>0.4453<br>0.4047 | 0.4471<br>0.4507 | 0.4304<br>0.4108 | 0.4496<br>0.4419 | Ave | | 0.4323 | | | | 4.0 | | 15.0 | | | |
| Acrolein | +++++<br>0.0248<br>0.0359 | +++++<br>0.0278<br>0.0353 | +++++<br>0.0320 | +++++<br>0.0322 | +++++<br>0.0374 | Ave | | 0.0322 | | | | 14.1 | | 15.0 | | | |
| Trichlorofluoromethane | +++++<br>0.4064<br>0.4266 | +++++<br>0.4477<br>0.4091 | 0.4197<br>0.4557 | 0.4420<br>0.4137 | 0.4393<br>0.4442 | Ave | | 0.4304 | | | | 4.1 | | 15.0 | | | |
| Acetonitrile | +++++<br>0.0433<br>0.0420 | +++++<br>0.0478<br>0.0403 | +++++<br>0.0475 | 0.0435<br>0.0422 | 0.0488<br>0.0449 | Ave | | 0.0445 | | | | 6.7 | | 15.0 | | | |
| Acetone | +++++<br>0.0986<br>0.0828 | +++++<br>0.0888<br>0.0845 | +++++<br>0.0828 | +++++<br>0.0849 | +++++<br>0.0884 | Ave | | 0.0872 | | | | 6.4 | | 15.0 | | | |
| Diethyl ether | +++++<br>0.1982<br>0.2356 | +++++<br>0.2263<br>0.2359 | +++++<br>0.2367 | 0.1858<br>0.2235 | 0.1915<br>0.2385 | Ave | | 0.2191 | | | | 9.7 | | 15.0 | | | |
| 1,1-Dichloroethene | +++++<br>0.2155<br>0.2376 | +++++<br>0.2338<br>0.2373 | 0.2088<br>0.2442 | 0.2013<br>0.2253 | 0.2099<br>0.2422 | Ave | | 0.2256 | | | | 6.9 | | 30.0 | | | |
| Iodomethane | +++++<br>0.4552<br>0.4958 | +++++<br>0.5036<br>0.4789 | +++++<br>0.5100 | 0.4736<br>0.4737 | 0.4751<br>0.4997 | Ave | | 0.4851 | | | | 3.7 | | 15.0 | | | |
| tert-Butyl alcohol (TBA) | +++++<br>1.1246<br>1.3006 | +++++<br>1.2411<br>1.2550 | +++++<br>1.2924 | 1.0463<br>1.2180 | 1.1218<br>1.3073 | Ave | | 1.2119 | | | | 7.7 | | 15.0 | | | |
| Acrylonitrile | 0.0851<br>0.1059<br>0.1056 | 0.0982<br>0.1146<br>0.0979 | 0.1032<br>0.1171 | 0.1026<br>0.1083 | 0.1138<br>0.1149 | Ave | | 0.1056 | | | | 8.7 | | 15.0 | | | |
| Methylene Chloride | +++++<br>0.2387<br>0.2600 | +++++<br>0.2452<br>0.2563 | +++++<br>0.2734 | 0.3367<br>0.2504 | 0.2878<br>0.2649 | Ave | | 0.2682 | | | | 11.1 | | 15.0 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | +++++<br>0.2502<br>0.2643 | +++++<br>0.2739<br>0.2531 | 0.2589<br>0.2761 | 0.2869<br>0.2486 | 0.2832<br>0.2775 | Ave | | 0.2673 | | | | 5.3 | | 15.0 | | | |
| Methyl acetate | +++++<br>0.1996<br>0.2161 | +++++<br>0.2345<br>0.1968 | 0.2115<br>0.2395 | 0.2175<br>0.2231 | 0.2312<br>0.2363 | Ave | | 0.2206 | | | | 6.8 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Allyl chloride | +++++<br>0.5129<br>0.5529 | +++++<br>0.5636<br>0.5045 | +++++<br>0.5804 | 0.4555<br>0.5343 | 0.4995<br>0.5660 | Ave | | 0.5300 | | | | 7.6 | | 15.0 | | | |
| Carbon disulfide | +++++<br>0.7454<br>0.7689 | +++++<br>0.8001<br>0.7364 | 0.8154<br>0.8222 | 0.7670<br>0.7465 | 0.7663<br>0.7871 | Ave | | 0.7755 | | | | 3.8 | | 15.0 | | | |
| trans-1,2-Dichloroethene | +++++<br>0.2342<br>0.2580 | 0.2044<br>0.2585<br>0.2570 | 0.2046<br>0.2664 | 0.2249<br>0.2474 | 0.2486<br>0.2605 | Ave | | 0.2422 | | | | 9.2 | | 15.0 | | | |
| Methyl-t-Butyl Ether (MTBE) | +++++<br>0.5159<br>0.6584 | +++++<br>0.5994<br>0.6657 | 0.5159<br>0.6482 | 0.5009<br>0.6015 | 0.5667<br>0.6656 | Ave | | 0.5938 | | | | 11.1 | | 15.0 | | | |
| 1,1-Dichloroethane | +++++<br>0.4270<br>0.4566 | +++++<br>0.4688<br>0.4470 | 0.4320<br>0.4788 | 0.4141<br>0.4399 | 0.4453<br>0.4623 | Ave | | 0.4472 | | | 0.1000 | 4.5 | | 15.0 | | | |
| Propionitrile | +++++<br>0.0390<br>0.0418 | +++++<br>0.0428<br>0.0413 | +++++<br>0.0441 | 0.0341<br>0.0404 | 0.0404<br>0.0442 | Ave | | 0.0409 | | | | 7.5 | | 15.0 | | | |
| Vinyl acetate | +++++<br>0.5005<br>0.6475 | +++++<br>0.6024<br>0.6059 | +++++<br>0.6363 | +++++<br>0.6207 | 0.5254<br>0.6770 | Ave | | 0.6020 | | | | 10.0 | | 15.0 | | | |
| Hexane | +++++<br>0.3943<br>0.4479 | +++++<br>0.4355<br>0.4316 | +++++<br>0.4735 | 0.3911<br>0.4369 | 0.4174<br>0.4632 | Ave | | 0.4324 | | | | 6.5 | | 15.0 | | | |
| 2-Butanone (MEK) | +++++<br>0.0151<br>0.0263 | +++++<br>0.0188<br>0.0276 | +++++<br>0.0236 | +++++<br>0.0257 | +++++<br>0.0289 | Lin2 | -0.066 | 0.0273 | | | | | | | 0.9960 | | 0.9900 |
| Isopropyl Ether (DIPE) | +++++<br>0.9844<br>1.0627 | +++++<br>1.1116<br>0.9815 | 0.9284<br>1.1624 | 0.9238<br>1.0575 | 1.0250<br>1.1136 | Ave | | 1.0351 | | | | 7.8 | | 15.0 | | | |
| cis-1,2-Dichloroethene | +++++<br>0.2617<br>0.2983 | 0.2670<br>0.2889<br>0.2905 | 0.2588<br>0.3057 | 0.2501<br>0.2824 | 0.2691<br>0.2959 | Ave | | 0.2789 | | | | 6.6 | | 15.0 | | | |
| Bromochloromethane | +++++<br>0.1396<br>0.1619 | +++++<br>0.1582<br>+++++ | 0.1026<br>0.1624 | 0.1373<br>0.1523 | 0.1388<br>0.1615 | Ave | | 0.1461 | | | | 13.3 | | 15.0 | | | |
| Chloroform | +++++<br>0.4047<br>0.4479 | +++++<br>0.4463<br>0.4388 | 0.4710<br>0.4647 | 0.4155<br>0.4288 | 0.4482<br>0.4508 | Ave | | 0.4417 | | | | 4.7 | | 30.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| 2,2-Dichloropropane | +++++<br>0.2923<br>0.3250 | +++++<br>0.3200<br>0.3122 | +++++<br>0.3344 | 0.3036<br>0.3076 | 0.3078<br>0.3328 | Ave | | 0.3151 | | | | 4.5 | | 15.0 | | | |
| Ethyl-t-butyl ether (ETBE) | +++++<br>0.6799<br>0.8589 | +++++<br>0.7770<br>0.8273 | 0.6039<br>0.8516 | 0.6469<br>0.7908 | 0.6960<br>0.8788 | Ave | | 0.7611 | | | | 12.8 | | 15.0 | | | |
| Isobutyl alcohol | +++++<br>0.5824<br>0.7068 | +++++<br>0.6935<br>0.6586 | 0.4959<br>0.7355 | 0.5557<br>0.6810 | 0.5803<br>0.7464 | Ave | | 0.6436 | | | | 13.1 | | 15.0 | | | |
| Tetrahydrofuran | +++++<br>0.0967<br>0.0980 | +++++<br>0.0995<br>0.0970 | +++++<br>0.1034 | +++++<br>0.0956 | 0.0986<br>0.1040 | Ave | | 0.0991 | | | | 3.1 | | 15.0 | | | |
| 1,2-Dichloroethane | +++++<br>0.3111<br>0.3270 | 0.2619<br>0.3348<br>0.3210 | 0.2916<br>0.3439 | 0.3098<br>0.3141 | 0.3318<br>0.3336 | Ave | | 0.3164 | | | | 7.4 | | 15.0 | | | |
| 1,1,1-Trichloroethane | +++++<br>0.3747<br>0.4200 | +++++<br>0.4137<br>0.4092 | 0.3985<br>0.4223 | 0.3948<br>0.3948 | 0.3997<br>0.4265 | Ave | | 0.4054 | | | | 3.9 | | 15.0 | | | |
| 1,1-Dichloropropene | +++++<br>0.2589<br>0.3052 | +++++<br>0.2898<br>0.3007 | 0.2429<br>0.3080 | 0.2556<br>0.2921 | 0.2591<br>0.3084 | Ave | | 0.2821 | | | | 8.9 | | 15.0 | | | |
| Cyclohexane | +++++<br>0.4466<br>0.5154 | +++++<br>0.5075<br>0.4954 | +++++<br>0.5290 | 0.4544<br>0.4898 | 0.4514<br>0.5314 | Ave | | 0.4912 | | | | 6.8 | | 15.0 | | | |
| Carbon tetrachloride | +++++<br>0.3571<br>0.4031 | +++++<br>0.3968<br>0.3905 | 0.3730<br>0.4090 | 0.3931<br>0.3838 | 0.3855<br>0.4119 | Ave | | 0.3904 | | | | 4.3 | | 15.0 | | | |
| Benzene | +++++<br>0.8720<br>0.9214 | +++++<br>0.9392<br>0.8550 | 0.9195<br>0.9645 | 0.8976<br>0.8913 | 0.9279<br>0.9411 | Ave | | 0.9129 | | | | 3.7 | | 15.0 | | | |
| Tert-amyl-methyl ether (TAME) | +++++<br>0.5366<br>0.6583 | +++++<br>0.6044<br>0.6545 | 0.9948<br>0.6368 | 0.7715<br>0.5907 | 0.6378<br>0.6646 | Lin2 | 0.1788 | 0.6056 | | | | | | | 0.9910 | | 0.9900 |
| Dibromomethane | +++++<br>0.1424<br>0.1559 | +++++<br>0.1528<br>0.1533 | 0.1288<br>0.1560 | 0.1322<br>0.1482 | 0.1437<br>0.1580 | Ave | | 0.1471 | | | | 6.9 | | 15.0 | | | |
| n-Heptane | +++++<br>0.4516<br>0.5309 | +++++<br>0.5217<br>0.4819 | 0.4614<br>0.5558 | 0.4723<br>0.5235 | 0.4777<br>0.5591 | Ave | | 0.5036 | | | | 7.8 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| 1,2-Dichloropropane | +++++<br>0.2358<br>0.2711 | +++++<br>0.2586<br>0.2657 | 0.2370<br>0.2733 | 0.2472<br>0.2533 | 0.2510<br>0.2702 | Ave | | 0.2563 | | | | 5.4 | | 30.0 | | | |
| Trichloroethene | +++++<br>0.2983<br>0.3217 | +++++<br>0.3190<br>0.3130 | 0.2980<br>0.3309 | 0.2978<br>0.3106 | 0.3167<br>0.3260 | Ave | | 0.3132 | | | | 3.8 | | 15.0 | | | |
| Bromodichloromethane | +++++<br>0.2950<br>0.3548 | +++++<br>0.3346<br>0.3500 | 0.3129<br>0.3481 | 0.2906<br>0.3296 | 0.3284<br>0.3544 | Ave | | 0.3298 | | | | 7.2 | | 15.0 | | | |
| 2-Chloroethyl vinyl ether | +++++<br>0.0957<br>0.1545 | +++++<br>0.1173<br>+++++ | +++++<br>0.1430 | +++++<br>0.1273 | 0.0853<br>0.1503 | Lin1 | -0.209 | 0.1509 | | | | | | | 0.9960 | | 0.9900 |
| Methylcyclohexane | +++++<br>0.3639<br>0.4329 | +++++<br>0.4218<br>0.4151 | +++++<br>0.4434 | 0.3537<br>0.4118 | 0.3724<br>0.4475 | Ave | | 0.4069 | | | | 8.6 | | 15.0 | | | |
| cis-1,3-Dichloropropene | +++++<br>0.3934<br>0.4416 | +++++<br>0.4357<br>0.4236 | 0.3625<br>0.4545 | 0.3765<br>0.4111 | 0.3879<br>0.4410 | Ave | | 0.4128 | | | | 7.6 | | 15.0 | | | |
| 4-Methyl-2-pentanone (MIBK) | +++++<br>0.2765<br>0.3552 | +++++<br>0.3108<br>0.3466 | +++++<br>0.3291 | +++++<br>0.3370 | 0.3067<br>0.3750 | Ave | | 0.3296 | | | | 9.4 | | 15.0 | | | |
| trans-1,3-Dichloropropene | +++++<br>0.3319<br>0.4053 | +++++<br>0.3815<br>0.3925 | 0.3189<br>0.4115 | 0.3250<br>0.3721 | 0.3411<br>0.4098 | Ave | | 0.3690 | | | | 9.9 | | 15.0 | | | |
| 1,1,2-Trichloroethane | +++++<br>0.1923<br>0.2034 | +++++<br>0.2090<br>0.1999 | 0.2011<br>0.2133 | 0.2012<br>0.1879 | 0.1999<br>0.2034 | Ave | | 0.2011 | | | | 3.6 | | 15.0 | | | |
| Toluene | +++++<br>1.1941<br>1.1434 | +++++<br>1.3069<br>0.9946 | 1.1399<br>1.3495 | 1.1255<br>1.1746 | 1.1741<br>1.2292 | Ave | | 1.1832 | | | | 8.3 | | 30.0 | | | |
| 1,3-Dichloropropane | +++++<br>0.3954<br>0.3924 | +++++<br>0.4207<br>0.3814 | 0.3981<br>0.4367 | 0.3862<br>0.3742 | 0.4132<br>0.3976 | Ave | | 0.3996 | | | | 4.7 | | 15.0 | | | |
| Ethyl methacrylate | +++++<br>0.2603<br>0.3408 | +++++<br>0.3095<br>0.3341 | +++++<br>0.3381 | +++++<br>0.3088 | 0.2424<br>0.3464 | Ave | | 0.3101 | | | | 12.6 | | 15.0 | | | |
| 2-Hexanone | +++++<br>0.1801<br>0.2558 | +++++<br>0.2146<br>0.2475 | +++++<br>0.2337 | +++++<br>0.2369 | +++++<br>0.2688 | Ave | | 0.2339 | | | | 12.5 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Dibromochloromethane | +++++<br>0.3463<br>0.3796 | +++++<br>0.3820<br>0.3616 | 0.3218<br>0.3977 | 0.3570<br>0.3547 | 0.3673<br>0.3848 | Ave | | 0.3653 | | | | 6.0 | | 15.0 | | | |
| 1,2-Dibromoethane (EDB) | +++++<br>0.2582<br>0.2788 | +++++<br>0.2755<br>0.2701 | 0.2539<br>0.2899 | 0.2518<br>0.2578 | 0.2673<br>0.2806 | Ave | | 0.2684 | | | | 4.8 | | 15.0 | | | |
| Tetrachloroethene | +++++<br>0.2655<br>0.2756 | +++++<br>0.2796<br>0.2657 | 0.2966<br>0.2891 | 0.2785<br>0.2564 | 0.2856<br>0.2785 | Ave | | 0.2771 | | | | 4.3 | | 15.0 | | | |
| 1,1,1,2-Tetrachloroethane | +++++<br>0.3366<br>0.3708 | +++++<br>0.3687<br>0.3534 | 0.3413<br>0.3826 | 0.3512<br>0.3401 | 0.3755<br>0.3740 | Ave | | 0.3594 | | | | 4.7 | | 15.0 | | | |
| Chlorobenzene | +++++<br>0.9223<br>0.8925 | +++++<br>0.9949<br>0.7944 | 1.0483<br>1.0052 | 0.9702<br>0.8785 | 1.0079<br>0.9367 | Ave | | 0.9451 | | | 0.3000 | 8.0 | | 15.0 | | | |
| Ethylbenzene | +++++<br>1.2593<br>1.2977 | +++++<br>1.4156<br>+++++ | 1.3006<br>1.5017 | 1.2614<br>1.3298 | 1.2749<br>1.4098 | Ave | | 1.3390 | | | | 6.3 | | 30.0 | | | |
| m,p-Xylene | +++++<br>0.5247<br>0.6002 | +++++<br>0.5972<br>0.5554 | 0.4818<br>0.6376 | 0.4858<br>0.5658 | 0.5023<br>0.6177 | Ave | | 0.5568 | | | | 10.1 | | 15.0 | | | |
| Bromoform | +++++<br>0.2003<br>0.2443 | +++++<br>0.2217<br>0.2418 | 0.1809<br>0.2325 | 0.1999<br>0.2107 | 0.1997<br>0.2429 | Ave | | 0.2175 | | | 0.1000 | 10.3 | | 15.0 | | | |
| Styrene | +++++<br>0.7478<br>0.9488 | +++++<br>0.9002<br>0.8413 | 0.6227<br>0.9939 | 0.6316<br>0.8934 | 0.7012<br>0.9865 | Lin1 | -0.201 | 0.9047 | | | | | | | 0.9950 | | 0.9900 |
| 1,1,2,2-Tetrachloroethane | +++++<br>0.5815<br>0.6013 | +++++<br>0.6255<br>0.5966 | 0.5820<br>0.6280 | 0.5683<br>0.5833 | 0.5944<br>0.6301 | Ave | | 0.5991 | | | 0.3000 | 3.7 | | 15.0 | | | |
| o-Xylene | +++++<br>0.5380<br>0.5872 | 0.4328<br>0.6176<br>0.5290 | 0.4620<br>0.6373 | 0.4786<br>0.5622 | 0.5250<br>0.6120 | Ave | | 0.5438 | | | | 12.3 | | 15.0 | | | |
| 1,2,3-Trichloropropane | +++++<br>0.1993<br>0.2078 | +++++<br>0.2104<br>0.2124 | +++++<br>0.2183 | 0.1756<br>0.2015 | 0.2041<br>0.2160 | Ave | | 0.2051 | | | | 6.2 | | 15.0 | | | |
| trans-1,4-Dichloro-2-butene | +++++<br>0.1648<br>0.2179 | +++++<br>0.2002<br>0.2239 | +++++<br>0.2102 | +++++<br>0.2023 | 0.1533<br>0.2247 | Ave | | 0.1997 | | | | 13.4 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| Isopropylbenzene | +++++<br>1.3605<br>1.4444 | +++++<br>1.5437<br>1.2074 | 1.2359<br>1.6474 | 1.2192<br>1.4610 | 1.2974<br>1.5782 | Ave | | 1.3995 | | | | 11.4 | | 15.0 | | | |
| Bromobenzene | +++++<br>0.6891<br>0.7824 | +++++<br>0.7698<br>0.7795 | 0.6409<br>0.7963 | 0.6661<br>0.7484 | 0.7144<br>0.7990 | Ave | | 0.7386 | | | | 7.7 | | 15.0 | | | |
| N-Propylbenzene | +++++<br>2.5920<br>2.7655 | +++++<br>3.0345<br>2.4214 | 2.2975<br>3.1956 | 2.3048<br>2.9805 | 2.5022<br>3.1000 | Ave | | 2.7194 | | | | 12.5 | | 15.0 | | | |
| 2-Chlorotoluene | +++++<br>1.6954<br>1.8022 | +++++<br>1.9364<br>1.6903 | 1.5827<br>1.9541 | 1.5619<br>1.8008 | 1.7566<br>1.8903 | Ave | | 1.7671 | | | | 7.7 | | 15.0 | | | |
| 4-Chlorotoluene | +++++<br>1.7218<br>1.8706 | +++++<br>1.9977<br>1.7458 | 1.5377<br>2.0216 | 1.5894<br>1.8847 | 1.7736<br>1.9769 | Ave | | 1.8120 | | | | 9.3 | | 15.0 | | | |
| 1,3,5-Trimethylbenzene | +++++<br>2.0218<br>2.2988 | +++++<br>2.3926<br>2.0581 | 1.6371<br>2.5286 | 1.7776<br>2.3623 | 1.9330<br>2.4944 | Ave | | 2.1504 | | | | 14.4 | | 15.0 | | | |
| tert-Butylbenzene | +++++<br>1.8787<br>2.1097 | +++++<br>2.1945<br>1.9149 | 1.5774<br>2.3142 | 1.7029<br>2.1744 | 1.8329<br>2.2886 | Ave | | 1.9988 | | | | 12.7 | | 15.0 | | | |
| 1,2,4-Trimethylbenzene | +++++<br>2.1312<br>2.3582 | +++++<br>2.5086<br>2.1170 | 1.6428<br>2.6443 | 1.7466<br>2.4590 | 2.0376<br>2.5749 | Lin2 | -0.445 | 2.3946 | | | | | | | 0.9920 | | 0.9900 |
| sec-Butylbenzene | +++++<br>2.8694<br>2.8399 | +++++<br>3.2782<br>2.4587 | 2.3362<br>3.3366 | 2.6025<br>3.1229 | 2.8858<br>3.2392 | Ave | | 2.8970 | | | | 12.1 | | 15.0 | | | |
| 1,3-Dichlorobenzene | +++++<br>1.4861<br>1.5166 | +++++<br>1.6053<br>1.4436 | 1.5286<br>1.6309 | 1.5052<br>1.5163 | 1.5599<br>1.6022 | Ave | | 1.5395 | | | | 3.8 | | 15.0 | | | |
| 1,4-Dichlorobenzene | +++++<br>1.5266<br>1.5343 | +++++<br>1.6671<br>1.4427 | 1.6822<br>1.6891 | 1.6873<br>1.5600 | 1.6429<br>1.6207 | Ave | | 1.6053 | | | | 5.3 | | 15.0 | | | |
| p-Isopropyltoluene | +++++<br>2.5211<br>2.6034 | +++++<br>2.9006<br>2.2446 | 2.3572<br>3.0281 | 2.4194<br>2.8330 | 2.5606<br>2.9301 | Ave | | 2.6398 | | | | 10.2 | | 15.0 | | | |
| 1,2-Dichlorobenzene | +++++<br>1.3379<br>1.4569 | +++++<br>1.4986<br>1.3842 | 1.3978<br>1.5433 | 1.3216<br>1.4541 | 1.3969<br>1.5276 | Ave | | 1.4319 | | | | 5.3 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | | B | M1 | M2 | | | | | | | | |
| n-Butylbenzene | +++++<br>1.9772<br>2.1896 | +++++<br>2.3177<br>1.9435 | 1.6895<br>2.4308 | 1.7550<br>2.2881 | 1.8683<br>2.4127 | Ave | | 2.0872 | | | | 13.1 | | 15.0 | | | |
| 1,2-Dibromo-3-Chloropropane | +++++<br>0.0955<br>0.1230 | +++++<br>0.1124<br>0.1258 | +++++<br>0.1193 | 0.0523<br>0.1155 | 0.1024<br>0.1268 | Lin2 | -0.066 | 0.1218 | | | | | | | 0.9950 | | 0.9900 |
| 1,2,4-Trichlorobenzene | +++++<br>0.8260<br>1.0299 | +++++<br>0.9433<br>0.9952 | 0.8939<br>1.0236 | 0.8148<br>0.9961 | 0.8515<br>1.0503 | Ave | | 0.9424 | | | | 9.5 | | 15.0 | | | |
| Naphthalene | +++++<br>2.0716<br>2.3828 | +++++<br>2.5428<br>+++++ | 1.7066<br>2.7952 | 1.6662<br>2.6976 | 1.8776<br>2.7585 | Lin1 | -0.642 | 2.5540 | | | | | | | 0.9940 | | 0.9900 |
| Hexachlorobutadiene | +++++<br>0.4875<br>0.5583 | +++++<br>0.5357<br>0.5489 | 0.5675<br>0.5459 | 0.5547<br>0.5298 | 0.5066<br>0.5623 | Ave | | 0.5397 | | | | 4.7 | | 15.0 | | | |
| 1,2,3-Trichlorobenzene | +++++<br>0.8418<br>0.9637 | +++++<br>0.9505<br>0.9425 | 0.8181<br>0.9701 | 0.7648<br>0.9355 | 0.8724<br>1.0001 | Ave | | 0.9059 | | | | 8.5 | | 15.0 | | | |
| Dibromofluoromethane (Surr) | 0.2722 | 0.2783 | 0.2770 | 0.2672 | 0.2826 | Ave | | 0.2755 | | | | 2.1 | | 15.0 | | | |
| 1,2-Dichloroethane-d4 (Surr) | 0.2737 | 0.2745 | 0.2732 | 0.2596 | 0.2773 | Ave | | 0.2717 | | | | 2.5 | | 15.0 | | | |
| Toluene-d8 (Surr) | 1.1299 | 1.1385 | 1.1536 | 1.0345 | 1.0861 | Ave | | 1.1085 | | | | 4.4 | | 15.0 | | | |
| 4-Bromofluorobenzene (Surr) | 0.7794 | 0.8300 | 0.8223 | 0.7893 | 0.8386 | Ave | | 0.8119 | | | | 3.2 | | 15.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD02 440-446571/4 | YFL13013.D |
| Level 2 | STD04 440-446571/5 | YFL13014.D |
| Level 3 | STD05 440-446571/6 | YFL13015.D |
| Level 4 | STD1 440-446571/7 | YFL13016.D |
| Level 5 | STD2 440-446571/8 | YFL13017.D |
| Level 6 | STD5 440-446571/9 | YFL13018.D |
| Level 7 | STD10 440-446571/10 | YFL13019.D |
| Level 8 | ICIS 440-446571/11 | YFL13020.D |
| Level 9 | STD50 440-446571/12 | YFL13021.D |
| Level 10 | STD100 440-446571/13 | YFL13022.D |
| Level 11 | STD200 440-446571/14 | YFL13023.D |
| Level 12 | STD300 440-446571/15 | YFL13024.D |

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Dichlorodifluoromethane | FB | Ave | +++++<br>32748<br>1592401 | +++++<br>77025<br>2513627 | +++++<br>202305 | 6984<br>347033 | 12487<br>796750 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloromethane | FB | Ave | +++++<br>49483<br>2064093 | +++++<br>108778<br>3122313 | 4574<br>266023 | 9728<br>490231 | 18763<br>1020736 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Vinyl chloride | FB | Ave | +++++<br>35860<br>1538681 | 2707<br>77895<br>2275358 | 3342<br>194695 | 7855<br>367779 | 13529<br>767125 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Butadiene | FB | Ave | +++++<br>43735<br>1790693 | +++++<br>91428<br>2654982 | +++++<br>232965 | 9324<br>424155 | 16937<br>905899 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromomethane | FB | Ave | +++++<br>23347<br>1102167 | +++++<br>51436<br>1704141 | 1751<br>134691 | 4203<br>246590 | 9859<br>540037 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloroethane | FB | Ave | +++++<br>20759<br>940071 | +++++<br>44515<br>1466068 | +++++<br>117747 | 4653<br>209070 | 9033<br>471485 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethanol | TBAd 9 | Ave | +++++<br>23253<br>1277148 | +++++<br>50957<br>2002745 | +++++<br>128547 | +++++<br>295311 | 13158<br>674662 | +++++<br>200<br>10000 | +++++<br>400<br>15000 | +++++<br>1000 | +++++<br>2500 | 100<br>5000 |
| Dichlorofluoromethane | FB | Ave | +++++<br>51633<br>2339446 | +++++<br>111510<br>3589799 | 5879<br>286333 | 11106<br>527660 | 21914<br>1165416 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1 LVL 6 LVL 11 | LVL 2 LVL 7 LVL 12 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 LVL 10 | LVL 1 LVL 6 LVL 11 | LVL 2 LVL 7 LVL 12 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 LVL 10 |
| Acrolein | FB | Ave | +++++<br>3095<br>196179 | +++++<br>6966<br>313346 | +++++<br>20322 | +++++<br>41403 | +++++<br>98605 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Trichlorofluoromethane | FB | Ave | +++++<br>50709<br>2328309 | +++++<br>112100<br>3628761 | 5519<br>289484 | 11404<br>531475 | 21415<br>1171367 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Acetonitrile | FB | Ave | +++++<br>54006<br>2294825 | +++++<br>119620<br>3576502 | +++++<br>301664 | 11213<br>541621 | 23809<br>1184923 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Acetone | FB | Ave | +++++<br>12298<br>452001 | +++++<br>22243<br>749291 | +++++<br>52594 | +++++<br>109002 | +++++<br>233154 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Diethyl ether | FB | Ave | +++++<br>24737<br>1285886 | +++++<br>56677<br>2093020 | +++++<br>150349 | 4794<br>287134 | 9333<br>628849 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloroethene | FB | Ave | +++++<br>26889<br>1296670 | +++++<br>58543<br>2104829 | 2746<br>155126 | 5193<br>289365 | 10232<br>638681 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Iodomethane | FB | Ave | +++++<br>56795<br>2706352 | +++++<br>126104<br>4248339 | +++++<br>323959 | 12219<br>608473 | 23156<br>1317920 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| tert-Butyl alcohol (TBA) | TBAd 9 | Ave | +++++<br>37390<br>1928695 | +++++<br>80852<br>3184609 | +++++<br>213902 | 6824<br>408999 | 14939<br>973099 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Acrylonitrile | FB | Ave | 4664<br>132192<br>5765120 | 10935<br>287081<br>8683217 | 13576<br>744006 | 26467<br>1391667 | 55471<br>3031251 | 2.00<br>50.0<br>2000 | 4.00<br>100<br>3000 | 5.00<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Methylene Chloride | FB | Ave | +++++<br>29785<br>1419191 | +++++<br>61404<br>2274060 | +++++<br>173682 | 8688<br>321656 | 14027<br>698576 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | FB | Ave | +++++<br>31215<br>1442382 | +++++<br>68598<br>2245349 | 3405<br>175360 | 7402<br>319298 | 13802<br>731912 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methyl acetate | FB | Ave | +++++<br>124537<br>5896219 | +++++<br>293653<br>8728723 | 13906<br>760793 | 28058<br>1433104 | 56337<br>3115238 | +++++<br>25.0<br>1000 | +++++<br>50.0<br>1500 | 2.50<br>125 | 5.00<br>250 | 10.0<br>500 |
| Allyl chloride | FB | Ave | +++++<br>64004<br>3017941 | +++++<br>141138<br>4475460 | +++++<br>368709 | 11753<br>686363 | 24346<br>1492553 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Carbon disulfide | FB | Ave | +++++<br>93011<br>4196812 | +++++<br>200350<br>6533040 | 10723<br>522301 | 19789<br>958921 | 37350<br>2075837 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| trans-1,2-Dichloroethene | FB | Ave | +++++<br>29225<br>1408305 | 2277<br>64730<br>2280018 | 2690<br>169204 | 5802<br>317802 | 12117<br>686931 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Methyl-t-Butyl Ether (MTBE) | FB | Ave | +++++<br>64368<br>3593610 | +++++<br>150104<br>5905205 | 6784<br>411761 | 12925<br>772628 | 27622<br>1755327 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloroethane | FB | Ave | +++++<br>53280<br>2492046 | +++++<br>117398<br>3965177 | 5681<br>304137 | 10684<br>565087 | 21705<br>1219067 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Propionitrile | FB | Ave | +++++<br>48707<br>2280753 | +++++<br>107192<br>3664476 | +++++<br>280356 | 8800<br>518988 | 19696<br>1166368 | +++++<br>50.0<br>2000 | +++++<br>100<br>3000 | +++++<br>250 | 10.0<br>500 | 20.0<br>1000 |
| Vinyl acetate | FB | Ave | +++++<br>49965<br>3533937 | +++++<br>120677<br>5375303 | +++++<br>323347 | +++++<br>797286 | 25610<br>1785310 | +++++<br>4.00<br>200 | +++++<br>8.00<br>300 | +++++<br>20.0 | +++++<br>50.0 | 2.00<br>100 |
| Hexane | FB | Ave | +++++<br>49196<br>2444778 | +++++<br>109042<br>3828816 | +++++<br>300791 | 10092<br>561222 | 20343<br>1221425 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Butanone (MEK) | FB | Lin2 | +++++<br>1890<br>143400 | +++++<br>4706<br>245194 | +++++<br>14965 | +++++<br>32968 | +++++<br>76214 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Isopropyl Ether (DIPE) | FB | Ave | +++++<br>122830<br>5800384 | +++++<br>278353<br>8706862 | 12208<br>738377 | 23836<br>1358498 | 49962<br>2936740 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| cis-1,2-Dichloroethene | FB | Ave | +++++<br>32650<br>1628249 | 2974<br>72341<br>2577054 | 3403<br>194193 | 6454<br>362759 | 13118<br>780245 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromochloromethane | FB | Ave | +++++<br>17421<br>883908 | +++++<br>39615<br>+++++ | 1349<br>103194 | 3542<br>195606 | 6765<br>425933 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chloroform | FB | Ave | +++++<br>50494<br>2444831 | +++++<br>111769<br>3892466 | 6194<br>295219 | 10721<br>550840 | 21845<br>1188945 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2,2-Dichloropropane | FB | Ave | +++++<br>36474<br>1773699 | +++++<br>80141<br>2769917 | +++++<br>212407 | 7833<br>395171 | 15002<br>877653 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Ethyl-t-butyl ether (ETBE) | FB | Ave | +++++<br>84837<br>4688079 | +++++<br>194556<br>7339275 | 7941<br>540982 | 16692<br>1015910 | 33924<br>2317653 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Isobutyl alcohol | TBAd9 | Ave | +++++<br>48406<br>2620103 | +++++<br>112948<br>4177738 | 4397<br>304346 | 9060<br>571740 | 19320<br>1389051 | +++++<br>125<br>5000 | +++++<br>250<br>7500 | 12.5<br>625 | 25.0<br>1250 | 50.0<br>2500 |
| Tetrahydrofuran | FB | Ave | +++++<br>24133<br>1070232 | +++++<br>49838<br>1721055 | +++++<br>131424 | +++++<br>245487 | 9608<br>548345 | +++++<br>10.0<br>400 | +++++<br>20.0<br>600 | +++++<br>50.0 | +++++<br>100 | 4.00<br>200 |
| 1,2-Dichloroethane | FB | Ave | +++++<br>38823<br>1784859 | 2917<br>83835<br>2847240 | 3835<br>218449 | 7993<br>403512 | 16175<br>879639 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,1-Trichloroethane | FB | Ave | +++++<br>46758<br>2292481 | +++++<br>103598<br>3630019 | 5240<br>268260 | 10187<br>507206 | 19483<br>1124747 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1-Dichloropropene | FB | Ave | +++++<br>32311<br>1665626 | +++++<br>72577<br>2667981 | 3194<br>195633 | 6594<br>375214 | 12630<br>813345 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Cyclohexane | FB | Ave | +++++<br>55720<br>2813000 | +++++<br>127094<br>4394499 | +++++<br>336062 | 11724<br>629222 | 22002<br>1401495 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Carbon tetrachloride | FB | Ave | +++++<br>44562<br>2200273 | +++++<br>99373<br>3463844 | 4905<br>259841 | 10143<br>493022 | 18790<br>1086220 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Benzene | FB | Ave | +++++<br>108804<br>5029405 | +++++<br>235186<br>7584632 | 12091<br>612704 | 23159<br>1144994 | 45227<br>2481882 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Tert-amyl-methyl ether (TAME) | FB | Lin2 | +++++<br>66962<br>3592917 | +++++<br>151342<br>5806155 | 13081<br>404519 | 19906<br>758846 | 31088<br>1752551 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Dibromomethane | FB | Ave | +++++<br>17763<br>850740 | +++++<br>38258<br>1359537 | 1694<br>99107 | 3410<br>190340 | 7004<br>416742 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Heptane | FB | Ave | +++++<br>56349<br>2897958 | +++++<br>130630<br>4275264 | 6067<br>353061 | 12187<br>672459 | 23282<br>1474414 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2-Dichloropropane | FB | Ave | +++++<br>29417<br>1479908 | +++++<br>64763<br>2357140 | 3116<br>173611 | 6378<br>325342 | 12234<br>712585 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Trichloroethene | FB | Ave | +++++<br>37218<br>1755911 | +++++<br>79877<br>2776779 | 3919<br>210202 | 7685<br>398938 | 15439<br>859819 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromodichloromethane | FB | Ave | +++++<br>36810<br>1936352 | +++++<br>83787<br>3105220 | 4114<br>221113 | 7499<br>423419 | 16008<br>934588 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Chloroethyl vinyl ether | CBNZ d5 | Lin1 | +++++<br>9558<br>751848 | +++++<br>24097<br>+++++ | +++++<br>75466 | +++++<br>143974 | 3382<br>351300 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Methylcyclohexane | FB | Ave | +++++<br>45408<br>2362728 | +++++<br>105616<br>3682651 | +++++<br>281635 | 9126<br>528971 | 18154<br>1180140 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| cis-1,3-Dichloropropene | CBNZ d5 | Ave | +++++<br>39294<br>2149303 | +++++<br>89508<br>3407309 | 3852<br>239929 | 7800<br>464956 | 15380<br>1030466 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 4-Methyl-2-pentanone (MIBK) | CBNZ d5 | Ave | +++++<br>27613<br>1728858 | +++++<br>63858<br>2788115 | +++++<br>173717 | +++++<br>381163 | 12160<br>876297 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| trans-1,3-Dichloropropene | CBNZ d5 | Ave | +++++<br>33151<br>1972425 | +++++<br>78373<br>3157331 | 3388<br>217203 | 6733<br>420793 | 13525<br>957628 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2-Trichloroethane | CBNZ d5 | Ave | +++++<br>19207<br>989900 | +++++<br>42947<br>1607543 | 2137<br>112574 | 4168<br>212476 | 7927<br>475395 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Toluene | CBNZ d5 | Ave | +++++<br>119256<br>5564640 | +++++<br>268514<br>8000120 | 12112<br>712320 | 23318<br>1328373 | 46553<br>2872553 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Dichloropropane | CBNZ d5 | Ave | +++++<br>39492<br>1909928 | +++++<br>86432<br>3068045 | 4230<br>230513 | 8002<br>423194 | 16382<br>929048 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethyl methacrylate | CBNZ d5 | Ave | +++++<br>25995<br>1658653 | +++++<br>63596<br>2687619 | +++++<br>178490 | +++++<br>349229 | 9611<br>809410 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| 2-Hexanone | CBNZ d5 | Ave | +++++<br>17982<br>1245018 | +++++<br>44093<br>1990741 | +++++<br>123375 | +++++<br>267894 | +++++<br>628182 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | +++++<br>100 |
| Dibromochloromethane | CBNZ d5 | Ave | +++++<br>34583<br>1847486 | +++++<br>78486<br>2908381 | 3419<br>209914 | 7397<br>401173 | 14563<br>899190 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1 LVL 6 LVL 11 | LVL 2 LVL 7 LVL 12 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 LVL 10 | LVL 1 LVL 6 LVL 11 | LVL 2 LVL 7 LVL 12 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 LVL 10 |
| 1,2-Dibromoethane (EDB) | CBNZ d5 | Ave | +++++<br>25789<br>1356839 | +++++<br>56604<br>2172761 | 2698<br>153014 | 5216<br>291516 | 10598<br>655617 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Tetrachloroethene | CBNZ d5 | Ave | +++++<br>26516<br>1341447 | +++++<br>57436<br>2136871 | 3152<br>152581 | 5769<br>289953 | 11326<br>650809 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,1,2-Tetrachloroethane | CBNZ d5 | Ave | +++++<br>33616<br>1804466 | +++++<br>75760<br>2842218 | 3627<br>201952 | 7276<br>384650 | 14890<br>874072 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Chlorobenzene | CBNZ d5 | Ave | +++++<br>92110<br>4343696 | +++++<br>204414<br>6389378 | 11139<br>530594 | 20099<br>993549 | 39963<br>2188994 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Ethylbenzene | CBNZ d5 | Ave | +++++<br>125764<br>6315582 | +++++<br>290856<br>+++++ | 13820<br>792686 | 26132<br>1503944 | 50549<br>3294417 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| m,p-Xylene | CBNZ d5 | Ave | +++++<br>52398<br>2920979 | +++++<br>122697<br>4467133 | 5119<br>336576 | 10065<br>639906 | 19915<br>1443457 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Bromoform | CBNZ d5 | Ave | +++++<br>20007<br>1188925 | +++++<br>45560<br>1945022 | 1922<br>122719 | 4142<br>238326 | 7917<br>567616 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Styrene | CBNZ d5 | Lin1 | +++++<br>74682<br>4617359 | +++++<br>184943<br>6766673 | 6617<br>524609 | 13085<br>1010395 | 27802<br>2305235 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,1,2,2-Tetrachloroethane | DCBd 4 | Ave | +++++<br>32047<br>1616985 | +++++<br>69790<br>2507850 | 3338<br>183183 | 6444<br>345564 | 12924<br>807148 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| o-Xylene | CBNZ d5 | Ave | +++++<br>53729<br>2857844 | 3851<br>126891<br>4254884 | 4909<br>336417 | 9915<br>635828 | 20817<br>1430032 | +++++<br>5.00<br>200 | 0.400<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,3-Trichloropropane | DCBd 4 | Ave | +++++<br>10984<br>558773 | +++++<br>23474<br>892791 | +++++<br>63680 | 1991<br>119406 | 4438<br>276717 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| trans-1,4-Dichloro-2-butene | DCBd 4 | Ave | +++++<br>9080<br>586115 | +++++<br>22341<br>941167 | +++++<br>61303 | +++++<br>119857 | 3334<br>287848 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | +++++<br>50.0 | 2.00<br>100 |
| Isopropylbenzene | CBNZ d5 | Ave | +++++<br>135876<br>7029773 | +++++<br>317160<br>9711278 | 13132<br>869571 | 25258<br>1652338 | 51444<br>3688023 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| Bromobenzene | DCBd 4 | Ave | +++++<br>37973<br>2104175 | +++++<br>85890<br>3276453 | 3676<br>232282 | 7553<br>443385 | 15533<br>1023474 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| N-Propylbenzene | DCBd 4 | Ave | +++++<br>142838<br>7437145 | +++++<br>338555<br>10178257 | 13177<br>932141 | 26133<br>1765855 | 54404<br>3970790 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 2-Chlorotoluene | DCBd 4 | Ave | +++++<br>93430<br>4846575 | +++++<br>216042<br>7105153 | 9077<br>569994 | 17709<br>1066912 | 38194<br>2421345 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 4-Chlorotoluene | DCBd 4 | Ave | +++++<br>94883<br>5030412 | +++++<br>222883<br>7338648 | 8819<br>589694 | 18021<br>1116630 | 38563<br>2532242 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3,5-Trimethylbenzene | DCBd 4 | Ave | +++++<br>111416<br>6182011 | +++++<br>266938<br>8651259 | 9389<br>737593 | 20155<br>1399600 | 42029<br>3195023 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| tert-Butylbenzene | DCBd 4 | Ave | +++++<br>103527<br>5673654 | +++++<br>244831<br>8049250 | 9047<br>675039 | 19308<br>1288234 | 39853<br>2931529 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,4-Trimethylbenzene | DCBd 4 | Lin2 | +++++<br>117442<br>6341786 | +++++<br>279884<br>8898647 | 9422<br>771345 | 19804<br>1456902 | 44302<br>3298226 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| sec-Butylbenzene | DCBd 4 | Ave | +++++<br>158121<br>7637368 | +++++<br>365745<br>10335081 | 13399<br>973279 | 29508<br>1850192 | 62746<br>4149128 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,3-Dichlorobenzene | DCBd 4 | Ave | +++++<br>81892<br>4078559 | +++++<br>179104<br>6067994 | 8767<br>475737 | 17066<br>898337 | 33917<br>2052271 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,4-Dichlorobenzene | DCBd 4 | Ave | +++++<br>84127<br>4126225 | +++++<br>185989<br>6064350 | 9648<br>492694 | 19131<br>924230 | 35722<br>2075952 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| p-Isopropyltoluene | DCBd 4 | Ave | +++++<br>138929<br>7001141 | +++++<br>323618<br>9435325 | 13519<br>883295 | 27432<br>1678457 | 55674<br>3753177 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2-Dichlorobenzene | DCBd 4 | Ave | +++++<br>73725<br>3917999 | +++++<br>167197<br>5818562 | 8017<br>450181 | 14985<br>861519 | 30373<br>1956714 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| n-Butylbenzene | DCBd 4 | Ave | +++++<br>108959<br>5888368 | +++++<br>258575<br>8169485 | 9690<br>709063 | 19899<br>1355612 | 40622<br>3090410 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 446571

SDG No.:

Instrument ID: GCMS58 GC Column: DB-VRX B ID: 0.25(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 12/13/2017 18:15 Calibration End Date: 12/13/2017 23:40 Calibration ID: 18193

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 | LVL 1<br>LVL 6<br>LVL 11 | LVL 2<br>LVL 7<br>LVL 12 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5<br>LVL 10 |
| 1,2-Dibromo-3-Chloropropane | DCBd 4 | Lin2 | +++++<br>5264<br>330913 | +++++<br>12535<br>528829 | +++++<br>34790 | 593<br>68422 | 2226<br>162389 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | +++++<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,4-Trichlorobenzene | DCBd 4 | Ave | +++++<br>45517<br>2769663 | +++++<br>105246<br>4183181 | 5127<br>298586 | 9238<br>590129 | 18513<br>1345292 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Naphthalene | DCBd 4 | Lin1 | +++++<br>114157<br>6407987 | +++++<br>283695<br>+++++ | 9788<br>815347 | 18892<br>1598232 | 40824<br>3533382 | +++++<br>5.00<br>200 | +++++<br>10.0<br>+++++ | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Hexachlorobutadiene | DCBd 4 | Ave | +++++<br>26866<br>1501467 | +++++<br>59765<br>2307424 | 3255<br>159223 | 6289<br>313875 | 11015<br>720187 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| 1,2,3-Trichlorobenzene | DCBd 4 | Ave | +++++<br>46390<br>2591535 | +++++<br>106042<br>3961620 | 4692<br>282966 | 8671<br>554272 | 18968<br>1281032 | +++++<br>5.00<br>200 | +++++<br>10.0<br>300 | 0.500<br>25.0 | 1.00<br>50.0 | 2.00<br>100 |
| Dibromofluoromethane (Surr) | FB | Ave | 33967 | 69691 | 175933 | 343285 | 745317 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| 1,2-Dichloroethane-d4 (Surr) | FB | Ave | 34146 | 68728 | 173556 | 333537 | 731283 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| Toluene-d8 (Surr) | CBNZ d5 | Ave | 112844 | 233914 | 608913 | 1170013 | 2538162 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |
| 4-Bromofluorobenzene (Surr) | DCBd 4 | Ave | 42951 | 92599 | 239872 | 467651 | 1074191 | 5.00 | 10.0 | 25.0 | 50.0 | 100 |

Curve Type Legend:

| |
|---|
| Ave = Average ISTD |
| Lin1 = Linear 1/conc ISTD |
| Lin2 = Linear 1/conc^2 ISTD |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: ICV 440-442013/18 Calibration Date: 11/17/2017 07:01

Instrument ID: GCMS36 Calib Start Date: 11/17/2017 01:05

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 11/17/2017 05:45

Lab File ID: SFK16048.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.3042 | 0.2546 | | 20.9 | 25.0 | -16.3 | 40.0 |
| Chloromethane | Ave | 0.3780 | 0.3153 | 0.1000 | 20.9 | 25.0 | -16.6 | 40.0 |
| Vinyl chloride | Ave | 0.3171 | 0.2837 | | 22.4 | 25.0 | -10.5 | 30.0 |
| 1,3-Butadiene | Ave | 0.3014 | 0.2610 | | 21.6 | 25.0 | -13.4 | 30.0 |
| Bromomethane | Ave | 0.1990 | 0.1778 | | 22.3 | 25.0 | -10.7 | 30.0 |
| Chloroethane | Ave | 0.1572 | 0.1512 | | 24.0 | 25.0 | -3.8 | 30.0 |
| Ethanol | Ave | 0.1143 | 0.1067 | | 934 | 1000 | -6.6 | 40.0 |
| Dichlorofluoromethane | Ave | 0.4010 | 0.4215 | | 26.3 | 25.0 | 5.1 | 40.0 |
| Acrolein | Ave | 0.0260 | 0.0193 | | 18.5 | 25.0 | -25.8 | 40.0 |
| Acetonitrile | Ave | 0.0267 | 0.0264 | | 247 | 250 | -1.3 | 40.0 |
| Trichlorofluoromethane | Ave | 0.4615 | 0.4431 | | 24.0 | 25.0 | -4.0 | 40.0 |
| Acetone | Ave | 0.0690 | 0.0679 | | 24.6 | 25.0 | -1.6 | 40.0 |
| Diethyl ether | Ave | 0.1817 | 0.1827 | | 25.1 | 25.0 | 0.5 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.2579 | 0.2441 | | 23.7 | 25.0 | -5.4 | 30.0 |
| tert-Butyl alcohol (TBA) | Ave | 1.172 | 1.093 | | 233 | 250 | -6.7 | 30.0 |
| Iodomethane | Ave | 0.7194 | 0.6119 | | 21.3 | 25.0 | -15.0 | 40.0 |
| Acrylonitrile | Ave | 0.0748 | 0.0739 | | 247 | 250 | -1.2 | 40.0 |
| Methylene Chloride | Ave | 0.2616 | 0.2470 | | 23.6 | 25.0 | -5.6 | 30.0 |
| Methyl acetate | Ave | 0.1640 | 0.1541 | | 117 | 125 | -6.0 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.2820 | 0.2671 | | 23.7 | 25.0 | -5.3 | 40.0 |
| Allyl chloride | Ave | 0.4308 | 0.4271 | | 24.8 | 25.0 | -0.9 | 40.0 |
| Carbon disulfide | Ave | 0.8139 | 0.7277 | | 22.4 | 25.0 | -10.6 | 40.0 |
| trans-1,2-Dichloroethene | Ave | 0.2838 | 0.2776 | | 24.5 | 25.0 | -2.2 | 30.0 |
| Methyl-t-Butyl Ether (MTBE) | Ave | 0.5498 | 0.5455 | | 24.8 | 25.0 | -0.8 | 30.0 |
| Propionitrile | Ave | 0.0290 | 0.0296 | | 256 | 250 | 2.2 | 40.0 |
| 1,1-Dichloroethane | Ave | 0.4573 | 0.4532 | 0.1000 | 24.8 | 25.0 | -0.9 | 30.0 |
| Vinyl acetate | Ave | 0.4687 | 0.5138 | | 27.4 | 25.0 | 9.6 | 40.0 |
| Hexane | Ave | 0.4176 | 0.4078 | | 24.4 | 25.0 | -2.3 | 40.0 |
| 2-Butanone (MEK) | Lin2 | | 0.0261 | | 25.4 | 25.0 | 1.7 | 40.0 |
| Isopropyl Ether (DIPE) | Ave | 0.8481 | 0.8373 | | 24.7 | 25.0 | -1.3 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.3045 | 0.3021 | | 24.8 | 25.0 | -0.8 | 30.0 |
| Bromochloromethane | Ave | 0.1653 | 0.1711 | | 25.9 | 25.0 | 3.5 | 30.0 |
| Chloroform | Ave | 0.4739 | 0.4473 | | 23.6 | 25.0 | -5.6 | 30.0 |
| Ethyl-t-butyl ether (ETBE) | Ave | 0.6904 | 0.6722 | | 24.3 | 25.0 | -2.6 | 30.0 |
| 2,2-Dichloropropane | Ave | 0.3132 | 0.2896 | | 23.1 | 25.0 | -7.5 | 30.0 |
| Isobutyl alcohol | Ave | 0.6397 | 0.5972 | | 584 | 625 | -6.6 | 40.0 |
| Tetrahydrofuran | Ave | 0.0762 | 0.0717 | | 47.0 | 50.0 | -5.9 | 40.0 |
| 1,2-Dichloroethane | Ave | 0.3234 | 0.3186 | | 24.6 | 25.0 | -1.5 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.4335 | 0.4307 | | 24.8 | 25.0 | -0.7 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.3430 | 0.3507 | | 25.6 | 25.0 | 2.2 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: ICV 440-442013/18 Calibration Date: 11/17/2017 07:01

Instrument ID: GCMS36 Calib Start Date: 11/17/2017 01:05

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 11/17/2017 05:45

Lab File ID: SFK16048.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Cyclohexane | Ave | 0.4439 | 0.4345 | | 24.5 | 25.0 | -2.1 | 30.0 |
| Carbon tetrachloride | Ave | 0.4345 | 0.4402 | | 25.3 | 25.0 | 1.3 | 40.0 |
| Benzene | Ave | 0.9375 | 0.8968 | | 23.9 | 25.0 | -4.3 | 30.0 |
| Tert-amyl-methyl ether (TAME) | Ave | 0.5683 | 0.5577 | | 24.5 | 25.0 | -1.9 | 30.0 |
| n-Heptane | Ave | 0.4578 | 0.4392 | | 24.0 | 25.0 | -4.1 | 30.0 |
| Dibromomethane | Ave | 0.1603 | 0.1625 | | 25.4 | 25.0 | 1.4 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.2464 | 0.2514 | | 25.5 | 25.0 | 2.0 | 30.0 |
| Trichloroethene | Ave | 0.3625 | 0.3623 | | 25.0 | 25.0 | -0.0 | 30.0 |
| Bromodichloromethane | Ave | 0.3184 | 0.3385 | | 26.6 | 25.0 | 6.3 | 30.0 |
| 2-Chloroethyl vinyl ether | Ave | 0.1396 | 0.1208 | | 21.6 | 25.0 | -13.4 | 40.0 |
| Methylcyclohexane | Ave | 0.4549 | 0.4379 | | 24.1 | 25.0 | -3.7 | 30.0 |
| cis-1,3-Dichloropropene | Ave | 0.4142 | 0.4187 | | 25.3 | 25.0 | 1.1 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.2621 | 0.2652 | | 25.3 | 25.0 | 1.2 | 40.0 |
| trans-1,3-Dichloropropene | Ave | 0.3665 | 0.3667 | | 25.0 | 25.0 | 0.0 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.1985 | 0.1974 | | 24.9 | 25.0 | -0.6 | 30.0 |
| Toluene | Ave | 1.295 | 1.153 | | 22.3 | 25.0 | -10.9 | 30.0 |
| Ethyl methacrylate | Ave | 0.2755 | 0.2889 | | 26.2 | 25.0 | 4.9 | 40.0 |
| 1,3-Dichloropropane | Ave | 0.3763 | 0.3654 | | 24.3 | 25.0 | -2.9 | 30.0 |
| 2-Hexanone | Ave | 0.1885 | 0.1914 | | 25.4 | 25.0 | 1.5 | 40.0 |
| Dibromochloromethane | Ave | 0.3632 | 0.3616 | | 24.9 | 25.0 | -0.4 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2699 | 0.2690 | | 24.9 | 25.0 | -0.4 | 30.0 |
| Tetrachloroethene | Ave | 0.3528 | 0.3408 | | 24.1 | 25.0 | -3.4 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.3785 | 0.3834 | | 25.3 | 25.0 | 1.3 | 40.0 |
| Chlorobenzene | Ave | 0.997 | 0.8775 | 0.3000 | 22.0 | 25.0 | -12.0 | 30.0 |
| Ethylbenzene | Ave | 1.423 | 1.257 | | 22.1 | 25.0 | -11.7 | 30.0 |
| m,p-Xylene | Ave | 0.5880 | 0.5673 | | 24.1 | 25.0 | -3.5 | 30.0 |
| Bromoform | Ave | 0.2440 | 0.2495 | 0.1000 | 25.6 | 25.0 | 2.3 | 40.0 |
| Styrene | Ave | 0.8355 | 0.8326 | | 24.9 | 25.0 | -0.4 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5449 | 0.5044 | 0.3000 | 23.1 | 25.0 | -7.4 | 30.0 |
| o-Xylene | Ave | 0.5809 | 0.5578 | | 24.0 | 25.0 | -4.0 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.1701 | 0.1614 | | 23.7 | 25.0 | -5.1 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.1441 | 0.1353 | | 23.5 | 25.0 | -6.1 | 40.0 |
| Isopropylbenzene | Ave | 1.491 | 1.364 | | 22.9 | 25.0 | -8.5 | 30.0 |
| Bromobenzene | Ave | 0.8243 | 0.7787 | | 23.6 | 25.0 | -5.5 | 30.0 |
| n-Propylbenzene | Ave | 2.917 | 2.501 | | 21.4 | 25.0 | -14.2 | 30.0 |
| 2-Chlorotoluene | Ave | 1.714 | 1.543 | | 22.5 | 25.0 | -10.0 | 30.0 |
| 4-Chlorotoluene | Ave | 1.747 | 1.582 | | 22.6 | 25.0 | -9.4 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.072 | 1.910 | | 23.0 | 25.0 | -7.8 | 30.0 |
| tert-Butylbenzene | Ave | 2.000 | 1.820 | | 22.8 | 25.0 | -9.0 | 30.0 |
| 1,2,4-Trimethylbenzene | Ave | 2.167 | 1.902 | | 22.0 | 25.0 | -12.2 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: ICV 440-442013/18 Calibration Date: 11/17/2017 07:01

Instrument ID: GCMS36 Calib Start Date: 11/17/2017 01:05

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 11/17/2017 05:45

Lab File ID: SFK16048.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | Ave | 2.900 | 2.441 | | 21.0 | 25.0 | -15.8 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.537 | 1.369 | | 22.3 | 25.0 | -11.0 | 30.0 |
| 1,4-Dichlorobenzene | Ave | 1.559 | 1.380 | | 22.1 | 25.0 | -11.5 | 30.0 |
| p-Isopropyltoluene | Ave | 2.598 | 2.190 | | 21.1 | 25.0 | -15.7 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.430 | 1.283 | | 22.4 | 25.0 | -10.2 | 30.0 |
| n-Butylbenzene | Ave | 2.095 | 1.787 | | 21.3 | 25.0 | -14.7 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Lin2 | | 0.0870 | | 21.6 | 25.0 | -13.6 | 40.0 |
| 1,2,4-Trichlorobenzene | Ave | 1.037 | 0.8810 | | 21.2 | 25.0 | -15.0 | 40.0 |
| Naphthalene | Ave | 2.002 | 1.721 | | 21.5 | 25.0 | -14.0 | 40.0 |
| Hexachlorobutadiene | Ave | 0.6211 | 0.5512 | | 22.2 | 25.0 | -11.3 | 40.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.9274 | 0.8114 | | 21.9 | 25.0 | -12.5 | 40.0 |
| Dibromofluoromethane (Surr) | Ave | 0.3141 | 0.3161 | | 25.2 | 25.0 | 0.6 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.2800 | 0.2713 | | 24.2 | 25.0 | -3.1 | |
| Toluene-d8 (Surr) | Ave | 1.079 | 1.084 | | 25.1 | 25.0 | 0.4 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.7545 | 0.7462 | | 24.7 | 25.0 | -1.1 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCVIS 440-452937/2 Calibration Date: 01/22/2018 07:51

Instrument ID: GCMS36 Calib Start Date: 11/17/2017 01:05

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 11/17/2017 05:45

Lab File ID: SGA220002.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.3042 | 0.2902 | | 23.8 | 25.0 | -4.6 | 40.0 |
| Chloromethane | Ave | 0.3780 | 0.2550 | 0.1000 | 16.9 | 25.0 | -32.5 | 40.0 |
| Vinyl chloride | Ave | 0.3171 | 0.2571 | | 20.3 | 25.0 | -18.9 | 20.0 |
| 1,3-Butadiene | Ave | 0.3014 | 0.2227 | | 18.5 | 25.0 | -26.1 | 30.0 |
| Bromomethane | Ave | 0.1990 | 0.2209 | | 27.7 | 25.0 | 11.0 | 30.0 |
| Chloroethane | Ave | 0.1572 | 0.1615 | | 25.7 | 25.0 | 2.8 | 30.0 |
| Ethanol | Ave | 0.1143 | 0.1024 | | 896 | 1000 | -10.4 | 40.0 |
| Dichlorofluoromethane | Ave | 0.4010 | 0.4296 | | 26.8 | 25.0 | 7.1 | 40.0 |
| Acrolein | Ave | 0.0260 | 0.0216 | | 20.8 | 25.0 | -16.9 | 40.0 |
| Acetonitrile | Ave | 0.0267 | 0.0270 | | 253 | 250 | 1.2 | 40.0 |
| Trichlorofluoromethane | Ave | 0.4615 | 0.4934 | | 26.7 | 25.0 | 6.9 | 40.0 |
| Acetone | Ave | 0.0690 | 0.0666 | | 24.1 | 25.0 | -3.5 | 40.0 |
| Diethyl ether | Ave | 0.1817 | 0.1716 | | 23.6 | 25.0 | -5.6 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.2579 | 0.2645 | | 25.6 | 25.0 | 2.5 | 20.0 |
| tert-Butyl alcohol (TBA) | Ave | 1.172 | 1.115 | | 238 | 250 | -4.9 | 30.0 |
| Iodomethane | Ave | 0.7194 | 0.5871 | | 20.4 | 25.0 | -18.4 | 40.0 |
| Acrylonitrile | Ave | 0.0748 | 0.0738 | | 247 | 250 | -1.4 | 40.0 |
| Methylene Chloride | Ave | 0.2616 | 0.2516 | | 24.0 | 25.0 | -3.8 | 30.0 |
| Methyl acetate | Ave | 0.1640 | 0.1476 | | 113 | 125 | -10.0 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.2820 | 0.3013 | | 26.7 | 25.0 | 6.8 | 40.0 |
| Allyl chloride | Ave | 0.4308 | 0.3550 | | 20.6 | 25.0 | -17.6 | 40.0 |
| Carbon disulfide | Ave | 0.8139 | 0.7874 | | 24.2 | 25.0 | -3.3 | 40.0 |
| trans-1,2-Dichloroethene | Ave | 0.2838 | 0.2859 | | 25.2 | 25.0 | 0.7 | 30.0 |
| Methyl-t-Butyl Ether (MTBE) | Ave | 0.5498 | 0.5896 | | 26.8 | 25.0 | 7.2 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.4573 | 0.4359 | 0.1000 | 23.8 | 25.0 | -4.7 | 30.0 |
| Propionitrile | Ave | 0.0290 | 0.0312 | | 269 | 250 | 7.6 | 40.0 |
| Vinyl acetate | Ave | 0.4687 | 0.4465 | | 19.1 | 20.0 | -4.7 | 40.0 |
| Hexane | Ave | 0.4176 | 0.3790 | | 22.7 | 25.0 | -9.2 | 40.0 |
| 2-Butanone (MEK) | Lin2 | | 0.0288 | | 27.9 | 25.0 | 11.5 | 40.0 |
| Isopropyl Ether (DIPE) | Ave | 0.8481 | 0.6709 | | 19.8 | 25.0 | -20.9 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.3045 | 0.3077 | | 25.3 | 25.0 | 1.1 | 30.0 |
| Bromochloromethane | Ave | 0.1653 | 0.1665 | | 25.2 | 25.0 | 0.7 | 30.0 |
| Chloroform | Ave | 0.4739 | 0.4592 | | 24.2 | 25.0 | -3.1 | 20.0 |
| Ethyl-t-butyl ether (ETBE) | Ave | 0.6904 | 0.6249 | | 22.6 | 25.0 | -9.5 | 30.0 |
| 2,2-Dichloropropane | Ave | 0.3132 | 0.3701 | | 29.5 | 25.0 | 18.2 | 30.0 |
| Isobutyl alcohol | Ave | 0.6397 | 0.5117 | | 500 | 625 | -20.0 | 40.0 |
| Tetrahydrofuran | Ave | 0.0762 | 0.0723 | | 47.4 | 50.0 | -5.1 | 40.0 |
| 1,2-Dichloroethane | Ave | 0.3234 | 0.2979 | | 23.0 | 25.0 | -7.9 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.4335 | 0.4416 | | 25.5 | 25.0 | 1.9 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.3430 | 0.3519 | | 25.6 | 25.0 | 2.6 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCVIS 440-452937/2  Calibration Date: 01/22/2018 07:51

Instrument ID: GCMS36  Calib Start Date: 11/17/2017 01:05

GC Column: DB-VRX A  ID: 0.25(mm)  Calib End Date: 11/17/2017 05:45

Lab File ID: SGA220002.D  Conc. Units: ug/L  Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Cyclohexane | Ave | 0.4439 | 0.4127 | | 23.2 | 25.0 | -7.0 | 30.0 |
| Carbon tetrachloride | Ave | 0.4345 | 0.4495 | | 25.9 | 25.0 | 3.5 | 40.0 |
| Benzene | Ave | 0.9375 | 0.8985 | | 24.0 | 25.0 | -4.2 | 30.0 |
| Tert-amyl-methyl ether (TAME) | Ave | 0.5683 | 0.5877 | | 25.9 | 25.0 | 3.4 | 30.0 |
| n-Heptane | Ave | 0.4578 | 0.3615 | | 19.7 | 25.0 | -21.0 | 30.0 |
| Dibromomethane | Ave | 0.1603 | 0.1648 | | 25.7 | 25.0 | 2.8 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.2464 | 0.2302 | | 23.4 | 25.0 | -6.6 | 20.0 |
| Trichloroethene | Ave | 0.3625 | 0.3576 | | 24.7 | 25.0 | -1.4 | 30.0 |
| Bromodichloromethane | Ave | 0.3184 | 0.3328 | | 26.1 | 25.0 | 4.5 | 30.0 |
| 2-Chloroethyl vinyl ether | Ave | 0.1396 | 0.1176 | | 21.1 | 25.0 | -15.7 | 40.0 |
| Methylcyclohexane | Ave | 0.4549 | 0.4553 | | 25.0 | 25.0 | 0.1 | 30.0 |
| cis-1,3-Dichloropropene | Ave | 0.4142 | 0.4567 | | 27.6 | 25.0 | 10.3 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.2621 | 0.2434 | | 23.2 | 25.0 | -7.2 | 40.0 |
| trans-1,3-Dichloropropene | Ave | 0.3665 | 0.4031 | | 27.5 | 25.0 | 10.0 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.1985 | 0.2074 | | 26.1 | 25.0 | 4.5 | 30.0 |
| Toluene | Ave | 1.295 | 1.142 | | 22.1 | 25.0 | -11.8 | 20.0 |
| Ethyl methacrylate | Ave | 0.2755 | 0.3117 | | 28.3 | 25.0 | 13.1 | 40.0 |
| 1,3-Dichloropropane | Ave | 0.3763 | 0.3786 | | 25.2 | 25.0 | 0.6 | 30.0 |
| 2-Hexanone | Ave | 0.1885 | 0.1776 | | 23.6 | 25.0 | -5.8 | 40.0 |
| Dibromochloromethane | Ave | 0.3632 | 0.3883 | | 26.7 | 25.0 | 6.9 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2699 | 0.2849 | | 26.4 | 25.0 | 5.5 | 30.0 |
| Tetrachloroethene | Ave | 0.3528 | 0.3704 | | 26.2 | 25.0 | 5.0 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.3785 | 0.3904 | | 25.8 | 25.0 | 3.1 | 40.0 |
| Chlorobenzene | Ave | 0.997 | 0.8979 | 0.3000 | 22.5 | 25.0 | -10.0 | 30.0 |
| Ethylbenzene | Ave | 1.423 | 1.313 | | 23.1 | 25.0 | -7.8 | 20.0 |
| m,p-Xylene | Ave | 0.5880 | 0.5883 | | 25.0 | 25.0 | 0.0 | 30.0 |
| Bromoform | Ave | 0.2440 | 0.2824 | 0.1000 | 28.9 | 25.0 | 15.7 | 40.0 |
| Styrene | Ave | 0.8355 | 0.8735 | | 26.1 | 25.0 | 4.5 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5449 | 0.5750 | 0.3000 | 26.4 | 25.0 | 5.5 | 30.0 |
| o-Xylene | Ave | 0.5809 | 0.5644 | | 24.3 | 25.0 | -2.8 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.1701 | 0.1852 | | 27.2 | 25.0 | 8.9 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.1441 | 0.1457 | | 25.3 | 25.0 | 1.1 | 40.0 |
| Isopropylbenzene | Ave | 1.491 | 1.428 | | 23.9 | 25.0 | -4.2 | 30.0 |
| Bromobenzene | Ave | 0.8243 | 0.8185 | | 24.8 | 25.0 | -0.7 | 30.0 |
| n-Propylbenzene | Ave | 2.917 | 2.663 | | 22.8 | 25.0 | -8.7 | 30.0 |
| 2-Chlorotoluene | Ave | 1.714 | 1.630 | | 23.8 | 25.0 | -4.9 | 30.0 |
| 4-Chlorotoluene | Ave | 1.747 | 1.665 | | 23.8 | 25.0 | -4.7 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.072 | 2.067 | | 24.9 | 25.0 | -0.3 | 30.0 |
| tert-Butylbenzene | Ave | 2.000 | 1.995 | | 24.9 | 25.0 | -0.2 | 30.0 |
| 1,2,4-Trimethylbenzene | Ave | 2.167 | 2.079 | | 24.0 | 25.0 | -4.0 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCVIS 440-452937/2 Calibration Date: 01/22/2018 07:51

Instrument ID: GCMS36 Calib Start Date: 11/17/2017 01:05

GC Column: DB-VRX A ID: 0.25(mm) Calib End Date: 11/17/2017 05:45

Lab File ID: SGA220002.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | Ave | 2.900 | 2.680 | | 23.1 | 25.0 | -7.6 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.537 | 1.455 | | 23.7 | 25.0 | -5.4 | 30.0 |
| 1,4-Dichlorobenzene | Ave | 1.559 | 1.454 | | 23.3 | 25.0 | -6.7 | 30.0 |
| p-Isopropyltoluene | Ave | 2.598 | 2.429 | | 23.4 | 25.0 | -6.5 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.430 | 1.367 | | 23.9 | 25.0 | -4.4 | 30.0 |
| n-Butylbenzene | Ave | 2.095 | 1.980 | | 23.6 | 25.0 | -5.5 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Lin2 | | 0.1197 | | 29.5 | 25.0 | 17.9 | 40.0 |
| 1,2,4-Trichlorobenzene | Ave | 1.037 | 1.060 | | 25.5 | 25.0 | 2.2 | 40.0 |
| Naphthalene | Ave | 2.002 | 2.082 | | 26.0 | 25.0 | 4.0 | 40.0 |
| Hexachlorobutadiene | Ave | 0.6211 | 0.7255 | | 29.2 | 25.0 | 16.8 | 40.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.9274 | 0.9586 | | 25.8 | 25.0 | 3.4 | 40.0 |
| Dibromofluoromethane (Surr) | Ave | 0.3141 | 0.3090 | | 24.6 | 25.0 | -1.6 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.2800 | 0.2754 | | 24.6 | 25.0 | -1.6 | |
| Toluene-d8 (Surr) | Ave | 1.079 | 1.129 | | 26.2 | 25.0 | 4.6 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.7545 | 0.7539 | | 25.0 | 25.0 | -0.0 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: ICV 440-446571/18 Calibration Date: 12/14/2017 01:08

Instrument ID: GCMS58 Calib Start Date: 12/13/2017 18:15

GC Column: DB-VRX B ID: 0.25(mm) Calib End Date: 12/13/2017 23:40

Lab File ID: YFL13027.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.2847 | 0.2828 | | 24.8 | 25.0 | -0.7 | 40.0 |
| Chloromethane | Ave | 0.3858 | 0.3953 | 0.1000 | 25.6 | 25.0 | 2.5 | 40.0 |
| Vinyl chloride | Ave | 0.2818 | 0.2765 | | 24.5 | 25.0 | -1.9 | 30.0 |
| 1,3-Butadiene | Ave | 0.3436 | 0.3006 | | 21.9 | 25.0 | -12.5 | 30.0 |
| Bromomethane | Ave | 0.1894 | 0.1891 | | 25.0 | 25.0 | -0.1 | 30.0 |
| Chloroethane | Ave | 0.1749 | 0.1646 | | 23.5 | 25.0 | -5.9 | 30.0 |
| Ethanol | Ave | 0.1812 | 0.1864 | | 1030 | 1000 | 2.9 | 40.0 |
| Dichlorofluoromethane | Ave | 0.4323 | 0.4234 | | 24.5 | 25.0 | -2.1 | 40.0 |
| Acrolein | Ave | 0.0322 | 0.0269 | | 20.9 | 25.0 | -16.4 | 40.0 |
| Acetonitrile | Ave | 0.0445 | 0.0417 | | 235 | 250 | -6.2 | 40.0 |
| Trichlorofluoromethane | Ave | 0.4304 | 0.3939 | | 22.9 | 25.0 | -8.5 | 40.0 |
| Acetone | Ave | 0.0872 | 0.0825 | | 23.6 | 25.0 | -5.4 | 40.0 |
| Diethyl ether | Ave | 0.2191 | 0.2265 | | 25.8 | 25.0 | 3.4 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.2256 | 0.2146 | | 23.8 | 25.0 | -4.9 | 30.0 |
| Iodomethane | Ave | 0.4851 | 0.4642 | | 23.9 | 25.0 | -4.3 | 40.0 |
| tert-Butyl alcohol (TBA) | Ave | 1.212 | 1.352 | | 279 | 250 | 11.5 | 30.0 |
| Acrylonitrile | Ave | 0.1056 | 0.1048 | | 248 | 250 | -0.8 | 40.0 |
| Methylene Chloride | Ave | 0.2682 | 0.2572 | | 24.0 | 25.0 | -4.1 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.2673 | 0.2342 | | 21.9 | 25.0 | -12.4 | 40.0 |
| Methyl acetate | Ave | 0.2206 | 0.2101 | | 119 | 125 | -4.8 | 30.0 |
| Allyl chloride | Ave | 0.5300 | 0.4945 | | 23.3 | 25.0 | -6.7 | 40.0 |
| Carbon disulfide | Ave | 0.7755 | 0.7167 | | 23.1 | 25.0 | -7.6 | 40.0 |
| trans-1,2-Dichloroethene | Ave | 0.2422 | 0.2550 | | 26.3 | 25.0 | 5.3 | 30.0 |
| Methyl-t-Butyl Ether (MTBE) | Ave | 0.5938 | 0.6214 | | 26.2 | 25.0 | 4.6 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.4472 | 0.4378 | 0.1000 | 24.5 | 25.0 | -2.1 | 30.0 |
| Propionitrile | Ave | 0.0409 | 0.0423 | | 259 | 250 | 3.4 | 40.0 |
| Vinyl acetate | Ave | 0.6020 | 0.6323 | | 26.3 | 25.0 | 5.0 | 40.0 |
| Hexane | Ave | 0.4324 | 0.4206 | | 24.3 | 25.0 | -2.7 | 40.0 |
| 2-Butanone (MEK) | Lin2 | | 0.0255 | | 25.8 | 25.0 | 3.1 | 40.0 |
| Isopropyl Ether (DIPE) | Ave | 1.035 | 1.111 | | 26.8 | 25.0 | 7.3 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.2789 | 0.2893 | | 25.9 | 25.0 | 3.7 | 30.0 |
| Bromochloromethane | Ave | 0.1461 | 0.1547 | | 26.5 | 25.0 | 5.9 | 30.0 |
| Chloroform | Ave | 0.4417 | 0.4240 | | 24.0 | 25.0 | -4.0 | 30.0 |
| 2,2-Dichloropropane | Ave | 0.3151 | 0.2815 | | 22.3 | 25.0 | -10.7 | 30.0 |
| Ethyl-t-butyl ether (ETBE) | Ave | 0.7611 | 0.8264 | | 27.1 | 25.0 | 8.6 | 30.0 |
| Isobutyl alcohol | Ave | 0.6436 | 0.7424 | | 721 | 625 | 15.4 | 40.0 |
| Tetrahydrofuran | Ave | 0.0991 | 0.0927 | | 46.8 | 50.0 | -6.4 | 40.0 |
| 1,2-Dichloroethane | Ave | 0.3164 | 0.3072 | | 24.3 | 25.0 | -2.9 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.4054 | 0.3847 | | 23.7 | 25.0 | -5.1 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.2821 | 0.2979 | | 26.4 | 25.0 | 5.6 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: ICV 440-446571/18 Calibration Date: 12/14/2017 01:08

Instrument ID: GCMS58 Calib Start Date: 12/13/2017 18:15

GC Column: DB-VRX B ID: 0.25(mm) Calib End Date: 12/13/2017 23:40

Lab File ID: YFL13027.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Cyclohexane | Ave | 0.4912 | 0.4704 | | 23.9 | 25.0 | -4.2 | 30.0 |
| Carbon tetrachloride | Ave | 0.3904 | 0.3628 | | 23.2 | 25.0 | -7.1 | 40.0 |
| Benzene | Ave | 0.9129 | 0.9269 | | 25.4 | 25.0 | 1.5 | 30.0 |
| Tert-amyl-methyl ether (TAME) | Lin2 | | 0.6307 | | 25.7 | 25.0 | 3.0 | 30.0 |
| Dibromomethane | Ave | 0.1471 | 0.1475 | | 25.1 | 25.0 | 0.3 | 30.0 |
| n-Heptane | Ave | 0.5036 | 0.4854 | | 24.1 | 25.0 | -3.6 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.2563 | 0.2581 | | 25.2 | 25.0 | 0.7 | 30.0 |
| Trichloroethene | Ave | 0.3132 | 0.3141 | | 25.1 | 25.0 | 0.3 | 30.0 |
| Bromodichloromethane | Ave | 0.3298 | 0.3360 | | 25.5 | 25.0 | 1.9 | 30.0 |
| 2-Chloroethyl vinyl ether | Lin1 | | 0.1268 | | 22.4 | 25.0 | -10.4 | 40.0 |
| Methylcyclohexane | Ave | 0.4069 | 0.4067 | | 25.0 | 25.0 | -0.0 | 30.0 |
| cis-1,3-Dichloropropene | Ave | 0.4128 | 0.4246 | | 25.7 | 25.0 | 2.9 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.3296 | 0.3513 | | 26.6 | 25.0 | 6.6 | 40.0 |
| trans-1,3-Dichloropropene | Ave | 0.3690 | 0.3740 | | 25.3 | 25.0 | 1.4 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.2011 | 0.2095 | | 26.0 | 25.0 | 4.2 | 30.0 |
| Toluene | Ave | 1.183 | 1.235 | | 26.1 | 25.0 | 4.4 | 30.0 |
| 1,3-Dichloropropane | Ave | 0.3996 | 0.3937 | | 24.6 | 25.0 | -1.5 | 30.0 |
| Ethyl methacrylate | Ave | 0.3101 | 0.3333 | | 26.9 | 25.0 | 7.5 | 40.0 |
| 2-Hexanone | Ave | 0.2339 | 0.2553 | | 27.3 | 25.0 | 9.2 | 40.0 |
| Dibromochloromethane | Ave | 0.3653 | 0.3711 | | 25.4 | 25.0 | 1.6 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2684 | 0.2698 | | 25.1 | 25.0 | 0.5 | 30.0 |
| Tetrachloroethene | Ave | 0.2771 | 0.2638 | | 23.8 | 25.0 | -4.8 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.3594 | 0.3753 | | 26.1 | 25.0 | 4.4 | 40.0 |
| Chlorobenzene | Ave | 0.9451 | 0.9408 | 0.3000 | 24.9 | 25.0 | -0.5 | 30.0 |
| Ethylbenzene | Ave | 1.339 | 1.389 | | 25.9 | 25.0 | 3.7 | 30.0 |
| m,p-Xylene | Ave | 0.5568 | 0.5906 | | 26.5 | 25.0 | 6.1 | 30.0 |
| Bromoform | Ave | 0.2175 | 0.2342 | 0.1000 | 26.9 | 25.0 | 7.7 | 40.0 |
| Styrene | Lin1 | | 0.9528 | | 26.6 | 25.0 | 6.2 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5991 | 0.6719 | 0.3000 | 28.0 | 25.0 | 12.1 | 30.0 |
| o-Xylene | Ave | 0.5438 | 0.5907 | | 27.2 | 25.0 | 8.6 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.2051 | 0.2279 | | 27.8 | 25.0 | 11.1 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.1997 | 0.2131 | | 26.7 | 25.0 | 6.7 | 40.0 |
| Isopropylbenzene | Ave | 1.400 | 1.515 | | 27.1 | 25.0 | 8.2 | 30.0 |
| Bromobenzene | Ave | 0.7386 | 0.7964 | | 27.0 | 25.0 | 7.8 | 30.0 |
| N-Propylbenzene | Ave | 2.719 | 3.058 | | 28.1 | 25.0 | 12.4 | 30.0 |
| 2-Chlorotoluene | Ave | 1.767 | 1.894 | | 26.8 | 25.0 | 7.2 | 30.0 |
| 4-Chlorotoluene | Ave | 1.812 | 1.989 | | 27.4 | 25.0 | 9.7 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.150 | 2.420 | | 28.1 | 25.0 | 12.5 | 30.0 |
| tert-Butylbenzene | Ave | 1.999 | 2.232 | | 27.9 | 25.0 | 11.7 | 30.0 |
| 1,2,4-Trimethylbenzene | Lin2 | | 2.525 | | 26.6 | 25.0 | 6.2 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201437-1

SDG No.:

Lab Sample ID: ICV 440-446571/18  Calibration Date: 12/14/2017 01:08

Instrument ID: GCMS58  Calib Start Date: 12/13/2017 18:15

GC Column: DB-VRX B  ID: 0.25(mm)  Calib End Date: 12/13/2017 23:40

Lab File ID: YFL13027.D  Conc. Units: ug/L  Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | Ave | 2.897 | 3.183 | | 27.5 | 25.0 | 9.9 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.539 | 1.621 | | 26.3 | 25.0 | 5.3 | 30.0 |
| 1,4-Dichlorobenzene | Ave | 1.605 | 1.699 | | 26.5 | 25.0 | 5.9 | 30.0 |
| p-Isopropyltoluene | Ave | 2.640 | 2.865 | | 27.1 | 25.0 | 8.5 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.432 | 1.604 | | 28.0 | 25.0 | 12.0 | 30.0 |
| n-Butylbenzene | Ave | 2.087 | 2.293 | | 27.5 | 25.0 | 9.8 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Lin2 | | 0.1328 | | 27.8 | 25.0 | 11.2 | 40.0 |
| 1,2,4-Trichlorobenzene | Ave | 0.9424 | 1.115 | | 29.6 | 25.0 | 18.3 | 40.0 |
| Naphthalene | Lin1 | | 3.090 | | 30.5 | 25.0 | 22.0 | 40.0 |
| Hexachlorobutadiene | Ave | 0.5397 | 0.5763 | | 26.7 | 25.0 | 6.8 | 40.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.9059 | 1.132 | | 31.2 | 25.0 | 25.0 | 40.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2755 | 0.2758 | | 25.0 | 25.0 | 0.1 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.2717 | 0.2610 | | 24.0 | 25.0 | -3.9 | |
| Toluene-d8 (Surr) | Ave | 1.109 | 1.116 | | 25.2 | 25.0 | 0.7 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.8119 | 0.8254 | | 25.4 | 25.0 | 1.7 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCVIS 440-452839/2 Calibration Date: 01/20/2018 09:18

Instrument ID: GCMS58 Calib Start Date: 12/13/2017 18:15

GC Column: DB-VRX B ID: 0.25(mm) Calib End Date: 12/13/2017 23:40

Lab File ID: YGA20002.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.2847 | 0.3291 | | 28.9 | 25.0 | 15.6 | 40.0 |
| Chloromethane | Ave | 0.3858 | 0.3040 | 0.1000 | 19.7 | 25.0 | -21.2 | 40.0 |
| Vinyl chloride | Ave | 0.2818 | 0.2782 | | 24.7 | 25.0 | -1.3 | 20.0 |
| 1,3-Butadiene | Ave | 0.3436 | 0.2809 | | 20.4 | 25.0 | -18.2 | 30.0 |
| Bromomethane | Ave | 0.1894 | 0.2094 | | 27.6 | 25.0 | 10.6 | 30.0 |
| Chloroethane | Ave | 0.1749 | 0.1515 | | 21.7 | 25.0 | -13.4 | 30.0 |
| Ethanol | Ave | 0.1812 | 0.1203 | | 664 | 1000 | -33.6 | 40.0 |
| Dichlorofluoromethane | Ave | 0.4323 | 0.4124 | | 23.9 | 25.0 | -4.6 | 40.0 |
| Acrolein | Ave | 0.0322 | 0.0181 | | 14.1 | 25.0 | -43.7* | 40.0 |
| Acetonitrile | Ave | 0.0445 | 0.0295 | | 166 | 250 | -33.7 | 40.0 |
| Trichlorofluoromethane | Ave | 0.4304 | 0.4936 | | 28.7 | 25.0 | 14.7 | 40.0 |
| Acetone | Ave | 0.0872 | 0.0620 | | 17.8 | 25.0 | -28.9 | 40.0 |
| Diethyl ether | Ave | 0.2191 | 0.1943 | | 22.2 | 25.0 | -11.3 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.2256 | 0.2418 | | 26.8 | 25.0 | 7.2 | 20.0 |
| Iodomethane | Ave | 0.4851 | 0.5501 | | 28.3 | 25.0 | 13.4 | 40.0 |
| tert-Butyl alcohol (TBA) | Ave | 1.212 | 1.198 | | 247 | 250 | -1.2 | 30.0 |
| Acrylonitrile | Ave | 0.1056 | 0.0885 | | 209 | 250 | -16.2 | 40.0 |
| Methylene Chloride | Ave | 0.2682 | 0.2237 | | 20.9 | 25.0 | -16.6 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.2673 | 0.2866 | | 26.8 | 25.0 | 7.2 | 40.0 |
| Methyl acetate | Ave | 0.2206 | 0.1651 | | 93.5 | 125 | -25.2 | 30.0 |
| Allyl chloride | Ave | 0.5300 | 0.4232 | | 20.0 | 25.0 | -20.1 | 40.0 |
| Carbon disulfide | Ave | 0.7755 | 0.7083 | | 22.8 | 25.0 | -8.7 | 40.0 |
| trans-1,2-Dichloroethene | Ave | 0.2422 | 0.2505 | | 25.9 | 25.0 | 3.4 | 30.0 |
| Methyl-t-Butyl Ether (MTBE) | Ave | 0.5938 | 0.6074 | | 25.6 | 25.0 | 2.3 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.4472 | 0.3982 | 0.1000 | 22.3 | 25.0 | -11.0 | 30.0 |
| Propionitrile | Ave | 0.0409 | 0.0338 | | 206 | 250 | -17.5 | 40.0 |
| Vinyl acetate | Ave | 0.6020 | 0.4951 | | 16.5 | 20.0 | -17.7 | 40.0 |
| Hexane | Ave | 0.4324 | 0.3874 | | 22.4 | 25.0 | -10.4 | 40.0 |
| 2-Butanone (MEK) | Lin2 | | 0.0200 | | 20.7 | 25.0 | -17.2 | 40.0 |
| Isopropyl Ether (DIPE) | Ave | 1.035 | 0.8048 | | 19.4 | 25.0 | -22.2 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.2789 | 0.2846 | | 25.5 | 25.0 | 2.0 | 30.0 |
| Bromochloromethane | Ave | 0.1461 | 0.1648 | | 28.2 | 25.0 | 12.8 | 30.0 |
| Chloroform | Ave | 0.4417 | 0.4232 | | 24.0 | 25.0 | -4.2 | 20.0 |
| 2,2-Dichloropropane | Ave | 0.3151 | 0.3368 | | 26.7 | 25.0 | 6.9 | 30.0 |
| Ethyl-t-butyl ether (ETBE) | Ave | 0.7611 | 0.7411 | | 24.3 | 25.0 | -2.6 | 30.0 |
| Isobutyl alcohol | Ave | 0.6436 | 0.5491 | | 533 | 625 | -14.7 | 40.0 |
| Tetrahydrofuran | Ave | 0.0991 | 0.0744 | | 37.5 | 50.0 | -24.9 | 40.0 |
| 1,2-Dichloroethane | Ave | 0.3164 | 0.3037 | | 24.0 | 25.0 | -4.0 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.4054 | 0.4286 | | 26.4 | 25.0 | 5.7 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.2821 | 0.2838 | | 25.1 | 25.0 | 0.6 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCVIS 440-452839/2 Calibration Date: 01/20/2018 09:18

Instrument ID: GCMS58 Calib Start Date: 12/13/2017 18:15

GC Column: DB-VRX B ID: 0.25(mm) Calib End Date: 12/13/2017 23:40

Lab File ID: YGA20002.D Conc. Units: ug/L Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Cyclohexane | Ave | 0.4912 | 0.4479 | | 22.8 | 25.0 | -8.8 | 30.0 |
| Carbon tetrachloride | Ave | 0.3904 | 0.4275 | | 27.4 | 25.0 | 9.5 | 40.0 |
| Benzene | Ave | 0.9129 | 0.8410 | | 23.0 | 25.0 | -7.9 | 30.0 |
| Tert-amyl-methyl ether (TAME) | Lin2 | | 0.6033 | | 24.6 | 25.0 | -1.6 | 30.0 |
| Dibromomethane | Ave | 0.1471 | 0.1462 | | 24.8 | 25.0 | -0.6 | 30.0 |
| n-Heptane | Ave | 0.5036 | 0.4182 | | 20.8 | 25.0 | -17.0 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.2563 | 0.2175 | | 21.2 | 25.0 | -15.2 | 20.0 |
| Trichloroethene | Ave | 0.3132 | 0.3484 | | 27.8 | 25.0 | 11.2 | 30.0 |
| Bromodichloromethane | Ave | 0.3298 | 0.3257 | | 24.7 | 25.0 | -1.3 | 30.0 |
| 2-Chloroethyl vinyl ether | Lin1 | | 0.1476 | | 25.8 | 25.0 | 3.4 | 40.0 |
| Methylcyclohexane | Ave | 0.4069 | 0.4244 | | 26.1 | 25.0 | 4.3 | 30.0 |
| cis-1,3-Dichloropropene | Ave | 0.4128 | 0.3863 | | 23.4 | 25.0 | -6.4 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.3296 | 0.2413 | | 18.3 | 25.0 | -26.8 | 40.0 |
| trans-1,3-Dichloropropene | Ave | 0.3690 | 0.3577 | | 24.2 | 25.0 | -3.0 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.2011 | 0.1787 | | 22.2 | 25.0 | -11.2 | 30.0 |
| Toluene | Ave | 1.183 | 1.147 | | 24.2 | 25.0 | -3.0 | 20.0 |
| 1,3-Dichloropropane | Ave | 0.3996 | 0.3475 | | 21.7 | 25.0 | -13.0 | 30.0 |
| Ethyl methacrylate | Ave | 0.3101 | 0.2762 | | 22.3 | 25.0 | -10.9 | 40.0 |
| 2-Hexanone | Ave | 0.2339 | 0.1702 | | 18.2 | 25.0 | -27.2 | 40.0 |
| Dibromochloromethane | Ave | 0.3653 | 0.3760 | | 25.7 | 25.0 | 2.9 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2684 | 0.2638 | | 24.6 | 25.0 | -1.7 | 30.0 |
| Tetrachloroethene | Ave | 0.2771 | 0.3100 | | 28.0 | 25.0 | 11.9 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.3594 | 0.3722 | | 25.9 | 25.0 | 3.6 | 40.0 |
| Chlorobenzene | Ave | 0.9451 | 0.9265 | 0.3000 | 24.5 | 25.0 | -2.0 | 30.0 |
| Ethylbenzene | Ave | 1.339 | 1.324 | | 24.7 | 25.0 | -1.1 | 20.0 |
| m,p-Xylene | Ave | 0.5568 | 0.5836 | | 26.2 | 25.0 | 4.8 | 30.0 |
| Bromoform | Ave | 0.2175 | 0.2534 | 0.1000 | 29.1 | 25.0 | 16.5 | 40.0 |
| Styrene | Lin1 | | 0.9155 | | 25.5 | 25.0 | 2.1 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5991 | 0.4848 | 0.3000 | 20.2 | 25.0 | -19.1 | 30.0 |
| o-Xylene | Ave | 0.5438 | 0.5744 | | 26.4 | 25.0 | 5.6 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.2051 | 0.1861 | | 22.7 | 25.0 | -9.2 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.1997 | 0.1658 | | 20.8 | 25.0 | -17.0 | 40.0 |
| Isopropylbenzene | Ave | 1.400 | 1.551 | | 27.7 | 25.0 | 10.8 | 30.0 |
| Bromobenzene | Ave | 0.7386 | 0.7501 | | 25.4 | 25.0 | 1.6 | 30.0 |
| N-Propylbenzene | Ave | 2.719 | 2.629 | | 24.2 | 25.0 | -3.3 | 30.0 |
| 2-Chlorotoluene | Ave | 1.767 | 1.586 | | 22.4 | 25.0 | -10.2 | 30.0 |
| 4-Chlorotoluene | Ave | 1.812 | 1.661 | | 22.9 | 25.0 | -8.3 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.150 | 2.177 | | 25.3 | 25.0 | 1.2 | 30.0 |
| tert-Butylbenzene | Ave | 1.999 | 2.107 | | 26.3 | 25.0 | 5.4 | 30.0 |
| 1,2,4-Trimethylbenzene | Lin2 | | 2.273 | | 23.9 | 25.0 | -4.3 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCVIS 440-452839/2  Calibration Date: 01/20/2018 09:18

Instrument ID: GCMS58  Calib Start Date: 12/13/2017 18:15

GC Column: DB-VRX B  ID: 0.25(mm)  Calib End Date: 12/13/2017 23:40

Lab File ID: YGA20002.D  Conc. Units: ug/L  Heated Purge: (Y/N) Y

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| sec-Butylbenzene | Ave | 2.897 | 2.933 | | 25.3 | 25.0 | 1.2 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.539 | 1.548 | | 25.1 | 25.0 | 0.5 | 30.0 |
| 1,4-Dichlorobenzene | Ave | 1.605 | 1.580 | | 24.6 | 25.0 | -1.6 | 30.0 |
| p-Isopropyltoluene | Ave | 2.640 | 2.777 | | 26.3 | 25.0 | 5.2 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.432 | 1.473 | | 25.7 | 25.0 | 2.9 | 30.0 |
| n-Butylbenzene | Ave | 2.087 | 2.119 | | 25.4 | 25.0 | 1.5 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Lin2 | | 0.1020 | | 21.5 | 25.0 | -14.1 | 40.0 |
| 1,2,4-Trichlorobenzene | Ave | 0.9424 | 1.107 | | 29.4 | 25.0 | 17.4 | 40.0 |
| Naphthalene | Lin1 | | 2.635 | | 26.0 | 25.0 | 4.2 | 40.0 |
| Hexachlorobutadiene | Ave | 0.5397 | 0.6413 | | 29.7 | 25.0 | 18.8 | 40.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.9059 | 1.028 | | 28.4 | 25.0 | 13.5 | 40.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2755 | 0.2912 | | 26.4 | 25.0 | 5.7 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.2717 | 0.2670 | | 24.6 | 25.0 | -1.7 | |
| Toluene-d8 (Surr) | Ave | 1.109 | 1.087 | | 24.5 | 25.0 | -1.9 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.8119 | 0.7174 | | 22.1 | 25.0 | -11.6 | 20.0 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452839/4

Matrix: Water | Lab File ID: YGA20004.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 10:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | | 20 | 10 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | ND | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | ND | | 1.0 | 0.40 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | ND | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | ND | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | ND | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | ND | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | ND | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | ND | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | ND | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | ND | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | ND | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | ND | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 2.5 |
| 98-82-8 | Isopropylbenzene | ND | | 0.50 | 0.25 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452839/4

Matrix: Water | Lab File ID: YGA20004.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 10:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 108-20-3 | Isopropyl Ether (DIPE) | ND | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | ND | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | ND | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | ND | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | ND | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | ND | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | ND | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | ND | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | ND | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | ND | | 0.50 | 0.25 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | ND | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | ND | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | ND | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.25 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | ND | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | ND | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201437-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 440-452839/4

Matrix: Water  Lab File ID: YGA20004.D

Analysis Method: 8260B  Date Collected:

Sample wt/vol: 10(mL)  Date Analyzed: 01/20/2018 10:17

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX B  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 452839  Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 89 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 108 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 99 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452937/4

Matrix: Water | Lab File ID: SGA220004.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/22/2018 08:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452937 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-66-3 | Chloroform | ND | | 0.50 | 0.25 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 100 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 97 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 109 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-452839/5

Matrix: Water | Lab File ID: YGA20005.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 10:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 21.6 | | 20 | 10 |
| 71-43-2 | Benzene | 23.8 | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | 26.2 | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | 29.3 | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 25.8 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 29.8 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | 27.8 | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | 24.2 | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 28.8 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | 25.1 | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | 21.1 | | 1.0 | 0.40 |
| 74-87-3 | Chloromethane | 20.2 | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | 23.6 | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | 24.3 | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | 26.1 | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | 23.3 | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 26.4 | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 24.1 | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 24.9 | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | 24.5 | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 26.7 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 26.0 | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 25.5 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | 29.7 | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | 22.8 | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | 25.1 | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | 25.9 | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | 21.9 | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | 21.8 | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | 27.3 | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | 26.9 | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | 25.6 | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 24.5 | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | 31.2 | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | 21.8 | | 5.0 | 2.5 |
| 98-82-8 | Isopropylbenzene | 29.0 | | 0.50 | 0.25 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-452839/5

Matrix: Water | Lab File ID: YGA20005.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 10:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 108-20-3 | Isopropyl Ether (DIPE) | 20.0 | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 20.0 | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 20.8 | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 26.0 | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | 27.2 | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | 28.0 | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | 26.0 | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | 25.0 | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | 27.7 | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | 27.1 | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | 26.1 | | 0.50 | 0.25 |
| 100-42-5 | Styrene | 26.2 | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 24.9 | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 255 | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | 27.4 | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 27.4 | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 20.6 | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 30.0 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | 25.2 | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | 27.3 | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | 23.8 | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 30.0 | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 29.6 | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | 27.8 | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | 22.6 | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 29.5 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | 29.4 | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | 24.1 | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 24.6 | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 26.6 | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | 24.1 | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | 54.9 | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 440-452839/5

Matrix: Water Lab File ID: YGA20005.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 10(mL) Date Analyzed: 01/20/2018 10:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452839 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 89 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 105 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 96 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201437-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 440-452937/5

Matrix: Water  Lab File ID: SGA220005.D

Analysis Method: 8260B  Date Collected:

Sample wt/vol: 10(mL)  Date Analyzed: 01/22/2018 09:07

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: DB-VRX A  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 452937  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-66-3 | Chloroform | 23.3 | | 0.50 | 0.25 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 101 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 98 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 104 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-77.5 MS | Lab Sample ID: 440-201437-3 MS

Matrix: Water | Lab File ID: YGA20008.D

Analysis Method: 8260B | Date Collected: 01/18/2018 09:00

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 12:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 24.1 | | 20 | 10 |
| 71-43-2 | Benzene | 24.4 | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | 26.8 | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | 30.9 | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 27.9 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 31.7 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | 28.1 | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | 23.3 | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 31.1 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | 25.9 | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | 21.9 | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 645 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | 20.5 | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | 24.1 | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | 25.2 | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | 26.8 | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | 23.8 | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 27.9 | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 22.8 | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 25.4 | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | 25.4 | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 33.0 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 27.2 | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 28.1 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | 28.4 | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | 23.3 | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | 26.5 | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | 26.9 | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | 22.5 | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | 22.3 | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | 28.8 | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | 27.1 | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | 26.1 | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 26.1 | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | 31.2 | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | 20.7 | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-77.5 MS | Lab Sample ID: 440-201437-3 MS

Matrix: Water | Lab File ID: YGA20008.D

Analysis Method: 8260B | Date Collected: 01/18/2018 09:00

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 12:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 29.7 | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | 21.1 | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 23.1 | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 20.3 | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 27.1 | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | 27.9 | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | 27.4 | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | 26.6 | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | 25.6 | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | 28.5 | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | 28.1 | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | 26.6 | | 0.50 | 0.25 |
| 100-42-5 | Styrene | 18.1 | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 25.7 | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 284 | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | 28.1 | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 28.6 | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 20.4 | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 30.8 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | 25.9 | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | 27.9 | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | 24.7 | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 29.6 | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 29.6 | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | 28.9 | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | 23.0 | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 32.0 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | 30.3 | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | 24.1 | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 25.3 | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 27.1 | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | 23.6 | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | 56.4 | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-77.5 MS Lab Sample ID: 440-201437-3 MS

Matrix: Water Lab File ID: YGA20008.D

Analysis Method: 8260B Date Collected: 01/18/2018 09:00

Sample wt/vol: 10(mL) Date Analyzed: 01/20/2018 12:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452839 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 87 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 107 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 96 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201437-1

SDG No.:

Client Sample ID:  Lab Sample ID: 440-201313-A-1 MS

Matrix: Water  Lab File ID: SGA220008.D

Analysis Method: 8260B  Date Collected: 01/17/2018 03:31

Sample wt/vol: 10(mL)  Date Analyzed: 01/22/2018 10:24

Soil Aliquot Vol:  Dilution Factor: 10

Soil Extract Vol.:  GC Column: DB-VRX A  ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 452937  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-66-3 | Chloroform | 809 | | 5.0 | 2.5 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 100 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 103 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-77.5 MSD | Lab Sample ID: 440-201437-3 MSD

Matrix: Water | Lab File ID: YGA20009.D

Analysis Method: 8260B | Date Collected: 01/18/2018 09:00

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 13:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B | ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-64-1 | Acetone | 24.7 | | 20 | 10 |
| 71-43-2 | Benzene | 23.6 | | 0.50 | 0.25 |
| 108-86-1 | Bromobenzene | 26.4 | | 0.50 | 0.25 |
| 74-97-5 | Bromochloromethane | 30.2 | | 0.50 | 0.25 |
| 75-27-4 | Bromodichloromethane | 27.4 | | 0.50 | 0.25 |
| 75-25-2 | Bromoform | 31.4 | | 1.0 | 0.40 |
| 74-83-9 | Bromomethane | 28.2 | | 0.50 | 0.25 |
| 78-93-3 | 2-Butanone (MEK) | 24.0 | | 5.0 | 2.5 |
| 56-23-5 | Carbon tetrachloride | 29.8 | | 0.50 | 0.25 |
| 108-90-7 | Chlorobenzene | 25.4 | | 0.50 | 0.25 |
| 75-00-3 | Chloroethane | 21.4 | | 1.0 | 0.40 |
| 67-66-3 | Chloroform | 614 | | 0.50 | 0.25 |
| 74-87-3 | Chloromethane | 20.2 | | 0.50 | 0.25 |
| 95-49-8 | 2-Chlorotoluene | 23.0 | | 0.50 | 0.25 |
| 106-43-4 | 4-Chlorotoluene | 23.6 | | 0.50 | 0.25 |
| 156-59-2 | cis-1,2-Dichloroethene | 25.9 | | 0.50 | 0.25 |
| 10061-01-5 | cis-1,3-Dichloropropene | 23.4 | | 0.50 | 0.25 |
| 124-48-1 | Dibromochloromethane | 27.8 | | 0.50 | 0.25 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 23.2 | | 1.0 | 0.50 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 25.7 | | 0.50 | 0.25 |
| 74-95-3 | Dibromomethane | 25.6 | | 0.50 | 0.25 |
| 95-50-1 | 1,2-Dichlorobenzene | 32.2 | | 0.50 | 0.25 |
| 541-73-1 | 1,3-Dichlorobenzene | 26.3 | | 0.50 | 0.25 |
| 106-46-7 | 1,4-Dichlorobenzene | 27.0 | | 0.50 | 0.25 |
| 75-71-8 | Dichlorodifluoromethane | 28.3 | | 1.0 | 0.40 |
| 75-34-3 | 1,1-Dichloroethane | 23.0 | | 0.50 | 0.25 |
| 107-06-2 | 1,2-Dichloroethane | 26.1 | | 0.50 | 0.25 |
| 75-35-4 | 1,1-Dichloroethene | 26.1 | | 0.50 | 0.25 |
| 78-87-5 | 1,2-Dichloropropane | 22.3 | | 0.50 | 0.25 |
| 142-28-9 | 1,3-Dichloropropane | 22.0 | | 0.50 | 0.25 |
| 594-20-7 | 2,2-Dichloropropane | 27.3 | | 1.0 | 0.40 |
| 563-58-6 | 1,1-Dichloropropene | 26.1 | | 0.50 | 0.25 |
| 100-41-4 | Ethylbenzene | 25.3 | | 0.50 | 0.25 |
| 637-92-3 | Ethyl-t-butyl ether (ETBE) | 26.0 | | 0.50 | 0.25 |
| 87-68-3 | Hexachlorobutadiene | 30.0 | | 0.50 | 0.25 |
| 591-78-6 | 2-Hexanone | 20.9 | | 5.0 | 2.5 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-77.5 MSD | Lab Sample ID: 440-201437-3 MSD

Matrix: Water | Lab File ID: YGA20009.D

Analysis Method: 8260B | Date Collected: 01/18/2018 09:00

Sample wt/vol: 10(mL) | Date Analyzed: 01/20/2018 13:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452839 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 98-82-8 | Isopropylbenzene | 28.6 | | 0.50 | 0.25 |
| 108-20-3 | Isopropyl Ether (DIPE) | 20.9 | | 0.50 | 0.25 |
| 75-09-2 | Methylene Chloride | 22.5 | | 2.0 | 0.88 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 20.2 | | 5.0 | 2.5 |
| 1634-04-4 | Methyl-t-Butyl Ether (MTBE) | 27.4 | | 0.50 | 0.25 |
| 179601-23-1 | m,p-Xylene | 27.5 | | 1.0 | 0.50 |
| 91-20-3 | Naphthalene | 27.6 | | 1.0 | 0.40 |
| 104-51-8 | n-Butylbenzene | 25.4 | | 1.0 | 0.40 |
| 103-65-1 | N-Propylbenzene | 24.4 | | 0.50 | 0.25 |
| 95-47-6 | o-Xylene | 27.8 | | 0.50 | 0.25 |
| 99-87-6 | p-Isopropyltoluene | 26.9 | | 0.50 | 0.25 |
| 135-98-8 | sec-Butylbenzene | 25.5 | | 0.50 | 0.25 |
| 100-42-5 | Styrene | 16.3 | | 0.50 | 0.25 |
| 994-05-8 | Tert-amyl-methyl ether (TAME) | 25.9 | | 0.50 | 0.25 |
| 75-65-0 | tert-Butyl alcohol (TBA) | 265 | | 10 | 5.0 |
| 98-06-6 | tert-Butylbenzene | 26.9 | | 0.50 | 0.25 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 28.0 | | 0.50 | 0.25 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 20.3 | | 0.50 | 0.25 |
| 127-18-4 | Tetrachloroethene | 29.9 | | 0.50 | 0.25 |
| 108-88-3 | Toluene | 25.2 | | 0.50 | 0.25 |
| 156-60-5 | trans-1,2-Dichloroethene | 26.8 | | 0.50 | 0.25 |
| 10061-02-6 | trans-1,3-Dichloropropene | 24.6 | | 0.50 | 0.25 |
| 87-61-6 | 1,2,3-Trichlorobenzene | 29.7 | | 1.0 | 0.40 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 29.4 | | 1.0 | 0.40 |
| 71-55-6 | 1,1,1-Trichloroethane | 28.0 | | 0.50 | 0.25 |
| 79-00-5 | 1,1,2-Trichloroethane | 23.1 | | 0.50 | 0.25 |
| 79-01-6 | Trichloroethene | 30.8 | | 0.50 | 0.25 |
| 75-69-4 | Trichlorofluoromethane | 29.7 | | 0.50 | 0.25 |
| 96-18-4 | 1,2,3-Trichloropropane | 24.1 | | 1.0 | 0.40 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 24.5 | | 0.50 | 0.25 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 25.7 | | 0.50 | 0.25 |
| 75-01-4 | Vinyl chloride | 23.3 | | 0.50 | 0.25 |
| 1330-20-7 | Xylenes, Total | 55.3 | | 1.0 | 0.50 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-77.5 MSD Lab Sample ID: 440-201437-3 MSD

Matrix: Water Lab File ID: YGA20009.D

Analysis Method: 8260B Date Collected: 01/18/2018 09:00

Sample wt/vol: 10(mL) Date Analyzed: 01/20/2018 13:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX B ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 452839 Units: ug/L

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 88 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 107 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 96 | | 80-128 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201313-A-1 MSD

Matrix: Water | Lab File ID: SGA220009.D

Analysis Method: 8260B | Date Collected: 01/17/2018 03:31

Sample wt/vol: 10(mL) | Date Analyzed: 01/22/2018 10:49

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-VRX A ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 452937 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 67-66-3 | Chloroform | 819 | | 5.0 | 2.5 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 102 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 76-132 |
| 2037-26-5 | Toluene-d8 (Surr) | 102 | | 80-128 |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: GCMS36 Start Date: 11/16/2017 23:42

Analysis Batch Number: 442013 End Date: 11/17/2017 07:01

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-442013/1 | | 11/16/2017 23:42 | 1 | SFK16031.D | DB-VRX A 0.25(mm) |
| ZZZZZ | | 11/17/2017 00:15 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 11/17/2017 00:40 | 1 | | DB-VRX A 0.25(mm) |
| STD02 440-442013/4 IC | | 11/17/2017 01:05 | 1 | SFK16034.D | DB-VRX A 0.25(mm) |
| STD04 440-442013/5 IC | | 11/17/2017 01:31 | 1 | SFK16035.D | DB-VRX A 0.25(mm) |
| STD05 440-442013/6 IC | | 11/17/2017 01:56 | 1 | SFK16036.D | DB-VRX A 0.25(mm) |
| STD1 440-442013/7 IC | | 11/17/2017 02:22 | 1 | SFK16037.D | DB-VRX A 0.25(mm) |
| STD2 440-442013/8 IC | | 11/17/2017 02:47 | 1 | SFK16038.D | DB-VRX A 0.25(mm) |
| STD5 440-442013/9 IC | | 11/17/2017 03:13 | 1 | SFK16039.D | DB-VRX A 0.25(mm) |
| STD10 440-442013/10 IC | | 11/17/2017 03:38 | 1 | SFK16040.D | DB-VRX A 0.25(mm) |
| ICIS 440-442013/11 | | 11/17/2017 04:04 | 1 | SFK16041.D | DB-VRX A 0.25(mm) |
| STD50 440-442013/12 IC | | 11/17/2017 04:29 | 1 | SFK16042.D | DB-VRX A 0.25(mm) |
| STD100 440-442013/13 IC | | 11/17/2017 04:54 | 1 | SFK16043.D | DB-VRX A 0.25(mm) |
| STD200 440-442013/14 IC | | 11/17/2017 05:20 | 1 | SFK16044.D | DB-VRX A 0.25(mm) |
| STD300 440-442013/15 IC | | 11/17/2017 05:45 | 1 | SFK16045.D | DB-VRX A 0.25(mm) |
| ZZZZZ | | 11/17/2017 06:11 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 11/17/2017 06:36 | 1 | | DB-VRX A 0.25(mm) |
| ICV 440-442013/18 | | 11/17/2017 07:01 | 1 | SFK16048.D | DB-VRX A 0.25(mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: GCMS36 Start Date: 01/22/2018 07:08

Analysis Batch Number: 452937 End Date: 01/22/2018 14:13

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-452937/1 | | 01/22/2018 07:08 | 1 | SGA220001.D | DB-VRX A 0.25(mm) |
| CCVIS 440-452937/2 | | 01/22/2018 07:51 | 1 | SGA220002.D | DB-VRX A 0.25(mm) |
| MB 440-452937/4 | | 01/22/2018 08:42 | 1 | SGA220004.D | DB-VRX A 0.25(mm) |
| LCS 440-452937/5 | | 01/22/2018 09:07 | 1 | SGA220005.D | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/22/2018 09:58 | 10 | | DB-VRX A 0.25(mm) |
| 440-201313-A-1 MS | | 01/22/2018 10:24 | 10 | SGA220008.D | DB-VRX A 0.25(mm) |
| 440-201313-A-1 MSD | | 01/22/2018 10:49 | 10 | SGA220009.D | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/22/2018 11:14 | 1 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/22/2018 11:40 | 10 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/22/2018 12:05 | 2 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/22/2018 12:31 | 10 | | DB-VRX A 0.25(mm) |
| ZZZZZ | | 01/22/2018 12:56 | 20 | | DB-VRX A 0.25(mm) |
| 440-201437-1 DL | | 01/22/2018 13:22 | 10 | SGA220015.D | DB-VRX A 0.25(mm) |
| 440-201437-2 RA | | 01/22/2018 13:47 | 1 | SGA220016.D | DB-VRX A 0.25(mm) |
| 440-201437-3 DL | | 01/22/2018 14:13 | 10 | SGA220017.D | DB-VRX A 0.25(mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: GCMS58 Start Date: 12/13/2017 16:39

Analysis Batch Number: 446571 End Date: 12/14/2017 01:08

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-446571/1 | | 12/13/2017 16:39 | 1 | YFL13010.D | DB-VRX B 0.25(mm) |
| ZZZZZ | | 12/13/2017 17:16 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 12/13/2017 17:45 | 1 | | DB-VRX B 0.25(mm) |
| STD02 440-446571/4 IC | | 12/13/2017 18:15 | 1 | YFL13013.D | DB-VRX B 0.25(mm) |
| STD04 440-446571/5 IC | | 12/13/2017 18:44 | 1 | YFL13014.D | DB-VRX B 0.25(mm) |
| STD05 440-446571/6 IC | | 12/13/2017 19:14 | 1 | YFL13015.D | DB-VRX B 0.25(mm) |
| STD1 440-446571/7 IC | | 12/13/2017 19:43 | 1 | YFL13016.D | DB-VRX B 0.25(mm) |
| STD2 440-446571/8 IC | | 12/13/2017 20:13 | 1 | YFL13017.D | DB-VRX B 0.25(mm) |
| STD5 440-446571/9 IC | | 12/13/2017 20:42 | 1 | YFL13018.D | DB-VRX B 0.25(mm) |
| STD10 440-446571/10 IC | | 12/13/2017 21:12 | 1 | YFL13019.D | DB-VRX B 0.25(mm) |
| ICIS 440-446571/11 | | 12/13/2017 21:41 | 1 | YFL13020.D | DB-VRX B 0.25(mm) |
| STD50 440-446571/12 IC | | 12/13/2017 22:11 | 1 | YFL13021.D | DB-VRX B 0.25(mm) |
| STD100 440-446571/13 IC | | 12/13/2017 22:41 | 1 | YFL13022.D | DB-VRX B 0.25(mm) |
| STD200 440-446571/14 IC | | 12/13/2017 23:10 | 1 | YFL13023.D | DB-VRX B 0.25(mm) |
| STD300 440-446571/15 IC | | 12/13/2017 23:40 | 1 | YFL13024.D | DB-VRX B 0.25(mm) |
| ZZZZZ | | 12/14/2017 00:09 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 12/14/2017 00:39 | 1 | | DB-VRX B 0.25(mm) |
| ICV 440-446571/18 | | 12/14/2017 01:08 | 1 | YFL13027.D | DB-VRX B 0.25(mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: GCMS58 Start Date: 01/20/2018 08:49

Analysis Batch Number: 452839 End Date: 01/20/2018 18:57

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 440-452839/1 | | 01/20/2018 08:49 | 1 | YGA20001.D | DB-VRX B 0.25(mm) |
| CCVIS 440-452839/2 | | 01/20/2018 09:18 | 1 | YGA20002.D | DB-VRX B 0.25(mm) |
| CCV 440-452839/3 | | 01/20/2018 09:48 | 1 | | DB-VRX B 0.25(mm) |
| MB 440-452839/4 | | 01/20/2018 10:17 | 1 | YGA20004.D | DB-VRX B 0.25(mm) |
| LCS 440-452839/5 | | 01/20/2018 10:46 | 1 | YGA20005.D | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 11:36 | 1 | | DB-VRX B 0.25(mm) |
| 440-201437-3 | | 01/20/2018 12:06 | 1 | YGA20007.D | DB-VRX B 0.25(mm) |
| 440-201437-3 MS | | 01/20/2018 12:35 | 1 | YGA20008.D | DB-VRX B 0.25(mm) |
| 440-201437-3 MSD | | 01/20/2018 13:04 | 1 | YGA20009.D | DB-VRX B 0.25(mm) |
| 440-201437-1 | | 01/20/2018 13:34 | 1 | YGA20010.D | DB-VRX B 0.25(mm) |
| 440-201437-2 | | 01/20/2018 14:03 | 1 | YGA20011.D | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 14:33 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 15:02 | 25 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 15:31 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 16:01 | 4 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 16:30 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 17:00 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 17:29 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 17:58 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 18:28 | 1 | | DB-VRX B 0.25(mm) |
| ZZZZZ | | 01/20/2018 18:57 | 1 | | DB-VRX B 0.25(mm) |

# GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201437-1

SDG No.:

Batch Number: 452839  Batch Start Date: 01/20/18 08:49  Batch Analyst: Nguyen, Tammy C

Batch Method: 8260B  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | Initial pH | VMW8260TUNE1 00415 | VMWNU8260CCV1 00883 | VMWNU8260ISS 00135 |
|---|---|---|---|---|---|---|---|---|---|
| BFB 440-452839/1 | | 8260B | | 10 mL | 10 mL | | 2 uL | | |
| CCVIS 440-452839/2 | | 8260B | | 10 mL | 10 mL | | | 5 uL | 5 uL |
| MB 440-452839/4 | | 8260B | | 10 mL | 10 mL | | | | 5 uL |
| LCS 440-452839/5 | | 8260B | | 10 mL | 10 mL | | | | 5 uL |
| 440-201437-A-3 | VER-01I-C-77.5 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-201437-B-3 MS | VER-01I-C-77.5 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-201437-B-3 MSD | VER-01I-C-77.5 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-201437-A-1 | VER-01I-C-72 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-201437-A-2 | Trip Blank | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | VMWNU8260LCS2 00174 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BFB 440-452839/1 | | 8260B | | | | | | | |
| CCVIS 440-452839/2 | | 8260B | | | | | | | |
| MB 440-452839/4 | | 8260B | | | | | | | |
| LCS 440-452839/5 | | 8260B | | 5 uL | | | | | |
| 440-201437-A-3 | VER-01I-C-77.5 | 8260B | T | | | | | | |
| 440-201437-B-3 MS | VER-01I-C-77.5 | 8260B | T | 5 uL | | | | | |
| 440-201437-B-3 MSD | VER-01I-C-77.5 | 8260B | T | 5 uL | | | | | |
| 440-201437-A-1 | VER-01I-C-72 | 8260B | T | | | | | | |
| 440-201437-A-2 | Trip Blank | 8260B | T | | | | | | |

| Batch Notes | |
|---|---|
| | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Batch Number: 452839 Batch Start Date: 01/20/18 08:49 Batch Analyst: Nguyen, Tammy C

Batch Method: 8260B Batch End Date:

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201437-1

SDG No.:

Batch Number: 452937  Batch Start Date: 01/22/18 07:08  Batch Analyst: Nguyen, Tammy C

Batch Method: 8260B  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | Initial pH | VMW8260TUNE1 00415 | VMWNU8260CCV1 00883 | VMWNU8260ISS 00135 |
|---|---|---|---|---|---|---|---|---|---|
| BFB 440-452937/1 | | 8260B | | 10 mL | 10 mL | | 2 uL | | |
| CCVIS 440-452937/2 | | 8260B | | 10 mL | 10 mL | | | 5 uL | 5 uL |
| MB 440-452937/4 | | 8260B | | 10 mL | 10 mL | | | | 5 uL |
| LCS 440-452937/5 | | 8260B | | 10 mL | 10 mL | | | | 5 uL |
| 440-201313-A-1 MS | | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-201313-A-1 MSD | | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-201437-B-1 | VER-01I-C-72 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-201437-A-2 | Trip Blank | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |
| 440-201437-B-3 | VER-01I-C-77.5 | 8260B | T | 10 mL | 10 mL | <2 SU | | | 5 uL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | VMWNU8260LCS2 00174 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BFB 440-452937/1 | | 8260B | | | | | | | |
| CCVIS 440-452937/2 | | 8260B | | | | | | | |
| MB 440-452937/4 | | 8260B | | | | | | | |
| LCS 440-452937/5 | | 8260B | | 5 uL | | | | | |
| 440-201313-A-1 MS | | 8260B | T | 5 uL | | | | | |
| 440-201313-A-1 MSD | | 8260B | T | 5 uL | | | | | |
| 440-201437-B-1 | VER-01I-C-72 | 8260B | T | | | | | | |
| 440-201437-A-2 | Trip Blank | 8260B | T | | | | | | |
| 440-201437-B-3 | VER-01I-C-77.5 | 8260B | T | | | | | | |

| Batch Notes | |
|---|---|
| | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Irvine  Job No.: 440-201437-1

SDG No.:

Batch Number: 452937  Batch Start Date: 01/22/18  07:08  Batch Analyst: Nguyen, Tammy C

Batch Method: 8260B  Batch End Date:

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# 314.0_LL

## Perchlorate (IC)

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0099111-005_5_ECD_1.d

Lab ID: LCS 440-453896/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 10.0 | 10.8 | 108 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0099190-00505ECD_1.d

Lab ID: LCS 440-454261/5 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 25.0 | 25.7 | 103 | 85-115 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0099111-004_4_ECD_1.d

Lab ID: MRL 440-453896/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 1.00 | 0.939 J | 94 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC METHOD REPORTING LIMIT CHECK RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0099190-00404ECD_1.d

Lab ID: MRL 440-454261/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MRL CONCENTRATION (ug/L) | MRL % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 1.00 | 1.05 | 105 | 75-125 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0099190-00909ECD_1.d

Lab ID: 440-201437-3 MS Client ID: VER-01I-C-77.5 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Perchlorate | 500 | 1200000 | 1200000 | 3178 | 80-120 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0099111-009_9_ECD_1.d

Lab ID: 440-201782-B-2 MS Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | ND | 11.4 | 114 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0099190-01010ECD_1.d

Lab ID: 440-201437-3 MSD Client ID: VER-01I-C-77.5 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Perchlorate | 500 | 1180000 | -1144 | 2 | 20 | 80-120 | 4 |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0099111-010_10_ECD_1.d

Lab ID: 440-201782-B-2 MSD Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Perchlorate | 10.0 | 11.4 | 114 | 0 | 20 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0099111-007_7_ECD_1.d

Lab ID: INF 440-453896/7 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | INF CONCENTRATION (ug/L) | INF % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 10.0 | 8.89 | 89 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM III
HPLC/IC LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 440-0099190-00707ECD_1.d

Lab ID: INF 440-454261/7 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | INF CONCENTRATION (ug/L) | INF % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Perchlorate | 24.0 | 23.7 | 99 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 314.0 LL

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab File ID: 440-0099190-00606ECD_1.d Lab Sample ID: MB 440-454261/6

Matrix: Water Date Extracted:

Instrument ID: IC-24 Date Analyzed: 01/29/2018 10:13

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-454261/3 | 440-0099190-00303ECD_1.d | 01/29/2018 09:15 |
| | LCS 440-454261/5 | 440-0099190-00505ECD_1.d | 01/29/2018 09:54 |
| VER-01I-C-77.5 | 440-201437-3 | 440-0099190-00808ECD_1.d | 01/29/2018 10:51 |
| VER-01I-C-77.5 MS | 440-201437-3 MS | 440-0099190-00909ECD_1.d | 01/29/2018 11:09 |
| VER-01I-C-77.5 MSD | 440-201437-3 MSD | 440-0099190-01010ECD_1.d | 01/29/2018 11:28 |
| | CCB 440-454261/13 | 440-0099190-01313ECD_1.d | 01/29/2018 12:23 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab File ID: 440-0099111-006_6_ECD_1.d Lab Sample ID: MB 440-453896/6

Matrix: Water Date Extracted:

Instrument ID: IC-25 Date Analyzed: 01/26/2018 11:04

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-453896/3 | 440-0099111-003_3_ECD_1.d | 01/26/2018 10:09 |
| | LCS 440-453896/5 | 440-0099111-005_5_ECD_1.d | 01/26/2018 10:46 |
| | 440-201782-B-2 MS | 440-0099111-009_9_ECD_1.d | 01/26/2018 12:05 |
| | 440-201782-B-2 MSD | 440-0099111-010_10_ECD_1.d | 01/26/2018 12:25 |
| | CCB 440-453896/12 | 440-0099111-012_12_ECD_1.d | 01/26/2018 13:43 |
| VER-01I-C-72 | 440-201437-1 | 440-0099111-013_13_ECD_1.d | 01/26/2018 16:56 |
| | CCB 440-453896/23 | 440-0099111-023_23_ECD_1.d | 01/26/2018 19:59 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-72 | Lab Sample ID: 440-201437-1

Matrix: Water | Lab File ID: 440-0099111-013_13_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/18/2018 03:30

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/26/2018 16:56

Con. Extract Vol.: | Dilution Factor: 100000

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 453896 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1300000 | | 100000 | 50000 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-77.5 | Lab Sample ID: 440-201437-3

Matrix: Water | Lab File ID: 440-0099190-00808ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/18/2018 09:00

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/29/2018 10:51

Con. Extract Vol.: | Dilution Factor: 50000

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 454261 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1200000 | | 50000 | 25000 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 449245

SDG No.:

Instrument ID: IC-24 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/29/2017 08:56 Calibration End Date: 12/29/2017 11:04 Calibration ID: 18337

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-449245/2 | 440-0098110-00202ECD_1.d |
| Level 2 | STD2 440-449245/3 | 440-0098110-00303ECD_1.d |
| Level 3 | STD3 440-449245/4 | 440-0098110-00404ECD_1.d |
| Level 4 | STD4 440-449245/5 | 440-0098110-00505ECD_1.d |
| Level 5 | STD5 440-449245/6 | 440-0098110-00606ECD_1.d |
| Level 6 | STD6 440-449245/7 | 440-0098110-00707ECD_1.d |
| Level 7 | STD7 440-449245/8 | 440-0098110-00808ECD_1.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 11.804 | 11.804 | 11.834 | 11.847 | 11.844 | 11.837 | 11.824 | | | | 11.214 - 12.394 | 11.828 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 449245

SDG No.:

Instrument ID: IC-24 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/29/2017 08:56 Calibration End Date: 12/29/2017 11:04 Calibration ID: 18337

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-449245/2 | 440-0098110-00202ECD_1.d |
| Level 2 | STD2 440-449245/3 | 440-0098110-00303ECD_1.d |
| Level 3 | STD3 440-449245/4 | 440-0098110-00404ECD_1.d |
| Level 4 | STD4 440-449245/5 | 440-0098110-00505ECD_1.d |
| Level 5 | STD5 440-449245/6 | 440-0098110-00606ECD_1.d |
| Level 6 | STD6 440-449245/7 | 440-0098110-00707ECD_1.d |
| Level 7 | STD7 440-449245/8 | 440-0098110-00808ECD_1.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Perchlorate | 160315<br>136634 | 171543<br>140985 | 145319<br>141182 | 142154 | Qua | 23988.9793 | 138031.347 | 29.8673932 | | | | | | 1.0000 | | 0.9950 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 449245

SDG No.:

Instrument ID: IC-24 GC Column: AS7 A ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/29/2017 08:56 Calibration End Date: 12/29/2017 11:04 Calibration ID: 18337

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-449245/2 | 440-0098110-00202ECD_1.d |
| Level 2 | STD2 440-449245/3 | 440-0098110-00303ECD_1.d |
| Level 3 | STD3 440-449245/4 | 440-0098110-00404ECD_1.d |
| Level 4 | STD4 440-449245/5 | 440-0098110-00505ECD_1.d |
| Level 5 | STD5 440-449245/6 | 440-0098110-00606ECD_1.d |
| Level 6 | STD6 440-449245/7 | 440-0098110-00707ECD_1.d |
| Level 7 | STD7 440-449245/8 | 440-0098110-00808ECD_1.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| Perchlorate | Qua | 160315<br>7049273 | 343085<br>14118218 | 581277 | 1421536 | 3415850 | 1.00<br>50.0 | 2.00<br>100 | 4.00 | 10.0 | 25.0 |

Curve Type Legend:
Qua = Quadratic

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 452900

SDG No.:

Instrument ID: IC-25 GC Column: AS16 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2018 11:47 Calibration End Date: 01/21/2018 13:36 Calibration ID: 18432

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-452900/2 | 440-0098896-002_2_ECD_1.d |
| Level 2 | STD2 440-452900/3 | 440-0098896-003_3_ECD_1.d |
| Level 3 | STD3 440-452900/4 | 440-0098896-004_4_ECD_1.d |
| Level 4 | STD4 440-452900/5 | 440-0098896-005_5_ECD_1.d |
| Level 5 | STD5 440-452900/6 | 440-0098896-006_6_ECD_1.d |
| Level 6 | STD6 440-452900/7 | 440-0098896-007_7_ECD_1.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | | | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 12.541 | 12.491 | 12.494 | 12.601 | 12.487 | 12.497 | | | | | 11.913 - 13.168 | 12.519 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 452900

SDG No.:

Instrument ID: IC-25 GC Column: AS16 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2018 11:47 Calibration End Date: 01/21/2018 13:36 Calibration ID: 18432

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-452900/2 | 440-0098896-002_2_ECD_1.d |
| Level 2 | STD2 440-452900/3 | 440-0098896-003_3_ECD_1.d |
| Level 3 | STD3 440-452900/4 | 440-0098896-004_4_ECD_1.d |
| Level 4 | STD4 440-452900/5 | 440-0098896-005_5_ECD_1.d |
| Level 5 | STD5 440-452900/6 | 440-0098896-006_6_ECD_1.d |
| Level 6 | STD6 440-452900/7 | 440-0098896-007_7_ECD_1.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3 | LVL 4 | | B | M1 | M2 | | | | | | | | |
| Perchlorate | 131695<br>113712 | 125512<br>124698 | 118951 | 135816 | Qua | 14709.9441 | 118651.660 | 178.895741 | | | | | | 0.9950 | | 0.9950 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 452900

SDG No.:

Instrument ID: IC-25 GC Column: AS16 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2018 11:47 Calibration End Date: 01/21/2018 13:36 Calibration ID: 18432

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-452900/2 | 440-0098896-002_2_ECD_1.d |
| Level 2 | STD2 440-452900/3 | 440-0098896-003_3_ECD_1.d |
| Level 3 | STD3 440-452900/4 | 440-0098896-004_4_ECD_1.d |
| Level 4 | STD4 440-452900/5 | 440-0098896-005_5_ECD_1.d |
| Level 5 | STD5 440-452900/6 | 440-0098896-006_6_ECD_1.d |
| Level 6 | STD6 440-452900/7 | 440-0098896-007_7_ECD_1.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2 | LVL 3 | LVL 4 | LVL 5 |
| Perchlorate | Qua | 131695<br>3117458 | 251024 | 475805 | 1358162 | 1705678 | 1.00<br>25.0 | 2.00 | 4.00 | 10.0 | 15.0 |

Curve Type Legend:
Qua = Quadratic

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: ICV 440-449245/9 Calibration Date: 12/29/2017 11:31

Instrument ID: IC-24 Calib Start Date: 12/29/2017 08:56

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 12/29/2017 11:04

Lab File ID: 440-0098110-00909ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 48.6 | 50.0 | 97 | 90-110 |

FORM VII 314.0 LL

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: ICV 440-449245/9 Calibration Date: 12/29/2017 11:31

Instrument ID: IC-24 Calib Start Date: 12/29/2017 08:56

GC Column: AS7 A ID: 4.00(mm) Calib End Date: 12/29/2017 11:04

Lab File ID: 440-0098110-00909ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.84 | 11.21 | 12.39 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-454261/2 Calibration Date: 01/29/2018 08:50

Instrument ID: IC-24 Calib Start Date: 12/29/2017 08:56

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/29/2017 11:04

Lab File ID: 440-0099190-00202ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 25.7 | 25.0 | 103 | 85-115 |

FORM VII 314.0 LL

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-454261/2 Calibration Date: 01/29/2018 08:50

Instrument ID: IC-24 Calib Start Date: 12/29/2017 08:56

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/29/2017 11:04

Lab File ID: 440-0099190-00202ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.94 | 11.26 | 12.44 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-454261/12 Calibration Date: 01/29/2018 12:04

Instrument ID: IC-24 Calib Start Date: 12/29/2017 08:56

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/29/2017 11:04

Lab File ID: 440-0099190-01212ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 26.0 | 25.0 | 104 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-454261/12 Calibration Date: 01/29/2018 12:04

Instrument ID: IC-24 Calib Start Date: 12/29/2017 08:56

GC Column: AS16 ID: 4.00(mm) Calib End Date: 12/29/2017 11:04

Lab File ID: 440-0099190-01212ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 11.95 | 11.26 | 12.44 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: ICV 440-452900/8 Calibration Date: 01/21/2018 13:57

Instrument ID: IC-25 Calib Start Date: 01/21/2018 11:47

GC Column: AS16 ID: 4.00(mm) Calib End Date: 01/21/2018 13:36

Lab File ID: 440-0098896-008_8_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 10.2 | 10.0 | 102 | 90-110 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: ICV 440-452900/8 Calibration Date: 01/21/2018 13:57

Instrument ID: IC-25 Calib Start Date: 01/21/2018 11:47

GC Column: AS16 ID: 4.00(mm) Calib End Date: 01/21/2018 13:36

Lab File ID: 440-0098896-008_8_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.47 | 12.03 | 13.29 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-453896/2  Calibration Date: 01/26/2018 09:48

Instrument ID: IC-25  Calib Start Date: 01/21/2018 11:47

GC Column: AS16  ID: 4.00(mm)  Calib End Date: 01/21/2018 13:36

Lab File ID: 440-0099111-002_2_ECD_1.d  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 9.26 | 10.0 | 93 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-453896/2 Calibration Date: 01/26/2018 09:48

Instrument ID: IC-25 Calib Start Date: 01/21/2018 11:47

GC Column: AS16 ID: 4.00(mm) Calib End Date: 01/21/2018 13:36

Lab File ID: 440-0099111-002_2_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.78 | 12.02 | 13.28 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-453896/11 Calibration Date: 01/26/2018 13:25

Instrument ID: IC-25 Calib Start Date: 01/21/2018 11:47

GC Column: AS16 ID: 4.00(mm) Calib End Date: 01/21/2018 13:36

Lab File ID: 440-0099111-011_11_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 11.0 | 10.0 | 110 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-453896/11 Calibration Date: 01/26/2018 13:25

Instrument ID: IC-25 Calib Start Date: 01/21/2018 11:47

GC Column: AS16 ID: 4.00(mm) Calib End Date: 01/21/2018 13:36

Lab File ID: 440-0099111-011_11_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.76 | 12.02 | 13.28 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-453896/22 Calibration Date: 01/26/2018 19:41

Instrument ID: IC-25 Calib Start Date: 01/21/2018 11:47

GC Column: AS16 ID: 4.00(mm) Calib End Date: 01/21/2018 13:36

Lab File ID: 440-0099111-022_22_ECD_1.d Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %REC | %REC LIMITS |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | Qua | | | | 20.4 | 20.0 | 102 | 85-115 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-453896/22 Calibration Date: 01/26/2018 19:41

Instrument ID: IC-25 Calib Start Date: 01/21/2018 11:47

GC Column: AS16 ID: 4.00(mm) Calib End Date: 01/21/2018 13:36

Lab File ID: 440-0099111-022_22_ECD_1.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Perchlorate | 12.76 | 12.02 | 13.28 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-453896/6

Matrix: Water | Lab File ID: 440-0099111-006_6_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/26/2018 11:04

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 453896 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-454261/6

Matrix: Water | Lab File ID: 440-0099190-00606ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/29/2018 10:13

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 454261 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-453896/3

Matrix: Water | Lab File ID: 440-0099111-003_3_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/26/2018 10:09

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 453896 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-453896/12

Matrix: Water | Lab File ID: 440-0099111-012_12_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/26/2018 13:43

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 453896 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-453896/23

Matrix: Water | Lab File ID: 440-0099111-023_23_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/26/2018 19:59

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 453896 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-454261/3

Matrix: Water | Lab File ID: 440-0099190-00303ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/29/2018 09:15

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 454261 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-454261/13

Matrix: Water | Lab File ID: 440-0099190-01313ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/29/2018 12:23

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 454261 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | ND | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-453896/5

Matrix: Water | Lab File ID: 440-0099111-005_5_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/26/2018 10:46

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 453896 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 10.8 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-454261/5

Matrix: Water | Lab File ID: 440-0099190-00505ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/29/2018 09:54

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 454261 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 25.7 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-453896/4

Matrix: Water | Lab File ID: 440-0099111-004_4_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/26/2018 10:27

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 453896 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 0.939 | J | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: MRL 440-454261/4

Matrix: Water | Lab File ID: 440-0099190-00404ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/29/2018 09:36

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 454261 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1.05 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: INF 440-453896/7

Matrix: Water | Lab File ID: 440-0099111-007_7_ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/26/2018 11:22

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 453896 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 8.89 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: INF 440-454261/7

Matrix: Water | Lab File ID: 440-0099190-00707ECD_1.d

Analysis Method: 314.0 LL | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/29/2018 10:31

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 454261 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 23.7 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-77.5 MS | Lab Sample ID: 440-201437-3 MS

Matrix: Water | Lab File ID: 440-0099190-00909ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/18/2018 09:00

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/29/2018 11:09

Con. Extract Vol.: | Dilution Factor: 50000

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 454261 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1200000 | | 50000 | 25000 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201782-B-2 MS

Matrix: Water | Lab File ID: 440-0099111-009_9_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/23/2018 08:10

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/26/2018 12:05

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 453896 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 11.4 | | 1.0 | 0.50 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-77.5 MSD | Lab Sample ID: 440-201437-3 MSD

Matrix: Water | Lab File ID: 440-0099190-01010ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/18/2018 09:00

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/29/2018 11:28

Con. Extract Vol.: | Dilution Factor: 50000

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 454261 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 1180000 | | 50000 | 25000 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: 440-201782-B-2 MSD

Matrix: Water | Lab File ID: 440-0099111-010_10_ECD_1.d

Analysis Method: 314.0 LL | Date Collected: 01/23/2018 08:10

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 01/26/2018 12:25

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS16 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 453896 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-73-0 | Perchlorate | 11.4 | | 1.0 | 0.50 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: IC-24 Start Date: 12/29/2017 08:56

Analysis Batch Number: 449245 End Date: 12/30/2017 21:19

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| STD0 440-449245/1 IC | | 12/29/2017 08:56 | 1 | | AS7 A 4(mm) |
| STD1 440-449245/2 IC | | 12/29/2017 09:14 | 1 | 440-0098110-002 02ECD 1.d | AS7 A 4(mm) |
| STD2 440-449245/3 IC | | 12/29/2017 09:32 | 1 | 440-0098110-003 03ECD 1.d | AS7 A 4(mm) |
| STD3 440-449245/4 IC | | 12/29/2017 09:50 | 1 | 440-0098110-004 04ECD 1.d | AS7 A 4(mm) |
| STD4 440-449245/5 IC | | 12/29/2017 10:09 | 1 | 440-0098110-005 05ECD 1.d | AS7 A 4(mm) |
| STD5 440-449245/6 IC | | 12/29/2017 10:27 | 1 | 440-0098110-006 06ECD 1.d | AS7 A 4(mm) |
| STD6 440-449245/7 IC | | 12/29/2017 10:45 | 1 | 440-0098110-007 07ECD 1.d | AS7 A 4(mm) |
| STD7 440-449245/8 IC | | 12/29/2017 11:04 | 1 | 440-0098110-008 08ECD 1.d | AS7 A 4(mm) |
| ICV 440-449245/9 | | 12/29/2017 11:31 | 1 | | AS7 A 4(mm) |
| ICB 440-449245/10 | | 12/29/2017 11:50 | 1 | | AS7 A 4(mm) |
| CCV 440-449245/11 | | 12/29/2017 12:08 | 1 | | AS7 A 4(mm) |
| CCB 440-449245/12 | | 12/29/2017 12:30 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 12:48 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 13:12 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 13:31 | 1 | | AS7 A 4(mm) |
| INF 440-449245/16 | | 12/29/2017 13:49 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 14:12 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 15:16 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 15:34 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 15:52 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 16:10 | 1 | | AS7 A 4(mm) |
| CCV 440-449245/22 | | 12/29/2017 16:28 | 1 | | AS7 A 4(mm) |
| CCB 440-449245/23 | | 12/29/2017 16:47 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 17:05 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 17:23 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 17:41 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 18:00 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 18:18 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 18:37 | 2 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 18:55 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 19:13 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 19:32 | 1 | | AS7 A 4(mm) |
| CCV 440-449245/33 | | 12/29/2017 19:50 | 1 | | AS7 A 4(mm) |
| CCB 440-449245/34 | | 12/29/2017 20:08 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 20:27 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 20:45 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 21:03 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 21:22 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 21:40 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 21:59 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 22:17 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 22:35 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: IC-24 Start Date: 12/29/2017 08:56

Analysis Batch Number: 449245 End Date: 12/30/2017 21:19

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 12/29/2017 22:54 | 1 | | AS7 A 4(mm) |
| CCV 440-449245/44 | | 12/29/2017 23:12 | 1 | | AS7 A 4(mm) |
| CCB 440-449245/45 | | 12/29/2017 23:30 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/29/2017 23:49 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 00:07 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 00:25 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 00:44 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 01:02 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 01:21 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 01:39 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 01:57 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 02:16 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 02:34 | 1 | | AS7 A 4(mm) |
| CCV 440-449245/56 | | 12/30/2017 02:52 | 1 | | AS7 A 4(mm) |
| CCB 440-449245/57 | | 12/30/2017 03:11 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 03:29 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 03:48 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 04:06 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 04:24 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 04:43 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 05:01 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 05:19 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 05:38 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 05:56 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 06:14 | 1 | | AS7 A 4(mm) |
| CCV 440-449245/68 | | 12/30/2017 06:33 | 1 | | AS7 A 4(mm) |
| CCB 440-449245/69 | | 12/30/2017 06:51 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 08:33 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 09:10 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 09:10 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 09:28 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 09:46 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 10:04 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 10:23 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 10:41 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 11:00 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 11:18 | 1 | | AS7 A 4(mm) |
| CCV 440-449245/80 | | 12/30/2017 11:36 | 1 | | AS7 A 4(mm) |
| CCB 440-449245/81 | | 12/30/2017 11:55 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 12:13 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 12:31 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 12:50 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 13:08 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 13:27 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 13:45 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: IC-24 Start Date: 12/29/2017 08:56

Analysis Batch Number: 449245 End Date: 12/30/2017 21:19

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 12/30/2017 14:03 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 14:22 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 14:40 | 1 | | AS7 A 4(mm) |
| CCV 440-449245/91 | | 12/30/2017 14:58 | 1 | | AS7 A 4(mm) |
| CCB 440-449245/92 | | 12/30/2017 15:17 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 15:49 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 16:07 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 16:25 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 16:43 | 10 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 17:02 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 17:20 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 17:39 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 17:57 | 5 | | AS7 A 4(mm) |
| CCV 440-449245/101 | | 12/30/2017 18:15 | 1 | | AS7 A 4(mm) |
| CCB 440-449245/102 | | 12/30/2017 18:34 | 1 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 18:52 | 20 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 19:10 | 20 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 19:29 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 19:47 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 20:05 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 20:24 | 5 | | AS7 A 4(mm) |
| ZZZZZ | | 12/30/2017 20:42 | 5 | | AS7 A 4(mm) |
| CCV 440-449245/110 | | 12/30/2017 21:01 | 1 | | AS7 A 4(mm) |
| CCB 440-449245/111 | | 12/30/2017 21:19 | 1 | | AS7 A 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: IC-24 Start Date: 01/29/2018 08:33

Analysis Batch Number: 454261 End Date: 01/29/2018 12:23

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/29/2018 08:33 | 1 | | AS16 4(mm) |
| CCV 440-454261/2 | | 01/29/2018 08:50 | 1 | 440-0099190-002 02ECD 1.d | AS16 4(mm) |
| CCB 440-454261/3 | | 01/29/2018 09:15 | 1 | 440-0099190-003 03ECD 1.d | AS16 4(mm) |
| MRL 440-454261/4 | | 01/29/2018 09:36 | 1 | 440-0099190-004 04ECD 1.d | AS16 4(mm) |
| LCS 440-454261/5 | | 01/29/2018 09:54 | 1 | 440-0099190-005 05ECD 1.d | AS16 4(mm) |
| MB 440-454261/6 | | 01/29/2018 10:13 | 1 | 440-0099190-006 06ECD 1.d | AS16 4(mm) |
| INF 440-454261/7 | | 01/29/2018 10:31 | 1 | 440-0099190-007 07ECD 1.d | AS16 4(mm) |
| 440-201437-3 | | 01/29/2018 10:51 | 50000 | 440-0099190-008 08ECD 1.d | AS16 4(mm) |
| 440-201437-3 MS | | 01/29/2018 11:09 | 50000 | 440-0099190-009 09ECD 1.d | AS16 4(mm) |
| 440-201437-3 MSD | | 01/29/2018 11:28 | 50000 | 440-0099190-010 10ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/29/2018 11:46 | 5 | | AS16 4(mm) |
| CCV 440-454261/12 | | 01/29/2018 12:04 | 1 | 440-0099190-012 12ECD 1.d | AS16 4(mm) |
| CCB 440-454261/13 | | 01/29/2018 12:23 | 1 | 440-0099190-013 13ECD 1.d | AS16 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: IC-25 Start Date: 01/21/2018 11:47

Analysis Batch Number: 452900 End Date: 01/22/2018 01:59

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| STD0 440-452900/1 IC | | 01/21/2018 11:47 | 1 | | AS16 4(mm) |
| STD1 440-452900/2 IC | | 01/21/2018 12:04 | 1 | 440-0098896-002 2 ECD 1.d | AS16 4(mm) |
| STD2 440-452900/3 IC | | 01/21/2018 12:23 | 1 | 440-0098896-003 3 ECD 1.d | AS16 4(mm) |
| STD3 440-452900/4 IC | | 01/21/2018 12:41 | 1 | 440-0098896-004 4 ECD 1.d | AS16 4(mm) |
| STD4 440-452900/5 IC | | 01/21/2018 13:00 | 1 | 440-0098896-005 5 ECD 1.d | AS16 4(mm) |
| STD5 440-452900/6 IC | | 01/21/2018 13:18 | 1 | 440-0098896-006 6 ECD 1.d | AS16 4(mm) |
| STD6 440-452900/7 IC | | 01/21/2018 13:36 | 1 | 440-0098896-007 7 ECD 1.d | AS16 4(mm) |
| ICV 440-452900/8 | | 01/21/2018 13:57 | 1 | | AS16 4(mm) |
| ICB 440-452900/9 | | 01/21/2018 14:26 | 1 | | AS16 4(mm) |
| CCV 440-452900/10 | | 01/21/2018 14:44 | 1 | | AS16 4(mm) |
| CCB 440-452900/11 | | 01/21/2018 15:07 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 15:25 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 15:51 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 16:10 | 1 | | AS16 4(mm) |
| INF 440-452900/15 | | 01/21/2018 16:28 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 16:49 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 17:07 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 17:25 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 17:44 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 18:02 | 1 | | AS16 4(mm) |
| CCV 440-452900/21 | | 01/21/2018 18:20 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 18:39 | 1 | | AS16 4(mm) |
| CCB 440-452900/23 | | 01/21/2018 18:57 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 19:15 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 19:34 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 19:52 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 20:10 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 20:29 | 5 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 20:47 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 21:06 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 21:24 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 21:42 | 1 | | AS16 4(mm) |
| CCV 440-452900/33 | | 01/21/2018 22:01 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 22:19 | 1 | | AS16 4(mm) |
| CCB 440-452900/35 | | 01/21/2018 22:37 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 22:56 | 1 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 23:14 | 4 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 23:32 | 4 | | AS16 4(mm) |
| ZZZZZ | | 01/21/2018 23:51 | 4 | | AS16 4(mm) |
| ZZZZZ | | 01/22/2018 00:09 | 4 | | AS16 4(mm) |
| ZZZZZ | | 01/22/2018 00:28 | 4 | | AS16 4(mm) |
| ZZZZZ | | 01/22/2018 00:46 | 4 | | AS16 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: IC-25 Start Date: 01/21/2018 11:47

Analysis Batch Number: 452900 End Date: 01/22/2018 01:59

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/22/2018 01:04 | 4 | | AS16 4(mm) |
| ZZZZZ | | 01/22/2018 01:23 | 4 | | AS16 4(mm) |
| CCV 440-452900/45 | | 01/22/2018 01:41 | 1 | | AS16 4(mm) |
| CCB 440-452900/46 | | 01/22/2018 01:59 | 1 | | AS16 4(mm) |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: IC-25 Start Date: 01/26/2018 09:30

Analysis Batch Number: 453896 End Date: 01/26/2018 19:59

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 01/26/2018 09:30 | 1 | | AS16 4(mm) |
| CCV 440-453896/2 | | 01/26/2018 09:48 | 1 | 440-0099111-002 2 ECD 1.d | AS16 4(mm) |
| CCB 440-453896/3 | | 01/26/2018 10:09 | 1 | 440-0099111-003 3 ECD 1.d | AS16 4(mm) |
| MRL 440-453896/4 | | 01/26/2018 10:27 | 1 | 440-0099111-004 4 ECD 1.d | AS16 4(mm) |
| LCS 440-453896/5 | | 01/26/2018 10:46 | 1 | 440-0099111-005 5 ECD 1.d | AS16 4(mm) |
| MB 440-453896/6 | | 01/26/2018 11:04 | 1 | 440-0099111-006 6 ECD 1.d | AS16 4(mm) |
| INF 440-453896/7 | | 01/26/2018 11:22 | 1 | 440-0099111-007 7 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/26/2018 11:44 | 1 | | AS16 4(mm) |
| 440-201782-B-2 MS | | 01/26/2018 12:05 | 1 | 440-0099111-009 9 ECD 1.d | AS16 4(mm) |
| 440-201782-B-2 MSD | | 01/26/2018 12:25 | 1 | 440-0099111-010 10 ECD 1.d | AS16 4(mm) |
| CCV 440-453896/11 | | 01/26/2018 13:25 | 1 | 440-0099111-011 11 ECD 1.d | AS16 4(mm) |
| CCB 440-453896/12 | | 01/26/2018 13:43 | 1 | 440-0099111-012 12 ECD 1.d | AS16 4(mm) |
| 440-201437-1 | | 01/26/2018 16:56 | 100000 | 440-0099111-013 13 ECD 1.d | AS16 4(mm) |
| ZZZZZ | | 01/26/2018 17:32 | 100000 | | AS16 4(mm) |
| ZZZZZ | | 01/26/2018 17:51 | 100000 | | AS16 4(mm) |
| ZZZZZ | | 01/26/2018 18:09 | 50000 | | AS16 4(mm) |
| ZZZZZ | | 01/26/2018 18:28 | 50000 | | AS16 4(mm) |
| ZZZZZ | | 01/26/2018 18:46 | 100000 | | AS16 4(mm) |
| ZZZZZ | | 01/26/2018 19:04 | 100000 | | AS16 4(mm) |
| ZZZZZ | | 01/26/2018 19:23 | 100000 | | AS16 4(mm) |
| CCV 440-453896/22 | | 01/26/2018 19:41 | 1 | 440-0099111-022 22 ECD 1.d | AS16 4(mm) |
| CCB 440-453896/23 | | 01/26/2018 19:59 | 1 | 440-0099111-023 23 ECD 1.d | AS16 4(mm) |

# Method 300.0

## Anions (IC) by Method 300.0

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20180118005.d

Lab ID: LCS 440-452402/5 Client ID:

| COMPOUND | SPIKE ADDED (mg/L) | LCS CONCENTRATION (mg/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Nitrate as N | 1.13 | 1.04 | 92 | 90-110 | |

# Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20180118005.d

Lab ID: LCS 440-452403/5 Client ID:

| COMPOUND | SPIKE ADDED (mg/L) | LCS CONCENTRATION (mg/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Sulfate | 5.00 | 4.87 | 97 | 90-110 | |

# Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20180118031.d

Lab ID: 440-201437-3 MS Client ID: VER-01I-C-77.5 MS

| COMPOUND | SPIKE ADDED (mg/L) | SAMPLE CONCENTRATION (mg/L) | MS CONCENTRATION (mg/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Nitrate as N | 565 | ND | 553 | 98 | 80-120 | |
| Sulfate | 2500 | 910 | 3440 | 101 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20180118032.d

Lab ID: 440-201437-3 MSD Client ID: VER-01I-C-77.5 MSD

| COMPOUND | SPIKE ADDED (mg/L) | MSD CONCENTRATION (mg/L) | MSD % REC | % RPD | QC LIMITS | | # |
|---|---|---|---|---|---|---|---|
| | | | | | RPD | REC | |
| Nitrate as N | 565 | 543 | 96 | 2 | 20 | 80-120 | |
| Sulfate | 2500 | 3420 | 100 | 1 | 20 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 300.0

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab File ID: 20180118006.d Lab Sample ID: MB 440-452402/6

Matrix: Water Date Extracted:

Instrument ID: IC-9 Date Analyzed: 01/18/2018 12:09

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-452402/3 | 20180118003.d | 01/18/2018 11:06 |
| | LCS 440-452402/5 | 20180118005.d | 01/18/2018 11:54 |
| | CCB 440-452402/16 | 20180118016.d | 01/18/2018 17:45 |
| | CCB 440-452402/28 | 20180118028.d | 01/18/2018 21:22 |
| VER-01I-C-77.5 | 440-201437-3 | 20180118029.d | 01/18/2018 21:41 |
| VER-01I-C-77.5 | 440-201437-3 | 20180118030.d | 01/18/2018 21:57 |
| VER-01I-C-77.5 MS | 440-201437-3 MS | 20180118031.d | 01/18/2018 22:12 |
| VER-01I-C-77.5 MSD | 440-201437-3 MSD | 20180118032.d | 01/18/2018 22:27 |
| | CCB 440-452402/38 | 20180118038.d | 01/18/2018 23:59 |

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab File ID: 20180118006.d Lab Sample ID: MB 440-452403/6

Matrix: Water Date Extracted:

Instrument ID: IC-9 Date Analyzed: 01/18/2018 12:09

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | CCB 440-452403/3 | 20180118003.d | 01/18/2018 11:06 |
| | LCS 440-452403/5 | 20180118005.d | 01/18/2018 11:54 |
| | CCB 440-452403/16 | 20180118016.d | 01/18/2018 17:45 |
| | CCB 440-452403/28 | 20180118028.d | 01/18/2018 21:22 |
| VER-01I-C-77.5 | 440-201437-3 | 20180118030.d | 01/18/2018 21:57 |
| VER-01I-C-77.5 MS | 440-201437-3 MS | 20180118031.d | 01/18/2018 22:12 |
| VER-01I-C-77.5 MSD | 440-201437-3 MSD | 20180118032.d | 01/18/2018 22:27 |
| | CCB 440-452403/38 | 20180118038.d | 01/18/2018 23:59 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-77.5 | Lab Sample ID: 440-201437-3

Matrix: Water | Lab File ID: 20180118029.d

Analysis Method: 300.0 | Date Collected: 01/18/2018 09:00

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 21:41

Con. Extract Vol.: | Dilution Factor: 10

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452402 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-55-8 | Nitrate as N | 22 | | 1.1 | 0.55 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-77.5 | Lab Sample ID: 440-201437-3

Matrix: Water | Lab File ID: 20180118030.d

Analysis Method: 300.0 | Date Collected: 01/18/2018 09:00

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 21:57

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 500

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452402 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| *14797-55-8* | *Nitrate as N* | *ND* | | *55* | *28* |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-77.5 | Lab Sample ID: 440-201437-3

Matrix: Water | Lab File ID: 20180118030.d

Analysis Method: 300.0 | Date Collected: 01/18/2018 09:00

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 21:57

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 500

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452403 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14808-79-8 | Sulfate | 910 | | 250 | 130 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 451909

SDG No.:

Instrument ID: IC-9 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/16/2018 11:01 Calibration End Date: 01/16/2018 13:03 Calibration ID: 18411

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-451909/3 | 20180116003.d |
| Level 2 | STD2 440-451909/4 | 20180116004.d |
| Level 3 | STD3 440-451909/5 | 20180116005.d |
| Level 4 | STD4 440-451909/6 | 20180116006.d |
| Level 5 | STD5 440-451909/7 | 20180116007.d |
| Level 6 | STD6 440-451909/8 | 20180116008.d |
| Level 7 | STD7 440-451909/9 | 20180116009.d |
| Level 8 | STD8 440-451909/10 | 20180116010.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | LVL 8 | | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 2.697 | 2.698 | 2.707 | 2.722 | 2.732 | 2.745 | 2.757 | +++++ | | | 2.595 - 2.868 | 2.723 |
| Chloride | 4.003 | 3.992 | 3.993 | 4.003 | 4.005 | +++++ | +++++ | +++++ | | | 3.805 - 4.205 | 3.999 |
| Bromide | 6.458 | 6.418 | 6.362 | 6.343 | 6.310 | 6.333 | 6.322 | +++++ | | | 5.995 - 6.626 | 6.364 |
| Sulfate | 11.908 | 11.925 | 11.913 | 11.917 | 11.913 | 11.960 | 11.908 | +++++ | | | 11.318 - 12.509 | 11.921 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 451909

SDG No.:

Instrument ID: IC-9 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/16/2018 11:01 Calibration End Date: 01/16/2018 13:03 Calibration ID: 18411

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-451909/3 | 20180116003.d |
| Level 2 | STD2 440-451909/4 | 20180116004.d |
| Level 3 | STD3 440-451909/5 | 20180116005.d |
| Level 4 | STD4 440-451909/6 | 20180116006.d |
| Level 5 | STD5 440-451909/7 | 20180116007.d |
| Level 6 | STD6 440-451909/8 | 20180116008.d |
| Level 7 | STD7 440-451909/9 | 20180116009.d |
| Level 8 | STD8 440-451909/10 | 20180116010.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4<br>LVL 8 | | B | M1 | M2 | | | | | | | | |
| Fluoride | 60330<br>58390 | 55079<br>64378 | 56428<br>64229 | 60039<br>+++++ | Lin1 | -5462.4624 | 62531.2422 | | | | | | | 0.9980 | | 0.9950 |
| Chloride | 41826<br>44048 | 41895<br>+++++ | 42252<br>+++++ | 45183<br>+++++ | Lin1 | -1901.9328 | 44321.4814 | | | | | | | 0.9990 | | 0.9950 |
| Bromide | 16188<br>16742 | 16379<br>18336 | 17272<br>18583 | 17736<br>+++++ | Lin1 | -1567.7425 | 18092.1374 | | | | | | | 0.9980 | | 0.9950 |
| Sulfate | 27442<br>27282 | 27688<br>30461 | 27946<br>30542 | 28383<br>+++++ | Lin1 | -2234.0761 | 29636.0065 | | | | | | | 0.9980 | | 0.9950 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 451909

SDG No.:

Instrument ID: IC-9 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/16/2018 11:01 Calibration End Date: 01/16/2018 13:03 Calibration ID: 18411

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD1 440-451909/3 | 20180116003.d |
| Level 2 | STD2 440-451909/4 | 20180116004.d |
| Level 3 | STD3 440-451909/5 | 20180116005.d |
| Level 4 | STD4 440-451909/6 | 20180116006.d |
| Level 5 | STD5 440-451909/7 | 20180116007.d |
| Level 6 | STD6 440-451909/8 | 20180116008.d |
| Level 7 | STD7 440-451909/9 | 20180116009.d |
| Level 8 | STD8 440-451909/10 | 20180116010.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 |
| Fluoride | Lin1 | 30165<br>1287558 | 55079<br>1926878 | 282142<br>+++++ | 600385 | 875852 | 0.500<br>20.0 | 1.00<br>30.0 | 5.00<br>+++++ | 10.0 | 15.0 |
| Chloride | Lin1 | 20913<br>+++++ | 41895<br>+++++ | 211262<br>+++++ | 451831 | 660716 | 0.500<br>+++++ | 1.00<br>+++++ | 5.00<br>+++++ | 10.0 | 15.0 |
| Bromide | Lin1 | 8094<br>366723 | 16379<br>557484 | 86360<br>+++++ | 177359 | 251136 | 0.500<br>20.0 | 1.00<br>30.0 | 5.00<br>+++++ | 10.0 | 15.0 |
| Sulfate | Lin1 | 13721<br>609223 | 27688<br>916270 | 139728<br>+++++ | 283830 | 409236 | 0.500<br>20.0 | 1.00<br>30.0 | 5.00<br>+++++ | 10.0 | 15.0 |

Curve Type Legend:
Lin1 = Linear 1/conc

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 451910

SDG No.:

Instrument ID: IC-9 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/16/2018 11:01 Calibration End Date: 01/16/2018 13:03 Calibration ID: 18412

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-451910/2 | 20180116002.d |
| Level 2 | STD1 440-451910/3 | 20180116003.d |
| Level 3 | STD2 440-451910/4 | 20180116004.d |
| Level 4 | STD3 440-451910/5 | 20180116005.d |
| Level 5 | STD4 440-451910/6 | 20180116006.d |
| Level 6 | STD5 440-451910/7 | 20180116007.d |
| Level 7 | STD6 440-451910/8 | 20180116008.d |
| Level 8 | STD7 440-451910/9 | 20180116009.d |
| Level 9 | STD8 440-451910/10 | 20180116010.d |

| ANALYTE | LVL 1 | LVL 2 | LVL 3 | LVL 4 | LVL 5 | LVL 6 | LVL 7 | LVL 8 | LVL 9 | | RT WINDOW | AVG RT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrite as N | | 4.912 | 4.895 | 4.878 | 4.878 | 4.872 | 4.888 | 4.898 | +++++ | | 4.628 - 5.115 | 4.889 |
| Nitrite as NO2 | | 4.912 | 4.895 | 4.878 | 4.878 | 4.872 | 4.888 | 4.898 | +++++ | | 4.628 - 5.115 | 4.889 |
| Nitrate as N | | 7.682 | 7.645 | 7.527 | 7.480 | 7.425 | 7.452 | 7.418 | 7.365 | | 7.054 - 7.796 | 7.499 |
| Nitrate as NO3 | | 7.682 | 7.645 | 7.527 | 7.480 | 7.425 | 7.452 | 7.418 | 7.365 | | 7.054 - 7.796 | 7.499 |
| Orthophosphate as P | | 9.745 | 9.765 | 9.723 | 9.737 | 9.725 | 9.768 | 9.725 | 9.698 | | 9.239 - 10.211 | 9.736 |
| Orthophosphate as PO4 | | 9.745 | 9.765 | 9.723 | 9.737 | 9.725 | 9.768 | 9.725 | 9.698 | | 9.239 - 10.211 | 9.736 |

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 451910

SDG No.:

Instrument ID: IC-9 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/16/2018 11:01 Calibration End Date: 01/16/2018 13:03 Calibration ID: 18412

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-451910/2 | 20180116002.d |
| Level 2 | STD1 440-451910/3 | 20180116003.d |
| Level 3 | STD2 440-451910/4 | 20180116004.d |
| Level 4 | STD3 440-451910/5 | 20180116005.d |
| Level 5 | STD4 440-451910/6 | 20180116006.d |
| Level 6 | STD5 440-451910/7 | 20180116007.d |
| Level 7 | STD6 440-451910/8 | 20180116008.d |
| Level 8 | STD7 440-451910/9 | 20180116009.d |
| Level 9 | STD8 440-451910/10 | 20180116010.d |

| ANALYTE | CF | | | | CURVE TYPE | COEFFICIENT | | | # | MIN CF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 5<br>LVL 9 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4<br>LVL 8 | | B | M1 | M2 | | | | | | | | |
| Nitrite as N | 92363<br>+++++ | 79538<br>87357 | 80356<br>94001 | 86823<br>94891 | Lin1 | -3220.1462 | 93116.9528 | | | | | | | 0.9990 | | 0.9950 |
| Nitrite as NO2 | +++++<br>28115<br>+++++ | 24211<br>26591 | 24460<br>28613 | 26428<br>28884 | Lin1 | -3220.1462 | 28344.1917 | | | | | | | 0.9990 | | 0.9950 |
| Nitrate as N | 96076<br>109791 | 87617<br>92224 | 95090<br>101572 | 99832<br>102651 | Lin1 | -2849.4556 | 103585.999 | | | | | | | 0.9970 | | 0.9950 |
| Nitrate as NO3 | +++++<br>21703<br>24801 | 19792<br>20833 | 21480<br>22944 | 22551<br>23188 | Lin1 | -2849.4556 | 23399.1823 | | | | | | | 0.9970 | | 0.9950 |
| Orthophosphate as P | 40268<br>43050 | 47731<br>38118 | 50260<br>41852 | 42065<br>41125 | Lin1 | 1310.61468 | 41313.0955 | | | | | | | 0.9980 | | 0.9950 |
| Orthophosphate as PO4 | +++++<br>13134<br>14041 | 15568<br>12433 | 16393<br>13651 | 13720<br>13414 | Lin1 | 1310.61468 | 13474.8320 | | | | | | | 0.9980 | | 0.9950 |

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Irvine Job No.: 440-201437-1 Analy Batch No.: 451910

SDG No.:

Instrument ID: IC-9 GC Column: AS14 ID: 4(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/16/2018 11:01 Calibration End Date: 01/16/2018 13:03 Calibration ID: 18412

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | STD0 440-451910/2 | 20180116002.d |
| Level 2 | STD1 440-451910/3 | 20180116003.d |
| Level 3 | STD2 440-451910/4 | 20180116004.d |
| Level 4 | STD3 440-451910/5 | 20180116005.d |
| Level 5 | STD4 440-451910/6 | 20180116006.d |
| Level 6 | STD5 440-451910/7 | 20180116007.d |
| Level 7 | STD6 440-451910/8 | 20180116008.d |
| Level 8 | STD7 440-451910/9 | 20180116009.d |
| Level 9 | STD8 440-451910/10 | 20180116010.d |

| ANALYTE | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/ML) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 |
| Nitrite as N | Lin1 | 398950 | 12108<br>572391 | 24465<br>866718 | 132171<br>+++++ | 281208 | 4.57 | 0.152<br>6.09 | 0.304<br>9.13 | 1.52<br>+++++ | 3.04 |
| Nitrite as NO2 | Lin1 | +++++<br>398950 | 12108<br>572391 | 24465<br>866718 | 132171<br>+++++ | 281208 | +++++<br>15.0 | 0.500<br>20.0 | 1.00<br>30.0 | 5.00<br>+++++ | 10.0 |
| Nitrate as N | Lin1 | 312488 | 9896<br>458886 | 21480<br>695639 | 112756<br>992032 | 217028 | 3.39 | 0.113<br>4.52 | 0.226<br>6.78 | 1.13<br>9.04 | 2.26 |
| Nitrate as NO3 | Lin1 | +++++<br>312488 | 9896<br>458886 | 21480<br>695639 | 112756<br>992032 | 217028 | +++++<br>15.0 | 0.500<br>20.0 | 1.00<br>30.0 | 5.00<br>40.0 | 10.0 |
| Orthophosphate as P | Lin1 | 186490 | 7784<br>273013 | 16393<br>402405 | 68600<br>561653 | 131339 | 4.89 | 0.163<br>6.52 | 0.326<br>9.78 | 1.63<br>13.0 | 3.26 |
| Orthophosphate as PO4 | Lin1 | +++++<br>186490 | 7784<br>273013 | 16393<br>402405 | 68600<br>561653 | 131339 | +++++<br>15.0 | 0.500<br>20.0 | 1.00<br>30.0 | 5.00<br>40.0 | 10.0 |

Curve Type Legend:
Lin1 = Linear 1/conc

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201437-1

SDG No.:

Lab Sample ID: ICV 440-451909/11  Calibration Date: 01/16/2018 13:49

Instrument ID: IC-9  Calib Start Date: 01/16/2018 11:01

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 01/16/2018 13:03

Lab File ID: 20180116011-20180116-135001.d  Conc. Units: ug/mL

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Fluoride | Lin1 | | 62677 | | 10.1 | 10.0 | 1.1 | 10.0 |
| Chloride | Lin1 | | 44804 | | 10.2 | 10.0 | 1.5 | 10.0 |
| Bromide | Lin1 | | 17758 | | 9.90 | 10.0 | -1.0 | 10.0 |
| Sulfate | Lin1 | | 29579 | | 10.1 | 10.0 | 0.6 | 10.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: ICV 440-451909/11 Calibration Date: 01/16/2018 13:49

Instrument ID: IC-9 Calib Start Date: 01/16/2018 11:01

GC Column: AS14 ID: 4.00(mm) Calib End Date: 01/16/2018 13:03

Lab File ID: 20180116011-20180116-135001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Fluoride | 2.73 | 2.60 | 2.87 |
| Chloride | 4.01 | 3.81 | 4.21 |
| Bromide | 6.34 | 6.00 | 6.63 |
| Sulfate | 11.91 | 11.32 | 12.51 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: ICV 440-451910/11 Calibration Date: 01/16/2018 13:49

Instrument ID: IC-9 Calib Start Date: 01/16/2018 11:01

GC Column: AS14 ID: 4.00(mm) Calib End Date: 01/16/2018 13:03

Lab File ID: 20180116011-20180116-135001.d Conc. Units: ug/mL

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Nitrite as N | Lin1 | | 94086 | | 3.11 | 3.04 | 2.2 | 10.0 |
| Nitrite as NO2 | Lin1 | | 28597 | | 10.2 | 10.0 | 2.2 | 10.0 |
| Nitrate as N | Lin1 | | 97502 | | 2.15 | 2.26 | -4.7 | 10.0 |
| Nitrate as NO3 | Lin1 | | 22035 | | 9.54 | 10.0 | -4.6 | 10.0 |
| Orthophosphate as P | Lin1 | | 43962 | | 3.44 | 3.26 | 5.4 | 10.0 |
| Orthophosphate as PO4 | Lin1 | | 14332 | | 10.5 | 10.0 | 5.4 | 10.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: ICV 440-451910/11 Calibration Date: 01/16/2018 13:49

Instrument ID: IC-9 Calib Start Date: 01/16/2018 11:01

GC Column: AS14 ID: 4.00(mm) Calib End Date: 01/16/2018 13:03

Lab File ID: 20180116011-20180116-135001.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Nitrite as N | 4.89 | 4.63 | 5.12 |
| Nitrite as NO2 | 4.89 | 4.63 | 5.12 |
| Nitrate as N | 7.47 | 7.05 | 7.80 |
| Nitrate as NO3 | 7.47 | 7.05 | 7.80 |
| Orthophosphate as P | 9.72 | 9.24 | 10.21 |
| Orthophosphate as PO4 | 9.72 | 9.24 | 10.21 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-452403/2 Calibration Date: 01/18/2018 10:51

Instrument ID: IC-9 Calib Start Date: 01/16/2018 11:01

GC Column: AS14 ID: 4.00(mm) Calib End Date: 01/16/2018 13:03

Lab File ID: 20180118002.d Conc. Units: ug/mL

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Fluoride | Lin1 | | 68049 | | 11.0 | 10.0 | 9.7 | 10.0 |
| Chloride | Lin1 | | 44107 | | 9.99 | 10.0 | -0.0 | 10.0 |
| Bromide | Lin1 | | 17406 | | 9.71 | 10.0 | -2.9 | 10.0 |
| Sulfate | Lin1 | | 29312 | | 9.97 | 10.0 | -0.3 | 10.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-452403/2 Calibration Date: 01/18/2018 10:51

Instrument ID: IC-9 Calib Start Date: 01/16/2018 11:01

GC Column: AS14 ID: 4.00(mm) Calib End Date: 01/16/2018 13:03

Lab File ID: 20180118002.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Fluoride | 2.71 | 2.58 | 2.85 |
| Chloride | 3.97 | 3.77 | 4.17 |
| Bromide | 6.23 | 5.92 | 6.54 |
| Sulfate | 11.64 | 11.06 | 12.22 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine  Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-452402/2  Calibration Date: 01/18/2018 10:51

Instrument ID: IC-9  Calib Start Date: 01/16/2018 11:01

GC Column: AS14  ID: 4.00(mm)  Calib End Date: 01/16/2018 13:03

Lab File ID: 20180118002.d  Conc. Units: ug/mL

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Nitrite as N | Lin1 | | 88932 | | 2.94 | 3.04 | -3.4 | 10.0 |
| Nitrite as NO2 | Lin1 | | 27070 | | 9.68 | 10.0 | -3.2 | 10.0 |
| Nitrate as N | Lin1 | | 96899 | | 2.14 | 2.26 | -5.2 | 10.0 |
| Nitrate as NO3 | Lin1 | | 21889 | | 9.47 | 10.0 | -5.3 | 10.0 |
| Orthophosphate as P | Lin1 | | 44101 | | 3.45 | 3.26 | 5.8 | 10.0 |
| Orthophosphate as PO4 | Lin1 | | 14384 | | 10.6 | 10.0 | 5.8 | 10.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-452402/2 Calibration Date: 01/18/2018 10:51

Instrument ID: IC-9 Calib Start Date: 01/16/2018 11:01

GC Column: AS14 ID: 4.00(mm) Calib End Date: 01/16/2018 13:03

Lab File ID: 20180118002.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Nitrite as N | 4.82 | 4.58 | 5.06 |
| Nitrite as NO2 | 4.82 | 4.58 | 5.06 |
| Nitrate as N | 7.32 | 6.95 | 7.68 |
| Nitrate as NO3 | 7.32 | 6.95 | 7.68 |
| Orthophosphate as P | 9.57 | 9.09 | 10.05 |
| Orthophosphate as PO4 | 9.57 | 9.09 | 10.05 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-452403/15 Calibration Date: 01/18/2018 17:29

Instrument ID: IC-9 Calib Start Date: 01/16/2018 11:01

GC Column: AS14 ID: 4.00(mm) Calib End Date: 01/16/2018 13:03

Lab File ID: 20180118015.d Conc. Units: ug/mL

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Fluoride | Lin1 | | 67581 | | 10.9 | 10.0 | 8.9 | 10.0 |
| Chloride | Lin1 | | 43592 | | 9.88 | 10.0 | -1.2 | 10.0 |
| Bromide | Lin1 | | 17264 | | 9.63 | 10.0 | -3.7 | 10.0 |
| Sulfate | Lin1 | | 29044 | | 9.88 | 10.0 | -1.2 | 10.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-452403/15 Calibration Date: 01/18/2018 17:29

Instrument ID: IC-9 Calib Start Date: 01/16/2018 11:01

GC Column: AS14 ID: 4.00(mm) Calib End Date: 01/16/2018 13:03

Lab File ID: 20180118015.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Fluoride | 2.70 | 2.57 | 2.84 |
| Chloride | 3.95 | 3.75 | 4.15 |
| Bromide | 6.19 | 5.88 | 6.50 |
| Sulfate | 11.62 | 11.04 | 12.20 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-452402/15 Calibration Date: 01/18/2018 17:29

Instrument ID: IC-9 Calib Start Date: 01/16/2018 11:01

GC Column: AS14 ID: 4.00(mm) Calib End Date: 01/16/2018 13:03

Lab File ID: 20180118015.d Conc. Units: ug/mL

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Nitrite as N | Lin1 | | 88114 | | 2.92 | 3.04 | -4.2 | 10.0 |
| Nitrite as NO2 | Lin1 | | 26821 | | 9.59 | 10.0 | -4.1 | 10.0 |
| Nitrate as N | Lin1 | | 96507 | | 2.13 | 2.26 | -5.6 | 10.0 |
| Nitrate as NO3 | Lin1 | | 21800 | | 9.44 | 10.0 | -5.6 | 10.0 |
| Orthophosphate as P | Lin1 | | 43548 | | 3.41 | 3.26 | 4.4 | 10.0 |
| Orthophosphate as PO4 | Lin1 | | 14204 | | 10.4 | 10.0 | 4.4 | 10.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-452402/15 Calibration Date: 01/18/2018 17:29

Instrument ID: IC-9 Calib Start Date: 01/16/2018 11:01

GC Column: AS14 ID: 4.00(mm) Calib End Date: 01/16/2018 13:03

Lab File ID: 20180118015.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Nitrite as N | 4.79 | 4.55 | 5.03 |
| Nitrite as NO2 | 4.79 | 4.55 | 5.03 |
| Nitrate as N | 7.28 | 6.91 | 7.64 |
| Nitrate as NO3 | 7.28 | 6.91 | 7.64 |
| Orthophosphate as P | 9.56 | 9.08 | 10.04 |
| Orthophosphate as PO4 | 9.56 | 9.08 | 10.04 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-452403/27 Calibration Date: 01/18/2018 20:45

Instrument ID: IC-9 Calib Start Date: 01/16/2018 11:01

GC Column: AS14 ID: 4.00(mm) Calib End Date: 01/16/2018 13:03

Lab File ID: 20180118027.d Conc. Units: ug/mL

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Fluoride | Lin1 | | 67785 | | 10.9 | 10.0 | 9.3 | 10.0 |
| Chloride | Lin1 | | 43974 | | 9.96 | 10.0 | -0.4 | 10.0 |
| Bromide | Lin1 | | 17385 | | 9.70 | 10.0 | -3.0 | 10.0 |
| Sulfate | Lin1 | | 29057 | | 9.88 | 10.0 | -1.2 | 10.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-452403/27 Calibration Date: 01/18/2018 20:45

Instrument ID: IC-9 Calib Start Date: 01/16/2018 11:01

GC Column: AS14 ID: 4.00(mm) Calib End Date: 01/16/2018 13:03

Lab File ID: 20180118027.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Fluoride | 2.71 | 2.57 | 2.84 |
| Chloride | 3.97 | 3.77 | 4.17 |
| Bromide | 6.24 | 5.92 | 6.55 |
| Sulfate | 11.56 | 10.98 | 12.13 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-452402/27 Calibration Date: 01/18/2018 20:45

Instrument ID: IC-9 Calib Start Date: 01/16/2018 11:01

GC Column: AS14 ID: 4.00(mm) Calib End Date: 01/16/2018 13:03

Lab File ID: 20180118027.d Conc. Units: ug/mL

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Nitrite as N | Lin1 | | 88869 | | 2.94 | 3.04 | -3.4 | 10.0 |
| Nitrite as NO2 | Lin1 | | 27051 | | 9.67 | 10.0 | -3.3 | 10.0 |
| Nitrate as N | Lin1 | | 97788 | | 2.16 | 2.26 | -4.4 | 10.0 |
| Nitrate as NO3 | Lin1 | | 22089 | | 9.56 | 10.0 | -4.4 | 10.0 |
| Orthophosphate as P | Lin1 | | 43169 | | 3.38 | 3.26 | 3.5 | 10.0 |
| Orthophosphate as PO4 | Lin1 | | 14080 | | 10.4 | 10.0 | 3.5 | 10.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-452402/27 Calibration Date: 01/18/2018 20:45

Instrument ID: IC-9 Calib Start Date: 01/16/2018 11:01

GC Column: AS14 ID: 4.00(mm) Calib End Date: 01/16/2018 13:03

Lab File ID: 20180118027.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Nitrite as N | 4.81 | 4.57 | 5.05 |
| Nitrite as NO2 | 4.81 | 4.57 | 5.05 |
| Nitrate as N | 7.33 | 6.96 | 7.70 |
| Nitrate as NO3 | 7.33 | 6.96 | 7.70 |
| Orthophosphate as P | 9.51 | 9.04 | 9.99 |
| Orthophosphate as PO4 | 9.51 | 9.04 | 9.99 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-452403/37 Calibration Date: 01/18/2018 23:44

Instrument ID: IC-9 Calib Start Date: 01/16/2018 11:01

GC Column: AS14 ID: 4.00(mm) Calib End Date: 01/16/2018 13:03

Lab File ID: 20180118037.d Conc. Units: ug/mL

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Fluoride | Lin1 | | 67647 | | 10.9 | 10.0 | 9.1 | 10.0 |
| Chloride | Lin1 | | 44090 | | 9.99 | 10.0 | -0.0 | 10.0 |
| Bromide | Lin1 | | 17506 | | 9.76 | 10.0 | -2.4 | 10.0 |
| Sulfate | Lin1 | | 29958 | | 10.2 | 10.0 | 1.8 | 10.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-452403/37 Calibration Date: 01/18/2018 23:44

Instrument ID: IC-9 Calib Start Date: 01/16/2018 11:01

GC Column: AS14 ID: 4.00(mm) Calib End Date: 01/16/2018 13:03

Lab File ID: 20180118037.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Fluoride | 2.71 | 2.57 | 2.84 |
| Chloride | 3.96 | 3.77 | 4.16 |
| Bromide | 6.24 | 5.93 | 6.55 |
| Sulfate | 11.53 | 10.95 | 12.10 |

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-452402/37 Calibration Date: 01/18/2018 23:44

Instrument ID: IC-9 Calib Start Date: 01/16/2018 11:01

GC Column: AS14 ID: 4.00(mm) Calib End Date: 01/16/2018 13:03

Lab File ID: 20180118037.d Conc. Units: ug/mL

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Nitrite as N | Lin1 | | 88709 | | 2.94 | 3.04 | -3.6 | 10.0 |
| Nitrite as NO2 | Lin1 | | 27003 | | 9.66 | 10.0 | -3.5 | 10.0 |
| Nitrate as N | Lin1 | | 97373 | | 2.15 | 2.26 | -4.8 | 10.0 |
| Nitrate as NO3 | Lin1 | | 21996 | | 9.52 | 10.0 | -4.8 | 10.0 |
| Orthophosphate as P | Lin1 | | 45603 | | 3.57 | 3.26 | 9.4 | 10.0 |
| Orthophosphate as PO4 | Lin1 | | 14874 | | 10.9 | 10.0 | 9.4 | 10.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Lab Sample ID: CCV 440-452402/37 Calibration Date: 01/18/2018 23:44

Instrument ID: IC-9 Calib Start Date: 01/16/2018 11:01

GC Column: AS14 ID: 4.00(mm) Calib End Date: 01/16/2018 13:03

Lab File ID: 20180118037.d

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Nitrite as N | 4.82 | 4.57 | 5.06 |
| Nitrite as NO2 | 4.82 | 4.57 | 5.06 |
| Nitrate as N | 7.34 | 6.97 | 7.71 |
| Nitrate as NO3 | 7.34 | 6.97 | 7.71 |
| Orthophosphate as P | 9.48 | 9.01 | 9.96 |
| Orthophosphate as PO4 | 9.48 | 9.01 | 9.96 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452402/6

Matrix: Water | Lab File ID: 20180118006.d

Analysis Method: 300.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 12:09

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452402 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-55-8 | Nitrate as N | ND | | 0.11 | 0.055 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 440-452403/6

Matrix: Water | Lab File ID: 20180118006.d

Analysis Method: 300.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 12:09

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452403 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14808-79-8 | Sulfate | ND | | 0.50 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 440-452402/3

Matrix: Water Lab File ID: 20180118003.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 01/18/2018 11:06

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: AS14 ID: 4(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 452402 Units: ug/mL

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-55-8 | Nitrate as N | ND | | 0.11 | 0.055 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452402/16

Matrix: Water | Lab File ID: 20180118016.d

Analysis Method: 300.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 17:45

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452402 | Units: ug/mL

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-55-8 | Nitrate as N | ND | | 0.11 | 0.055 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452402/28

Matrix: Water | Lab File ID: 20180118028.d

Analysis Method: 300.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 21:22

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452402 | Units: ug/mL

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-55-8 | Nitrate as N | ND | | 0.11 | 0.055 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452402/38

Matrix: Water | Lab File ID: 20180118038.d

Analysis Method: 300.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 23:59

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452402 | Units: ug/mL

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-55-8 | Nitrate as N | ND | | 0.11 | 0.055 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452403/3

Matrix: Water | Lab File ID: 20180118003.d

Analysis Method: 300.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 11:06

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452403 | Units: ug/mL

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14808-79-8 | Sulfate | ND | | 0.50 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452403/16

Matrix: Water | Lab File ID: 20180118016.d

Analysis Method: 300.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 17:45

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452403 | Units: ug/mL

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14808-79-8 | Sulfate | ND | | 0.50 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452403/28

Matrix: Water | Lab File ID: 20180118028.d

Analysis Method: 300.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 21:22

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452403 | Units: ug/mL

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14808-79-8 | Sulfate | ND | | 0.50 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: CCB 440-452403/38

Matrix: Water | Lab File ID: 20180118038.d

Analysis Method: 300.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 23:59

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452403 | Units: ug/mL

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14808-79-8 | Sulfate | ND | | 0.50 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-452402/5

Matrix: Water | Lab File ID: 20180118005.d

Analysis Method: 300.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 11:54

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452402 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-55-8 | Nitrate as N | 1.04 | | 0.11 | 0.055 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 440-452403/5

Matrix: Water | Lab File ID: 20180118005.d

Analysis Method: 300.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 11:54

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452403 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14808-79-8 | Sulfate | 4.87 | | 0.50 | 0.25 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-77.5 MS | Lab Sample ID: 440-201437-3 MS

Matrix: Water | Lab File ID: 20180118031.d

Analysis Method: 300.0 | Date Collected: 01/18/2018 09:00

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 22:12

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452402 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-55-8 | Nitrate as N | 553 | | 55 | 28 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-77.5 MS | Lab Sample ID: 440-201437-3 MS

Matrix: Water | Lab File ID: 20180118031.d

Analysis Method: 300.0 | Date Collected: 01/18/2018 09:00

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 22:12

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452403 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14808-79-8 | Sulfate | 3440 | | 250 | 130 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-77.5 MSD | Lab Sample ID: 440-201437-3 MSD

Matrix: Water | Lab File ID: 20180118032.d

Analysis Method: 300.0 | Date Collected: 01/18/2018 09:00

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 22:27

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452402 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14797-55-8 | Nitrate as N | 543 | | 55 | 28 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Irvine | Job No.: 440-201437-1

SDG No.:

Client Sample ID: VER-01I-C-77.5 MSD | Lab Sample ID: 440-201437-3 MSD

Matrix: Water | Lab File ID: 20180118032.d

Analysis Method: 300.0 | Date Collected: 01/18/2018 09:00

Extraction Method: | Date Extracted:

Sample wt/vol: 5(mL) | Date Analyzed: 01/18/2018 22:27

Con. Extract Vol.: | Dilution Factor: 500

Injection Volume: 1(uL) | GC Column: AS14 ID: 4(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 452403 | Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 14808-79-8 | Sulfate | 3420 | | 250 | 130 |

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: IC-9 Start Date: 01/16/2018 11:01

Analysis Batch Number: 451909 End Date: 01/17/2018 05:07

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| STD0 440-451909/2 IC | | 01/16/2018 11:01 | 1 | | AS14 4(mm) |
| STD1 440-451909/3 IC | | 01/16/2018 11:16 | 1 | 20180116003.d | AS14 4(mm) |
| STD2 440-451909/4 IC | | 01/16/2018 11:31 | 1 | 20180116004.d | AS14 4(mm) |
| STD3 440-451909/5 IC | | 01/16/2018 11:47 | 1 | 20180116005.d | AS14 4(mm) |
| STD4 440-451909/6 IC | | 01/16/2018 12:02 | 1 | 20180116006.d | AS14 4(mm) |
| STD5 440-451909/7 IC | | 01/16/2018 12:17 | 1 | 20180116007.d | AS14 4(mm) |
| STD6 440-451909/8 IC | | 01/16/2018 12:33 | 1 | 20180116008.d | AS14 4(mm) |
| STD7 440-451909/9 IC | | 01/16/2018 12:48 | 1 | 20180116009.d | AS14 4(mm) |
| STD8 440-451909/10 IC | | 01/16/2018 13:03 | 1 | 20180116010.d | AS14 4(mm) |
| ICV 440-451909/11 | | 01/16/2018 13:49 | 1 | 20180116011-20180116-135001.d | AS14 4(mm) |
| ICB 440-451909/12 | | 01/16/2018 14:05 | 1 | | AS14 4(mm) |
| ZZZZZ | | 01/16/2018 15:51 | 1 | | AS14 4(mm) |
| ZZZZZ | | 01/16/2018 16:07 | 1 | | AS14 4(mm) |
| ZZZZZ | | 01/16/2018 16:22 | 1 | | AS14 4(mm) |
| CCV 440-451909/16 | | 01/16/2018 19:44 | 1 | | AS14 4(mm) |
| CCB 440-451909/17 | | 01/16/2018 20:00 | 1 | | AS14 4(mm) |
| ZZZZZ | | 01/16/2018 20:49 | 1 | | AS14 4(mm) |
| ZZZZZ | | 01/16/2018 21:04 | 50 | | AS14 4(mm) |
| ZZZZZ | | 01/16/2018 21:19 | 1 | | AS14 4(mm) |
| ZZZZZ | | 01/16/2018 21:35 | 50 | | AS14 4(mm) |
| ZZZZZ | | 01/16/2018 21:50 | 1 | | AS14 4(mm) |
| ZZZZZ | | 01/16/2018 22:05 | 50 | | AS14 4(mm) |
| ZZZZZ | | 01/16/2018 22:21 | 1 | | AS14 4(mm) |
| ZZZZZ | | 01/16/2018 22:36 | 1 | | AS14 4(mm) |
| ZZZZZ | | 01/16/2018 22:51 | 1 | | AS14 4(mm) |
| ZZZZZ | | 01/16/2018 23:07 | 50 | | AS14 4(mm) |
| CCV 440-451909/28 | | 01/16/2018 23:22 | 1 | | AS14 4(mm) |
| CCB 440-451909/29 | | 01/16/2018 23:38 | 1 | | AS14 4(mm) |
| ZZZZZ | | 01/16/2018 23:58 | 2 | | AS14 4(mm) |
| ZZZZZ | | 01/17/2018 00:13 | 100 | | AS14 4(mm) |
| ZZZZZ | | 01/17/2018 00:29 | 1 | | AS14 4(mm) |
| ZZZZZ | | 01/17/2018 00:44 | 50 | | AS14 4(mm) |
| ZZZZZ | | 01/17/2018 00:59 | 20 | | AS14 4(mm) |
| ZZZZZ | | 01/17/2018 01:15 | 500 | | AS14 4(mm) |
| ZZZZZ | | 01/17/2018 01:30 | 2 | | AS14 4(mm) |
| ZZZZZ | | 01/17/2018 01:46 | 100 | | AS14 4(mm) |
| ZZZZZ | | 01/17/2018 02:01 | 10 | | AS14 4(mm) |
| ZZZZZ | | 01/17/2018 02:16 | 200 | | AS14 4(mm) |
| CCV 440-451909/40 | | 01/17/2018 02:32 | 1 | | AS14 4(mm) |
| CCB 440-451909/41 | | 01/17/2018 02:47 | 1 | | AS14 4(mm) |
| ZZZZZ | | 01/17/2018 04:06 | 1 | | AS14 4(mm) |
| ZZZZZ | | 01/17/2018 04:21 | 1 | | AS14 4(mm) |
| ZZZZZ | | 01/17/2018 04:36 | 1 | | AS14 4(mm) |
| CCV 440-451909/49 | | 01/17/2018 04:52 | 1 | | AS14 4(mm) |

300.0

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Irvine Job No.: 440-201437-1

SDG No.:

Instrument ID: IC-9 Start Date: 01/16/2018 11:01

Analysis Batch Number: 451909 End Date: 01/17/2018 05:07

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCB 440-451909/50 | | 01/17/2018 05:07 | 1 | | AS14 4(mm) |

300.0